TEXTBOOK OF CLINICAL TRAINING FOR NEW NURSES

Vol 2
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INTRODUCTION

According to the Law on Medical Examination and Treatment No. 40/2009/QH12 dated November 23, 2009 and the Decree No. 109/2016/ND-CP dated July 1, 2016, which regulate issuance of practical certificate for healthcare practitioners and operational certificate for medical examination and treatment facilities, 9 months practicing at a medical examination and treatment facility for new graduated nurses is required to apply practical certificate of nurse. However, current legal documents have not specified training program, materials, implementation, teaching and evaluation method before issuance of practical certificate.

The Project for strengthening clinical training system for new graduate nurses, hereafter as JICA Nursing Education project, aims to enhance healthcare quality in Vietnam through nationwide scaling-up clinical training system for new nurses. Japan International Cooperation Agency (JICA) provides both technical and financial assistance. Ministry of Health’s leader assigned the Administration of Science Technology and Training to act as implementing agency. Bach Mai Hospital, Saint Paul Hospital in Hanoi together with Dien Bien, Vinh Phuc, Binh Dinh and Dong Nai province are selected as pilot sites from 2016 to 2020.

The clinical training program and materials for new graduate nurses including 04 modules that developed by JICA Nursing Education project in coordinated with local and international experts, management officers, lecturers and Vietnam Nurses Association. After a series of revisions through collecting training result in pilot provinces, the material set has approved by Appraisal Committee under Ministry of Health (MoH).

Administration of Science Technology and Training, Ministry of Health would like to highly appreciate the leader of MoH, effective support from JICA especially Japanese experts work in Vietnam; extend thankful to Editing board and all concerned people for contributing efforts in material set development; last but not least, warmest thanks to our colleagues.

Sincerely thanks!

DIRECTOR
ADMINISTRATION OF SCIENCE TECHNOLOGY AND TRAINING

Dr. Pham Van Tac
PREFACE

Nurse plays an important role in the people’s health care and there are many specialties in nursing and education levels from intermediate, college, university to postgraduate. In Vietnam, there are more than 30,000 new graduated nurses each year from different levels of intermediate, college and university. According to the Law on Medical Examination and Treatment No. 40/2009/QH12 dated November 23, 2009 and the Decree No. 109/2016/NĐ-CP dated July 1, 2016, which regulate issuance of practical certificate for healthcare practitioners and operational certificate for medical examination and treatment facilities, 9 months practicing at a medical examination and treatment facility for new graduated nurses is required to apply practical certificate of nurse. These training materials were developed to facilitate the implementation of clinical training in health facility to meet these legal documents and to ensure the quality of the training.

The materials consisted of: (1) Curriculum of clinical training for new nurses; (2) Textbook of clinical training for new nurses (Vol.1&2); (3) Training curriculum and materials for preceptors in clinical training for new nurses; (4) Guideline on management and implementation of clinical training for new nurses.

Each book aims to improve necessary nursing competencies at different level because nursing manager’s competencies on planning, monitoring and evaluation of training and preceptors’ competencies on teaching, supporting and evaluation of trainees are crucial to implement clinical training for new nurse. The training materials could also support all related people who involved in clinical training implementation including Department of Health who manage the training program, nursing professional association and educational institution to support this training and the role of each are clarified in the Guideline. Furthermore, we updated and relating to regulation and expertise, together with application of learning through case-studies reflected theory and practical contents.

We, the members of edition team, do hope that these material as a set could facilitate all stakeholder involved clinical training to enhance necessary capacities to implement the clinical training so that standardized and qualified training can be provided for new nurses to obtain basic competency for nurses in Vietnam.

Lastly, the editing team would express our gratitude to the efforts, contributions and leaderships of the Administration of Science, Technology and Training - Ministry of Health, JICA Nursing Education Project, local and international experts, teachers/lecturers of nursing educational institutions, leaders of provincial Department of Health/Hospital, Head Nurses of provincial Department of Health/Hospitals involved this activities, members of Appraisal Committee of MOH to fulfill this material set.

Thank you very much!

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ABBREVIATION

MOH  Ministry of Health
DOH  Department of Health
ASTT Administration of Science Technology and Training
JICA Japan International Cooperation Agency
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CHAPTER 3
BASIC NURSING TECHNIQUE AND PATIENT CARE (PART 2)
LESSON 16
FLUID INFUSION - BLOOD TRANSFUSION TECHNIQUES

OBJECTIVES

1. Perform properly fluid infusion, blood transfusion principles (competency 5.1; 6.3; 7.2)

2. Perform effectively, safely, properly technical procedure of fluid infusion, blood transfusion in patients (competency 2.3; 2.4; 3.2; 4.2; 4.4; 4.5; 4.6; 4.7; 5.2; 6.1; 6.2; 6.3; 7.2, 7.5; 7.4; 7.6; 7.7; 8.2, 8.3; 16.3; 20.2; 20.4; 24.1, 24.3; 25.2)

3. Be able to monitor patient during and after fluid, blood transfusion, to detect early abnormal manifestations of patient and give decision for suitable management (competency 2.2; 2.4; 4.1; 7.1; 7.4; 9.1; 9.2; 9.3; 9.4)

CONTENTS

1. Introduction

Water and inorganic substances play important role in living process. Although water and inorganic substances do not generate energy exchange of water and inorganic substances in a living body closely relates to each other as well as to metabolism of organic substances. Water is a major component of the body, when there is disorder of water and inorganic substance exchange, it may induce severe consequences. This is a common seen disease in clinical setting; therefore, it requires healthcare workers to make timely and proper assessment and management.

Intravenous injection and transfusion regards as the most effective method to balance water and electrolyte for patient. In line with fluid and electrolyte compensation, intravenous injection and transfusion is also applied to transfusion of blood and blood products (colloid), nutrition...

Blood transfusion is a process of receiving blood or blood products in venous route. Blood transfusion is indicated in a number of acute or chronic diseases causing anemia (total or some components of blood), to replace the lacking components. Nowadays, beside of total blood transfusion, physicians also indicate transfusion of each blood component such as red blood cell, white blood cell, plasma, anticoagulant components and platelets.

Intravascular administration of medication, fluid and blood must comply 5 right principles: right drug/ fluid, right dose/ concentration, right patient, right administration route, right time (Circular 07/2011/TB-BYT) and must be recorded fully, clearly according to regulation. It requires that nursing staff should have knowledge on fluid and blood transfusion, understand and use effectively devices for safety fluid infusion, blood transfusion practice, control transfusion speech, monitor, recognize and manage complications possibly happened during and after transfusion process.
2. Intravenous transfusion technique

2.1. Purpose
- Recover loss about of circulation due to dehydration, diarrhea, severe burn, blood loss, bleeding etc.
- Detoxication, diuretic.
- Nurture patients
- Administer medication in the body for therapy purpose.

2.2. Transfusion should be done in following cases
- Bleeding, dehydration due to diarrhea, burn
- Before and after surgery
- Promotion of medication quick effects, maintenance of drug concentration.
- In poison or metabolic acidosis cases.

2.3. Fluid infusion principle
- Follow 5 rights
- Ensure sterilize principles
- Ensure safety in fluid management
- Absolutely do not allow air to enter patient’s vein.
- Ensure transfused fluid pressure higher than blood pressure of patient.
- Ensure proper length of fluid transfusion as physician’s order: calculate formula of fluid dripping time.

\[
\text{Duration of transfusion (min)} = \frac{\text{Total amount of fluid} \times \text{number of drip/ml}}{\text{Number of drip/minute}}
\]

- Monitor vital signs before, during and after transfusion.
- Early detect the signs of reactions and manage timely.
- Keep IV set in disinfectant status. Place cover sterile gauze on transfusion needle.
- Transfusion fluid should not be maintained more than 24 hours. IV set and needle must be replaced after 48-72 hours. Cannula should be replaced after each 48-72 hours depending on each kind of product.
### Possible unexpected effects may happen during fluid infusion into peripheral vein

<table>
<thead>
<tr>
<th>Unexpected effects</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Extravasations due to needle deflection or trans-vascular needle insertion</td>
<td>- Check infusion site regularly.</td>
</tr>
<tr>
<td></td>
<td>- Lock transfusion when the signs happen</td>
</tr>
<tr>
<td></td>
<td>- Insert needle in another site.</td>
</tr>
<tr>
<td></td>
<td>- Limitation of movement at infusion site.</td>
</tr>
<tr>
<td>2. Needle obstruction due to uncirculated flow</td>
<td>- Stop transfusion.</td>
</tr>
<tr>
<td></td>
<td>- Check again fluid circulation.</td>
</tr>
<tr>
<td></td>
<td>- Insert needle at another site (if not circulated)</td>
</tr>
<tr>
<td></td>
<td>- Do not rub on infusion site.</td>
</tr>
<tr>
<td></td>
<td>- Hot compression on transfusion site as medical order</td>
</tr>
<tr>
<td>3. Phlebitis caused by intravascular damage due to needle, side effects of fluid</td>
<td>- Stop transfusion.</td>
</tr>
<tr>
<td>or technique is not sterilized enough.</td>
<td>- Place transfusion line at another position (avoid to insert needle again in inflamed veins)</td>
</tr>
<tr>
<td></td>
<td>- Hot compression on transfusion site.</td>
</tr>
<tr>
<td>circulation volume.</td>
<td>- Inform physician.</td>
</tr>
<tr>
<td></td>
<td>- Monitor vital signs.</td>
</tr>
<tr>
<td>5. Thrombophlebitis (pulmonary embolism) due to clot or air bubbles.</td>
<td>- Regularly check infusion site.</td>
</tr>
<tr>
<td></td>
<td>- Monitor patient’s respiratory, total conditions to detect timely the signs of pulmonary embolism due to</td>
</tr>
<tr>
<td></td>
<td>air bubbles: dyspnea, cyanosis, ventricular arrhythmia, central venous hypertension, lung edema, end</td>
</tr>
<tr>
<td></td>
<td>expiratory carbon dioxide pressure decrease…</td>
</tr>
<tr>
<td></td>
<td>- Provide respiratory support, continuous air aspiration via central venous line etc.</td>
</tr>
<tr>
<td></td>
<td>- Prevention: remove all air bubbles in the IV line set</td>
</tr>
<tr>
<td>6. Infection due to improper disinfection technique, caring of the infusion site as</td>
<td>- Report physician whenever happen abnormal signs: pain, dyspnea etc. …</td>
</tr>
<tr>
<td>well as not so good quality of fluid</td>
<td>- Apply sterilize technique in caring of infusion site.</td>
</tr>
<tr>
<td></td>
<td>- Change the IV transfusion set right after 72 hours.</td>
</tr>
<tr>
<td></td>
<td>- Perform routine hand washing before performing the technique.</td>
</tr>
<tr>
<td>7. Anaphylactic shock</td>
<td>- Stop fluid transfusion, fluid goes to the another vein</td>
</tr>
<tr>
<td></td>
<td>- Report to physician.</td>
</tr>
<tr>
<td></td>
<td>- Manage patient according to anti-prophylactic shock protocol</td>
</tr>
<tr>
<td></td>
<td>- Monitor vital signs.</td>
</tr>
<tr>
<td></td>
<td>- Carry out order on medication</td>
</tr>
</tbody>
</table>
2.5. Practical procedure for intravenous transfusion technique

2.5.1. Assessment

- Assessment of clinical, para-clinical signs, co-morbidities: consciousness, color of skin, membrane, vital signs, body weight, edema grade, volume of urine, thirsty level, signs of dehydration etc...
- Assessment of allergy history to medication, fluid, disinfectant...
- Assessment of venous system of patient.
- Assessment of factors relating to fluid infusion, needle, cannula, transfusion speed, length of fluid infusion etc...
- Assessment of factors affecting to transfusion process (elderly, children)
- Assessment of attitude, patient’s understanding about transfusion therapy.

2.5.2. Devices

- Fluids as indication:
  + Isotonic fluid: NaCl 0.9%, Glucose 5%, NaHCO3 14%o...
  + Hypertonic fluid: NaCl 10%, 20%, Glucose 10%,…, 50%, NaHCO3 5%...
  + Colloid fluid: Dextran, Subtosan...
- IV administration set: thin bed sheet, tourniquet, disinfectant (alcohol 70°, iodine), gauze, tape, and Kocher pincers
- IV line set
- Medication box for anti-anaphylaxis shock
- Device for vital sign taking: sphygmomanometer, stethoscope, thermometer, time keeper.
- Transfusion sheet
- Sheet for vital sign monitor, pens

2.5.3. Implementation steps

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>- Check medical order: type of fluid, quantity, medication (if any) dripping speed and length of transfusion.</td>
<td>To avoid mistake when performing technique in patient</td>
</tr>
<tr>
<td></td>
<td>- Check device and arrange in tidy manner.</td>
<td>Convenient for manipulation</td>
</tr>
<tr>
<td>2</td>
<td>- Inform, explain to patient/ patient family</td>
<td>Patient understands and collaborates</td>
</tr>
<tr>
<td></td>
<td>- Help patient stay in comfortable position</td>
<td>Convenient for nurses when performing technique</td>
</tr>
<tr>
<td>3</td>
<td>Nurse performs routine hand hygiene/ hand wash</td>
<td>To reduce number of microorganism on the hands</td>
</tr>
<tr>
<td></td>
<td>Prepare IV set and fluid for transfusion</td>
<td>Ensure to transfuse correct fluid and suitable IV line</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>Check</td>
<td>To reduce risk of error.</td>
</tr>
<tr>
<td></td>
<td>- 5 rights</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Color, crystalline and expired date of the fluid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Fluid bag/ bottle is leaked or not</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Open IV line transfusion set (ensure sterilize)</td>
<td>To prevent infection</td>
</tr>
<tr>
<td></td>
<td>Move roller clamp close to drip chamber 2 – 5 cm. Lock the fluid.</td>
<td>To ensure safety</td>
</tr>
<tr>
<td>7</td>
<td>- Open the lid of fluid bottle, disinfect and prepare medicine (if necessary)</td>
<td>Ready for insert the tube into fluid bag or bottle</td>
</tr>
<tr>
<td></td>
<td>- Insert the tube into fluid bag or bottle</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Hang fluid bag/ bottle on hanger/ self, press and release fluid drop in 1/3 ~ 1/2 of dripping chamber and lock it</td>
<td>To prevent air coming to the tube.</td>
</tr>
<tr>
<td>Step</td>
<td>Action</td>
<td>Notes</td>
</tr>
<tr>
<td>------</td>
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</tr>
<tr>
<td>9</td>
<td>Remove the needle cover and gradually open the roller clamp to allow the fluid drip from dripping chamber to the needle. Lock the fluid after tube is full.</td>
<td>- To remove air inside infusion tube &lt;br&gt; - To prevent fluid leakage to outside.</td>
</tr>
<tr>
<td>10</td>
<td>Cover needle.</td>
<td>To maintain sterilize system</td>
</tr>
<tr>
<td>11</td>
<td>Connect different lines with tube (if any)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>- Select suitable vein for infusion  &lt;br&gt; - Place pillow and wrap tourniquet under the infusion site  &lt;br&gt; - Cut the tape.</td>
<td>Help to insert needle into vein easily.  &lt;br&gt; Prepare to fix infusion needle</td>
</tr>
<tr>
<td>13</td>
<td>Wear gloves and mask  &lt;br&gt;(Only use the gloves when having the risk of blood exposure and when the skin of person who perform technique is injured).</td>
<td>To reduce transmission of microorganism.</td>
</tr>
<tr>
<td>14</td>
<td>Apply tourniquet upper infusion 5 – 10 cm.</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Disinfection of infusion site by sterile cotton/gauge in the center of the site and expand to 10cm width (min 2 times)</td>
<td>To prevent infection</td>
</tr>
<tr>
<td>16</td>
<td>Insert needle:  &lt;br&gt; - Pull the skin by one hand  &lt;br&gt; - Another hand hold the needle at angle of 30°, insert needle gently into the vein, observe the blood flow at the needle grip, remove tourniquet gently.</td>
<td>- Fix the vein when inserting needle.  &lt;br&gt; - Reduce the risk of deep needle insert</td>
</tr>
<tr>
<td>Step</td>
<td>Action</td>
<td>Note</td>
</tr>
<tr>
<td>------</td>
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<tr>
<td></td>
<td></td>
<td><img src="image" alt="Adjust roller clamp" /></td>
</tr>
<tr>
<td>18</td>
<td>Fix the root of needle, cover and fix the body of needle by sterile gauze/clear tape. Remove pillowix the hand of patient (if necessary)</td>
<td>- Firmly fix the needle, prevent infection risk and injury due to needle stick</td>
</tr>
<tr>
<td></td>
<td></td>
<td><img src="image" alt="Needle fixation by safety device" /></td>
</tr>
<tr>
<td>19</td>
<td>Observe whether there is any blister on infusion site or not. Assess patient – observe patient’s face, ask his/her feeling.</td>
<td>To detect complications to manage timely.</td>
</tr>
<tr>
<td>20</td>
<td>Fold infusion tube and keep the tube along patient’s arm. Then, fix the tube by a tape.</td>
<td>- Avoid needle slipping out of infusion site.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><img src="image" alt="Fixation of infusion tube" /></td>
</tr>
<tr>
<td>21</td>
<td>Adjust infusion speech according to medical order; Possible to connect with automatic infusion device (if necessary).</td>
<td>To reduce risk of complication</td>
</tr>
<tr>
<td>22</td>
<td>Write down on fixation tape: starting date and time, needle size and length, name of person, who give infusion.</td>
<td>Record the starting time of needle placement.</td>
</tr>
<tr>
<td>23</td>
<td>Tidy up of device. Remove gloves and hand hygiene.</td>
<td>Reduce transmission of microorganism, prevent needle stick accident</td>
</tr>
</tbody>
</table>
Instruct patient to limit movement in order - To prevent needle slipping to avoid removal of infusion devices, - To detect abnormality report nurse immediately when he/ she feel uncomfortable.

Write down in medical record:
Types of infusion fluid, needle, infusion starting time, the remained amount of fluid inside bottle or bag.
Patient’s reaction to fluid infusion.

- Ensure continuity of procedure.
- Avoid mistakes during switching working site, dripping speed, type of infusion tube, shifts.
- Monitor progress of patient.

Checklist of IV infusion technique

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Assessment patient</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Device preparation</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Nurse performs routine hand hygiene</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Check infusion fluid, disinfect the lid of fluid bottom, prepare medicine (if necessary)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Open infusion tube and lock roller clamp</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Insert the tube into infusion bag/ bottle.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Hang fluid bag/ bottle on hanger/ self, press and release fluid drop in 1/3 ~ 1/2 of dripping chamber and lock it</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Connect different lines with tube (if necessary)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Select suitable vein for infusion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Place pillow and wrap tourniquet under the infusion site</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cut the tape.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Wear gloves and mask</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Apply tourniquet above 10 – 15 cm</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Disinfection of infusion site with diameter more than 10cm, disinfect the skin until it is clean (min 2 times)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Stretch, puncture skin at 30° angle, insert needle into the vein until the blood is seen at the root of needle.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Remove tourniquet; Connect needle with tube; Unlock roller clamp to allow fluid dripping.</td>
<td></td>
</tr>
</tbody>
</table>
3. Blood transfusion technique

3.1. Purpose
- To compensate the amount of blood loss, to elevate blood pressure.
- To stop bleeding (fibrinogen, prothrombin, platelets...)
- To prevent poison and infection (provide Hemoglobin and antibody)
- To provide oxygen for cells and antibody for patient.

3.2. Blood transfusion should be done in following cases
- Massive bleeding of viscera
- Shock due to internal bleeding, trauma shock, severe blood loss due to breaking artery.
- Severe anemia (for example: hookworm infection...)
- Severe infection, poisoning
- Hematological diseases: bone marrow failure, bleeding due to thrombocytopenia, …

3.3. Blood transfusion should not be done in following cases
- Valvular diseases (Mitral stenosis with insufficiency, aortic incompetence etc.) - consider blood transfusion
- Myocarditis
- Cerebral arteriosclerotic, hypertension
- Head trauma, encephalitis, hydrocephalic

3.4. Principles of blood transfusion
Transfusion of the same blood type as physician’s indication, according to following diagram:

\[
\begin{array}{c}
\text{Type} \\
A \quad B \\
O \quad AB
\end{array}
\]

\[
\begin{array}{c}
\rightarrow \quad \rightarrow \\
A \quad B \\
O \quad AB
\end{array}
\]
Before performing blood transfusion, prepare carefully necessary tests: blood type, cross matching, become sticky, etc...

- Check blood quality: Whole blood or blood components, blood bag/ bottle don’t have any suspected expression such as color change, hemolytic, etc...
- Check patient’s vital signs before blood transfusion: report physician if there is any abnormality.
- Ensure disinfection of blood transfusion device, there must be filter on drip chamber, correct needle size (18-21G, length 3-4 cm).
- Ensure dripping speed as medical order.
- Perform Ochleber test: transfuse 5 ml of blood with speed described in medical order, let it drips 8 to 10 drops/ minute. Monitor in 5 minutes, if there is no any abnormal sign, continue to drip as speed mentioned in medical order for 20ml of blood more; then let it drips slowly (8-10 drips/minute) in 5 minutes for monitoring. If there is no any abnormal sign, continue to drips as speed mentioned in medical order.
- Blood bag/ bottle has been out of refrigerator for more than 30 minutes, it should not be transfused, do not transfuse too cold blood for patient.
- Monitor must be done closely to avoid possible complications.
- If there is no the same group of blood in emergency case it can be transfused other blood group by following physician’s instruction and minimal blood transfusion principle (rarely performing):
  + For adult: does not exceed to 250mL
  + For child: does not exceed 1/10 – 1/8 his/her circulating blood volume

**Diagram 1: Blood transfusion by blood type**
### 3.5. Possible complications during blood transfusion

<table>
<thead>
<tr>
<th>No</th>
<th>Incidents</th>
<th>Management</th>
</tr>
</thead>
</table>
| 1  | Wrong blood group: patient feel dyspnea, chest pain, severe spine pain, anxious after receiving 1 – 2 ml of blood. | - Lock roller clamp.  
- Take patient’s vital signs.  
- Report physician  
- Perform medical order quickly and accurately. |
| 2  | Fever and chill.                                                          | - Lock the blood bag.  
- Keep patient warm.  
- Take patient’s vital signs.  
- Report physician, carry out medical orders rapidly and accurately. |
| 3  | Allergy: Urticaria, sometimes edema on face.                              | - Lock the blood bag.  
- Take patient’s vital signs.  
- Report physician, carry out medical orders rapidly and accurately. |
| 4  | Sepsis: due to infection of blood bag.  
Signs: patient has high fever, dyspnea, gaunt face. | - Lock the blood bag.  
- Take patient’s vital signs.  
- Report physician, carry out medical orders rapidly and accurately.  
- Invite blood bank to make record and send the blood bag for testing. |
| 5  | Hemolytic transfusion reaction: Acute intravascular haemolytic reaction is caused by the transfusion of incompatible red cells, Antibodies in the patient’s plasma haemolyse the incompatible red.  
It often occurs from 4 to 11 days after blood transfusion. | - Take patient’s vital signs.  
- Report physician, carry out medical orders rapidly and accurately, transfuse red cell concentrates |
| 6  | Transfuse blood from donor infected virus, malaria parasite, viral hepatitis. | - Report physician  
- Implement medical order.  
- Monitor patient’s condition. |
| 7  | Bleeding syndrome after blood transfusion: occurs from 20 – 20 days because platelet of donor is not compatible with recipient. | - Manage according to physician’s medical order as same as treatment bleeding due to thrombocytopenia. |
| 8  | Hypothermia: it is common seen in children, elderly, severe patient when blood for transfusion is not warm enough | - Keep warm, reduce transfusion speed, report doctor and implement medical order |
3.6. Practical procedure for blood transfusion technique

3.6.1. Assessment of patient
- Consciousness, vital signs
- Vein at transfusion site
- Co-morbidity status
- History of fluid infusion, blood transfusion.
- Patient finishes procedures and agrees to transfuse blood
- Understanding of patient/ patient family about blood transfusion

3.6.2. Device:
* Sterile transfusion set and blood bag:
- Blood bag has been checked with medical order and patient’s blood type.
  + Check label of blood bag:
  o Is there a label? Do not receive blood bag without label
  o Label has to write down fully: number of bag, blood type, name of donor – receiver; date, time of blood collection, expire date.

  + Check quality of blood bag: the bag is still intact or not? Blood bag taken from refrigerator still see clearly color. Check whether there is any infection, clot or keeping outside of the refrigerator over 30 minutes?
  + Cross check: blood bag is suitable with blood order form or not, name and blood type of patient are correct or not, cross reaction between blood bag and blood of the patient.
  + Blood transfusion set: straight tube/ Y shape tube having filter in dripping chamber.
+ Bag/bottle NaCl 0.9% solution
+ Syringe 5ml, needle 18 - 21G.
+ Steam gauge, glass slide
+ Disinfectant solution.

*Clean devices:*
- Tape; Clean gloves
- Bean shape astray
- Tourniquet/elastic string
- Pillow or towel placed under the arm
- Strap and rolling bandage (if necessary)
- Drug box for anti-anaphylaxis shock
- Devices for taking vital signs: thermometer, sphygmomanometer, stethoscope
- Consent form for blood transfusion
- Blood transfusion sheet, testing form
- Hanger
- Electrical infusion device (EID)
- Pulse oximeter

### 3.6.3. Implementation steps:

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prepare patient</td>
<td>Ensure patient received proper blood transfusion</td>
</tr>
<tr>
<td></td>
<td>- Check patient’s medical record: name, number of bed, number of patient ward, blood receiving form, blood transfusion form, results of test: blood grouping, total blood count…</td>
<td>Identify patient and their collaboration in performing procedure.</td>
</tr>
<tr>
<td></td>
<td>- Inform, explain to patient/ patient family know about the technique</td>
<td>To prevent possible complications</td>
</tr>
<tr>
<td></td>
<td>- Ask patient to urinate (if necessary)</td>
<td>To create convenience for performance of assessment of vital signs to compare baseline indicators before, during and after blood transfusion</td>
</tr>
<tr>
<td></td>
<td>- Ask patient about allergy history</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Let patient lie on suitable position</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Check vital signs</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Nurse wear uniform, hands hygiene, wear gloves</td>
<td>To reduce the risk of infection</td>
</tr>
<tr>
<td>3</td>
<td>Check blood bag: name of donor, expire date, number/code, quality and blood type</td>
<td>To prevent complications for patient</td>
</tr>
<tr>
<td></td>
<td>Arrange devices suitably</td>
<td>Convenient for manipulation</td>
</tr>
</tbody>
</table>
### Lesson 16: Fluid Infusion - Blood Transfusion Techniques

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Typing blood group by sample serum and compatible test at the bedside</td>
<td>To avoid wrong blood transfusion</td>
</tr>
<tr>
<td>5</td>
<td>Open Y shaped blood transfusion set</td>
<td>Y shape tube protects access point in case patient need to transfuse more than one unit of blood.</td>
</tr>
<tr>
<td>6</td>
<td>Set up all the roller clamp at “off” position</td>
<td>To prevent blood drip outside</td>
</tr>
<tr>
<td>7</td>
<td>Hang blood bag on hanger</td>
<td>To prevent blood pour out.</td>
</tr>
<tr>
<td>8</td>
<td>Insert needle in NaCl 0.9 % bottle with Y shape tube. Hang fluid bottle on hanger. Press to allow fluid drip to 1/3 to 1/2 of fluid chamber.</td>
<td>To prevent air at the tip of Y shape tube. To prevent fluid loss.</td>
</tr>
<tr>
<td>9</td>
<td>Open roller clamp to allow NaCl 0.9% solution to run in the tube fully. Then, lock the tube and keep sterile at the contact tip.</td>
<td>Ensure clear transfusion set</td>
</tr>
</tbody>
</table>
| 10 | Prepare blood/blood products for transfusion.  
- Gently shake the blood bag.  
- Remove stamp, lid of blood bag  
- Insert the sharp tip of Y shape transfusion tube into blood bag.  
- Open roller clamp to allow blood drip in the dripping chamber. | Gently shake to mix components of blood. Transfusion tube is full of blood and ready to transfuse to the patient. |
| 11 | Perform the steps to insert needle into vein, infuse NaCl 0.9% (same as steps 14 to 21 of fluid infusion technique) | Establish fluid infusion before blood transfusion |
| 12 | Perform Ochleber test as following orders:  
+ Transfuse the first 5 ml of blood  
+ Slow transfusion with 8-10 drops/minute x 5 minutes  
  + If there is no any abnormality, continue to transfuse as in medical order’s speed x 20ml of blood.  
  + Slow transfusion with 8-10 drops/minute x 5 minutes. If there is no abnormality, continue to transfuse as mentioned speed in medical order.  
  - Observe closely patient’s condition after the test: patient’s face, vomit? Head ache, dyspnea? Cill, rapid weak pulse? Hypotension? | To ensure safety right after start blood transfusion. Almost reactions happen in the first 15 minutes of transfusion process. Transfuse patient’s body and to minimize serious reaction level. Remark: If there is a sign of reaction, stop transfusion, start infuse physiological sodium in order to maintain the IV line, inform physician. |
- Observe transfusion site:
- Ensure sterile, maintain through connection with patient’s vein.

13 Observe patient’s vital signs every 5 minutes, 15 minutes, 30 minutes – 1 hour after transfusion or according to policy of each healthcare facility.
To detect early reaction

14 Continue transfusion according to medical order and check dripping speed.
After stop transfusion: keep 10 ml in the bag (as evidence).
Change the tube to bottle NaCl 0.9%, or withdraw needle, disinfection and cover the puncture site by sterile tape.
Reduce risk of intravenous fluid overload.
- To show evidence when an abnormality occurs.
- Stop transfusion, prevent infection.

15 Help patient become comfortable position
Continue to assess patient
- Patient satisfaction
- Detect complication

16 Process dirty devices properly as regulation, remove gloves, wash the hands.
Limit transmission of microorganism

17 Write down in medical record:
- Starting time of transfusion
- Amount of blood/ blood product, blood group
- Response of patient to blood transfusion.
- Patient status before during and after transfusion
- Finishing time
Write down information according to regulation

Checklist of blood transfusion technique

<table>
<thead>
<tr>
<th>No.</th>
<th>Contents</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Assessment of patient</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Device preparation</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Wash hands, wear uniform, gloves</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Check blood bag</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Perform blood grouping and compatible test at the bedside</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Open transfusion set</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Hang blood bag and bottle NaCl 0.9% on the hanger.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Insert needle in bottle NaCl 0.9 %, remove air and lock</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Insert the sharp tip of filter to blood bag, open the roller clamp to allow blood drip in dripping chamber.</td>
<td></td>
</tr>
</tbody>
</table>
| 10 | **Blood transfusion:**  
   Puncture skin, insert the needle into the vein  
   Remove tourniquet; Connect transfusion tube with needle; open lock to allow fluid dripping. |
|   | Fix infusion needle |
|   | Patient assessment right after infusion  
   Adjust transfusion speed |
| 11 | Perform Ochleber test |
| 12 | Monitor patient’s vital signs. |
| 13 | Continue blood transfusion according to medical order and check transfusion speed. |
| 14 | **After finishing blood transfusion:**  
   Keep 10 ml of blood in the blood bag,  
   Change the tube to fluid bottle.  
   Or withdraw needle, disinfection, place sterile tape on transfusion site. |
| 15 | Help patient become comfortable position  
   Continue to observe patient, tell patient report the nurse if he/ she is not comfortable. |
| 16 | Tidy up of device, remove gloves, wash hands. |
| 17 | Write down in medical record |

**LESSON TEST**

1. **Select the most correct answers**

   **Question 1:** Types of blood that can be transfused to a person having blood type A:
   - A. Group A or AB
   - B. Group A or O
   - C. Group A or B
   - D. Group AB

   **Question 2:** Type of solution used to establish IV line before blood transfusion
   - A. Sodium Chlorid 0.45%
   - B. Dextrose 5%
C. Sodium Chlorid 0.9%
D. Dextrose 5% in Sodium Chloride 0.9%

**Question 3:** The time that nurse has to perform cross reaction test before transfusing blood:
A. Before or after blood transfusion
B. Before blood transfusion, at laboratory
C. Before blood transfusion, at laboratory and before insert blood bag to transfuse blood for patient.
D. Before inserting blood bag for transfusion

**Question 4:** Purpose of fluid infusion for acute diarrhea patient is to
A. Compensate electrolyte volume
B. Compensate water and electrolyte volume
C. Nurture patient
D. Compensate water volume

**Question 5:** Patient Nguyen Van A was diagnosed with acute diarrhea. Physician indicates infusion of Ringer Lactate 500ml x 60 drops/minutes. Nurse place IV line at 8 am. When fluid infusion will be finished?
A. 12:47PM
B. 9:47AM
C. 10:47AM
D. 11:47AM

**Question 6:** Correct orders of blood transfusion steps
A. …Gently shake blood bag hung at hunger; Assess patient; establish IV line with solution Sodium Chlorid 0.9%; move the tube to blood bag; perform Ochleber test; transfuse blood as medical order’s speed.
B. …Establish IV line with solution Sodium Chlorid 0.9%; Assess patient; Gently shake blood bag hung at hunger; move the tube to blood bag; perform Ochleber test; transfuse blood as medical order’s speed.
C. …Gently shake blood bag hung at hunger; Assess patient; establish IV line with solution Sodium Chlorid 0.9%; perform Ochleber test; move the tube to blood bag; transfuse blood as medical order’s speed.
D. …Assess patient; establish IV line with solution Sodium Chlorid 0.9%; Gently shake blood bag hung at hunger; Move the tube to blood bag; perform Ochleber test; transfuse blood as medical order’s speed.

**Question 7:** Cause of infection at transfusion site
A. Nursing care of transfusion site is not sterile enough
B. Due to clot
C. Due to needle puncture outside the vein
D. Due to too slow transfusion
**Question 8:** Purpose of performing Ochlecber test when transfuse blood

A. To test cross reaction  
B. To monitor complications of blood transfusion  
C. To monitor patient’s reaction when start blood transfusion  
D. To monitor infection signs before performing blood transfusion

**2. Practical scenario**

**Scenario 1**

Patient Tran Van X. 65 years old, is under treatment at Intensive care unit with diagnosis of stroke due to hypertension. At present, patient’s consciousness is not so good, he does not agree to infuse fluid, sometimes, he strives; his skin and membrane is pink; decreased mobility ½ of right side. Vital signs: pulse 90 rates/ minute, blood pressure 150/ 90 mmHg, breathing 21 rates/ minute, body temperature 370C. Patient is indicated to transfuse 500ml Glucose 5%, speed 40 drops/ minute.

**Question:**

1. Please list up your assessment about condition of patient X?
2. What kind of attention does nurse need to pay when she perform fluid infusion for patient X?
3. Perform fluid infusion for patient? *(perform on simulator, or instructor select a patient in the clinical department having fluid infusion indication)*
4. When observing patient undergoing fluid infusion, nurse recognize the sign of swelling on infusion site. What does nurse have to do?

**Scenario 2**

Patient Bui Thi C. 55 years old, undergoes treatment at Internal Medicine department of provincial general hospital with diagnosis of gastrointestinal bleeding. At present, patient is tired, pale skin and membrane, pulse: 90 rates/ minute, blood pressure: 90/60mmHg, breath rate: 22 rates/ minute, body temperature: 36.5°C. Total blood count: red cell 2.5cell/litter, hematocrit: 8g/l, blood group B. Physician indicates emergent blood transfusion for patient: 1 blood unit, dripping speed 60 drops/minutes.

**Question:**

1. Please list up your assessment about condition of patient C?
2. What kinds of blood group patient C will be transfused in ABO group? What is the best group for patient C? Please explain in detail?
3. Nurse M *(takes care of patient)* receives a blood bag *(blood in stock)* to transfuse to patient C at the patient ward; After checking, information on blood bag and patient is matched, nurse M urgently hangs the blood bag and quickly shift the IV line *(patient undergoes infusion of solution NaCl 0.9%)* to blood bag, and continue implementing steps of blood transfusion for patient. After transfusing 20 minutes, the tube does not flow well!
- Please tell your evaluation about performance of nurse M to transfuse blood for patient, explain the reason why the tube does not flow well? Give your solutions for solving the above-mentioned scenario?

- Patient and patient family show their worry about obstruction of IV line during blood transfusion; would you please explain to patient/ patient family about this event? (apply role play method)?

4. Perform blood transfusion technique (on simulator)?

**ANSWER**

1. **Select the most correct answer**

   - Question 1: B  
   - Question 3: D  
   - Question 5: C  
   - Question 7: A  
   - Question 2: C  
   - Question 4: B  
   - Question 6: D  
   - Question 8: C  

2. **Competency based assessment checklist for fluid infusion - blood transfusion techniques**

<table>
<thead>
<tr>
<th>No</th>
<th>Competency</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Properly implement fluid infusion, blood transfusion principles</td>
<td>Can do independently without support (2) Can do with support (1) Cannot do or wrong performance (0)</td>
</tr>
<tr>
<td>2</td>
<td>Perform effectively, safely fluid infusion for patient.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Effective, safety, proper implementation of blood transfusion technique for patients.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Able to monitor patient during and after fluid infusion and blood transfusion, early detect abnormal signs on patient and give decision for dealing with properly</td>
<td></td>
</tr>
</tbody>
</table>

3. **REFERENCES**

LESSON 17
MONITORING VOLUME OF IN AND OUT FLUID

OBJECTIVES

1. Be able to assess patients who need to monitor in, out fluid (competency 1.1; 2.2; 2.3; 3.1; 4.1)
2. Perform properly technical procedure for in, out fluid monitoring (competency 2.3; 2.4; 3.2; 4.2; 4.4; 4.5; 4.6; 4.7; 4.9; 5; 6; 8.2; 8.3; 16.3, 20.2; 20.4; 24.1; 25.2)
3. Be able to give instruction to patient/patient family to monitor in-out fluid properly as technical requirements (competency 2.3; 4.6; 8.2)

CONTENTS

1. Role of water, distribution of water in the body

Water plays really important role to get involve in structuring the cells and organs as well as maintains normal activities of the body, it is a solvent for biological systems. If human body loses 10% of water it becomes sick and the body may die if it loses 20-25%.

The amount of water is less in women and decreases by age, water in children is more than in adults. Totally, water accounts for 60% of body weight (in male), 50% in of body weight (in female), 75 - 80% of body weight (in children less than 1 years old). Of which, intra-cellular fluid accounts for 40%, extra-cellular fluid accounts for 20% of body weight. In 20% of extra-cellular fluid, the interstitial fluid (accounts for 15% of body weight) and intravascular fluid (accounts for 5% of body weight).

Normally, the amount of fluid in is equivalent to the amount of fluid out. The ratio of fluid balance depends on age, fat or thin body and height.

2. Source of normal in, out fluid (for adult)

<table>
<thead>
<tr>
<th>Source of fluid comes in the body per day</th>
<th>2000 – 2500 ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Drinking water</td>
<td>1000 – 1200 ml</td>
</tr>
<tr>
<td>- Water in the food</td>
<td>800 – 1000 ml</td>
</tr>
<tr>
<td>- Due to metabolic inside the body</td>
<td>200 – 300 ml</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source of fluid out of the body per day</th>
<th>2000 – 2500 ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Urine excreted though the kidneys</td>
<td>1200 – 1400 ml</td>
</tr>
<tr>
<td>- Excretion via lung (water vapor)</td>
<td>400 – 500 ml</td>
</tr>
</tbody>
</table>
### 3. Disorder of body fluid

Kidney and lung play major role for adjustment of fluid balance. In - out fluid is equal in 24 hours. When amount of out fluid is higher than in fluid, it is suspected as fluid imbalance. Fluid imbalance may change the vital function of the body (respiratory, metabolic, central nervous system etc.)

Loss/ deficiency of water, when the amount of in water is not enough or/ and over excretion occurs due to a number of causes such as vomit, diarrhea, fistula, fluid drainage, peritonitis, burn, sun stroke, hyperventilation, chronic kidney diseases, diabetes mellitus, diabetes insipidus etc. In fluid is not enough due to insufficiency of eating and drinking.

Redundancy of water (oedema) when the amount of out water is less, or/ and there is too much in water due to causes such as oliguria, anuria, heart failure, nephritic syndrome, chronic hyperuremia, acute Acute tubulo nephritis, cirrhosis, protein loss, too much glucose infusion, ADH hypersecretion…

### 4. Purpose and application of in, out fluid monitoring

#### 4.1. Purpose
- Assess general conditions of patient.
- Assess early signs of fluid and electrolyte disorder.
- Adjust fluid and electrolyte disorder.

#### 4.2. Application:

Monitoring of in - out fluid volume apply to all patients, who have fluid imbalance or disorder (loss of water and redundancy of water - oedema); patients having severe heart failure, kidney failure, shock, parenteral nutrition, patients use some kinds of medicine (diuretic drug) etc.

Measurement of in and out fluid is a daily work of nurse to assess patient’s status and to have appropriate nursing care plan. Record of in, out fluid requires accuracy, continuation in order to make proper intervention.

### 5. Skills for monitoring in - out fluid volume.

In case patient having fluid disorder, measurement of in/ out water amount must be done every day to help physician decide appropriate therapy. Assessment of in/ out water in patient should be done at the end of each on duty shift and the data within 24 hours must be gathered to compare in several days.
5.1. Patient assessment

Before measuring in, out fluid, it is necessary to assess relevant issues:

- Assess the signs and symptoms of overload or fluid loss status (bradycardia, tachycardia, hypotension, hypertension, reduction of skin stretching/oedema, small or large amount of urine etc).
- Assess the causes of dehydration: prolonged fever, diarrhea or vomit, fluid loss via drainage, injury, gastric fluid aspiration, severe burn, trauma (especially crush trauma), endocrinological diseases causing fluid and electrolyte disorder (Cushing, Addison diseases, diabetic ketoacidosis etc)
- Identify patients, who have failure of swallow, unconsciousness or failure of movement.
- Assess patients, who use medication affecting to fluid balance including diuretic drug and steroid.
- Refer the result of test:
  + Proportion of urine (normal value is 1.010 - 1.030)
  + Rate of red blood cell volume (normal value is 38 - 47% for female, 40 - 45% for male)
- Assess knowledge of patient and patient family about the purpose and process of monitoring in, out fluid
- Assessment of risk factors
  + Patient or patient family does not cooperate during measurement of in and out fluid
  + Patient cannot control urination
  + Patient cannot control vomit

5.2. Devices

- Board for recording volume of daily exporting and importing fluid
- Pen
- Fluid container having measurement unit.
- Bed pan.
- Clean gloves.
- Measurement devices: pan, cup having metric measurement
## 5.3. Implementation steps

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Explain to make patients and patient family understand the necessity of in, out fluid measurement.</td>
<td>Patients and patient family prepare and collaborate well during measurement of in, out fluid.</td>
</tr>
</tbody>
</table>
| 2  | Measure and record all the amount of in fluid/measurement time:  
- Measure/ calculate sufficient amount of liquid food (soup) in each meal  
- Measure/ calculate sufficient amount of drinking water in a day  
- Measure/ calculate sufficient amount of medicine, fluid | Write down sufficient and accurate the amount of in fluid. |
| 3  | Measure and record all the amount of out fluid/measurement time:  
- The amount of urine/day or by working shift  
- The amount of vomit, defecation  
- The amount of drained fluid: all types of drainage in patient  
- Excessive sweating (10°C higher causes fluid loss about 100-300ml/day)  
- Measure/ calculate fluid through breathing when patient has dyspnea or mechanical ventilation. | Ensure sufficient, accurate amount of out fluid. |
| 4  | Scale patient every day  
Record the body weight during monitoring time | Redundancy or deficiency of water makes the change of body weight; |
| 5  | Instruct patient/patient family the way of measuring in, out fluid.  
Instruct in detail measurement way (food, drinking water, amount of vomit fluid, urinary, defecation,…) and usage of measurement devices | In some cases, patient and patient family may perform measurement according to guidance. |
| 6  | Assess the signs and symptoms of water redundancy, deficiency (heart rate, blood pressure, skin stretching, oedema etc) |  |
| 7  | Assess some relevant tests:  
- Urine specific gravity  
- Hematocrit test | Some tests shows dehydration status. |
| 8  | Assess patients who use drugs that affect to fluid balance: diuretic, steroid drugs | Relate to amount of urine discharged less or more than normal range. |
| 9  | Report to physician if there is an abnormality of in/out fluid measure. | To manage timely. |
### Checklist for in and out fluid monitoring technique

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Assessment of patient before measuring in, out fluid</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Device: the device has metric measurement in ml, containing bag…</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Explain to patients and patient family</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Measure and record all the amount of in fluid/ measurement time</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Measure and record all the amount of out fluid/ measurement time</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Scale patient every day Record patient’s body weight during monitoring time</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Instruct patient/ patient family to measure the amount of in and out fluid</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Assess the signs and symptoms of dehydration and redundancy of water</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Assessment of some other relevant tests</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Assessment of patient who use the drugs influencing to in and out fluid</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Report to doctor if the result is abnormal</td>
<td></td>
</tr>
</tbody>
</table>

### EVALUATION QUESTION

Select the most correct answers

**Question 1: Measurement of urinary amount for patient; excludes**

A. Placement of urinary catheter for all cases that need to measure urinary volume

B. Ask patient to urinate in the pan and measure the amount of urine during measurement time, including during defecation.

C. Placement of urinary catheter for all comma cases

D. Use diaper for patient, who can not control urination, scale diaper and accumulate total amount of urine during measurement time.
Question 2: Out fluid source of patient includes:
   A. Urine, defecation
   B. Urine, defecation, sweating
   C. Urine, defecation, drainage, breathing, sweating, vomit
   D. Urine, defecation, breathing, sweating.

Question 3: Out fluid source of a normal person includes:
   A. Urine, defecation
   B. Urine, defecation, sweating
   C. Urine, defecation, drainage, breathing, sweating, vomit
   D. Urine, defecation, breathing, sweating.

Practical scenario

Patient Pham Thi D, 25 years old, is undergoing treatment in Internal Medicine department, N district hospital. Diagnosis is acute glumeronephritis. Patient status: conscious, slight oedema at eyelid pulse 85 rates/ min, blood pressure 145/80 mmHg, respiratory rate 19 times/ min, normal defecation, little.

Questions:
1. Does patient D need to monitor in and out fluid every day? Explain why?
2. Out fluid monitoring of patient D includes? (select the most correct answer)
   A. Urine/ day
   B. Urine/ day, defecation
   C. Urine/ day, body weight
   D. Urine/ day, defecation, sweating
3. Please instruct patient D to measure urine amount daily(using role play method)

Answer

1. Select the most correct answer
   Question 1: A
   Question 2: C
   Question 3: D

2. Practical scenario 2.2: D
### Competency based assessment checklist for Monitoring volume of in and out fluid

<table>
<thead>
<tr>
<th>No</th>
<th>Competency</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify patient who needs to monitor in-out fluid amount</td>
<td>Can do independently without support (2)</td>
</tr>
<tr>
<td>2</td>
<td>Perform properly technical procedure for in, out fluid monitoring</td>
<td>Can do with support (1)</td>
</tr>
<tr>
<td>3</td>
<td>Instruct patient/patient family to monitor in and out fluid according to technical requirements.</td>
<td>Cannot do or wrong performance (0)</td>
</tr>
</tbody>
</table>

### REFERENCES

2. Pham Ngoc Thach Medical School (2014). *Basic Nursing 2*. Medical Publishing House, Ha Noi
3. www.benhvien103.vn
LESSON 18

WOUND AND DRAINAGE TUBE CARE TECHNIQUES

OBJECTIVES

1. Assess and classify wounds (competency 2.1; 2.2.; 3.1; 4.1; 4.3; 6.1;9.1)

2. Perform properly and safety clean wound care techniques (competency 2.3; 2.4; 3.2; 4.2; 4.4; 4.5; 4.7; 5.2; 5.3; 6.1; 6.2; 6.3; 8.2; 16.3; 20.2; 20.4; 24.1; 25.2)

CONTENTS

1. Introduction

Wound care is a basic technique in patient care. Good wound care help patient recover quickly and control infection, reduce length of stay, intensify the reliability of patients to healthcare workers.

Wound care includes care of simple to complicated wounds: clean wound, contaminated wound, infectious wound, necrosis, bed sore ulcer, wound having suture, drainage, skin transplanted wound etc. When perform wound care, nurses have to be equipped skills to use suitable bandage to cover and protect and heal the wound in the best way.

Nurses should collaborate with colleagues, experts to help patient recover affected organs after operation and trauma; collaborate with patient family, support them to acquire knowledge and skills for taking care of patient after discharge, facilitating them recover and stabilize their health.

Wound care skill group consists of:
- Clean wound care
- Contaminated wound care
- Suture cut of wound
- Care of drained wound

2. Wound care classification

- Clean wound care: is a surgical wound that undergone under sterile condition, not contaminated and not located in areas of respiratory, urological, genital system and there is no drainage in the wound.

- Clean contaminated wound care: is a wound that does not have a sign of infection but located in areas of respiratory, urological, genital system, opened wound and drained wound.

- Clean wound care: is a surgical wound that undergone under sterile condition, not contaminated and not located in areas of respiratory, urological, genital system and there is no drainage in the wound.
- Clean contaminated wound care: is a wound that does not have a sign of infection but located in areas of respiratory, urological, genital system, opened wound and drained wound.

3.1. Assessment of wound status
- Edge of wound is flat or rough and variegated.
- Newly progressed or old wound, the wound attached other lesions.
- Identify the position of wound in the body.
- General physical condition, other underlying diseases: diabetes mellitus, tuberculosis, cancer etc.

3.2. Principal of wound care
- Remove foreign body, bruised tissues
- Expand wound, drain well
- Help the wound sonly recover
- Wound always excretes fluid therefore keep the wound moisture is necessary but not make it becomes wet, therefore nurses should change the bandage when it is wet.
- Patient is really painful when having the wound, nurses pay attention and avoid making painful for patient during dressing change, pain relief drug should be given before change dress if the wound makes patient painful.

3.3. Principle of Dressing change
- Apply absolute sterile technique when changing the bandage. Each person uses a sterile dressing change
- Clean the wound properly: clean the wound as straight line from the top to bottom and manipulation from inside to outside, from suture as the line parallel with the wound.
- In a patient, who has several wounds, cleansing order should be done as following order: from sterile, clean to contaminated wound.
- Before placing the bandage on the wound, following steps must be realized:
  + Check the order of wound care.
  + Explain procedure for patient.
- Cover the bandage on the wound completely.
- For some special wounds (having skin transplantation), dressing change must be done according to indication of physician.
4. Some solutions and effects for cleansing wound

<table>
<thead>
<tr>
<th>No</th>
<th>NAME OF SOLUTION</th>
<th>EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Betadin 1/1000</td>
<td>Highly sterilized, not stimulate sensitivity of the tissue and recovery of the wound. Used for disinfection of skin, membrane, cleansing wound and sinuses of the body.</td>
</tr>
</tbody>
</table>
| 2  | Hydro peroxide (H₂O₂) | - For local vasoconstriction, it is indicated for cleansing the deep wounds, having purulent, infection and contaminating with soil  
- Not used for cleansing the wound raising granulation tissues |
| 3  | NaCl 0.9% Normal saline | - Used to clean ordinary, benign wounds |
| 4  | Dakin’s solution | Indicated to clean the wounds having necrosis tissues |
| 5  | Kali Pemanganat 1/1000 – 1/10000 KMnO₄ | Indicated to clean the wounds having mucilage |

5. Characteristics and indications of wound dressing

<table>
<thead>
<tr>
<th>No</th>
<th>Type of dress</th>
<th>Characteristics</th>
<th>Indications</th>
</tr>
</thead>
</table>
| 1  | Alginate dressing | - Highly absorbent, used to place inside the wound  
- It requires external covering dress | Deep wounds, lacking tissue, infected wound having drainage |
| 2  | Gauze | - Good absorbent, cotton fiber with clear surface  
- Can be immersed with physiological saline to moisture the big wound | - Widely used for wound care  
- Inserted in deep and drained wound |
| 3  | Thin dressing | - Having skin color made from hydro active, having adhesive tape at back side  
- The surface of dressing absorbs fluid mildly, keep the wound in moisture condition  
- Cover the surface of wound and avoid contact between oxygen and wound | - Superficial wound, red granulation tissue  
- Pressure ulcer  
- Limb phlebitis |
| 4  | Hydrogel | - Transient thin pad made from polymer  
- Drained fluid absorbent and provide moisture for the wound, cooling skin | - Superficial wound, granulation tissue, skin loss wound, small size burn  
- Pressure ulcer level I, II |
LESSON 18: WOUND AND DRAINAGE TUBE CARE TECHNIQUES

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preparation: Wear uniform as regulation, routine hand hygiene, wear mask</td>
<td>Ensure aseptic principle before caring the wound care</td>
</tr>
<tr>
<td>2</td>
<td>Check and arrange equipment on dressing change cart</td>
<td>Convenient and quickly when performing manipulation</td>
</tr>
<tr>
<td>3</td>
<td>Prepare patient - Inform, explain to patient/patient family - Place patient at suitable posture</td>
<td>To create comfortable feeling for patient to understand and collaboration well</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Convenient for dressing change</td>
</tr>
<tr>
<td>4</td>
<td>Drape patient with underpad Position the bag for dirty things at convenient place</td>
<td>- To avoid cleansing solution, and fluid from the wound pour out to the bed - To dispose dirty cotton and gauze</td>
</tr>
</tbody>
</table>

6. Uninfected wound care skill

6.1. Assessment

- General condition of patient: general condition, consciousness, vital signs...
- Medical history and influenced factors: age, chronic disease, medication, dietary regime, alcoholic, smoker etc.
- Understanding of patient and patient family about first aid and wound care
- Conditions of wound: position, size, depth, wound surface, fluid excretion status, skin surrounding the wound, type of wound, healing progress…

6.2. Instruments

- General condition of patient: general condition, consciousness, vital signs...
- Medical history and influenced factors: age, chronic disease, medication, dietary regime, alcoholic, smoker etc.
- Understanding of patient and patient family about first aid and wound care
- Conditions of wound: position, size, depth, wound surface, fluid excretion status, skin surrounding the wound, type of wound, healing progress…

6.3. Implementation steps

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Polyurethane foam - Soft, slight, absorbent capacity depends on thickness of dressing - Create moisture for wound surface</td>
<td>- Wound having necrosis tissues - Cover wound</td>
</tr>
<tr>
<td>6</td>
<td>Transparent adhesive tape - Film polyurethane having adhesive tape at back side, having exhausted holes - Maintain moisture of the wound, not absorbent</td>
<td>- Superficial wound, red cell granulation, less fluid - Protect the pressure ulcer area, possible to use instead of tape</td>
</tr>
</tbody>
</table>
5 Wear clean gloves  | To reduce risk of infection
6 Exposure wound  | To take care easily
7 Remove dirty bandage, gauze and dispose to the bag for dirty things  
Observ and assess would status  | - To reduce risk of infection from wound  
- To evaluate progress of the wound
8 Pour cleansing solution in a cup  | To clean the wound
9 Nurses wear sterile gloves  | To prevent infection
10 Cleaning or disinfection of the wound from inside to outside, from top to bottom  
To reduce the risk of super infection from surrounding skin area to the wound. Cleaning/ disinfection solution should be selected depending on the wound condition and whether is contaminated or not. Basically, the cleaning solution have to apply for contaminated wound.
11 Use gauze to cover the wound, dress the wound by suitable bandage.  | To protect wound and absorb fluid
12 Help patient feel comfortable  | Patient feels secure and believe in treatment and nursing care
13 Tidy up instruments, classify and collect waste:  
+ Put the forceps on the disinfectant solution container  
+ Remove gloves and discard in the bag for dirty thing and medical waste bin.  | - To prevent nosocomial infection
14 Routine hand hygiene  | To prevent transmission
15 Write down the record:  
+ Date, time cleaning wound  
+ Wound status  
+ Patient reaction  
+ Name of person who changed dress  | - To monitor nursing care progress and healing of the wound

**Checklist for uninfected wound care technique**

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient assessment</td>
<td>Achieved</td>
</tr>
<tr>
<td>2</td>
<td>Equipment</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Nursing preparation</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Drape patient with underpad</td>
<td></td>
</tr>
</tbody>
</table>
Wear clean gloves, exposure wound
Remove dirty bandage from the wound
Observe to assess condition of wound
Pour cleansing solution to the cup
Nurses wear sterile gloves, disinfected wound
Place the gauze, dress the wound
Help patient return back comfortable position
Tidy up instrument, write down in medical record

7. Infectious wounds

In this lesson, the care of infected wounds is not cover but described on the assessment in order to help new nurses understanding about nursing process.

7.1 Signs and symptoms of wound infection:
- Increased pain
- Edema, swelling
- Redness of skin around the wound
- There is a fluid excreted from the wound
- Bed smell
- Red necrosis from outside to the central point of the wound
- Patient has fever
- Unhealed wound

7.2 Typical wounds having the risk of infection:

- **Bleeding position:** Risk of infection for severe wound decrease when blood runs out massively together with debris and potential pathogens. Small wound, scratch caused by dirty foreign body may have higher infection risk. Stab wound will be more dangerous because it causes deep infection inside tissues, not so much bleeding and difficult for disinfection.

- **Burn:** Infection is the most common seen complication of burn. Burn damages a large skin area and has high risk of infection.

- **Open fracture:** It takes long time to heal the infection inside the bone. In some case, it requires more intensive medical care support. Some case, infected area of limb has to be cut. When having open fracture, the site of fracture cutting skin may causes high risk of infection therefore it requires proper care and treatment.
+ **Bite lesion**: Bite lesion caused by animal or insect also causes infection for the wound. Some of animals and insects may have their own risk of infection. For example, rabby virus can be transmitted to human if a person is bite by dog; or snake bite or bee sting also cause the wound...

7.3 **Assessment**

- General condition of patient: general physical condition, consciousness, vital signs... length of wound progression.
- Medical history and influenced factors: age, chronic diseases, medications, dietary regime, alcoholic, smoker etc.
- Understanding of patient and patient family about wound care
- Wound condition
  + Position, size, depth, wound surface
  + Wound characteristics: bruised, dirty
  + Typical wound: burn, open fracture, bite, sting …
  + Fluid, smell excretion status
  + Wound healing progress
  + Skin around the wound
  + Type of wound: surgery, trauma, vascular wound.

*Remark: If nurse assessed wound with infection, she/he needs to report to the nurse-in-charge or doctor.*

8. **Suture removal technique**

Nurse should follow physician’s order to remove suture. The length of suture removal depends on healing stage of wound, purpose of surgery and wound position.

Suture is often cut within 7 – 10 days after operation, when the wound completely heals or it can be kept longer time from 14 to 21 days. Long suture retention may increase the risk of infection. Suture or metal staple may be cut one or several times.

There are different kinds of sutures and suture sizes. Suture for organs inside the body is absorbable. And skin suture is non-absorbable.

Staple made from stainless metal. It is used for subcutaneous tissue. Do not use the staple at the areas close to the bone or vein. Staple removal requires aseptic technique.

When cutting the suture, nurse should assess would heal status. If the wound is not healed completely, suture should be interrupted cut. The remained parts will be cut one week after that.
8.1. Assessment

- General condition of patient: general physical condition, consciousness, vital signs... patient’s understanding on suture removal and self-care after removing suture.

- Suture condition: position, size, depth, surface of suture, fluid excretion condition, healing progress of suture, skin around the suture and types of suture

8.2. Equipment

- Sterile instrument package: 2 pincers, 1 scissors, 1 forceps, 1 small cups, cotton pack, gauze spong ball, gauze pad

- Medical adhesive tape roll, scissors, cleansing solution, gloves

- Under pad, bean shape astray, hand hygiene bottle

- Container for disinfectant solution

- Bag for dirty gauzes and cottons

8.3. Implementation steps

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 10</td>
<td>Perform steps from 1 – 10 same as caring of clean wound</td>
<td></td>
</tr>
</tbody>
</table>
**Suture removal**
*Interrupted suture*
- Place a sterile gauze pad next to suture
- Use forceps to remove suture from skin.
- Insert a tip of scissors at the bottom, of suture.
- Cut suture knot and another hand holds the forceps to withdraw the suture and place it on gauze pad.
- Continue to remove sutures as indication

*Metal staple removal*
- Remove staple: insert one side of pincers. Press the handles of pincers, two tips of staple will be knockout.
- Quickly remove staple outside of patient’s body.

*Continuous running suture removal*
- Place a sterile gauze pad next to suture.
- Clamp and cut the suture knot close to the skin
- Cut the second knot at the same side with the first one.
- Gently remove the suture from skin. Place it on gauze pad.
- Continue until all sutures are removed.

To remove suture after cutting
- To remove suture from inside to outside. Do not allow the suture from outside come in the wound to limit microorganism from outside to inside of wound.

(Source: Nguyen Thi Minh Thinh and Vu Thi La (2019), Basic Nursing 2)

Avoid the sharp tips staple damage skin and make patient painful.

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**Checklist for suture removal technique**

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Achievement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
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</tr>
<tr>
<td>5</td>
<td>Wear clean gloves, exposure wound</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Observe, assess wound condition</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Pour cleansing, disinfectant solution to the cup</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>11 - 16</strong> In case of interrupted suture removal, after cutting the suture, nurses should clean the purulent/ fluid of the wound (if any), then perform wound disinfection. Same as steps 11 – 15 of clean wound care procedure**</td>
<td></td>
</tr>
</tbody>
</table>
Nurses wear sterile gloves, disinfected wound

Suture removal
- Cutting suture completely or interruptedly depends on indication

Disinfection again/ or clean then perform disinfection for interrupted suture removal. Dress the wound

Help patient comfortable,
Tell patient take care himself/ herself after suture removal

Tidy up equipment, write down the record

9. Drained wound care skill

When the wound has a lot of excreted fluid, healing process of the wound will be slow down. Excreted fluid can be drained by open or close drainage system. Inner tip of drainage tube may be placed directly on the wound or via small hole next to the wound.

Common drainage tubes are:
- Chest drainage (pleurisy, pericardium, mediastinum)
- Abdominal drainage (Kehr, gallblader, abdomen, jejum, ileum, under diaphragm)
- Drainage at surgical site (renal pelvis, bladder, retzius drainage, head, arm, upper arm, lower leg and abscess)

9.1. Assessment
- General condition of patient: general condition, consciousness, vital signs...
- Drained wound condition: position, size, wound surface, fluid leaking status
- Drained organs, purpose of drainage
- Bridge drains system, quantity, color and characteristics of drained fluid.
- Check medical record about indication for close drainage system such as using vacuum bag connected with suction system.
- Assessment of risk factors
  + Patient’s worry
  + Pain and uncomfortable
  + Difficult movement
  + Limited personal hygiene
  + Risk of infection
  + Risk of fluid imbalance
9.2. Instruments
- Sterile instrument package: 2 pinches, 1 scissors, 2 small cups, cotton, gauze sponge ball, gauze pad
- Medical adhesive tape roll, scissors, cleansing solution, 3 pairs of gloves
- Underpad, bean shape astray or plastic bag, hand rub solution bottle
- Disinfectant solution container
- Bag for dirty gauzes and cottons
- Instruments containing fluid or draining bag (if necessary)

9.3. Implementation steps

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 9</td>
<td>Perform steps from 1 – 9 same as caring of clean wound</td>
<td></td>
</tr>
</tbody>
</table>
| 10 | Clean the bottom and body of drainage tube:  
+ Clean from bottom of drainage tube to outside.  
+ Clean from the bottom to the body of drainage tube about 7-10cm | - To clean bottom and body of drainage tube to prevent infection |
<p>| 11 | Observe general condition of patient | To prevent complications during performing procedure (patient shocks, pains or afraid) |
| 12 | Dry the wound | To dry wound surface |
| 13 | Disinfect skin around bottom and body of drainage tube 7-10 cm | To ease microorganism |
| 14 | Use the sterile scissors to cut a piece of sterile gauze pad (L or Y shape) | To reduce risk of super infection invaded from skin around the bottom of drainage tube |</p>
<table>
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</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Place gauze at bottom of drainage tube according to cutting line. Adjust the gauze to cover fully the bottom of drainage tube.</td>
<td>- To create a line to insert the gauze surrounding bottom of drainage tube - To protect wound and absorb fluid</td>
</tr>
<tr>
<td>16</td>
<td>Fix by adhesive tape</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Remove dirty gloves</td>
<td></td>
</tr>
</tbody>
</table>
| 18 | **Release fluid or replacement of drainage bag**  
- Clamp drainage tube.  
- Observe, record quantity, color and characteristic of fluid.  
- Wear clean gloves.  
*In case of release fluid:*  
+ Place container, open the lock to allow fluid come out from drainage bag.  
+ Close the lock, open clamp.  
+ Place fluid bag at suitable place.  
*In case of changing drainage bag:*  
+ Remove bridge string  
+ Disinfection of drainage tip  
+ Attach bridge string with bag in drainage tube  
+ Open clamp  
+ Hang the bag in suitable position |   |
| 19 | Inform patient that procedure has completed, help patient feel comfortable | - Help patient feels secure and believe in treatment and nursing care |
| 20 | Write down the record:  
+ Date, time performing procedure  
+ Wound status  
+ Amount of fluid, color and fluid characteristic  
+ Circulation of drainage tube  
+ Amount of leasing solution used for patient  
+ Name of dressing changer | - To monitor nursing care progress and wound healing process |
Checklist of drained wound care technique

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Achievement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Patient assessment</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare equipment</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Nursing preparation</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Drape patient with underpad</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Wear clean gloves, exposure and assess wound condition</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Pour cleansing solution to the cup</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Nurses wear gloves, clean bottom and body of and dry it</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Disinfect skin around the bottom of tube and disinfect drainage tube body about 7-10 cm</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Cut sterile gauze pad, place it at the bottom of drainage tube and fix it by tape</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Remove dirty gloves</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Release fluid or replacement of drainage bag</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Inform patient that procedure is completed, help patient feel comfortable</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Tidy up instruments, classify and collect waste, wash hygiene</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Write down the record</td>
<td></td>
</tr>
</tbody>
</table>

LESSON TEST

1. Select the most correct answer

**Question 1:** Which factor facilitates wound healing process
   - A. Young age
   - B. Old age
   - C. Obesity person
   - D. Diabetes mellitus

   **Question 2:** Dressing change principle for patient
   - A. Change dress of clean wound care first, then dirty/contaminated wound will be changed later
   - B. Disinfection of the wound from outside to inside
   - C. Remove bandage absorbed fluid in 72 hours
   - D. Cover the gauze pad large enough to cover the edge of the wound
**Question 3:** Time for suture removal indicated for clean wound in abdomen is
A. 3 – 5 days  
B. 7 – 10 days  
C. 10 - 14 days  
D. over 14 days

**Question 4:** Management of nurse in case of tearing gloves during removing the old bandage for patient:
A. Continue to remove the old bandage, remove gloves then perform hand rub to implement following steps  
B. Remove gloves, perform hand hygiene and wear new gloves to continue removing the old bandage  
C. Temporary stop procedure and apologize patient about this error, tell patient that bandage will be changed in another time.  
D. Use the forceps in instrument set to remove bandage and explain to patient at the same time.

**Question 5:** Correct order of dressing change for patient:
A. Nurse contact, comfort patient; assessment wound; change bandage / clean the wound; wear clean gloves, remove old bandage; disinfection, dry and dress the wound.  
B. Nurse contact, comfort patient; wear sterile gloves, remove old bandage; assessment wound; wear clean gloves, change bandage / clean the wound; disinfection, dry and dress the wound.  
C. Nurse contact, comfort patient; assessment wound; Change bandage / clean the wound; disinfection, dry and dress the wound.  
D. Nurse contact, comfort patient; wear clean gloves, remove old bandage; assessment wound; wear sterile gloves, change bandage / clean the wound; disinfection, dry and dress the wound.

2. Practical scenario

**Scenario 1**
Patient Nguyen Văn D, 42 years old, day 4 after gastrostomy. At present, the wound is painful, the bottom of suture is swelling and red, bandage shows yellow fluid; Vital signs: pulse 83 rates/ min, blood pressure 110/65mmHg, breathing 18 rates/ min, body temperature: 38.5°C; Patient is conscious, tired, body pain and he feel uncomfortable when the nurse provide wound care,

**Question:**
1. Please tell your assessment about status of patient D?  
2. Please communicate with patient D before performing wound care? *(Apply role play method)*  
3. Performance wound care technique for patient D? *(Performance on simulator or instructor select a patient in clinical department)*

**Scenario 2**
Patient Nguyen Thi A, 46 years old, day 2 after surgery of cholelithiasis removal. At present, patient is conscious, normal skin and membrane; vital signs: body temperature 36.9°C, blood
pressure 115/80 mmHg, breathing 20 rates/ min, pulse 78 rates/ min. Abdominal drainage has 50ml pink fluid, Kehr drainage has 400 ml of bile fluid, mild abdominal distension. The length of wound is 10 cm, suture and bandage are dry. Patient still pains on the wound.

**Question:**
1. Please tell your assessment about general condition of patient?
2. Perform wound care skill for patient A?
   
   *(Performance on simulation or instructor selects a patient in a clinical department)*
3. After 10 days, physician indicates to remove suture for patient. Patient worries and does not want to do. Please explain and perform suture removal technique for patient?
   
   *(- explanation: by role plays method;*
   - *suture removal: Performance on simulation or instructor selects a patient in a clinical department)*

**ANSWERS**

1. **Select the most correct answer**
   
   Question 1: A  
   Question 2: A  
   Question 3: B  
   Question 4: B  
   Question 5: D

**Competency based assessment checklist for Wound and drainage tube care techniques**

<table>
<thead>
<tr>
<th>No</th>
<th>Competency</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Can do independently without support (2)</td>
</tr>
<tr>
<td>1</td>
<td>Assess and classify wound types</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Perform effectively, safety, properly uninfected wound care technical procedure for patient</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Perform effectively, safety, properly suture removal technical procedure for patient</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Perform effectively, safety, properly suture removal technical procedure for patient</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES**

3. Nguyen Thi Minh Thinh and Vu Thi La (2019), *Basic Nursing 2*
LESSON 19
PRESSURE ULCER PREVENTION AND CARE FOR PATIENTS

OBJECTIVES

1. Be able to assess the stage(s) of pressure ulcer (competency 1.1; 2.1; 3.1; 4.1; 4.3)

2. Use Braden scale to assess level of pressure ulcer risk of patient (competency 1.1; 2.1; 3.1; 4.1; 4.3)

3. Perform pressure ulcer nursing care levels I, II for patients properly and safely according to technical procedure (competency 2.3; 2.4; 3.2; 4.2; 4.4; 4.5; 4.6; 4.7; 4.9; 5.2; 5.3; 6.1; 6.2; 6.3; 8.2; 8.3; 16.3, 20.2; 20.4; 25.2)

4. Instruct patients and patient family preventive measure for pressure ulcer (competency 4.6; 4.9; 13.1; 14.1; 14.2; 14.3; 14.5)

CONTENTS

1. Definition

Pressure ulcer is a kind of skin and tissue necrotic lesion between the bone and the thing having hard surface as a consequence of a prolonged pressured process causing to ischemia nurturing tissue and it causes the dead of cell.

2. Risk factors causing pressure ulcer

2.1. Pressure

In imbalanced distribution, pressure may be higher than normal one in capillary (32 mmHg). The more progress of pressure ulcer will be seen with higher pressure in the longer time. Any hard things such as bed, chair also creates the pressure on the skin. When patient lies or sit, the gravity will be increased on skin that covers bony area of the body.

Normally, a person moves the body weight in unconscious manner to prevent the block of capillary due to increase of pressure. Everyone feel to have needle or pin on their leg when the amount of blood is obstacle due to pressure.

However, the people, who does not have feeling of increased pressure or can not move (one-side paralysis or comma etc), have high risk of pressure ulcer.

2.2. Conscious situation

When patients are in lethargy or coma condition or they use the medications that change the normal conscious progress, they can not move their body. Therefore, it is necessary to prevent...
pressure ulcer. The changes in consciousness also contribute to cause uncontrolled secretion and disable of self care capacity. This also increases the risk of decubitus ulcer.

2.3. **Moisture**

Moisture may make skin to be damaged. Skin will be soft when patient having continuous bath. It helps to increase skin’s sensitivity to injury and infection. The skin which contacts directly with wet condition will be injured easily. Uncontrolled secretion may let patient lie on urination or defecation. Sweating or lack of dryness after doing hygiene may increase moisture and facilitate the growth of fungus and microorganism.

2.4. **The rub and scratch**

The rub and scratch occur when two surfaces scrub on each other. When the skin rubs to a hard surface such as the bed, it may cause a small scratch and increase the possibility of pressure ulcer. Skin lubricant and sufficient care when moving or keeping skin hygiene for patient may limit the rub.

2.5. **Nutrition and metabolic condition**

Decreased nutrition condition may increase the risk of pressure ulcer. In patients, who have decreased nutrition condition, capillaries are easy to break. In such case, the amount of blood the skin may be limited. The malnutrition patients, plasma proteins and immunological functions are lessened. Subcutaneous tissue loss may affect to the protection layer between skin and bone. It also increase the risk of sore formation.

2.6. **Diseases**

Local anoxaemia due to arterial disease or abnormalities of vein, diabetes mellitus, cancer, infection, anaemia and high fever are risk factors leading to pressure ulcer.

2.7. **Age**

The elderly more than 70 years old has high risk of pressure ulcer because skin becomes thinner, less elastic and its resistance is weaker.

2.8. **Other factors**: diastolic hypotension, smoking, obesity, rheumatic disease, Alzheimer or Parkinson diseases…

3. **The stage s of pressure ulcer**

Condition of pressure ulcer depends on the depth, size and damage severity of the tissue. It is classified into 4 stage s:

- **Stage 1**: the sore occurs as a reddish color on the skin, protruded bony or pressed area. Pressure ulcer is almost disappeared if there is no more pressed condition. It is difficult to recognize the sore at stage 1 for those, who have a dark skin color.

- **Stage 2**: the sore on the top layer appears as surface tear or blister. Skin may loss epithelium, skin or both skin and fat. The blister often causes pain.
- **Stage 3**: necrosis occurs in the whole depth of skin relating to subcutaneous damage or tissue loss. It may break to the lower layer but not too deep. On clinical manifestation, it resembles a crater. It takes several months to heal the stage 3 ulcer.

- **Stage 4**: the sore extends to the whole depth of skin with wider area, necrotic tissue or damage of muscle, bone or other supportive structures (tendon or bursa); it may have corrosion or fistula. It takes several months, years to heal the ulcer.

![Figure 1: Stages of pressure ulcer](image1)

4. **Positions easy to get pressure ulcer**

4.1. **In case patient lie supine**

   If patient lie supine in long time without caregiver, who provides careful pressure care and prevention, the following positions will be easy to get sore:

   - Occipital area
   - Scapular area
   - Elbow
   - Pelvis bone
   - Sacrum and coccyx
   - Ischium
   - Heel

![Figure 2: sore position at supine posture](image2)
4.2. In case patient lies downwards

If patient cannot lie supine for any reason in a long time, the areas are easy to get sore as follows:

- Head area
- Elbow
- Chin
- Chest area
- Anterior pelvis bone
- Knees
- Toes.

4.3. In case patient lies on one side

If patient lies on one side for long time, the positions of sore are:

- Ear
- Shoulder blade
- Elbow
- Hip
- Knee
- Ankle
- Heel

4.4. In case patient suffers from respiratory failure and has to sit for a long time

- Head
- Shoulder
- Sacrum
- Ischium
- Heel

Figure 3: Sore areas at downward position

Figure 4: pressure sore positions at one side posture

Figure 5: pressure sore position at sitting posture
4.5. In obesity patients
- Bellow chest
- Bellow buttock
- Folding abdominal skin

4.6. Pressure ulcer relates to devices

Ulcer depends on the shape and size of device used in patient.

5. Assessment of pressure ulcer risk in patient using Braden scale

Braden scale for assess pressure ulcer risk in patient, is a tool developed in 1987 by Barbara Braden and Nancy Bergstrom.

Braden scale has been developed based on 6 assessment categories including: Sensory perception, moisture, physical activity, mobility, nutrition, friction and shear. The categories are assessed as scale from 1-4. Only friction and shear are assessed as scale from 1 – 3. Braden scale uses the score less or equal to 9 up to less than 23. The lower score the higher risk of pressure ulcer in patient may be observed.

**BRADEN SCALE – ASSESSMENT OF PRESSURE ULCER RISK**

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Descriptive Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory perception</td>
<td>1. COMPLETELY LIMITED – Unresponsive (does not moan, filch, or grasp) to painful stimuli, due to diminished level of consciousness or sedation, OR Limited ability to feel pain over most of body.</td>
</tr>
<tr>
<td></td>
<td>2. VERY LIMITED – Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness, OR Has a sensory impairment which limits the ability to feel pain or discomfort over ½ body.</td>
</tr>
<tr>
<td></td>
<td>3. LIMITED – Responds to verbal commands, but cannot always communicate discomfort or the need to be turned OR Has some sensory impairment which limits ability to feel pain or discomfort in 1 or 2 extremities.</td>
</tr>
<tr>
<td></td>
<td>4. NO IMPAIRMENT – Responds to verbal commands. Has no sensory deficit which would limit ability to feel or voice pain or discomfort</td>
</tr>
</tbody>
</table>
### Moisture

<table>
<thead>
<tr>
<th>Moisture Level</th>
<th>Description</th>
<th>Linen Change Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CONSTANTLY MOIST</td>
<td>Skin is kept most almost constantly by perspiration, urine etc. Dampness is detected every tie patient is moved or turned.</td>
<td></td>
</tr>
<tr>
<td>2. VERY MOSIT</td>
<td>Skin is often but not always moist. Linen must be changed at least once a shift.</td>
<td></td>
</tr>
<tr>
<td>3. OCCASIONALLY MOIST</td>
<td>Skin is occasionally moist, requiring an extra linen change approximately once a day</td>
<td></td>
</tr>
<tr>
<td>4. RARELY MOIST</td>
<td>Skin is usually dry, linen only requires changing at routine intervals</td>
<td></td>
</tr>
</tbody>
</table>

### Physical activity

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Description</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. BEDFAST</td>
<td>Ability to walk severely limited or non-existent. Cannot bear own weight and must be assisted into chair or wheelchair.</td>
<td></td>
</tr>
<tr>
<td>2. CHAIRFAST</td>
<td>Walks occasionally during day, but for very short distance, with or without assistance. Spends majority of each shift in bed or chair.</td>
<td></td>
</tr>
<tr>
<td>3. WALK OCCASIONALLY</td>
<td>Walks outside room at least twice a day and inside room at least once every two hours during waking hours.</td>
<td></td>
</tr>
<tr>
<td>4. WALK FREQUENTLY</td>
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</tbody>
</table>

### Mobility

<table>
<thead>
<tr>
<th>Mobility Level</th>
<th>Description</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. COMPLETELY IMMOBILE</td>
<td>Does not make even slight changes in body or extremity position without assistance.</td>
<td></td>
</tr>
<tr>
<td>2. VERY LIMITED</td>
<td>Makes occasional slight changes in body or extremity position but unable to make frequent of significant changes independently.</td>
<td></td>
</tr>
<tr>
<td>3. SLIGHT LIMITED</td>
<td>Makes frequent though slight changes in body or extremity position independently.</td>
<td></td>
</tr>
<tr>
<td>4. NO LIMITATION</td>
<td>Make major and frequent changes in position without assistance.</td>
<td></td>
</tr>
</tbody>
</table>

### Nutrition

<table>
<thead>
<tr>
<th>Nutrition Level</th>
<th>Description</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. VERY POOR</td>
<td>Never eats a complete meal. Rarely eats more than 1/3 of any food offered, needs to supplement fluid, IV for every 5 days</td>
<td></td>
</tr>
<tr>
<td>2. PROBABLY INADEQUATE</td>
<td>Rarely eats a complete meal and generally eats only about ½ of any food offered. Occasionally will take a dietary supplement or eats via tube</td>
<td></td>
</tr>
<tr>
<td>3. ADEQUATE</td>
<td>Eats over half of most meals. Occasionally refuses a meal but takes a supplement when offered</td>
<td></td>
</tr>
<tr>
<td>4. EXCELLENT</td>
<td>Eats most of every meal. Never refuses a meal. Occasionally eats between meals.</td>
<td></td>
</tr>
</tbody>
</table>

### Friction and shear

<table>
<thead>
<tr>
<th>Friction and shear Level</th>
<th>Description</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PROBLEM</td>
<td>Requires maximum assistance in moving. Frequently slides down, in paralysis condition.</td>
<td></td>
</tr>
<tr>
<td>2. POTENTIAL PROBLEM</td>
<td>Moves feebly or requires minimum assistance. Maintains relatively good position most of the time but occasionally slides down.</td>
<td></td>
</tr>
<tr>
<td>3. NO APPARENT PROBLEM</td>
<td>Move independently. Maintains good position in bed or chair.</td>
<td></td>
</tr>
</tbody>
</table>

### Total score

<table>
<thead>
<tr>
<th>Total score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total score from 12 or less is equivalent to HIGH RISK</td>
<td></td>
</tr>
</tbody>
</table>

### Assessment

<table>
<thead>
<tr>
<th>ASSESSMENT DATE</th>
<th>SIGNATURE OF ASSESSOR</th>
<th>ASSESSMENT DATE</th>
<th>SIGNATURE OF ASSESSOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 / / /</td>
<td></td>
<td>1 / / /</td>
<td></td>
</tr>
<tr>
<td>2 / / /</td>
<td></td>
<td>2 / / /</td>
<td></td>
</tr>
</tbody>
</table>

Full name of patient: Physician in charge

Code Ward/ bed
6. Prevention and treatment of pressure ulcer

6.1. Preventive measure for pressure ulcer

*Avoidance of pressure*
- Bed sheet must be straight, smooth
- Use medical water, air, pressured mattress
- Place cotton or rubble rounds at the pressured area
- Change patient’s posture every 2 hours

*Clean skin hygiene*
- Change clothes, bed sheet for patients whenever they are moist
- Perform skin hygiene daily, keep patient’s skin clean

*Management of secretion*
- Injury: change the dress whenever the injury moist with fluid, use the close fluid drainage bag in case the injury has many excretions.
- Drainage tubes in the body: ensure the close, sterile, circulated and one way care of drainage tube to avoid stagnant fluid, release the fluid sac when it contains 2/3 of its capacity or every 8 hours. Do not keep the sac too stretched to avoid breaking or pouring down the fluid to outside.
- Use the tools for management of urine and defecation (uridom, diaper, plastic bag etc): when patient has uncontrolled urination and defecation.

*Prevention of skin damage*
Move and change position of immobile patients to prevent skin damage due to rubbing …

*Nutrition*
Provide sufficient nutrition, especially protein and vitamin A, C.

*Management of infection source*
Prevent and treat the infection sources in the body
- Respiratory tract: pneumonia prevention etc.
- Urological tract: urinary tract prevention
- Gastroenterological tract: prevention of digestive disorder etc.

*Health education*
- Instruct patient’s family keep patient’s skin clean, especially after each urination, defecation.
- Instruct patient’s family change the position for patients every two hours.
- Instruct patient’s family and patient to perform regular massage of the bony area which hasn’t been covered by muscle.
- Provide sufficient nutrients for patients (protein, fresh etc.) to ensure enough energy for patients.
6.2. Treatment of pressure ulcer

* Elevation of body condition
- Ensure calories, protein 1 – 2 g/kg/ day, vitamin, micro nutrients
- Ensure that patient does not suffer from anemia
- Pain relief
- Clean the crater and surrounding tissues
- Provide nursing care for uncontrolled urination and defecation

* Lessen pressure ulcer
- Change posture every 2 hours
- Let patient’s head lie at angle of 30°
- Exercise for mobility
- Use special bed, wheel chair to maintain pressure < 32 mmHg

* Nursing care of ulcer
- Remove necrotic tissues:
  + Enzym destroys protein, disintegrate collagen and necrotic tissues but does not affect to granular tissue
  + Povidone-iodine, thanks to effects of hydrogen peroxide, do not use for long time
  + Mechanical measures: whirlpool pump, cutting for removing dead tissues
- Fluids for cleaning wound:
  + Physiological saline
  + Diluted Povidone-iodine solution when having granular tissue
  + Acetic acid (0.5%) is effective for Pseudomonas
  + Sodium hypochlorite (2.5%) for disinfection, removal of necrotic tissues, then clean the wound again by physiological saline
- Dressing wound
  + Dress the wound at stage 2
  + Use the gel type medication for removal of necrotic tissue and for prevention of decontamination
- Antibiotics
  Antibiotic cream such as sulfadiazine to prohibit DNA and change the membrane of bacteria SA, E.coli, Candida albicans, Klebsiella, Pseudomonas, Proteus
- Other measures
  + Electrotherapy
  + Negative pressure therapy
+ High pressure oxygen
+ Development factors

*Surgical treatment*

*Treatment of pressure ulcer by the stages*

- Stage I: Physical support and elevation, lessen pressure
- Stage II: Physical support and elevation, lessen pressure, ulcer care (removal of necrotic tissue, wound cleaning, coverage of hydrogen gauze, antibiotic)
- Stage III: Physical support and elevation, lessen pressure, ulcer care (removal of necrotic tissue, wound cleaning, coverage of hydrogen gauze, antibiotic, negative pressure), possibility of surgical treatment
- Stage IV: Physical support and elevation, lessen pressure, ulcer care (removal of necrotic tissue, wound cleaning, coverage of hygrogel gauze, antibiotic, negative pressure), possibility of surgical treatment (destroy of tunnel)

7. Nursing care of pressure ulcer stage I, II

7.1. Assessment

- Assessment of correct patient: ask full name of patient, age and cross check with wrist band and medical record.
- Assessment general condition of patient
- Assessment of pressure ulcer risk and stage using Braden scale
- Assessment of ulcer status: position, depth, size of ulcer etc.
- Assessment of patient and patient family understanding about issues relating to pressure ulcer.

7.2. Devices

- Towel
- Talc powder
- Cotton round
- Bed sheet (if necessary)
- Plastic pad
- Rubber air round and cover towel
- Air, water mattress
- Secretion management tools: diaper for both male and female, urine bag
- Dressing change tools, wound clean solution (if necessary).
- Drugs as indications of physician
- Waste container
### 7.3. Implementation steps

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation steps</th>
<th>Reasons/ explanations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nurse performs hand hygiene</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare and arrange the tools properly and sufficiently</td>
<td>To facilitate performance of the technique</td>
</tr>
</tbody>
</table>
| 3  | Assess patient, explain to patient about procedure | - Correct patient  
- Patient and patient family feel secure and collaborate. |
| 4  | Nurse wears clean gloves |  |
| 5  | Cover the plastic pad, towel under the pressured area | To ensure hygiene for the patient bed |
| 6  | Perform nursing care for pressure ulcer depending on grades:  
- **Stage I:** take measures to prevent to be worsen the ulcer taking care the sore as scratched skin: skin hygiene, posture movement, guide on how to take care of etc...  
- **Stage II:**  
  + When pressured area appear a blister: continue to provide nursing care as above mentioned  
  + When skin tears at the pressured area: perform nursing care of pressure ulcer same as blister.  
  Cover the wound by medication or using appropriate wound care products as treatment indication  
  Dress the wound or keep the wound openned depending on status of ulcer. | Help the wound heals well  
To keep the ulcer limit contact with outside environment |
| 7  | Change the bed sheet (if it is moist) | Help patient feels comfortable and clean. |
| 8  | Allow patients to lie comfortably on appropriate anti-ulcer facilities. |  |
| 9  | Tidy up devices. Category the waste | Preserve devices  
Lessen transmission of pathogens |
| 10 | Write down in nursing record:  
- Skin status, new detections (if any).  
- Status of pressure ulcer.  
- Medications used.  
- Further explanation to patient (if necessary). | Record information for continuous checking  
To ensure legal aspect |
### Checklist for nursing care technique of pressure ulcer stage I, II

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Achievement level</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient assessment</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>2</td>
<td>Nurse performs hand hygiene</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>3</td>
<td>Prepare and arrange device sufficiently</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>4</td>
<td>Explain to patient family and patient</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>5</td>
<td>Nurse wears clean gloves</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>6</td>
<td>Cover the plastic pad, towel under the pressured area</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>7</td>
<td>Provide nursing care of pressure ulcer depending on stage</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td></td>
<td>- Stage I</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td></td>
<td>- Stage II</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>8</td>
<td>Change the bed sheet</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>9</td>
<td>Place patients to lie comfortably on suitable anti – ulcer devices.</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>10</td>
<td>Tidy up devices.</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>11</td>
<td>Write down in nursing record</td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
</tbody>
</table>

### EVALUATION QUESTION

1. Select the most correct answers

**Question 1:** In following causes, which one is the most commonly seen:
   - A. Due to increase of pressure
   - B. Due to reduction of activities
   - C. Due to reduction of sensation
   - D. Due to lack of nutrition

**Question 2:** The group of people having ulcer risk, excluding:
   - A. Comma
   - B. Spinal trauma
   - C. Obesity
   - D. Leg bone fracture

**Question 3:** Patient on supine position, the areas has the earliest risk of pressure ulcer is:
   - A. Occipital bone
   - B. Elbow
Question 4: The stages of pressure ulcer progress

A. Redness-> Blister-> Necrosis-> Ulcer
B. Red skin -> Necrosis-> Blister-> Ulcer
C. Redness-> Necrosis-> Blister-> Ulcer
D. Blister->Redness-> Necrosis-> Ulcer

Question 5: A 82 year old male having home care by his family members. The pressure ulcer at his buttock has the size of 1 x 2 x 0.8 cm, and his subcutaneous tissue is pink and can be seen. Which stage of ulcer do you assess in this patient?

A. Stage I
B. Stage II
C. Stage III
D. Stage IV

Question 6: To prevent pressure ulcer for stroke patient, the minimal time for posture changing is:

A. Every 30 minutes
B. every two hours
C. every one hour
D. every three hour

Question 7: A 85 year old patient, who was assessed as 16 scores by Braden scale. Base on this information, how does the nurse make nursing care plan for this patient?

A. Perform posture change every two hours and assess skin status.
B. Cover hydrocoloid bandage on sacrum of patient to prevent incidence.
C. Elevate the bed head at 900 angle when patient lies supine
D. Continue to assess skin every week without any special preventive measure

2. Practical scenario

Patient Tran Thi H. 65 years old, height 1.55 m, body weight 57 kg. Patient is conscious, hemiplegic due to complication of stroke one month ago. At home, she eats as her needs (when she feels good appetite and she is able to each much). She hesitates to have bath because she afraid to make incovenience for her children. She has regular visit in the hospital. Through examination, the nurse recognizes:

- Patient is conscious and hemiplegic at right side
- Body temperature 36.8°C, breath rate 20 times/ minute, mạch 80 times/ minute, blood pressure 150/80mmHg
- Her left shoulder and hip has a red skin with diameter of 3 - 4 cm with oedema and skin stretch.
- She can not control urination and has to use diaper.

**Questions:**
1. Please tell your assessment about patient H situation.
2. Perform assessment of pressure ulcer risk of patient H according to Braden scale?
3. Perform nursing care technique for pressure ulcer of patient H?
4. Communicate and instruct patient’s family to take preventive measures for progressive ulcer? (role play practice)

**Answer:**

**Select the most correct answer**

| Question 1: A | Question 2: D |
| Question 3: D | Question 4: A |
| Question 5: C | Question 6: B |
| Question 7: A |

**Competency based assessment checklist for pressure ulcer prevention and care**

<table>
<thead>
<tr>
<th>No</th>
<th>Competencies</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Can do independently without support (2)</td>
</tr>
<tr>
<td>1</td>
<td>Able to assess the signs and stages of pressure ulcer.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Use Braden scale to assess level of pressure ulcer risk of patient.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>To perform pressure ulcer nursing care stage I, II for patients properly and safety according to technical procedure.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>To instruct patients and patient family about preventive measure for pressure ulcer.</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES**

LESSON 20

EXCRETION CARE

OBJECTIVES

1. Assess the needs of patient about application of excretion care (competency 1.1; 1.2; 2.1; 2.2; 3.1; 4.1; 4.3)

1. Perform techniques for excretion support, urinary catheterization, urinary drainage, enema: ensure procedure compliance, safety and suitable with patient’s conditions (competency 2.3; 2.4; 3.2; 4.2; 4.4; 4.5; 4.6; 4.7; 4.9; 5; 6; 8.2; 8.3; 16.3, 20.2; 20.4; 24.1; 25.2)

2. Instruct patients and patient family use bed pan, urinal, Uridom for draining urine suitable with excretion needs of patients (competency 4.6; 8.2; 11.3; 14)

CONTENTS

1. Introduction

According to Maslow’s hierarchy of human needs, the needs of excretion belong to physical needs. The needs must be met minimally to maintain vitality. When patients get sick or changes his/ her excrete function, they may not maintain routine excretion habit. It requires the supports of healthcare workers and patient. In order to meet the needs of excretion for patient, nurses must be equipped sufficient knowledge on excretion process, then they will be able to assess, make and implement excretion care plan for patients, including the contents of guidance for patients, patient families to use devices for excretion support. Provision of excretion support is a work that requires privacy and subtle attitude. Therefore, nurses should create a close, comfortable space and respect culture of patients.

Skill groups for excretion care consist of:

- Excretion support
  - Give guidance and support patients to use bed pan and urinal for defecation and urination
  - Instruct patient to use Uridom for urinary drainage in male patient

- Urinary catheterization, urinary drainage

- Enema
2. Give guidance and support patients, patient family to use bed pan, urinal

2.1. Some notices when using bed pan, urinal:

- For bed pan, urinal having handle, nurse should hold the handle when using, placing bed pan, urinal to support patient urinate or defecate. When taking out the bed pan, use two hands. One hand hold the handle and another one keep the other side of bedpan. If using only one hand, there might be the risk of pouring out water to outside.

- For bed pan, urinal without handle, use two hands to place and take out the pan.

- There are many kinds of bed pan, urinal, but nurses should choose the one, which has cap and handle, the contact surface of the pan is large enough to give instruction to patients. Ensure safety during defecation and urination, avoid influence to the surrounding environment.

- Communication skill, skill for exploiting patient’s needs (Refer communication skill)

- Excretion of patient also depends on different region, area and depends on each individual patient. Patients, who live in rural area, do not have defecation and urination habit using the pan. Therefore, they will be really hesitate and difficult to use bed pan, urinal.

2.2. Practical procedure for supporting and instructing patients to use bed pan, urinal

2.2.1. Assessment

- Assessment of the factors that cause obstacles during performance of skills such as collaboration of patients/ patient family, personality of patient; requirements of treatment; immobility or other treatment requirements in orthopedics.

- Assessment of equipment for treatment and caring of patients, injuries of patients such as lesions, ulcer.

- Assessment of defecation, urination disorders in patients; vital signs

- Assessment of comfortable level when patients defecate, urinate. Notice the painful signs, painful level after urination, abdominal pain, rectal pain and the skin around anus becomes swollen, redness etc.

- Assessment of privacy for patient: close curtain, door

2.2.2. Tools

- Bed pan, urinal.

- Clean gloves; Toilet tissue paper.

- Clean clothes, towel.

- Towel for covering the pan after defecation (if any)

- Disinfectant solution; anti smell substance (if any)
### 2.2.3. Implementation steps

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Placement for defecation and for female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Wash hands, wear clean gloves.</td>
<td>To reduce the risk of infection.</td>
</tr>
<tr>
<td>2</td>
<td>Check, rearrange the tools suitably.</td>
<td>Limit interruption during performance process.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Convenient for performing this technique.</td>
</tr>
<tr>
<td>3</td>
<td>Communicate, explain to patient before implementation.</td>
<td>Create friendship, sympathy and patient feels secure and collaboration</td>
</tr>
<tr>
<td>4</td>
<td>Place patient on supine position</td>
<td>Convenient for placement of bed pan, urinal</td>
</tr>
<tr>
<td>5</td>
<td>Make warm the bed pan by hot water (if necessary). Put talc powder on the pan.</td>
<td>To help patient feels comfortable, avoid the pan sticks to the skin and causes skin damage.</td>
</tr>
</tbody>
</table>

*Figure 1: Pan for defecation. Reference: Nguyen Thi Minh Chinh and Vu Thi La (2019), Basic Nursing 2*

*Figure 2: Bed pan*

*Bed pan (fracture pan)*

*Figure 3: Male urinal. Reference: Nguyen Thi Minh Chinh and Vu Thi La (2019), Basic Nursing 2*
<table>
<thead>
<tr>
<th></th>
<th>Patient lies on one side; place the pan equal to patient’s buttock. The lower part of pan near the patient’s back, the higher part is near the thigh.</th>
<th>Ensure the pan enter suitable position before placing the patient’s buttock on the pan.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Place the pan in position: one hand keeps the pan during helping patient come back the supine position, at the same time, put the pan in correct position.</td>
<td>Avoid wrong direction of pan.</td>
</tr>
<tr>
<td>8</td>
<td><em>For paralysis patient:</em> Place your hand under the lumbar of patient, your elbow on the bed to elevate patient’s lumbar. Another hand pull the bed pan, lower part come nearly to the back of patient and higher part is at the middle of patient’s thigh. <em>(is able to help patient to elevate the lumbar of patient by bedside hanger– if possible)</em></td>
<td>Ensure pan placed in proper position</td>
</tr>
<tr>
<td>9</td>
<td>Check position of pan</td>
<td>Prevent urine or stool drop outside.</td>
</tr>
<tr>
<td>10</td>
<td>Elevate bed head at anger 45° (if there is not contraindication). Let patient move/ urinate.</td>
<td>To create comfortableness during defecation and urination. <em>Remember doctor’s instruction: in case of patient having spinal trauma, keep the bed and patient’s position at supine position to avoid further injury.</em></td>
</tr>
<tr>
<td>11</td>
<td>Instruct patient to call nurse after defecation.</td>
<td>Create privacy, comfortable space for patient during defecation and ensure safety for patient.</td>
</tr>
<tr>
<td>12</td>
<td>Remove gloves, wash hands.</td>
<td>To reduce risk of infection.</td>
</tr>
</tbody>
</table>

**B. Placement of male urinal**

<table>
<thead>
<tr>
<th></th>
<th>Repeat steps 1, 2 and 3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Placeurinal suitable with patient’s position: turn on one die, sitting or standing;</td>
</tr>
<tr>
<td>5</td>
<td>Exposure position of urinal placement, instruct patient to hold the urinal cover the penis. If patient cannot hold the penis, the nurse should place urinal at penis position.</td>
</tr>
</tbody>
</table>

*Figure 4: Placement of male urinal.*
### C. Remove bed pan, urinal

<table>
<thead>
<tr>
<th>No</th>
<th>Task Description</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wear clean gloves</td>
<td>To reduce risk of infection.</td>
</tr>
<tr>
<td>2</td>
<td>Instruct patient/ patient family on hygiene of anus and genitalia. If patient is not able to do hygiene, nurse can help.</td>
<td>Ensure hygiene after defecation and urination. Limit infection.</td>
</tr>
<tr>
<td>3</td>
<td>Help patient elevate buttock or turn the body and remove bed pan/ urinal. Be careful to avoid injury of skin at patient’s buttock and avoid pouring out to the bed.</td>
<td>Return back clean environment for patient. Limit skin injury.</td>
</tr>
<tr>
<td>5</td>
<td>Remove gloves, wash hands</td>
<td>To reduce risk of infection</td>
</tr>
<tr>
<td>6</td>
<td>Help patient return back relax position or therapeutic position as indication.</td>
<td>Ensure comfortable and proper position, limit complications.</td>
</tr>
<tr>
<td>7</td>
<td>Write down medical record - Amount of urine, defecate excreted. - Characteristic of urine, defecate - Patient status during defecation/ urination</td>
<td>Monitor patients</td>
</tr>
</tbody>
</table>

**Checklist for performance of technique in giving guidance and supporting patient to use bed pan for urination and defecation**

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Assessment of patient</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Preparation of tools</td>
<td></td>
</tr>
</tbody>
</table>

**A. Placement of bed pan and female urinal**

1-2 | Repeat step 1 and 2                                                   |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Wash hands, wear clean gloves.</td>
</tr>
<tr>
<td>4</td>
<td>Communicate, rearrange device suitably.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>5</td>
<td>Contact, explain patient before implementation.</td>
</tr>
<tr>
<td>6</td>
<td>Place patient on supine position</td>
</tr>
<tr>
<td>7</td>
<td>Make warm, put talc powder on the bed pan</td>
</tr>
<tr>
<td>8</td>
<td>Place bed pan/urinal</td>
</tr>
<tr>
<td>9</td>
<td>Check bed pan/urinal position</td>
</tr>
<tr>
<td>10</td>
<td>Let patient urinate/defecate.</td>
</tr>
<tr>
<td>11</td>
<td>Instruct patient to call nurse after finishing urination and defecation.</td>
</tr>
<tr>
<td>12</td>
<td>Remove gloves, wash hands.</td>
</tr>
</tbody>
</table>

**B. Placement of male urinal**

1-3 | Repeat step 1 to 3 |
4 | Place urinal suitable with patient’s position |
5 | Exposure position for placement of bed pan |
6 | Instruct or place the bed pan at the penis of patient, ask patient to call nurse |
7 | Instruct patient to call nurse/patient family after finishing urination |
8 | Remove gloves, wash hands |

**C. Remove bed pan, urinal**

1-2 | Repeat step 1 and 2 |
3 | Wear clean gloves |
4 | Instruct/support patient to do hygiene anus, genitalia. |
5 | Help patient to elevate or turn the body and remove pan. |
6 | Throw the waste. Process device and keep at the position. Measure amount, observe characteristics of urine/defecation. |
7 | Remove gloves, wash hands |
8 | Place patient at relax or therapy position according to indication. |
9 | Write down medical record |
3. Instruct patient use Uridom for urinary drainage in female patient

3.1. Some notices when using Uridom

- Uridom is a device that help male patient to drain urine in some urination disorder (uncontrolled urination).
- Notices for use of uridom: Timing of uridom usage does not like condom use. Uridom place on patient’s penis in normal condition. Therefore, it is necessary to select the size of Uridom suitable with the size of penis.
- Uridom insertion manipulation is easy to make penis erection (especially in young patient). Therefore, when performing manipulation for uridom insertion, nurse should tell patient to limit stimulation for penis erection, avoid physiological response of patient for Uridom insertion.
- When instruct patient to use uridom in case of penis erection, nurse should be calm because this is a normal physiological phenomenon. It takes time for penis to come back normal condition or psychological therapy can be used to help patient control stimulation.

3.2. Technical procedure for instructing patient use Uridom to drain urine in male patient

3.2.1 Assessment

- Patient’s psychological status
- Status of skin surrounding penis and neighboring area.
- Understanding and collaboration of patient about usage of Uridom for urinary drainage
- Amount of urine and type of urination disorder.

3.2.2 Tool

- Uridom; Clean gloves; Warm water and soap; Towel

3.2.3 Implementation steps

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wash hands, wear gloves</td>
<td>To reduce risk of infection</td>
</tr>
<tr>
<td>2</td>
<td>Check device fully.</td>
<td>Limit interruption during implementation.</td>
</tr>
<tr>
<td>3</td>
<td>Communicate, explain to patient before implementation.</td>
<td>Create close relationship between nurse and patient, patient feel secure and collaboration well.</td>
</tr>
<tr>
<td>4</td>
<td>Use curtain for partition or close the door.</td>
<td>Ensure privacy for patient.</td>
</tr>
<tr>
<td>5</td>
<td>Patient lies on convenient posture, the best is supine. Elevate the bed suitable with the height of nurse.</td>
<td>Patients are comfortable. Supine position is easy for cleaning and placement of uridom. Convenient for nurse’s manipulation</td>
</tr>
<tr>
<td>6</td>
<td>Cover the towel on patient’s abdomen up to patient’s legs.</td>
<td>Create privacy, reduce hesitation, shy for patient.</td>
</tr>
<tr>
<td>7</td>
<td>Hygiene of gian and surrounding area of penis by soap and warm water</td>
<td>Clean, remove microorganism, prevent infection risk for urinary tract infection</td>
</tr>
<tr>
<td>No</td>
<td>Contents</td>
<td>Achievement level</td>
</tr>
<tr>
<td>----</td>
<td>----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>8</td>
<td>Place penis to be normal position</td>
<td>Prevent penis erection</td>
</tr>
<tr>
<td>9</td>
<td>If using device package, prepare solution for protection of skin surrounding penis. If penis ereccts, wait until it becomes normal.</td>
<td>Avoid damage of skin around penis area.</td>
</tr>
<tr>
<td>10</td>
<td>Insert uridom on the top of penis insert to cover it fully. Keep the gap 2.5 - 5 cm between top of penis and end part of uridom.</td>
<td>To prevent compression and damage of top of penis.</td>
</tr>
<tr>
<td>11</td>
<td>Connect drainage system with uridom. Ensure drainage tube locate on patient thigh. Tie the drainage tube and place next to the bed</td>
<td>Ensure drainage bag lower than bladder to prevent reflux of urine. Do not fold the drainage tube to facilitate urine flow out.</td>
</tr>
<tr>
<td>12</td>
<td>Make sure uridom and drainage tube are not bundle</td>
<td>If uridom or drainage tube are bundle, urine cannot flow out and uridom will be leaked or removed</td>
</tr>
<tr>
<td>13</td>
<td>Cover patient</td>
<td>Patient in close status</td>
</tr>
<tr>
<td>14</td>
<td>Tidy up device, remove gloves, wash hands</td>
<td>To reduce risk of infection</td>
</tr>
<tr>
<td>15</td>
<td>Place patient on convenient posture</td>
<td>Ensure safety, avoid fall.</td>
</tr>
<tr>
<td>16</td>
<td>Remove urine (every 4 hours), measure amount of urine and write down medical record.</td>
<td>Prevent too full and too heavy bag</td>
</tr>
<tr>
<td>17</td>
<td>Change uridom everyday to clean penis and to assess skin surrounding penis.</td>
<td>Hygiene and reduce possibility of skin damage</td>
</tr>
<tr>
<td>18</td>
<td>Write down medical record: - Quality, quantity of urine - Status of penis and surrounding skin - Patient’s psychology</td>
<td></td>
</tr>
</tbody>
</table>

**Checklist for instruction of patient using Uridom for draining urine in male patient**

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assessment patient</td>
</tr>
<tr>
<td>2</td>
<td>Preparation of tools</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>3</td>
<td>Wash hands, wear gloves</td>
</tr>
<tr>
<td>4</td>
<td>Check device fully.</td>
</tr>
<tr>
<td>5</td>
<td>Communicate, explain to patient</td>
</tr>
<tr>
<td>6</td>
<td>Use curtain for partition or close the door.</td>
</tr>
<tr>
<td>7</td>
<td>Place patient on convenient position. Elevate the bed suitably.</td>
</tr>
<tr>
<td>8</td>
<td>Cover towel from patient’s abdomen to the legs.</td>
</tr>
<tr>
<td>9</td>
<td>Hygiene of gians and surrounding area of penis by soap and warm water</td>
</tr>
<tr>
<td>10</td>
<td>Place penis to be normal position</td>
</tr>
<tr>
<td>11</td>
<td>If penis erects, wait until it becomes normal.</td>
</tr>
<tr>
<td>12</td>
<td>Insert uridom on the top of penis insert to cover it fully.</td>
</tr>
<tr>
<td>13</td>
<td>Connect drainage system with uridom.</td>
</tr>
<tr>
<td>14</td>
<td>Make sure uridom and drainage tube are not bundle</td>
</tr>
<tr>
<td>15</td>
<td>Cover patient</td>
</tr>
<tr>
<td>16</td>
<td>Tidy up device, remove gloves, wash hands</td>
</tr>
<tr>
<td>17</td>
<td>Place patient on convenient posture</td>
</tr>
<tr>
<td>18</td>
<td>Remove urine (every 4 hours), measure amount of urine and write down medical record.</td>
</tr>
<tr>
<td>19</td>
<td>Change uridom every day. Assessment of skin status surrounding penis.</td>
</tr>
<tr>
<td>20</td>
<td>Write down medical record</td>
</tr>
</tbody>
</table>

### 4. Urinary catheterization – urinary drainage

#### 4.1. Some notices during urinary catheterization – urinary drainage

- Ensure sterile principle
- Cultural characteristics when showing genitalia in front of others. Therefore, when performing this skill, it requires to ensure privacy, especially for young patient. If possible, assign the nurse having the same gender with patient.
- Injuries due to incorrect insertion of catheter:
  - Scratch of urethra.
  - Urethral disruption.
  - Rectal perforation
  - Bladder neck perforation.
- Urinary catheterization insertion must be done gently, avoid damage of urethra, bladder and hymenal ring.
- In case of urinary retention, do not drain all urine to avoid bladder bleeding.
- In case of inserting urinary catheterization: there are two case.
  + Take urinary specimen for testing in a short time: collect urinary specimen of patient from 1 – 2 hours.
  + Collect urinary specimen in a long time (24 hour urine collection): collect the specimen in amount of urine excretion in 24 hours.

4.2. Technical procedure for insertion of urinary catheterization for urinary drainage

4.2.1. Assessment
- Assessment of urethral hole, bladder
- Assessment disease condition: emergency, surgery, trauma, urinary disorder
- Identify timing when patient urinates last time
- Assessment of urinary tract infection status
- Assessment psychology, patient’s understanding about insertion of urethral catheterization
- Assessment of obstacles may happen during implementation

4.2.2. Tools
- Towel under the patient’s buttock to ensure hygiene of the bed
- Surgical hole towel
- Device set for disinfection of genitalia
- Solution for lubricating catheter
- Urine container
- Hand rub solution
- Warm water, soap, distilled water
- Towel
- Clean gloves.
- Sterile gloves
- Syringe 10ml
- Urethral catheter (Foley): suitable with patient.
- Fixation tape.

![Figure 5: Foley catheter. Reference: Nguyen Thi Minh Chinh and Vu Thi La (2019), Nursing basic 2](image)

- Urine bag.

![Figure 6a: Mobile urine bag. Hang on the thigh](image)  
![Figure 6b: Fixed urine bag Hanging at bed.](image)

4.2.3. Implementation

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wash hands.</td>
<td>Limit infection.</td>
</tr>
<tr>
<td>2</td>
<td>Communicate, explain to patient/family before performing procedure.</td>
<td>Create collaboration of patient/ family.</td>
</tr>
<tr>
<td>3</td>
<td>Preparation of tools fully. If tool in a package, it is necessary to check expire date and intact of device package.</td>
<td>Limit interruption during implementation. Ensure safety and prevent infection</td>
</tr>
<tr>
<td>4</td>
<td>Use curtain for partition or close the door</td>
<td>Ensure privacy for patient.</td>
</tr>
<tr>
<td>5</td>
<td>Cover the towel under the patient’s buttock, cover the towel on patient body and take off trousers, wrap the legs.</td>
<td>Ensure hygiene for patient and for bed. Ensure privacy and convenient when performing the technique. Convenient in performing the technique.</td>
</tr>
<tr>
<td></td>
<td>Male patient: lie on supine position, open the legs. Female patient: lie as obstetric posture.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Place the astray in between patient’s thigh. Convenient during performance of manipulation.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Roll up covered towel to exposure genitalia, rub the hands, open device package and sterile astray, wear sterile gloves. Exposure genitalia. Prevent infection.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Try to inflate and release balloon: - Use syringe 10 ml inject in a branch tube of catheter 10ml to check the balloon. - Release the balloon. Aspirate 10ml distilled water in syringe. Connect the tube in drainage system (if use a linen surgical hole towel, insert the tube through the hole). Check the lamp and ensure good use. Check insert ball. Ensure close urinary drainage and to limit urine go out.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Lubricate the tip of catheter and place in bean shape astray Easily insert the tube into urethral hole, limit damage of urethral hole</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Cover surgical hole towel Create the space for disinfection.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Exposure urethral hole - Male patient: keep penis at right angle with body. Exposure the urethral hole and gently pull the penis. - Female patient: roll up Labium majus to show an urethral hole. - Wide disinfection of genitalia Easily insert catheter into urethra.</td>
<td></td>
</tr>
</tbody>
</table>

*Posture of female patient.*
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Instructions</th>
</tr>
</thead>
</table>
| 14   | Insert catheter into urethra. | - For male patient: depth about 16 to 20cm.  
- For female patient: depth about 4-6cm.  
- For children: insert the catheter until urine goes out.  
To create a tube to drain urine from bladder to outside through urethra. |
| 15   | When urine goes out, insert the tube with the depth 4cm more. | Ensure the balloon do not make damage of bladder neck and urethra. |
| 16   | Inflate the balloon: | Prepare to inflate balloon to keep the catheter  
Insert syringe containing 10ml of distilled water in a balloon port.  
Inflate the balloon, stop it when patient feels uncomfortable and painful. Remove syringe.  
Prepare to inflate balloon to keep the catheter  
Avoid blockage due to balloon does not enter completely inside bladder. Keep the catheter not come out. |
| 17   | Adjust catheter position: Use the hand to pull out the catheter out until you feel it is stuck, then stop pulling out. | To limit leakage of urine |
| 18   | Fixation of catheter: | Prevent stretch of catheter due to movement or stick. Limit damage of bladder neck due to contacting with balloon. |
| 19   | Hang urinary drainage bag, do not place on the floor | Drainage bag is lower than bladder position in order to create one way urine drainage from bladder to the bag |
| 20   | Remove gloves, tidy up tool, wash hands. | To limit infection |
| 21   | Support patient to wear trousers/ or cover by blanket  
Help patient come back comfortable position. | To create comfortableness, safe, privacy for patient. |
| 22   | Write down medical record | Monitor patient and take the legal responsibility. |
|      | - Size of catheter  
- Quantity, color, characteristics of urine  
- Volume of balloon keeping  
- Patient’s status before, after insertion of catheter | |
**Checklist for urinary catheterization - urinary drainage technique**

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Achievement level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>1</td>
<td>Wash hands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Explain to patient.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Prepare tools fully.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Use curtain as a partition or close the door</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Cover the towel under the patient’s buttock, cover the towel on patient body and take off trousers, wrap the legs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Place patient at suitable posture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Adjust the height of bed, pull safety bed rail.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Place astray of device in between patient’s thigh.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Roll up covered towel to exposure genitalia, rub the hands, open device package and sterile astray, wear sterile gloves.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Try to inflate and release balloon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Lubricate the tip of catheter and place in bean shape astray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Stretch out surgical hole towel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Exposure urethral hole, genitalia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Insert catheter into urethra.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>When urine drains out, insert catheter inside more 4cm depth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Inflate balloon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Adjust catheter position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Fixation of catheter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Hand urinary drainage bag, do not place directly on the floor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Remove gloves, tidy up device, wash hands.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Help patient to wear trousers/ stretch out blanket, return to comfortable posture.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Write down medical record</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Enema administration

5.1. Some notices for enema administration
- Indications
  + Long time constipation
  + Before undergoing abdominal surgery, especially colon surgery.
  + Before undergoing colon contrast X ray
  + Before undergoing endoscope of abdomen, rectum, colon.
  + Before delivery
  + Before undergoing enema retention.
- Contraindications: ileus, enteritis, typhoid fever, digestive infection, recent rectal or anal surgery.
- Solutions for cleansing enema: physiological sodium, clean water, isotonic solution, diluted soap solution, medicine for bowel movement increase.
- The depth of catheter inserted from patient’s anus to the rectum depends on his/ her age.
  + Adult: 6-7 cm less than 7 cm to prevent Rectal perforation
  + Children 2- 11 years old: 3-6 cm
  + Children 0- 1 years old: 3- 4 cm
- Stop enema when patient feels abdominal pain, uncomfortable or wants to defecate. When these signs are gone, continue cleansing enema with low pressure.

5.2. Practical procedure for enema technique

5.2.1. Assessment
- Balance of in – out fluid, status of anus
- Complaints of patient, painful and uncomfortable during defecation.
- Obstacle, adverse factors during performance of technique
- Psychological status, dietary regime, physical exercise, the last defecation time, defecation habit, drug administration regime, posture during defecation, abdominal status.

5.2.2. Device
* Large volume enema device
- Rectal catheter:
  + Adult: 22-30 Fr
  + Children ≥ 12 years old: 16-18 Fr
  + Children 2- 11 years old: 14-16 Fr
  + Children 0- 1 years old: 10-12 Fr.
- Kits for enema.
- Drape covered patient’s buttock; coating sheet under patient’s buttock
- Lubrical solution or Vaseline.
- Clean gloves; Toilet tissue paper.
- Partiton.
- Disinfectant solution; Anti – smell substance if necessary
- Defecation pan if patient is not able to go to toilet.
- Enema cleansing fluid: volume of fluid depends on patient’s age
  + Adult: 750 - 1000 ml
  + Children ≥ 12 years old: 500 - 700 ml
  + Children 5- 11 years: 300 - 500 ml
  + Children 2- 4 years old: 250 - 350 ml
  + Children 0- 1 years old: 150 - 250 ml

Enema cleansing fluid should be warm up before administration.
*Small volume Enema device:* enema cleansing fluid paced in the bottle/ box/ package.

![Figure 9: enema cleansing fluid package](image)

### 5.2.3. Implementation steps

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Enema administration using water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Wash hands</td>
<td>To reduce risk of infection</td>
</tr>
</tbody>
</table>
| 2 | Contact, explain to patient and make him/ her feel secure  
   - Inform and explain to patient and patient family about the procedure; comfort patients to be secure and collaborative during performance of procedure;  
   - Instruct patients necessary things. Do not perform enema during eating time or patient visiting time. | Identify patient’s understanding about catheter insertion, the needs of patient.  
Reduction their worry. |
| 3 | Check and rearrange tools suitably | To prevent interruption during performance of the technique.  
Convenient for manipulations. |
<p>| 4 | Use curtain as a partition or close the door | To ensure privacy for patient |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Place coating sheet for aborting fluid under patient’s buttock. Patient lies on left side, fold the right leg. This posture allows water to enter patient’s rectum easily. Folding leg helps to exposure anus easily. Notice: if patient has orbicularis paralysis or children, place them on supine position on the pan.</td>
</tr>
<tr>
<td>6</td>
<td>Check water temperature Enema will be the most effective when using warm water. When water is too hot, it may cause damage of intestinal membrane, or too cold water will cause intestinal contraction.</td>
</tr>
<tr>
<td>7</td>
<td>Pour enema fluid into the bag or cylinder, remove air and lock it. Too much air goes to intestine will cause uncomfortable and intestinal dilatation</td>
</tr>
<tr>
<td>8</td>
<td>Wear clean gloves To avoid contact with stool</td>
</tr>
<tr>
<td>9</td>
<td>Lubricate tip of catheter 6-8cm To avoid damage of anus when inserting catheter</td>
</tr>
<tr>
<td>Step</td>
<td>Instruction</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>10</td>
<td>Insert Rectal catheter into anus – rectum: One hand stretches a buttock, another hand insert catheter gently, ask patient breathe in deeply.</td>
</tr>
<tr>
<td>11</td>
<td>Elevate the fluid bag/cylinder (in adult # 50 -80 cm) and open the lock to allow fluid come in rectum.</td>
</tr>
<tr>
<td>12</td>
<td>Let fluid flow with slow speed.</td>
</tr>
<tr>
<td>13</td>
<td>When fluid come in fully or patient can not keep water, lock the valve and withdraw rectal catheter out of rectum.</td>
</tr>
<tr>
<td>14</td>
<td>Ask patient keep water inside about 10 -15 minutes or longer if possible. Keep 2 buttocks of newborn and small infant in some minutes.</td>
</tr>
<tr>
<td>15</td>
<td>Clean anus: clean by toilet tissue paper.</td>
</tr>
<tr>
<td>16</td>
<td>Keep patient continue to lie on right side.</td>
</tr>
<tr>
<td>17</td>
<td>Help patient to defecate When patient cannot keep the fluid, help patient go to the toilet or place the pan for patient to defecate at bed.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>18</td>
<td>Hygiene: After patient defecate, help patient to do hygiene of anus and genital area</td>
</tr>
<tr>
<td>19</td>
<td>Let patient return to comfortable posture, place one more coating sheet under the buttock to prevent some stools still eject.</td>
</tr>
<tr>
<td>20</td>
<td>Remove gloves and wash hands</td>
</tr>
<tr>
<td>21</td>
<td>Assess characteristics of stool and write down medical record  - Amount of in – fluid, type and size of catheter.  - Amount of out – stool, color, smell, quantity.  - Enema time, keeping time of enema cleansing fluid inside colon.  - Defecation situation and general condition of patient.</td>
</tr>
</tbody>
</table>

**B. Small amount enema, ready packed fluid**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wash hands</td>
<td>To reduce risk of infection</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Take the enema fluid bag out of package  Carefully read instruction.  Soak enema fluid inside warm water before usage.</td>
<td>To prepare enema solution  Check quality of product, read instruction for use properly with the design of bottle (pot, type)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Wear clean gloves</td>
<td>To prevent contact with stool</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Place coating sheet for aborting fluid under patient’s buttock. Patient lies on left side, fold the right leg.</td>
<td>Help to expose anus easily. Convenient for pumping enema cleansing fluid.</td>
<td></td>
</tr>
</tbody>
</table>

*Figure: ready packed enema cleansing fluid*

*Patient’s posture on one side and holding ready packed enema cleansing fluid*
<table>
<thead>
<tr>
<th>No</th>
<th>Action</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Remove the lid of enema fluid bottle, lubricate the tip of tube.</td>
<td>To prevent damage of anus and rectum.</td>
</tr>
<tr>
<td>6</td>
<td>Slightly press the bottle to remove air from tip of tube.</td>
<td>Limit air coming rectum</td>
</tr>
<tr>
<td>7</td>
<td>Insert the tip of tube inside anus: ask patient breathe in deeply,</td>
<td>Limit anal spasm to facilitate entrance of tip. Avoid damage of rectal wall.</td>
</tr>
<tr>
<td></td>
<td>slightly insert the tip of tube inside anus towards to umbilicus.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Press the bag until enema cleansing fluid enter totally inside anus</td>
<td>Sufficient dose for stimulating colon.</td>
</tr>
<tr>
<td></td>
<td>and ask patient try to keep fluid until they cannot keep, it is about</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15 minutes.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Remove the tip of tube from anus and remove waste</td>
<td>To prevent infection</td>
</tr>
<tr>
<td>10</td>
<td>Implement the same as steps from 15 to 19 of large volume enema</td>
<td>See steps from 15 to 19.</td>
</tr>
<tr>
<td></td>
<td>technique by enema cleansing fluid</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Remove gloves, wash hands</td>
<td>Limit contamination of microorganism</td>
</tr>
<tr>
<td>12</td>
<td>Write down medical record:</td>
<td>To monitor disease status and take legal responsibility</td>
</tr>
<tr>
<td></td>
<td>- Type of enema fluid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Stool eject: amount, color, smell</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Defecation status of patient</td>
<td></td>
</tr>
</tbody>
</table>

**Practical Checklist for enema technique**

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Achievement level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>1</td>
<td>Assess patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Preparation of tools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Wash hands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Communicate, explain to patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Check again tools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Use curtain for partition or close the door</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**A. Enema administration using water**

<table>
<thead>
<tr>
<th>No</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Wash hands</td>
</tr>
<tr>
<td>4</td>
<td>Communicate, explain to patient</td>
</tr>
<tr>
<td>5</td>
<td>Check again tools</td>
</tr>
<tr>
<td>6</td>
<td>Use curtain for partition or close the door</td>
</tr>
</tbody>
</table>

*Pump enema cleansing fluid.*
<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
</tr>
</thead>
</table>
| 7    | Place towel under patient’s buttock  
      | Place patient’s posture |
| 8    | Check water temperature |
| 9    | Pour water in the enema fluid bag/cylinder, remove air and lock the valve |
| 10   | Wear clean gloves |
| 11   | Lubricate tip of rectal catheter |
| 12   | Insert rectal catheter for enema in anus – rectum |
| 13   | Elevate fluid bag and open valve to allow fluid enter rectum |
| 14   | Let fluid comes in with slow speed |
| 15   | Lock the valve and withdraw rectal catheter out of rectum |
| 16   | Ask patient to keep water inside rectum |
| 17   | Clean anal area |
| 18   | Let patient continue to lie on left side |
| 19   | Help patient prepare to defecate |
| 20   | Help patient to do hygiene of anal area, wear trousers |
| 21   | Let patient return back to the ward and lie on comfortable posture. |
| 22   | Remove gloves and wash hands |
| 23   | Evaluate characteristics of stool and write down medical record |

**B. Small amount enema, ready packed fluid**

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wash hands</td>
</tr>
<tr>
<td>2</td>
<td>Soak enema fluid in the water before usage.</td>
</tr>
<tr>
<td>3</td>
<td>Wear clean gloves</td>
</tr>
<tr>
<td>4</td>
<td>Place coating sheet under patient’s buttock, place patient’s posture</td>
</tr>
<tr>
<td>5</td>
<td>Remove the lid of bottle, lubricate the tip of tube</td>
</tr>
<tr>
<td>6</td>
<td>Remove air</td>
</tr>
<tr>
<td>7</td>
<td>Insert the tip of tube inside anus and rectum</td>
</tr>
<tr>
<td>8</td>
<td>Press the bag until enema cleaning fluid enter totally in rectum.</td>
</tr>
</tbody>
</table>
Remove the tip of tube out of anus and dispose

Clean anus, ask patient keep drug in a certain time

Help patient to defecate

Help patient after defecation
Help patient to wear trousers and return to the ward

Remove gloves, wash hands

Write down medical record

**EVALUATION QUESTION**

1. Select True (T) or False (F) answer for following question

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>T</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>According to Maslow, excretion needs belong to group of safety needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Uridom is a tool that helps female patient to drain urine in some case of urinary disorder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Change uridom every time of urination in order to clean penis and to assess skin status surrounding penis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Do not perform enema when patient suffers from diarrhea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The most common seen complications of urinary catheterization is urethral disruption</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Select the most correct answer

**Question 1: When performing excretion support for patient, nurse should**

A. Ensure privacy.
B. Ensure the close space
C. Ensure the close space, privacy
D. Ensure the close space, privacy and respect culture of patient

**Question 2: According to the needs of Maslow, excretion needs is belong to the group of**

A. Physical – physiological group
B. Safety group
C. Social group
D. Respect group

**Question 3: Management way in case of penis erection when using Uridom**

A. Continue to perform because Uridom does not cause influence to patient’s penis
B. Be calm, wait for penis becomes normal and continue to perform technique.
C. Continue to perform technique.
D. Continue to perform technique, if impossible, stop it.

**Question 4: Factors influenced to urinary excretion**
A. Drug, disease condition
B. Drug, dietary regime
C. Drug, disease condition, dietary regime,
D. Disease condition, dietary regime.

**Question 5: When performing enema with small amount, the necessary amount of fluid for ejection of stool is**
A. 50 - 200ml
B. 200 - 250ml
C. 250 - 300ml
D. 300 - 350ml

**Question 6: Benefit of using Uridom for excretion support compared with urinary catheterization is**
A. To support patient having uncontrolled urination
B. Support patient with difficult urination
C. Limit inflammation, damage of urinary tract
D. The same effect as urinary catheterization

3. Practical scenario

**Scenario 1**

Patient Do Van T, 27 years old, admits in hospital for emergency surgery due to brain surgery because of traffic accident. After operation, patient is legarthy, Glasgow 10 scores; normal skin, membrane; pulse 78 rates/ minute, arterial blood pressure 120/75 mmHg, breath rate 17 rates/ min; uncontrolled urination

**Question:**
1. Please tell your assessment about status of patient T?
2. Please tell measures for urinary care for patient T?
3. Instruct patient family to use Uridom for urinary drainage for patient?

**Scenario 2**

Patient Nguyen Van B. 68 years old admitted in the hospital with diagnosis of Calculus of gallbladder. At present, patient is conscious, good communication, mild yellow skin, membrane. Vital signs: pulse 85 rates/ min, blood pressure 130/85 mmHg, body temperature 37,3°C, breathing 20 rates/ min. Patient is thin and abdominal tension. Patient is indicated by doctor to perform enema of colon before surgery.
Question:
1. Please tell your assessment about patient B?
2. If you are a nurse, who prepare patient before surgery, what kind of enema will you select? Please explain your selection?
   A. Enema administration using water,
   B. Enema using ready packed cleansing fluid
   C. One of two ways is alright
3. Perform enema technique for patient (on simulator)?

Scenario 3

Patient Nguyen Thi L, 68 years old, is diagnosed with stroke due to hypertension. At present, patient is lying on bed, open the eyes when having call, answers slowly to question, paralysis at the left side of body, uncotrolled urination, vital signs: pulse 80 rate/minute, blood pressure 160/80 mmHg, breath rate: 22 rates/ min, body temperature: 37.5°C.

Head nurse of department request the trainees to discuss about excretion support method for this patient.

Question:
1. Please explain your assessment about patient L.
2. Please tell excretion supportive method for patient L? And select 01 suitable method for patient L, explain your selection?
3. Perform urinary catheterization technique to drain urine (on simulator)?

ANSWER
1. Select True (C) or False (F) answers
   Question 1: F  Question 2: F
   Question 3: F  Question 4: T
   Question 5: F

2. Select the most correct answer
   Question 1: D  Question 2: A
   Question 3: B  Question 4: C
   Question 5: A  Question 6: C
### Competency based assessment checklist for Excretion care

<table>
<thead>
<tr>
<th>No</th>
<th>Competency</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Can do independently without support (2)</td>
<td>Can do with support (1)</td>
</tr>
<tr>
<td>1</td>
<td>To assess the needs of patient about application of excretion care</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Perform instruction and support for patient in using bed pan, urinal: Ensure proper compliance of procedure and suitable with patient’s condition</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Perform patient instruction for usage of Uridom for urinary drainage: Ensure proper compliance of procedure and suitable with patient’s condition</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Perform urinary catheterization - urinary drainage technique: Ensure proper compliance of procedure and suitable with patient’s condition</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Perform enema technique: Ensure proper compliance of procedure and suitable with patient’s condition</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Instruct patient/family use bed pan, urinal suitable with excretion needs of patient</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Instruct patient/family to use Uridom for urinary drainage suitable with excretion needs of patient</td>
<td></td>
</tr>
</tbody>
</table>

### REFERENCES

CHAPTER 4
PATIENT CARE MANAGEMENT
LESSON 21

REGULATIONS ON RECORDING, MANAGING MEDICAL RECORDS AND CARE TEMPLATES

OBJECTIVES

1. Present the regulations on recording, using, preserving, keeping medical records and care templates (Competency 16.1)

2. Explain patients’ rights to be briefly informed in medical records (Competency 16.2)

3. Follow the regulations and rules in recording, using, keeping patients’ medical history. (Competency 16.1, 16.2, 16.3, 17.5, 24.4)

CONTENTS

A. THEORY

Every patient to hospitalize is established a set of records containing medical history and patient-related care templates, treatment process. Medical records and care templates are documents and evidences for examinations, diagnosis, treatment of doctors as well as care practices of nurses.

Medical records and care templates being fully, specifically, systematically recorded not only are legalized but also help producing excellent progresses in diagnosis, treatment, prevention, care, scientific research and education. Medical records and care templates also help with estimating curing and caring quality, responsibility and ability of medical staffs. Therefore, every medical staff must comprehend and well conduct the using, recording, preserving and keeping medical records and care templates according to the regulations.

1. The aim of recording medical records on nursing

- To use for the diagnosis process.
- To follow disease development and predict side-effect productions.
- To constantly follow treatment process in order to gain experiences, supplement with adjustment in treatment method, care and prevention.
- To evaluate curing and caring quality, responsibility and ability of medical staffs.
- To follow administration and provide legal evidences.
- To help with statistics, scientific researches and education.
- To facilitate team work through sharing information between patients and medical staff.
2. Principles of using, recording and keeping medical records:

All patient medical records need to be brief, with clear writing. Each hospital or clinic may develop different regulations but must all follow general rules.

2.1. Regulations on using and recording medical records:

- All headings in medical records must be accurate and adequate (patient’s names, addresses, departments).

- Only record treatment, care, medication contents performed by self-individual. Only record diagnosed contents (on medication and treatment) by the doctor on the records.

- Every statistic must be written in patients’ daily tracking form, describe the situation with as much details as possible. Do not insert general reviews (such as: OK, no complaints, etc.). Must include comments, comparisons on patients’ improvements in the day. Severe or after-surgery cases must be provided with special tracking form in continuous 24 hours.

- Only use general abbreviations when very necessary.

- Nurses need to take down the exact reasons in case the patients refuse care services. Patients take surgeries or operations are required a pledge from self-individuals or families, with signatures, full names and addresses.

- If mistaken, the writer can overline the false writing with pen and ruler, do not erase or delete.

2.2. Principles of keeping medical records:

- In case of copying records (due to being ripped, torn), records must be attached with original version on the end to ensure legal requirements.

- Records must be carefully handled, do not let be lost, mistaken, do not let the patients have the records and acknowledge of professional secrets.

- When the patient is discharged, the records must be completed and sent to the General Planning Department in 24 hours (no longer than 48 hours) to be storage.

3. Components of medical records

A medical file includes: administration and profession part.

3.1. Administration

- Personal information of patient: Full name, address, occupation, contact person and his/her address

- Information related to profiling statistics: code for in-charged, hospitalized and discharged day.

- Information related to hospital fees.

- Information of patient’s conditions (when you transfer case to higher level hospital)

3.2. Profession

- Medical records
- Templates
  + Care tracking form
  + Medication distribution record
  + Vital signs Record
  + Infusion Record
  + Medicine reaction test form
  + Medical Consultation minutes
  + Surgery approval report
  + Hospital transmission report
  + Death confirmation report
  + Blood claim form

- Para-clinical records:
  + Testing records (all types)
  + X-ray, ultra-sound, electro-cardiograph, etc.

4. Nurses’ recording templates (Annex 6):

4.1. Care tracking forms:
- Used for taking track of the patients’ care, handling and conducting treatment orders from nurses.
- Used for exchanging information among nurses and between nurses and doctors.
- Being legal documents to estimate nurses’ functional responsibility and duties.

• General principles:
  - Timely recorded: immediately after the examination, treatment or handling.
  - Brief and accurate information: only record information within nurses’ responsibility.
  - Do not record duplicated information: information recorded on forms (Vital signs monitoring form) must not be repeated on this form.
  - Immediately check or provide information to doctors in charge, if nurses detect any different information from doctors’ orders.

• Guidance for recording care tracking forms:
  - Include date, accurate time (hour and minute) at the moment the nurses follow or take care of patients in the tracking form.
  - Development column contains brief developments or abnormal conditions of the patients that the nurses take track of, including patients’ complaints, petitions.
  - Orders execution/treatment column: activities nurses take main roles in.
+ Care: record care practices (bathing, hygiene, position change, injuries treatment, health education, patient instructions, etc.)

+ Handle: only record handling in cases of responsible solutions requirement of first-aid nurse along with reporting to doctors, or general handling (changing bandages, apply cool towels in case of high body temperature, etc.)

+ Result evaluation: record results right after possible treatment such as: after suctioning, the patient is recorded to breathe more easily, etc.

+ Medical orders performance: Record special orders execution, unexpected addition according to medical records. General orders are marked in medical orders execution notes, therefore only completed ones need recording. Specifically, I.V orders must be recorded with: pulse, temperature, blood pressure, breathing before, during and after I.V treatment, fluid mass and abnormalities during I.V process.

+ Signature column: Nurse takes down full names so that others can detect the signature.

+ Regarding level I, level II care patients, record frequently on diseases’ developments. Regarding level III care patients, record at least once a day and when needed. On weekends and holidays, it must record severe diseases’ developments or abnormal developments.

- **Examples on recording:**

<table>
<thead>
<tr>
<th>Patients’ behaviors (anxious, confused, against, etc.)</th>
<th>Against, behaviors, risk factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective data (rash, thrill, breath, etc.)</td>
<td>Places, conditions (duration, frequency, irritating factors, risks or reduction)</td>
</tr>
<tr>
<td>Nursing intervention and treatment evaluation (enema, bath, clothes changing, etc.)</td>
<td>Time management, used equipment, patient’s reaction (objective and subjective changes) in comparison with last treatment. For example: pain of level 2 on the scale of 0-10 when changing clothes.</td>
</tr>
<tr>
<td>Drug usage</td>
<td>Record right after medicine feeding: duration, dosage, means of using. Generally estimate reaction when being fed such as: pain level, vital signs, reactions to medicines. For example: “12h00 pain level 7 (scale 1-10), 12h30 pain level 2 (scale 1-10), 13h30 increasing itchiness under belt area after 1 hour of penicillin.”</td>
</tr>
<tr>
<td>Patient education</td>
<td>Guiding methods (discussion, video, guidance books, etc.) Patient reactions and changes in behaviors</td>
</tr>
<tr>
<td>Discharging plan</td>
<td>Patient’s measurable purposes or expectations, improvements, necessity of transmission.</td>
</tr>
</tbody>
</table>
Health Department: …
Hospital: ………
Department: ………

- Patient full name: ..................................................... Age: .......... Male/Female: ......................
- Bed No: ........................... Room: .......................... Diagnosis: ...........................................................

<table>
<thead>
<tr>
<th>Date</th>
<th>Time (hr, min)</th>
<th>DEVELOPMENT TRACK</th>
<th>MEDICAL ORDERS/CARE PERFORMANCE</th>
<th>SIGNATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

4.2. Vital signs Record

- **Instruction:**
  - Ministry of Health prescribes routine records including pulse, temperature, breathing and blood pressure.
  - Vital signs Record needs to be hung above the bed along with Infusion record and Medication distribution Record
  - Vital signs Record can be used for both routine general records and emergency regarding severe cases.

4.3. Infusion Record

- Infusion record can be used for multiple days, therefore calculating fluids mass daily.
- Infusion record does not require results of body temperature, breathing, pulse, blood pressure during infusion process, due to repeated information on Care Plan forms.

4.4. Medication distribution form

- General form prescribed by Ministry of Health
- Publicized daily medicines on doses and mass of each dose.
- Patient or patient family must sign daily.
- This form is attached publicly above the bed along with Vital signs Record and Infusion record.

5. Storage medical records

During the use of medical records at the departments, treatment rooms, need to pay attention to the problems below:
5.1. Organizing and pasting medical records, writing in regulated orders

- **Department administrative nurses’ tasks:**
  - Organize and complete administrative procedures of medical records.
  - Medical records must have cover, additional spine to attach records in prescribed order: must be written in records order prescribed by therapy department of Ministry of Health:
    1. Administrative documents.
    2. Possible lower level documents (if any).
    3. Testing results (uneven layered): hematology, biochemistry, microbiology, medical imaging, disease anatomy in back-to-front order.
    4. Vital signs records if a severe case – turn routine general records into hourly records.
    5. Care plan form.
    6. Medical Consultation minutes, treatment summary, pledge form (if any)
    7. Treatment papers with numbered pages, chronologically attached, patient’s full name in capital letters, marked; treatment paper with bed and room number.

- Above mentioned documents must be sealed in order to serve records management.
- All records must be kept in a hardcover briefcase, with bed number written on the outside.

5.2. Medical records management

- **Department administrative nurses’ tasks:**
  - Preserve and maintain all department’s records.
  - Records must be kept on prescribed racks or cabinets, easy to be seen and taken.
  - At the end of the working period, check the medical records and transfer to nurses on duty.
  - Do not let patients and families see the medical records.
  - Interns desire to see medical records must be permitted by department leader, Sign once receive, sign transferring confirmation, must only see in place and transfer back to administrative nurse when finish.

6. Regulations on storing medical records;

6.1. General regulations:

- Medical records are important documents that must be well kept and preserved according to legal regulations on preservation.
- Medical records on residents, ambulatory, transmission and death must be administratively completed according to regulations on admission, discharge, department transmission, hospital transmission, then deliver to General Planning Department to store legally.
- Making use of medical records must be according to regulations.

6.2. Detailed regulations:

6.2.1. Medical records storage

6.2.1.1. Storage registration

- Patients discharged within 24 hours, department must complete administrative procedures according to the regulations, then deliver to general plan department.

- General Planning Department checks the execution of medical records regulations of the department, submits to the manager, gets permission and storage.

- Medical records on residents and ambulatory must be kept for at least 10 years.

- Medical records on occupational accidents, domestic accidents must be kept for at least 15 years.

- Medical records on mental illness must be kept for at least 20 years.

- Medical records on death must be kept for at least 30 years.

6.2.1.2. Preserve and maintain medical records

- Head of General Planning Department specifically assign officers in charge of medical records storage.

- Write down full prescribed information in storage book.

- Medical records must be kept on racks or cabinets, with solution to prevent: humidity, fire, cockroaches, rats, termites and other insects.

- Medical records must be prioritized by departments, or international diseases list, in order to keep and provide with ease and convenience.

6.2.1.3. Death Confirmation records

- Death confirmation records must be strictly stored, separately kept, and organized in year order.

- Death confirmation records cabinet must always be locked. Hospital Director decides and assigns responsibility to medical records keeper.

6.2.2. Use of stored medical records

- Hospital doctors having desire to borrow medical records for educating, studying, scientific researching must apply claiming form with detailed purposes, get confirmation by General Planning Department leader and must only read in place. Regarding death confirmation records, besides from mentioned procedures, must get confirmation signature from hospital Director.

- General Planning Department must have a book keeping track of medical records borrower and requesting papers.

- Medical records borrower must not reveal professional occupations.

6.2.3. Legal protection agency and detectives need to make use of medical records

- Must have recommendation papers or request documents with detailed purposes on using medical records.
According to recommendation papers or request documents, General Planning Department leader report to manager and get confirmation signature before permitted to hand out medical records for reading or taking copies in place.

Regarding death medical records, hospital manager must report to direct superior in charge. Only after getting permission from superior is manager allowed to lend records for reading or taking copies in place.

Regarding managing officers of central health protection’s medical records, must get permission of the chairman of advanced branch and National officers’ health protection council before permitted to hand out records for reading or taking copies in place.

B. PRACTICE

1. Instructions on recording medical records

1.1 General instructions:

<table>
<thead>
<tr>
<th>Instructions</th>
<th>Reasons</th>
<th>Suitable methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not erase, do not use correction pen, deletion while recording</td>
<td>Hard to read, do not ensure legal characteristics, create doubt on hiding or erasing information.</td>
<td>Use a pen and ruler to crossline the mistakes, write down “false” on the line and sign. Then precisely write the true information.</td>
</tr>
<tr>
<td>Do not write criticisms on patients and medical staffs’ treatment.</td>
<td>False expressions can be considered as evidences of behaviors against professional ethics.</td>
<td>Only describe patients’ behaviors, and quote patients’ comments.</td>
</tr>
<tr>
<td>Add information on patients.</td>
<td>Need to update new or forgotten information onto the board at the end of working shift.</td>
<td>If required to write down information on note sheets first then must include closest time and date in the blank and mark as an appendix.</td>
</tr>
<tr>
<td>Publicly fix the mistakes</td>
<td>There can be mistakes during recording process</td>
<td>Avoid rushing, make sure the corrected information is true.</td>
</tr>
<tr>
<td>Record all existing information</td>
<td>Recordings must be accurate and credible.</td>
<td>Make sure the recordings are true, not predicting or deducing.</td>
</tr>
<tr>
<td>Leave no blank spaces in nurses’ recording papers</td>
<td>Other people might insert false information in the blank</td>
<td>Present on one line at a time; if there are spaces left, crossline the area</td>
</tr>
<tr>
<td>Record briefly, clearly and by ball-pens or blue ink-pens</td>
<td>Unclear handwriting can be confusing, producing mistakes and litigations; color must be clear, easy to comprehend and not erased.</td>
<td>Do not erase or use correction pens, pencils.</td>
</tr>
</tbody>
</table>
If medical orders are not clear, nurses are required to ask again for confirmation. If a nurse executes an order causing strokes on patients, must take responsibilities as orders giver. Should not write “Doctors got it wrong”. Instead, write down “Need to confirm the problem with the doctor”. Including date, time, contents and confirmation results.

<table>
<thead>
<tr>
<th>Only record self-individual carried out problems on patients</th>
<th>Must take responsibilities on information nurses write down in medical records.</th>
<th>Do not write information down for others. Except for: If person in charge left in the day and call in demand of a help to write down for him/her, including name of information source in the recording and transferred through phones.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid using general words, less-meaning phrases such as “no change in health condition” or “have a good day”.</td>
<td>Detailed information about the patient can be false if written in general expressions.</td>
<td>Describe precisely, briefly, fully and clearly.</td>
</tr>
<tr>
<td>Must take down the date and time before the contents, and end with signature.</td>
<td>Ensure orders of the events are all recorded, including responsible person signature.</td>
<td>Do not wait until the end of the shift to record important changes before, remember to sign all recordings.</td>
</tr>
<tr>
<td>Regarding documents in PC, keep the password</td>
<td>Keep secrets and ensure security.</td>
<td>When logging into PC, do not let open despite purpose.</td>
</tr>
</tbody>
</table>

### 1.2 Instructions on recording medical records

**Medical records:** Medical records are main professional records of patients; therefore, doctors can understand family background, ideology, disease developments, cure and prevention process. Medical records are divided into 2 parts:

- Administration:
  - Full name, age, gender, occupation, address of patient.
  - Family names, addresses and contacts in case of needs.
- Profession: Written by doctors.

**Vital signs record (Annex 6)**

- Administrative procedures: full hospital name, department, room, bed, patients’ name, age, gender, diagnosis.
- Instructions on establishing tables:
  - Details: date, month, a.m, p.m
+ Pulse: use a red pen to dot (.) on the graph matching the time column and present the vital signs. Lining 2 pulse measuring results with red pen.
+ Body temperature: use a blue pen to dot (.) on the graph matching time and temperature measurements. Lining 2 temperature measuring results with blue pen.
+ Breathing, blood pressure: use a blue pen to note down statistics in living function tracking form.
+ Other tracking: Write down additions 1 in the blanks under pulse, temperature graphs, according to medical orders and patients’ characteristics.
+ Nurses sign or write down names after performing fully all of the above.
+ Do not circle pulse and temperature columns.

Note: Besides tracking statistics noted in the board, in case of needs, must also describe in the medical records the signs, symptoms, abnormal developments or clarify statistics in the board.

**EVALUATION TEST**

1. Decide if the below statements are True or False

<table>
<thead>
<tr>
<th>No.</th>
<th>Statements</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Treatment forms are only used by doctors to record daily patients monitoring.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>According to instructions on vital signs record, blue pen is used for these statistics: breathing, blood pressure, temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>According to instructions vital signs record: establish a table for pulses, blood pressure and temperature monitoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>In case of a discharged patient, after a week medical records would be delivered to preservation room.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Records must be sealed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Instructions on care tracking form: must note down the date and time before contents.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Choose the best answer:

**Question 1: The deadline for completing discharged patients’ medical records is:**

A. Right after discharging.
B. 24 hours after discharging.
C. 48 hours after discharging.
D. 72 hours after discharging.
Question 2: Regulations on using and managing medication distribution record, except:
   A. Are general, solid, prescribed by Ministry of Health.
   B. Publicize medicines daily on doses and mass of each dose.
   C. Patients or family must sign daily.
   D. Medicine public form/board is attached in medical records.

Question 3: Regulations on recording medical records, except:
   A. All patients’ data must be noted daily, describe in as much details as possible.
   B. Write down treatment, care, medicine contents carried out by self-individual and colleagues.
   C. Regarding false information, can only be lined over, do not use correction pen.
   D. Only use common abbreviations when seriously necessary.

Question 4: Regulations on using and managing Vital signs Record, except:
   A. Regulations of Ministry of Health on routine monitor include pulse, body temperature, breathing and blood pressure.
   B. Vital signs form is hung above the patient’s bed.
   C. Do not use the same form on routine monitoring as well as emergency in severe cases.
   D. Use Vital sign records to note down routine records of patients.

Question 5: Regulations on managing, using medical records
   A. Administrative nurses are assigned to managing department’s medical records.
   B. Doctors are responsible for managing department’s medical records.
   C. Patients and families are allowed to see medical records.
   D. Students and interns are allowed to see medical records on clinical study.

Answers:

1. Decide if the below statements are True or False
   No.1. True
   No.2. True
   No.3. False
   No.4. False
   No.5. True
   No.6. True

2. Choose the best answer
   Question 1. B
   Question 2. D
   Question 3. B
   Question 4. C
   Question 5. A
### Competency based assessment checklist for Regulations on recording, managing medical records and care templates

<table>
<thead>
<tr>
<th>No.</th>
<th>Contents</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Can do independently without support (2)</td>
</tr>
<tr>
<td>1</td>
<td>Present the regulations on recording, using, preserving, keeping medical records and care templates</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Explain patients’ rights to be briefly informed in medical records</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Follow the regulations and rules in recording, using, keeping patients’ medical history</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES**

LESSON 22

MEDICAL EQUIPMENT USAGE AND MANAGEMENT:
MONITOR, INFUSION MACHINE, INJECTION PUMP,
ELECTROCARDIOGRAPH

OBJECTIVES

1. Use vital sign monitors and patient care equipments (monitor, infusion machine, injection pump, electrocardiograph) to ensure proper process, efficiency and safety, (competency 2.3; 3.2; 4.7; 5.1; 5.2, 5.3; 6.1; 6.2; 6.3; 18.1; 18.3; 20.1)

2. Identify abnormal signs when performing patient care and follow up; offer appropriate treatment (competency 4.1; 9.1; 9.2; 9.4)

3. Manage vital sign monitors and patient care equipments in accordance with regulation (competency 18.1; 18.2; 18.3)

CONTENT

1. Introduction

Quality of patient care has many obvious changes through the renewal of care assignment’s model, organization of comprehensive patient care, standardization of nursing techniques and application of medical equipments for patient care. Nurses play an important role in operating equipment, facilities and machines used in patient care to ensure safety and effectiveness and prevent infections related to health care.

Some medical equipments used in patient care and follow up:
- Monitor
- Infusion machine
- Injection pump
- Electrocardiograph

2. Usage and management of monitor

2.1. Usage of Monitor – patient’s monitor

Monitor is a device used to measure and monitor the vital signs of patients, often used to monitor patients in emergency recovery rooms, patient room ... Monitors have the function of continuously monitoring and updating living indicators, so that doctors can monitor and continuously assess patients’ progress. In addition to monitoring and reporting functions, monitor also has an alarm function when indicators are abnormal.
There are many types of Monitor, from simple handy SpO\textsubscript{2} monitor to measure peripheral capillary oxygen saturation, desk type SpO\textsubscript{2} monitor, electrocardiograph, obstetric monitor and common used is one to monitor patient with 5 – 7 parameters.

*The tracking parameters in Monitor include:*

- NIBP: Non - Invasive Blood Pressure
- ECG: electrocardiogram (usually 5 lead electrocardiography)
- SpO\textsubscript{2}: peripheral capillary oxygen saturation (0 - 99%)
- Temperature (t): The body temperature of the patient
- ETCO\textsubscript{2}:: Pressure (mmHg) or concentration (%) of carbon dioxide in exhaled air
- Respiratory rate: Number of breaths per minute
- Heart rate: Number of heart beats per minute

The above parameters are constantly updated and installed automatically over time. For example: measuring blood pressure; the monitor can be installed automatically to measure indicator after a fixed time (every 5 minutes or every 10 minutes…).

2.2. Preserving the Monitor

- Preserving the Monitor:
  + Clean the equipment every day with a soft cloth moistened with water or dry soap liquid. Do not use alcohol
  + Keep the equipment in a cool, dry room
  + Avoid operating the equipment in flammable place
  + Do not put anything on the equipment
  + When damaged or there is problem in use, report immediately

  Note: Plug in the power frequently when not in use so that the equipment is ready to operate when needed.

- Preserving the ECG cable
  + Do not let cables to be twisted or tangled
  + Clean the cable after patient’s use or get dirty by secretions, blood ...

- For sensor SpO\textsubscript{2} cable, temperature measuring wire
  + Clean after patient’s use or if dirty
  + Do not let wire to be twisted or tangled

- Preserving blood pressure measurement system
  + Clean the cable after patient’s use or dirty. Wash blood pressure cuff when dirty or smelly.
  + Do not let wire to be twisted or tangled …
### 2.3. Practical procedure for using Monitor

<table>
<thead>
<tr>
<th>No.</th>
<th>Implementation steps</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Identify and prepare for patients</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Identify the perception and cooperation</td>
<td>- Avoid mistaking the patient</td>
</tr>
<tr>
<td></td>
<td>- Identify the right patient</td>
<td>- Patient knows and cooperates</td>
</tr>
<tr>
<td></td>
<td>- Inform patient about the procedure</td>
<td>- Avoid interference when the machine is operating</td>
</tr>
<tr>
<td></td>
<td>- Instruct patients to remove metal objects and one can</td>
<td></td>
</tr>
<tr>
<td></td>
<td>broadcast electromagnetic waves.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Clean the patient’s chest and abdomen</td>
<td>- Create a good electrode contact with patient</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><strong>Prepare for nurse:</strong> Clothes, hand washing / antiseptic</td>
<td>Limit cross-infection</td>
</tr>
<tr>
<td>3</td>
<td><strong>Power supply, start the machine</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Connect the power cord to the machine</td>
<td>- Power supply, start the machine</td>
</tr>
<tr>
<td></td>
<td>- Press and hold the power button for about 2 seconds</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><strong>Set up date and time</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Press MENU</td>
<td>- To enter the operation program of the machine</td>
</tr>
<tr>
<td></td>
<td>- Press DATE &amp; TIME, select and press the year, month,</td>
<td>- To display DATE &amp; TIME window (date and time), set the date and time to</td>
</tr>
<tr>
<td></td>
<td>day, hour, and minute button</td>
<td>monitor the patient</td>
</tr>
<tr>
<td></td>
<td>- Press SET</td>
<td>- To save the set up,</td>
</tr>
<tr>
<td></td>
<td>- Press HOME</td>
<td>- To return to the monitor screen</td>
</tr>
<tr>
<td>5</td>
<td><strong>Set up the patient’s name</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Press MENU, select the PATIENT INFO window</td>
<td>- To display the MENU window, the PATIENT INFO window</td>
</tr>
<tr>
<td></td>
<td>- Press KEYBOARD to enter the letters on the keyboard and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>press SET</td>
<td>- To set up and save the patient’s name</td>
</tr>
<tr>
<td>6</td>
<td><strong>Set the heart rate monitor mode</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Press MENU, then ECG</td>
<td>- To display the MENU window, ECG VITAL ALARM window (heart rate warning)</td>
</tr>
<tr>
<td></td>
<td>- In the HR / PR window, press the upper and lower</td>
<td>- To setup the allowed upper and lower limit of heart rate of the patient,</td>
</tr>
<tr>
<td></td>
<td>limit, slightly press the up and down buttons to adjust,</td>
<td>- To return to the monitor screen</td>
</tr>
<tr>
<td></td>
<td>- Press HOME</td>
<td></td>
</tr>
</tbody>
</table>
| 7 | Set blood pressure monitoring mode  
- Press MENU, then NIBP  
- In the SYS window, press the upper and lower limit, then the up and down buttons  
- In the MEAN window, press the upper and lower limit, then the up and down buttons,  
- Press HOME  
- To display the MENU window, NIPB VITAL ALARM window  
- Set the allowed upper and lower limits of the maximum blood pressure of the patient  
- Set the allowed upper and lower limits of the average blood pressure of the patient  
- To return to the monitor screen |
|---|---|
| 8 | Set the breath monitor mode  
- Press MENU, and RESP to display REST VITAL ALARM window  
- Press the up and down button,  
- Press HOME  
- To display the MENU window and REST VITAL ALARM window  
- Set the allowed upper and lower limits of the patient’s breath,  
- To return to the monitor screen |
| 9 | Set temperature monitoring mode  
- Press MENU, and TEMP  
- Press the upper and lower limit, then the up and down buttons  
- Press HOME  
- To display the MENU window, and TEMP VITAL ALARM window  
- Set the allowed upper and lower limits of the patient’s temperature,  
- To return to the monitor screen |
| 10 | Set oxygen saturation monitoring mode (SpO2)  
- Press MENU, and SpO2 button  
- Press the upper and lower limit, then the up and down buttons  
- Press HOME  
- To display the MENU window, and SpO2 VITAL ALARM window  
- Set the allowed upper and lower limits of the patient’s SpO2,  
- To return to the monitor screen |
| 11 | Monitor ECG, breathing rate, heart rate  
- Paste electrodes into patients: paste into 3 positions: on the right chest, left chest and below the left rib cage (see figure - 3 lead ECG)  
- Attach the electrode clamp to the pasted electrode, connect the electrode cable to the ECG connector, connect the ECG connector to the monitor socket  
- Observe ECG, breathing rate, heart rate on monitor screen (Home)  
- The electrodes contact patient  
- To connect monitor to patient  
- Evaluate the activity of circulatory and respiratory |
<table>
<thead>
<tr>
<th>12</th>
<th><strong>Monitor SpO2</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Select the measuring tube, connect the tube to the SpO2 wire, connect the SpO2 wire to the monitor</td>
</tr>
<tr>
<td>-</td>
<td>Attach the measuring tube to the patient</td>
</tr>
<tr>
<td>-</td>
<td>Observe SpO2 on the monitor screen (Home)</td>
</tr>
<tr>
<td>-</td>
<td>Monitor capillary oxygen saturation</td>
</tr>
<tr>
<td>-</td>
<td>To connect measuring device to patient</td>
</tr>
<tr>
<td>-</td>
<td>Evaluate capillary oxygen saturation of patient</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13</th>
<th><strong>Monitor blood pressure</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Select blood pressure measurement cuff, connect measurement cuff to blood pressure measuring wire</td>
</tr>
<tr>
<td>-</td>
<td>Determine the elbow artery, wrap blood pressure cuff on the patient’s hand</td>
</tr>
<tr>
<td>-</td>
<td>Press START/STOP on the equipment</td>
</tr>
<tr>
<td>-</td>
<td>Press HOME each implementation steps and objectives should be aline</td>
</tr>
<tr>
<td>-</td>
<td>To monitor accurately of patients’ blood pressure</td>
</tr>
<tr>
<td>-</td>
<td>To wrap blood pressure cuff in the right place</td>
</tr>
<tr>
<td>-</td>
<td>To measure and monitor blood pressure readings (manual measurement mode)</td>
</tr>
<tr>
<td>-</td>
<td>To return to the monitor screen</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14</th>
<th><strong>Monitor temperature</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Take the temperature probe, connect to the heat conductor, the slot on the monitor</td>
</tr>
<tr>
<td>-</td>
<td>Attach the temperature probe to the patient</td>
</tr>
<tr>
<td>-</td>
<td>The temperature data will be displayed on the screen</td>
</tr>
<tr>
<td>-</td>
<td>To connect the machine to the patient</td>
</tr>
<tr>
<td>-</td>
<td>To connect the machine to patient’s skin</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>15</th>
<th><strong>Identify results and response:</strong> Observe the results on the screen and warning signs installed to identify.</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Care and report to doctors when patients have abnormal movements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16</th>
<th><strong>Tidying up tools:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Turn off the machine: press and hold the power key for 2 seconds</td>
</tr>
<tr>
<td>-</td>
<td>Remove blood pressure cuff, electrodes, temperature probes from patients</td>
</tr>
<tr>
<td>-</td>
<td>Clean the patient’s skin attached with electrodes</td>
</tr>
<tr>
<td>-</td>
<td>Put patients in comfortable position</td>
</tr>
<tr>
<td>-</td>
<td>Unplug the wires from the machine. Unplug the power cord</td>
</tr>
<tr>
<td>-</td>
<td>Clean the machine with a soft cloth</td>
</tr>
<tr>
<td>-</td>
<td>To disconnect the power</td>
</tr>
<tr>
<td>-</td>
<td>To clean the skin attached with electrodes</td>
</tr>
<tr>
<td>-</td>
<td>Clean up tools after use</td>
</tr>
<tr>
<td>-</td>
<td>Preserve the machine after use</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>17</th>
<th><strong>Record of patient care:</strong> Write down the full results, following the time and movements of the patient during the monitoring process (if any).</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Ensure continuous monitoring</td>
</tr>
</tbody>
</table>
### Technical checklist for use of monitor

<table>
<thead>
<tr>
<th>No</th>
<th>Content</th>
<th>Achievement Level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify and prepare for patients</td>
<td>Achieved</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare for nurse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Power supply, start the machine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Set up date and time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Set up the patient's name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Set the ECG, heart rate monitor mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Set blood pressure monitoring mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Set the breath monitor mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Set temperature monitoring mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Set oxygen saturation monitoring mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Monitor ECG, breathing rate, heart rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Monitor SpO₂</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Monitor blood pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Monitor temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Identify results, patient care and report to doctor in event of abnormal movements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Tidying up tools. Put patients in comfortable position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Record patient’s file</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3. Usage of infusion machine

The infusion machine is a device that is used for continuous infusion at a controlled rate (especially when transmitting at very low speeds) medicines, nutrients, blood and some chemicals to treat and nourish patients, especially for newborns, preterm newborns in active treatment units or special care in hospitals.

#### 3.1. Principle of using an infusion machine

- Know the calibration (the amount of fluid flowing down) of the infusion in one ml
  - Microdrip: 60 drop/ml.
  - Macrodrop: 15-20 drop/ml.
- Determine the fluid discharge time for one liter. Calculate the amount of ml / hour (hourly flow rate) by dividing the amount of fluid by the number of transmission hours:
ml/hour = \frac{\text{Amount of fluid (ml)}}{\text{Number of transmission hours}}

- Choose one of the formulas for calculating the fluid flow rate in a minute (drops / minute) based on the calibration:
  + ml/hour/60 minutes = ml/minute.
  + ml/hour \times \text{Calibration}/60 \text{ minutes} = \text{drop/minute}.

- Determine the hourly flow rate of fluid. Check the infusion bag and record it in a sequence, pay attention to the fluid type, the patient’s name, the duration of the infusion and predict the start and end time for each transmission.

- Refer to the manufacturer’s instructions for using an infusion machine. If pressure control is required, ensure the infusion bag is above the transmission site –

- Monitor transmission rate and transmission position to detect complications. Use the watch to check the speed of transmission, even when transmitting by machine.

- Evaluate the status of the system in the event of signal warning.

- Ensure continuous power and always have the battery in standby mode, ready to use.

- Must have regular technical maintenance and inspection.

- Never adjust or set up while connected to the patient (must adjust the parameters and run a stable test before connecting to the patient).

- The drugs need to be mixed according to the prescribed dose.

- Drugs mixing technique should be carried out by the method of sucking the solvent into the syringe first, expel the gas and push out the solvent, then pump the drug into the syringe later (this technique makes the volume of solvent and the drug is correct and the amount of drug is stable).

- Need a label sticks directly on the syringe, clearly states: name of drug, dose, speed, start time, end time (if necessary)

- In the process of syringe operation, need to check regularly the continuous operation of the syringe.

- Check the transmission line and the joints to avoid the folding or congestion of the transmission line. The drug transmission line (electric syringe) needs to have a stable and continuous transmission speed, should not adjust the speed in this line (reserved a preferred transmission line).

- When transporting patient, need to control and calculate the distance (aware of battery running out due to long distance).

- When using electric syringes or infusion pumps, nurses must closely monitor drug response status, do not respond or respond excessively status to notify appointments for dose and speed adjustment in time.
3.2. Preserving the infusion machine
- Clean the machine after patient’s use with a soft cloth moistened with water or dry soap liquid.
- Keep the machine in a cool, dry room
- Do not put anything on the equipment
- When damaged or there is problem in use, report immediately to repair

3.3. Practical procedure for using Infusion machine

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation steps</th>
<th>Objective</th>
</tr>
</thead>
</table>
| 1  | Identify and prepare for patients  
- Identify cooperation, position of infusion, status of patients  
- Perform 5 rights  
- Inform patient about the procedure  
- Instruct patients to clean before transmission (if necessary) | - Avoid errors  
- Patient knows and cooperates |
| 2  | Prepare for nurse  
Cloths, hand hygiene, gloves | |
| 3  | Prepare infusion and infusion machine  
- Connect the power cord to the machine  
- Plug the wire connecting the drip probe into the machine  
- Press ON/OFF  
- Check the infusion, 5 rights | Power supply, start the machine |
<p>| 4  | Prepare the infusion line: tear the bag containing the line, adjust the lock to the bottom (near the needle), plug the line into the bottle, remove the gas. | Prepare infusion fluid, Ensure no gas in the infusion line |
| 5  | Open the door of the machine’s body, press the pipe clamp below the door, open the clamp until you hear a click | Attach the infusion set to the machine’s body |
| 6  | Insert the drip probe into the upper 2/3 position of the dropper | To determine the number of drops / ml |
| 7  | Press &quot;Up / Down&quot; arrow key | Let the machine confirm and choose the right infusion set |
| 8  | Press “Select” button and “Up/ Down” arrow key | Set the infusion speed |
| 9  | Press &quot;Select&quot; up arrow key | Set limit for the volume of fluid infusion |
| 10 | Press PURGE to display PURGE, release and press again | To perform a quick pump to remove all air bubbles from the infusion line (if any) |</p>
<table>
<thead>
<tr>
<th>No</th>
<th>Content</th>
<th>Achievement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Insert the infusion needle into the patient's vein (start an infusion) / or replace the existing line</td>
<td>To connect the infusion machine to patient</td>
</tr>
<tr>
<td>12</td>
<td>Press START</td>
<td>To start the infusion</td>
</tr>
<tr>
<td>13</td>
<td>Monitor patients during infusion: Fluids left and infused, alarm of the machine (infusion line is stuck, air bubbles...); patient is uncomfortable, chills, difficult to breathe, ... - Handle irregularities (if any) ...</td>
<td>Ensure the safety for patient when infusion</td>
</tr>
<tr>
<td>14</td>
<td>After use, press STOP Press ON/OFF</td>
<td>Stop the infusion, turn off the machine</td>
</tr>
<tr>
<td>15</td>
<td>Tiny up tools and classify waste: Clean the machine with a soft cloth</td>
<td>Infection control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Preserve the machine after use</td>
</tr>
<tr>
<td>16</td>
<td>Record of patient care: - Write the date, time of implementation, name of infusion fluid, speed, time (drug, dosage, content if any) - The movement of the patient during and after the infusion</td>
<td>To ensure continuous and convenient patient care</td>
</tr>
</tbody>
</table>

**Technical checklist for use of infusion machine**

<table>
<thead>
<tr>
<th>No</th>
<th>Content</th>
<th>Achievement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Identify and prepare for patients</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare for nurse</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Prepare infusion machine</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Prepare the infusion line, remove gas.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Open the door of the machine’s body, press the pipe clamp...</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Insert the drip probe</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Press &quot;Up / Down&quot; arrow key</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Press “Select” button and “Up/ Down” arrow key</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Press “Select” button and Up arrow key</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Press PURGE to display PURGE, release and press again</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Insert the infusion needle into the patient's vein (start an infusion) / or replace the existing line</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Press START</td>
<td></td>
</tr>
</tbody>
</table>
4. Usage of electric injection pump

Electric injection pump is a type of machine that is used to continuously inject the drug at a very slow rate for a long time, to maintain a stable level of drug in the patient’s blood.

Electric injection pump is used with common syringes with different volumes: 10, 20, 30 and 50ml. For each type of syringe, the machine has a different injection mode accordingly, as for the 50ml syringe, the maximum allowable speed is 1500ml / h. Electric injection pump is designed to have a safety system to maintain the power supply for the machine to operate in case of power failure when being injected for a patient.

4.1. Purpose
- Maintain stable drug levels in the patient’s body
- Infusion or use of drugs in low doses, requires high safety and stability.

4.2. Principles of guideline
- The medicines need to be mixed according to the prescribed dose
- Need a label sticks directly on the syringe, clearly states: name of drug, dose, speed, start time, end time.
- Must adjust the parameters and test the stability before connecting to patient
- In the process of injecting operation, regularly check the continuous operation of the syringe, avoiding the folding or blocking of the line and joints.
- Ensure continuous power and always have the battery in standby mode, ready to use.
- Nurses must closely monitor drug response status, the nurse should notify doctor for dose and speed adjustment in time if the drug doesn’t respond or respond excessively.

4.3. Preserving electric injection pump
- Clean the machine after patient’s use with a soft cloth moistened with water or dry soap liquid.
- Keep the machine in a cool, dry room
- Do not put anything on the machine
- When damaged or there is problem in use, report immediately to repair
### 4.4. Practical procedure for using electric injection pump inform

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation steps</th>
<th>Objective</th>
</tr>
</thead>
</table>
| 1  | Identify and prepare for patient  
- Identify: right patient, consciousness, patient status, injection site, history of allergy,… cooperation and appointment of the doctor  
- Inform patient about the procedure | Limit cross-infection |
| 2  | Prepare for nurse  
Cloths, hand hygiene, gloves |  |
| 3  | Prepare tools: Suitable sized syringes, needles, injection lines, diluent, antiseptic solution, gloves… electric pump  
- Take the medicine into the syringe: implement 5 rights, mix the drugs as prescribed, take enough drug into the syringe, insert the injection line, put into the sterile tray. | Sufficient and appropriate tools |
| 4  | Prepare the machine  
Connect the power cord to the machine  
Press ON/OFF | Power supply, start the machine |
| 5  | Insert syringe pump into machine:  
Get the syringe (with drug available);  
Lift the clamp to hold the pump up  
Squeeze and move the piston clamp holder  
Lower the clamp to hold the syringe down | Attach the syringe to the machine  
Attach the clamp to the piston  
To hold the syringe body firmly |
| 6  | Press SET | Go to the setting program for operating mode |
| 7  | Press Up arrow key | To set the injection speed to match the doctor's indication |
| 8  | Press "Bolus" key while pressing "Total vol" key | To remove air from the syringe to the tip of the needle |
| 9  | Connect the injection line to the patient's one, or insert a needle into the patient's vein. | Connect the injection system to the patient |
| 10 | Press START/STOP | Start transmitting drug to the patient |
| 11 | Monitor during injection: feeling of patient, circuit, blood pressure... warning of the machine (if any).  
- Handle irregularities (if any) | Ensure the safety for patient when infusing |
12 | End of injection  
Press START/STOP  
Lift the clamp holds the pump up  
Press ON/OFF  
| Pause the machine  
To lift the syringe pump  

13 | Remove the needle, perform antiseptic (if the patient does not have the next infusion indication)  

14 | Cleaning tools and waste classification:  
Clean the machine  
Remove gloves, perform hand hygiene  
| Limit infection  
Preserve the machine  

15 | Record of patient care:  
Write the date, time of implementation, name of drug, dosage, movement of the patient during and after the infusion.  

---

### Technical checklist for use of electric injection pump

<table>
<thead>
<tr>
<th>No</th>
<th>Content</th>
<th>Achievement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Identify and prepare for patient</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare for nurse</td>
<td></td>
</tr>
</tbody>
</table>
| 3  | Prepare tools  
Take the medicine into the syringe |       |            |       |
| 4  | Prepare the machine |       |            |       |
| 5  | Insert syringe pump into machine |       |            |       |
| 6  | Press SET |       |            |       |
| 7  | Press arrow keys |       |            |       |
| 8  | Press "Bolus" key while pressing "Total vol" key |       |            |       |
| 9  | Connect the injection line to the patient's one, or insert a needle into the patient's vein. |       |            |       |
| 10 | Press STAR/STOP |       |            |       |
| 11 | Monitor during injection:  
Handle irregularities |       |            |       |
| 12 | End of injection |       |            |       |
| 13 | Remove the needle, perform antiseptic (if the patient does not have the next infusion indication) |       |            |       |
| 14 | Cleaning tools and waste classification:  
Clean the machine, remove gloves, perform hand hygiene |       |            |       |
| 15 | Record of patient care |       |            |       |
5. Usage of electrocardiograph

An electrocardiogram (ECG) is a graph that records the changes in electric current generated by the heart during a contractile activity. The electrocardiograph works to record the heart’s activity, the monitor can read the heart’s activity graph on the screen or record it on paper.

Cardiac electrocardiography is a cheap, non-invasive, inexpensive diagnostic method for detecting arrhythmias, conduction disorders and coronary artery disease, in addition, other signs were associated with metabolic disorders (hyperkalemia) or increased susceptibility to sudden cardiac death (prolonged QT syndrome).

5.1. The leads for measuring electrocardiography

How to place the electrodes to record an electrocardiogram is called leads; The electrocardiographic leads include

- **Peripheral leads or lead pattern**
  These are bipolar leads, record voltage difference between two points:
  + Lead DI: one electrode on the right wrist, one on the left wrist.
  + Lead DII: one electrode on the right wrist, one on the left ankle.
  + Lead DIII: one electrode on the left wrist, one on the left ankle.

- **Unipolar limb leads**
  According to Golbugu’s method: remove a branch between a limb and the central pole. So the ECG amplitude will be larger, these leads have symbol as aVR, aVL, aVF.

- **The precordial leads**
  These are also unipolar leads. The probe electrode is placed on the points at the chest, while the electrode is connected to the center pole.

  The chest leads called V. Here are 6 common chest leads.
  V1: the probe at the right side of rib 4, close to the sternum
  V2: the probe at the left side of rib 4, close to the sternum
  V3: The probe is at the point between the line connecting V2 and V4.
  V4: The probe at the intersection of the straight line passes through the point between the left collarbone and the line passing through the cardiac path (or if the location of the cardiac path is not defined, take the 5th intercostal
  V5: The probe is at the intersection of the left armpit with the line passing through V4
  V6: The probe is at the intersection of the middle armpit with the line passing through V4 and V5
5.2. Results of normal electrocardiograms in the lead pattern

During a heart contraction, the electrocardiogram records the waves: P Wave; PQ interval; QRS complex; ST segment; T Wave; There is also U Wave or not.

- **P Wave**: Indicates the depolarization activity of the atria
- **PQ interval**: Indicates the duration of impulse transmission from the atria to the ventricles
- **QRS complex or fast wave QR**: Indicates the depolarization activity of two ventricles.
- **ST segment**: for ventricular periods of homogeneous stimulation, the period of complete depolarization of the ventricles
- **T wave**: corresponds to the repolarization period of the ventricles.
- **QT interval**: time of systolic electroscope of the ventricles

5.3. Preserving electrocardiograph

- Turn off the machine after use
- Clean the machine: use with a soft cloth, clean the wires.
- Keep the machine in a cool, dry room
- Do not put anything on the machine
- When damaged or there is problem in use, report immediately to repair

5.4. Practical procedure for using electrocardiograph

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation step</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify and prepare for patient&lt;br&gt;- Identify patient and personal information off patient&lt;br&gt;- Inform and explain procedure to patient&lt;br&gt;- Patient lying on his back comfortably, removing metal jewelry; in case of children, can use tranquilizers (because they do not cooperate)</td>
<td>- Avoid mistaken on patients and electrocardiographic results&lt;br&gt;- Patients are assured of cooperation&lt;br&gt;- The result is not interfered</td>
</tr>
<tr>
<td>2</td>
<td>Prepare for nurse: Cloths, hand hygiene</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Prepare tools&lt;br&gt;Electrocardiograph suitable for indications; ground wire, enough wires and electrodes; gel.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Perform antiseptic on patient’s skin to place the electrode on with an alcohol swab</td>
<td>To enable good contact between skin and electrode</td>
</tr>
<tr>
<td>Step</td>
<td>Action</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Attach the electrode to the patient’s chest. Apply a thin layer of gel and attach electrodes at the positions. - V1 Red: Fourth intercostals space, right sternum border - V2 Yellow: Fourth intercostals space, left sternum border - V3 Green: Between V2 and V4 - V4 Brown: Intersect of the Fifth intercostal space with the line between the left collarbone - V5 Black: Intersect of the Fifth intercostals space with left anterior auxiliary line - V6 Purple: Intersect of the Fifth intercostals space with left midauxiliary line Correctly locate the electrode in contact with the patient’s body to record the standard electrocardiogram.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Clamp the electrode into the limbs: Apply the gel before clamping the electrode into the limbs. - RA red: Right wrist - LA yellow: Left wrist - LL green: Left ankle - RL black: Right ankle Connect machine to patient</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Attach the lead wires from the machine to the corresponding electrodes.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Check the wires and electrodes again: Check that the wires are connected correctly with the electrodes and the wires are not too tight or too loose. To record the electrocardiogram without interference</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Remind patients to stay still, relax, breathe evenly, do not move while recording ECG. As a basis for reading results. Record the electrocardiographic image of leads</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Record standard wave: Press the TEST button Gently press the ECG record button</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>If abnormal signs are found: Check the electrodes, the connection point between electrode and the wire Handle the cause of the noise or blur graph</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Encourage patients. Let patients feel comfortable and secure when recording ECG</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>If heart arrhythmia is detected: Record DII and V1 leads Defined arrhythmias more clearly</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Get the card of electrocardiogram from the printer, write all necessary information: Make sure the ECG is properly labeled with the patient’s name (patient’s name, room number, date and time of the procedure) Avoid confusing the patient’s results</td>
<td></td>
</tr>
</tbody>
</table>
15. Finish technical procedure and return the results
   - Remove electrodes, perform skin hygiene for patient
   - Transfer the results to the doctor reading before returning to patient, or attach the results into the patient file (patient is in hospital).

16. Clean up tools:
   Clean the machine with a clean, soft cloth, arrange the tool according to regulations
   Waste classification,
   Perform hand hygiene.

---

**Technical checklist for use of electrocardiograph**

<table>
<thead>
<tr>
<th>No</th>
<th>Content</th>
<th>Achievement Level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>1</td>
<td>Identify and prepare for patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare for nurse: Cloths, hand hygiene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Prepare tools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Perform antiseptic on patient’s skin to place the electrode on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Perform antiseptic on patient’s skin to place the electrode on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Clamp the electrode into the limbs: apply gel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Attach the lead wires from the machine to the corresponding electrodes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Check the wires and electrodes again:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Remind patients to stay still, relax,</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 10 | Record standard wave: Press the TEST button
   Gently press the ECG record button |         |           |        |
| 11 | If abnormal signs are found: Re check |         |           |        |
| 12 | Encourage patients |         |           |        |
| 13 | Record DII and V1 leads |         |           |        |
| 14 | Get the card of electrocardiogram from the printer, write all necessary information: |         |           |        |
| 15 | Finish technical procedure and return the results |         |           |        |
| 16 | Clean up tools; Perform hand hygiene. |         |           |        |
EVALUATION QUESTION

1. Choose the correct answer

Question 1: Use an electric injection pump to inject drug for patients in case:
   A. All patients have indicated injections.
   B. The patient must inject one drug several times a day.
   C. The patient is in serious condition.
   D. Patients need to maintain a stable level of drug in the blood over time

Question 2: Use electrocardiography for subjects:
   A. Patient has heart disease
   B. Patient with hypertension
   C. People who need, or have indicated
   D. Patient has Basodow disease

Question 3: Monitor is used to monitor patient indicators, except for:
   A. Temperature, breath, pulse, blood pressure
   B. Oxygen saturation (SpO2)
   C. ECG
   D. Sense

Question 4: Content in preserve medical equipments, except for:
   A. Clean the machine every day / after using alcohol-soaked soft cloth
   B. Keep the machine in a cool, dry room
   C. Do not put anything on the machine
   D. When damaged or there is problem in use, report immediately to repair

2. Practice situation

   Situation 1

   Mr. B has heart failure. The doctor prescribed Dopamine to be injected with an electric injection pump. Nurse has performed medical orders.

   1. When you need to remove the gas in the injection line, which function key will you use? (choose the best answer)
      A. Select
      B. Purge
      C. Power
      D. Clear
2. After the electric injection pump has been working for a while, the signal light for injection is stopped, what is the first action of the nurse (choose the best answer)
   A. Move the injection line until the fluid flows.
   B. Reinstall the machine by turning it off and on again.
   C. Report to the doctor.
   D. Observe the entire line to see if it is twisted, folded or has bubble air.

3. Practice using electric injection pump to inject drugs for patients (perform on the model or on the patient - if any)

   **Situation 2**

   The patient Le Thi A. 45 years old, suffered from food poisoning, got diarrhea many times and vomited a lot. The doctor prescribed 1000 ml of lactac ringer solution and 500 ml of Nacl 0.9% solution. She did not want to be hospitalized and wanted to go home. The doctor explained and suggested that she should stay on treatment for stability. Today is a holiday, there are only two emergency medical nurses, in the department there are 25 patients need infusion. Currently, the department has monitors, electric injection pumps and infusion machines

   1. As a nurse has skill to use the machine, if you are on duty today, do you use an infusion machine for patient A or not; explain the reason for your choice.

   2. When transmitting fluids to patients with an infusion machine, it reports error, what is the first thing you need to do? (choose the best answer)
      A. Check the cause of the error
      B. Press start
      C. Press stop
      D. Press ON/OFF

   3. Practice using infusion machine (perform on the model or on the patient - if any)

   **Situation 3**

   Mrs. H is 65 years old, mental clarity, she suffers from shortness of breath, palpitations, and occasional throbbing pain behind the sternum. She visited the hospital. The doctor appoints electrocardiography to the patient.

   1. Which content is not needed in preparing for patients H before recording ECG? (choose the best answer)
      A. Notice and explain for patient to stay calm and cooperate
      B. Suggest and support patients to remove jewelry (if any)
      C. Use tranquilizers to relieve the patient
      D. Instruct patients to lie comfortably, breathe evenly, and relax

   2. Practice using electrocardiography for patient H (choose one in the clinical department)
Situation 4:

Patient Nguyen Van M; 62 years old, treated at the hospital resuscitation department with diagnosis of stroke due to hypertension. The patient is not alert, struggling, involuntary movement...
The doctor appoints to use Monitor to monitor the patient with a monitor.

1. As a nurse performs patient care, what do you do to effectively monitor the patient with a Monitor? (choose the best answer)
   A. Notice and explain the procedure to the patient’s family
   B. Ask the family to help keep the patient stay still
   C. Immobilize patient to keep him stay still
   D. Discuss with the doctor to use tranquilizers for patients

2. Practice using Monitor to monitor patients (choose one in the clinical department)

   **Answer**

   1. Choose the best answer
      
      Question 1: D  
      Question 2: C  
      Question 3: D  
      Question 4: A

   2. Practice situation
      
      Situation 1: 1.B, 2.D
      Situation 2: 1. Choose to use the machine, 2.C
      Situation 3: 1.C
      Situation 4: 1.D

**Competency based assessment checklist for Medical equipment usage and management:**

*monitor, infusion machine, injection pump, electrocardiograph*

<table>
<thead>
<tr>
<th>No</th>
<th>Content</th>
<th>Achievement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Can do independently without support (2)</td>
</tr>
<tr>
<td>1</td>
<td>Use monitor properly, effectively, safely,</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Use the infusion machine properly, effectively, safely,</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Use electric injection pump properly, effectively, safely,</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Use electrocardiograph properly, effectively, safely,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identify abnormal signs when monitoring and performing patient care; offer appropriate response</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Manage vital sign monitors and patient care equipments in accordance with regulation</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES**

3. Ministry of Health (2012), *Nursing skill*. Medical publishing hours, Hanoi
LESSON 23

MANAGEMENT OF MEDICINES AND MEDICAL CONSUMABLE SUPPLIES

OBJECTIVE

1. Present regulations and procedures for managing medicines used for patients by nurses (enter information, receive, hand over, conduct medication to patients, preserve and report medicine use) (competency 7; 17.4; 18; 24.1; 24.2)

2. Present the management process of medical consumable supplies by nurses (estimate, receive, allocate and preserve) (competency 17.4; 18)

3. Be properly and personally responsible for managing medicines and consumable supplies (competency 7.2, 7.7; 24.1; 25.1; 25.2)

CONTENT

In order to manage and monitor the stock receipt and delivery and check the stock of medicines and medical consumable supplies, avoid improper use, waste and danger to patients, regulations and procedures for management of medicines and medical consumable supplies in medical institutions with hospital beds are essential.

1. Regulations on management and use of medicines related to nurses

Circular No. 07 / VBHN-BYT dated April 19, 2018 by the Minister of Health guiding the use of medicines in medical institutions with hospital beds

Responsibility in guiding medicines use

Nurses and midwife students are responsible for giving patients medication or instructing patients to take medicine to make sure they are used by the right route, at the right time and right dose as ordered. We extract the article 4, 6, 7 and 8 of Circular No. 07 / VBHN-BYT dated April 19, 2018 by the Minister of Health guiding the use of medicines in medical institutions with hospital beds as follows:

Article 4. Summary of medicines in clinical departments

1. Nurses summarize medicines and chemicals from the medical record into the daily summarizing book of medicines (form in Appendix 10), then summarize medicines used by the whole department into the Medicine Receipt Sheet (form in Appendix 1), Chemical Receipt Sheet, Consumable medical supplies Receipt Sheet (form in Appendix 2, 3) are subject to summarize weekly.

2. Narcotic drugs, psychotropic medicines and radioactive drugs must have their own receipts in accordance with current regulations.
3. The medicine receipt must be approved in writing by the Head of Department or authorized person by the Head and on-site physicians are allowed to sign Medicine Receipt Sheet on the day of leave and to cases of proposing medicine unexpectedly.

4. The summarizing book of medicines and medicine receipt sheets must be clearly, fully and accurately recorded without abbreviation, and must be signed next to the corrections.

**Article 6. Responsibilities of clinical departments in giving patients medication**

**1. Before the patient takes medicine**

a. Announce daily medicine for each patient by notifying the patient before taking the drug, and at the same time requesting the patient or family member to sign in the Publicized daily medical examination and treatment service sheet (form in Appendix 01 issued together with the Circular amending and supplementing several regulations on expenses for medical examination and treatment covered by health insurance). The Publicized daily medical examination and treatment service sheet shall be kept at the head or at the end of the hospital bed;

b. Instruct and explain to patients to comply with treatment;

c. Medicine testing (medicine name, concentration, content, single dose, number of doses used in 24 hours, time intervals between doses, time and route of medication) compare with medical orders, check the expiry date and sensory quality of the medicine. When detecting abnormalities in orders such as prescribing the use of prescribed overdose, unreasonable route or using multiple drugs at the same time causing interaction, the nurse must report to the physician or on-call physician;

d. Prepare facilities and medicines:
   - Prepare enough facilities for patients to take medicine: hygienic medicine tray and drinking water for patients who take oral medicine, hourly medicine bottles for each patient;
   - Means of transporting drugs must be clean, neatly arranged and conspicuous;
   - Prepare emergency medicine box and anti-shock regimen for injection medicine;
   - Injection solution for patients must be properly prepared with the right solvent, at enough volume and followed manufacturer’s regulations.

**2. While the patient takes medication**

a. Ensure hygiene, protect infections.

b. Ensure 5 rights:
   - Right patient;
   - Right drug;
   - Right dose;
   - Right route;
   - Right time.
c. Directly witness patients taking drugs and monitor, detect timely any abnormalities of patients while taking drugs.

3. After the patient takes medicine
a. Monitor patients:
   - Monitor regularly to timely handle abnormalities of patients. Keep a full record of patients’ clinical developments in medical records.
   - The treating doctor is responsible for monitoring the drug’s effects and promptly handling the accidents caused by the use of drugs, recording in books of monitored adverse reactions of drugs (form in Appendix 5).

b. Specify the number of drugs to be treated for each patient, every time when medication is completed, it must be marked already done;

c. Preserve the remaining drug (if any) as per manufacturer’s requirements;

d. Handle and preserve tools related to the use of medicines for patients according to regulations.

Article 7. Management and storage of medicines in clinical departments
- Drugs in emergency medicine cabinet must be in accordance with the approved list and radix and stored in accordance with the manufacturer’s regulations and requirements.
- Narcotic drugs, psychotropic medicines, pre-substances and radioactive drugs should be managed and preserved according to current regulations.
- Assigned nurse checks and compares drug names, concentration / content, quantity, quality, dosage form of drugs in Medicine Receipt Sheet when receiving drugs from the Pharmacy Department and when transferring medicines to caring nurse.
- Nursing staff when detecting misuse of drugs, loss of drugs and damaged medicines should immediately report to the direct superior manager for timely countermeasures and request for clarification of reasons and responsibilities.
- Excess drugs due to changes in medical orders, transfer of department, hospital discharge, transfer of hospital or death (hereinafter referred to hospital discharge) are summarized (form in Appendix 4), must be certified by the head of clinical department or authorized person by the head of a clinical department in writing and returned to the Pharmacy Department within 24 hours. As for addictive drugs, psychotropic medicines and radioactive medicines, the records must be made and returned according to current regulations.
- Summary of drugs, chemicals and medical consumable supplies of each patient before hospital discharge must be sent to the Finance - Accounting Department for hospital fee payment
- Handover the actual quantity of medicines and tools to the shift and record the Permanent medicine handover book and the Permanent tool handover book (form in Appendix 8, 9).
- It is strictly forbidden to borrow or exchange drugs.
Article 8. Report

- When special cases (accidents, confusion) about the use of drugs occur, hospitals are expected to handle immediately and report to the superior management agency.

- Report on adverse drug reactions (form in Appendix 5) to the superior management agency and The National Centre of Drug Information and Adverse Drug Reactions Monitoring (National DI & ADR Centre).

- Report on the use of addictive drugs, psychotropic medicines and radioactive drugs according to the current regulations by Ministry of Health.

2. Procedures for managing medicines for patients by nurses

2.1 Process of inputting medicine information, medicine handover between nurses in charge of drugs and caring nurse
### 2.1.1 Flow chart

<table>
<thead>
<tr>
<th>No.</th>
<th>Implementation steps</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Doctor</td>
<td>Medicine order in medical record</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SUITABLE</td>
</tr>
<tr>
<td>2</td>
<td>Nurse in charge of medicine</td>
<td>Check medicine order, input medicine information to the Announced medicine use sheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SUITABLE</td>
</tr>
<tr>
<td>3</td>
<td>Pharmacy Department</td>
<td>Examine and dispense medicines (refuse to dispense medicines in case of error in medicine order sheet)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SUITABLE</td>
</tr>
<tr>
<td>4</td>
<td>Nurse in charge of medicine</td>
<td>Receive and check medicines: Information of patient and medicine information (sign and handover)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SUITABLE</td>
</tr>
<tr>
<td>5</td>
<td>Caring nurse</td>
<td>Medication delivered fits with medical order in medical record</td>
</tr>
</tbody>
</table>
### 2.1.2 Content

<table>
<thead>
<tr>
<th>No.</th>
<th>Implementation steps</th>
<th>Content</th>
</tr>
</thead>
</table>
| 1   | Doctor               | - Make prescription  
  
  Write fully, clearly in the prescription, medical record, do not abbreviate the name of the medicine, do not write the symbol |
| 2   | Nurse in charge of medicines | - Summarize medicines in clinical departments  
  
  If abnormalities are detected in the order such as prescribing overdose, unsuitable route, or multiple drugs used simultaneously causing interactions, the nurse must report to the treating doctor or the head nurse or head doctor of the department |
| 3   | Pharmacy Department  | - Organize to dispense medicines ensuring the quality and instructions on drug use  
  
  May refuse to dispense medication in cases of error in medicine receipt sheet |
| 4   | Nurse in charge of medicines | - Receive and check the medicine delivered from the Pharmacy Department  
  
  Right patient information, right medicine information: medicine name, concentration / content, quantity, quality, dosage form, expiry date  
  
  - Sign and handover medicine to caring nurse  
  
  When detecting a wrong medicine, losing medicine or damaged medicine, immediately report to the direct superior manager |
| 5   | Caring nurse         | - Receive and check appropriate medicines in medical orders and those handed over from nurse in charge of medicines. |
### 2.2 Procedures conducting medication to inpatients

#### 2.2.1 Flow chart

<table>
<thead>
<tr>
<th>No.</th>
<th>Implementation steps</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nurse in charge of medicine and caring nurse</td>
<td><img src="chart.png" alt="Flowchart Image" /> Check delivered medicine whether it fits with medical order in medical record</td>
</tr>
<tr>
<td>2</td>
<td>Caring nurse</td>
<td>Prepare adequate and reasonable facilities</td>
</tr>
<tr>
<td>3</td>
<td>The patient or patient’s family members</td>
<td>Announce and sign for received medicine by hour of administration</td>
</tr>
<tr>
<td>4</td>
<td>Caring nurse</td>
<td>Check 5 rights (right patient, right drug, right route, right dose and right time)</td>
</tr>
<tr>
<td>5</td>
<td>Caring nurse</td>
<td>Sign to certify that the medication has been performed, monitor to advise the patient and record medical documentation</td>
</tr>
</tbody>
</table>
### 2.2.2 Content

<table>
<thead>
<tr>
<th>No.</th>
<th>Implementation steps</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prepare medicine</td>
<td>- Appropriate delivered medicine: medicine name, concentration / concentration, single dose, 24-hour doses, time interval between medication, route, expiry date, quality, integrity of tablets, ampoules or vial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Prepare the facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Full and appropriate facilities for patients to take medicine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- When administering the medicine via injection, prepare emergency medicine box and anaphylaxis management regimen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Prepare properly and enough solvent according to the manufacturer’s regulations</td>
</tr>
<tr>
<td>3</td>
<td>Publicizing drugs</td>
<td>- Push the drug cart to the hospital bed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Greeting to the patient</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Introduce the name and explain the reason for conducting medication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Identify the status of patients</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Ask a patient’s history of allergy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Perform announcing drugs, patients or family members sign and receive</td>
</tr>
<tr>
<td>4</td>
<td>While taking medicine</td>
<td>- Compare patients, perform 5 rights (right patient, right drug, right route, right dose and right time)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Notify family members and patients about the effects and route of the medicine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Conduct medication according to medical order in medical record, if the medicine is orally taken, the nurse must witness the patient to take medicine and monitor the patient’s abnormalities while taking the medicine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Inform the patient after conducting medication</td>
</tr>
<tr>
<td>5</td>
<td>After taking the medicine</td>
<td>- Monitor the patient regularly to timely handle abnormalities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Report to the patient and / or family member that the remaining drugs in the day will be preserved at the nursing room as regulated and will be performed on time according to the order.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Greetings to the patient and / or family members</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Push the medicine cart to the nursing room</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Clean the drug cart</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Wash hand</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Record documentation: fully record the clinical development of the patient before, during and after conducting medication (described in detail if the patient has side effects of the drug)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Write or mark the medicine used on the appropriate announced medicine use sheet as regulated by the hospital</td>
</tr>
</tbody>
</table>
2.3 Emergency cases

2.3.1 Medicine are available in a medicine cabinet

- Step 1: The nurse in charge of the shift receives medical order from medical record and take medicine in the medicine cabinet.
- Step 2: Handover the medicine to the direct caring nurse for proper examination
  Depending on the situation of emergency medical condition, the head nurse of the shift can take part in assisting in the process of conducting medication and emergency treatment for patients

2.3.2 Case when medicines are unavailable in the cabinet

- Step 1: Head nurse of the shift receives medicine from the record
- Step 2: Transfer records to nursing staff in charge of drugs (during office hours) or importing drugs according to medical orders (outside office hours)
- Step 3: Call URGENTLY to the Pharmacy Department informing the medicine receipt number or ask the Pharmacy Department to deliver the medicine URGENTLY
  In the case that the Pharmacy Department does not deliver medicines promptly, nursing care or medical assistant of the department come to the Pharmacy Department to receive medicines and sign for the medicines received
- Step 4: Deliver medicines to the head nurse of the shift
- Step 5: The head nurse of shift delivers to direct nursing care

2.4 Medical order for additional medication in the nightshift

- Step 1: Nursing care receives medical order for additional medicines
- Step 2: Report to the head nurse of the shift
- Step 3: The chief nurse of the shift receives the documentation of medical order for additional medicine
- Step 4: Implementation of the drug import process: medicine information, medicine receipt, medicine handover to caring nurses (caring nurse receive drugs, handover in proper process)
- Step 5: Conduct medication to patients according to regulations

2.5 Preserving medicines

*Daily medicine*

- Preserve according to manufacturer’s regulations
- Normal temperature: 25 - 30°C
- Cold temperature: 2 - 8°C
- Relative humidity ≤ 70%
**Lesson 23: Management of Medicines and Medical Consumable Supplies**

* **Medicine needs cold storage**
- During transportation, ensure the recommended temperature (ice box can be used with dry ice or cold storage)
- Medicines must be kept in the refrigerator cool compartment at the clinical departments

* **Light hydrophobic drugs**
- Use appropriate storage tools as recommended (shielding equipment such as black bags, dark wrap ... can be used)
- During transportation, make sure the light does not shine directly

2.6 Handover medicine
- Drugs in emergency medicine cabinet must be in accordance with the approved list and base
- Preserve as per manufacturer’s recommendations, expiry of more than 6 months
- Addictive drugs and psychotropic medicines must be kept in separate cabinets with locks
- Retail dispensing medicines without intact packages must be repackaged in sealed packages and labeled with medicine names, concentrations / contents and expiry dates.

2.7 Report
- Coordination among doctors, pharmacists, nurses and midwife students in administration of medicines to increase the effectiveness of medication and limit errors in prescribing and conducting medications to patients
- The treating doctor is responsible for monitoring the drug’s effects and promptly handling accidents caused by the drug
- During using drugs:
  + If there are unclear issues, doubts or errors, check and feedback information immediately upon detection
  + When special cases (accidents, confusion ...) occur: immediately report to the direct management level to take prompt handling measures and clarify the causes and responsibilities (complying with “Regulations on identification, handling and reporting of professional errors”)
  + When a case of adverse reactions occurs: comply with the “Regulations on receiving, handling and reporting harmful effect of drugs”

2.8 Filing forms

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of document</th>
<th>Save (PIC)</th>
<th>Location</th>
<th>Time saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Announced medicine use sheet</td>
<td>Nurse</td>
<td>Patient record</td>
<td>In accordance with the medical record storage regulations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

...
3. Process of managing medical consumable supplies by nurses

3.1. Estimation / planning for asset and material management

Head Nurse of Department is the person to be assigned the task of estimating assets and supplies to serve the treatment and care of patients in the department. The following steps must be followed:

- List of necessary items.
- Select the appropriate categories.
- Balance between demand and available funding.
- Prepare an estimate.

3.1.1. List of necessary items

Based on the list of items that are in need or will be needed for activities in the department. The list needs to be arranged in groups of categories to be easy to remember and do not to miss.

3.1.2. Select the appropriate categories

- Based on the categories that have been used, select those that are suitable to the object, purpose of use and technical requirements. Avoid using tools that do not need to be used or improperly used.
- Based on the amount of supplies remained in the warehouse and the changes in the professional activity plan, set the time to make appropriate estimates, avoid the situation of making estimate while there are still many supplies or make supplementary estimate after using up all the supplies
- Normally, estimate for 1 month, 1 quarter, 1 year depending on the needs of each specialized departments
- Based on the statistics used in the past, it is best to calculate based on actual requirements, by collecting medical techniques according to the proportion of patients, investigating and studying the use of goods for various activities in the department every day, month and year to determine the number of items needed.
- Ensure the number of items used for emergency treatment of patients.

3.1.3. Balance between demand and available funding

When making an estimate, the head nurse must know the value of each item to calculate the cost and balance the available funding. It is often necessary to prioritize several items that are indispensable, those that are suitable for funding and within acceptable ranges.

3.1.4. Prepare the estimation plan

After identifying the essential needs and balances of the available funding, the head nurse proceeds to prepare the estimate. Items to be specified:

- Name of the unit
- Names (codes) of items, requirements of standards and techniques
- Unit
- Amount
- Unit price
- Total
- Time: planned date, month and year
- Estimated items need to be written in order of priority from up to down

Each estimate sheet before sending to the supplies department must have the signatures of the leader and the head nurse of the relevant department. In some exceptions, it is necessary to consult the nursing department or the hospital leader.

3.2. Receipt of supplies
- The person receiving supplies does not have to be the head nurse but can authorize another person and the head nurse is the responsible person
- Receive enough supplies according to the estimate sheet and according to the time specified.
- When receiving supplies, it is necessary to check carefully the origin, quantity, quality, and type of goods to see if it is suitable for use, signature of delivery person.

3.3. Store supplies in stock

3.3.1. General principles of asset storage

* For head nurse:
- Is the person responsible for the management board of the management of assets and consumables.
- Be responsible for draft estimation, taking, preserving and fully distributing to users.
- To master the amount of assets and supplies in stock according to books or stock cards.
- Regularly, periodically or extraordinarily to report to the leaders on the needs of providing and effectively using materials and supplies, repair - maintenance plans of equipment in the department.

* For administrative nurse:
- To directly manage asset and material stock when being assigned.
- To receive and deliver supplies corresponding to the needs of use and must have the head nurse's opinion, for expensive assets, there must be opinions of the department leaders.
- To regularly report on the status of assets and supplies in the warehouse for the head nurse to master the situation.

* To use all kinds of assets and consumable materials effectively:
- For normal tools, it is required to follow the cleaning, disinfection, sterilization and maintenance procedures to avoid damage.
- For modern and complex supplies, machines and equipment, it needs to be cleaned daily or immediately after use and with periodic maintenance as per instructions of the machine history.

- Machines and tools, after being used, must be placed in the regulated places or returned to the management and maintenance centers; must be handed over carefully between shifts based on signed books and handover.

3.3.2. Make storage cards for each type of property and supplies

- When receiving and delivering goods, head nurse shall be responsible to record in stock cards in exactly relevant columns, items of stock cards, hand over properties - supplies to administrative nurses, store them in warehouses or hand them over to users.

- During the handover process, it is necessary to specify the quality and quantity of each item and request the receipt.

- After each daily receipt and deliver, the head nurse must add or subtract the amount in the stock card to know the available amount to help the estimate plan.

3.3. Warehouse or storage place

- Warehouses are arranged in a place convenient for allocation, high, ensuring enough area, lighting system and good ventilation system.

- In the warehouse, there must be stands and tools for storing goods.

- Warehouse doors must be closed and secure, is locked and sealed after the working day.

- There must be a ban on fire and fire extinguishing facilities (manual on proper usage is available)

- Internal rules of entry, preservation, delivery and internal rules of warehouse entry and exit are available.

3.3.4. How to organize goods in warehouse

- All types of goods must be placed on the shelf or placed high, not directly organized on the floor.

- Each item must be placed in a separate box, first in first out inventory arrangement, avoiding the situation of expired goods, causing economic damage to the hospital.

- Chemicals that are easily damaged due to evaporation or light need to be placed in specialized tools such as: bottle, dark bottle with glass lids ...

- When placing goods in warehouses, ensure the quality of the goods not because of narrow space that affects the quality of the goods, the items for frequent use need to be put outwards for easy access.

3.4. Allocation of assets and supplies

- Delivering goods upon request by the head nurse or leader.

- First in first out management.

- Based on the demand of use, allocate in reasonable quantity.
- Based on the purpose of use, allocate each type accordingly.
- Do not allocate items that are in poor quality and wrong specifications.

3.5. Monitoring use
- Ensure the proper use of the right way and purpose of each type of material to optimize the effectiveness and avoid waste.
- Head nurse must be knowledgeable in how to use materials in the warehouse, especially new materials - assets to guide when necessary, instruct other health officials to use.

3.6. Check - Assessment
Check is one of the important tasks of head nurse. The purpose of checking assets and materials is:
- To fully and promptly meet the care, treatment and service of patients.
- To avoid waste of materials: making sure that all materials must be used for the right purpose and must be highly effective.
- To detect broken tools for repair and replacement promptly.
- To detect shortcomings in management, differences in quantity, design or imbalance between estimation and use to adjust accordingly.
- To detect weaknesses in the use and operation of equipment for timely guidance and training.
- To carry out inventory checking for periodic reports in accordance with the hospital’s regulations.

LESSON TEST

1. Choose the best answer

Question 1: In nursing steps before giving medication to patients (as per regulations) which of the following steps needs coordination with doctor to ensure safety to patients during medication:
A. Announce daily use drugs for each patient
B. Instruct and explain to patients to comply with treatment
C. Check medicine
D. Prepare facilities and medicine

Question 2: Procedures of managing medicines to patients by nurse:
A. Receive medicine, enter information, handover medicine, conduct medication to patients, preserve and report drug use
B. Enter information, receive drugs, handover, preserve and conduct medication to patients, report drug use
C. Enter information, Receive drugs, hand over, conduct medication to patients, preserve and report drug use.
D. Enter information, receive drugs, hand over, conduct medication to patients, preserve and report drug use.

**Question 3: Contents of medicine inspection of nurses before giving medicines to patients (according to Article 6, Circular No. 07 / VBHN-BYT dated April 19, 2018):**

A. Name of medicine, concentration, medicine content, dosage, drug quality
B. The name of the medicine, single dose, the number of doses used in 24 hours, the time internal, the time.
C. Name of medicine, concentration, content, time of medication administration and route
D. Name of drug, concentration, concentration, dose, number of doses used in 24 hours, distance between doses, time of medication administration, route of administration, expiry date, sensory quality.

**Question 4: Principles of assets, consumable supplies management of the clinical departments, except:**

A. The Head Nurse is responsible for managing assets, consumable supplies management to the leader of the department.
B. The Head Nurse is the person directly managing assets, consumable supplies of the clinical department.
C. Administrative nurse is the person directly managing assets, consumable supplies of the clinical department
D. Caring nurse: receives consumable supplies directly used for patients

2. Choose the True/Fault sentence

<table>
<thead>
<tr>
<th>No.</th>
<th>Question content</th>
<th>True</th>
<th>Fault</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nurses are responsible for giving medication to patients or instructing patients to take medicine.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Head nurse and nurses are responsible giving medication to patients or instructing patients to take medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The head doctor of department is the person who is assigned to plan the estimated assets and supplies for the treatment and care of patients.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The Head nurse of Department is the person who is assigned to plan the estimated assets and supplies for the treatment and care of patients.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Unusual problem solving of nurse when testing drugs (before giving medication to patients) is: Do not conduct medication report to the treating doctor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Unusual problem solving of nurse when testing drugs (before giving medication to patients) is: Do not conduct medication to patients and report head nurse</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ANSWER

1. Choose the best answer
   - Question 1: C
   - Question 2: D
   - Question 3: D
   - Question 4: B

2. Choose the correct / incorrect answer
   - Question 1: True
   - Question 2: True
   - Question 3: Fault
   - Question 4: True
   - Question 5: True
   - Question 6: Fault

Competency based assessment checklist for Management of medicines and medical consumable supplies

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Can do independently, without support (2)</td>
</tr>
<tr>
<td>1</td>
<td>To present regulations and procedures for managing medicines used for patients by nurses (enter information, receive, hand over, conduct medication to patients, preserve and report medicine use)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>To present the management process of medical consumable supplies by nurses (estimate, receive, allocate and preserve)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Be properly and personally responsible for managing medicines and consumable supplies</td>
<td></td>
</tr>
</tbody>
</table>

REFERENCES

1. Ministry of Health (2012). *Training materials to improve nursing management capacity*
6. Circular number 23/2011 / TT-BYT dated June 10, 2011 by the Minister of Health guiding the use of drugs in medical institutions with hospital beds
7. Circular No. 07 / VBHN-BYT dated April 19, 2018 by the Minister of Health guiding the use of drugs in medical institutions with hospital beds
LESSON 24

EVALUATION OF COMATOSE PATIENT BASED ON GLASGOW COMA SCALE

OBJECTIVE

1. Explain patient evaluation steps based on Glasgow scale.
2. Be able to implement patient evaluation steps based on Glasgow scale. (Competency: 2.1; 4.1; 4.2; 6.1; 16.3; 25.2)

CONTENT

1. Introduce about Glasgow Coma Scale

   The Glasgow Coma Scale (GCS) is evaluation tool that identifies level of consciousness of patient through quantify scores. GCS was initially used to assess a person’s level of consciousness after a head injury, and the Glasgow scale is now used also for other cases. This scale aims to give reliable and objective way, provides prognostic and convenient to monitor the progress of patient.

1.1. Glasgow Coma Scale

   The scale consists of 3 criteria: eye response, verbal response and motor response.

<table>
<thead>
<tr>
<th>Response</th>
<th>Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>Eyes open spontaneously</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Eye opening to verbal command</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Eye opening to pain</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>No eye opening</td>
<td>1</td>
</tr>
<tr>
<td>Verbal</td>
<td>Orientating response</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Confusing response</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Inappropriate words</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Incomprehensible sounds</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>No verbal response</td>
<td>1</td>
</tr>
<tr>
<td>Motor</td>
<td>Obey commands</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Localizing pain correctly</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Withdrawal from pain with incontinence</td>
<td>4</td>
</tr>
</tbody>
</table>
### Total score of 3 responses

<table>
<thead>
<tr>
<th>Total score of 3 responses</th>
<th>Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 score</td>
<td>Normal</td>
</tr>
<tr>
<td>9-14 score</td>
<td>Mild consciousness disorder</td>
</tr>
<tr>
<td>6 to 8 score</td>
<td>Severe disorders of consciousness</td>
</tr>
<tr>
<td>4 to 5 score</td>
<td>Coma carus</td>
</tr>
<tr>
<td>3 score</td>
<td>Deepest coma, threaten to unrecovery</td>
</tr>
</tbody>
</table>

After giving the score for each response, we sum up the total score of three responses. The result evaluates as following:

Lower total score, more severe injury.

Intubated patient with ventilator during unconscious period does not evaluate by using verbal response. Then, the Glasgow Coma Scale will calculate based on two responses: eye opening response and motor response. Therefore, when comatose patient is intubated, the highest score of Glasgow Coma Scale is 10 (T) and the lowest is 2 (T) \[^{(in some materials, the lowest score is 3(T))}\]. The letter “T” writes after Glasgow Coma Scale indicating that patient uses endotracheal tube. The letter “T” stands for Tube.

If both eyes of comatose patient cannot open, the Glasgow Coma Scale evaluates via two criteria which are verbal response and motor response. So, for that patient, the highest score of Glasgow Coma Scale is 11(C) and the lowest score is 2(C) \[^{(some materials score the lowest point as 3(C).}\] The letter “C” writes after Glasgow Coma Scale showing that both eyes of patient get injury and cannot be opened. The letter “C” is an abbreviation of “Closed”.

### 1.2. Apply Glasgow Scale on exanimating comatose patient/ patient with disorder of consciousness

The Glasgow Scale was initially used to assess patient’s coma stage after head injury, and then it used to evaluate patients with disorder of consciousness.

Conducting patient evaluation with disorder of consciousness/coma must also follow the medical examination steps. Evaluating the patient’s consciousness is part of patient identification and examination that implemented by Nurses.

Assessing patient’s consciousness helps to identify the level of consciousness at the time of evaluation. The results of consciousness assessment over the time help to evaluate the good or bad progress of comatose patients.
### 2. The procedure of assessing comatose patient based on Glasgow Scale

<table>
<thead>
<tr>
<th>No.</th>
<th>Implementation</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Examiner: dress appropriately</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare equipment</td>
<td>- Ensuring to have enough equipment for examination.</td>
</tr>
<tr>
<td></td>
<td>- Glasgow Scale</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Medical penlight (torch)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Equipment for motor assessment (if any)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Prepare for patient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Explain to patient and/or patient’s family</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Position: Patient lays down on bed or stretcher (if there are not enough beds in the clinic)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Observe patient and pay attention on patient’s eyes, position, movement of limbs and his/her voice.</td>
<td>Detecting abnormal signs of patient</td>
</tr>
<tr>
<td>5</td>
<td>If patient lies on bed with no movement, examiner touches and calls patient.</td>
<td>Evaluating the patient response during touching and calling him/her (on whether he/she opens eyes and answers you or not?)</td>
</tr>
<tr>
<td>6</td>
<td>If patient stays awake, ask him/her question</td>
<td>Checking patient reaction via verbal response</td>
</tr>
<tr>
<td></td>
<td>(simple question about name, age, hometown etc.)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Patient awake, please require him/her to do some simple activities such as moving (shirking) legs, hands</td>
<td>Checking patient’s motor response</td>
</tr>
<tr>
<td>8</td>
<td>If patient does not respond to the calling or question, examiner stimulates to cause pain on patient. Use thumb and one side of index finger to pinch on thin skin (inside thigh, forearm or arm of patient)</td>
<td>Checking patient’s motor response while causing pain.</td>
</tr>
<tr>
<td>9</td>
<td>Patient identification (based on result score). Write down score in according to Glasgow Scale. for example: Glasgow 10 scores (eye:3; verbal:4; motor 3), on 19:20</td>
<td>Evaluating the patient consciousness level at the examination/assessment time</td>
</tr>
<tr>
<td>10</td>
<td>Tide up equipment, Wash hands</td>
<td></td>
</tr>
</tbody>
</table>
3. Technical checklist to assess comatose patient based on Glasgow scale

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Examiner: dress appropriately</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare equipment</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Prepare for patient</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Observe patient and pay attention on patient’s eyes, position, movement of limbs and his/her voice.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>If patient lies on bed with no movement, examiner touches and calls patient</td>
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<td>6</td>
<td>If patient stays awake, ask him/her question</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Patient awake, please require him/her to do some simple activities such as moving (twisting) legs, arms</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>If patient does not respond to the calling or question, examiner stimulates to cause pain on patient</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Identify patient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Write down score in according to Glasgow Scale.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Tide up equipment, wash hands</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion:** Assessment of comatose patient based on Glasgow Scale is one of method to evaluate patient consciousness level. It helps nurses, doctors to recognize patient consciousness level at the assessment time. The patient consciousness level will become better or worse depending on patient’s progress. We use Glasgow Scale together with other evaluation techniques while performing medical examination for patient so that new nurses have basis to identify patient and provide appropriate diagnostic care.

**EVALUATION QUESTION**

1. **Practical case studies**

   **Case study 1**

   65-year-old patient, named Nguyen Van T, has past medical history on hypertension for 10 years. In the Emergency Department, it diagnoses that: Stroke; Patient’s status: normal skin and mucosa; pulse 65bpm; blood pressure 160/95 mmHg; 18 breaths per minute; responded to question but answered messily; when stimulating pain, patient opened eyes and shirked.

   **Question**

   1. Evaluate T’s status based on Glasgow Scale; record the score of the patient.
   2. Assess the level of consciousness of the patient based on Glasgow Scale.
Case study 2:

Patient Hoang Van Nam, 45 years old suffered traffic accident and was taken to Emergency Department of C Hospital. This patient status at discharge: normal skin and mucosa; pulse 78bpm; blood pressure 120/75 mmHg; 17 breaths per minute; patient lied quietly, did not respond to clearly to question; limbs reacted while stimulating pain; the forehead and eyes were swollen and bruised.

Question

1. When exanimating and assessing patient based on Glasgow Scale, how to you perform it? (select the best answer)
   A. When asking questions, you ask patient directly
   B. When asking questions, you ask patient’s family who accompanies the patient
   C. When asking questions, you ask both – patient and patient’s family
   D. Do not ask questions because you observe that the patient is lying quietly.

2. Evaluate Nam’s status based on Glasgow Scale; record the score of the patient

3. Evaluate the level of consciousness of patient based on Glasgow Scale.

ANSWER:

Question 1.1: Glasgow – 10 scores  Question 1.2: Mild consciousness disorder
Question 2.1: A;     Question 2.2: Glasgow 7 (C)
Question 2.3: Mild consciousness disorder

2. Clinical case study:

Preceptor selects some comatose patients in clinical department (with various level of consciousness), then request trainee/group of trainees to assess those patients based on Glasgow Scale. After that, they will have group discussion and give comments/feedbacks.

Competency based assessment checklist for Evaluation of Comatose patient based on Glasgow Coma scale

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Can do without support</td>
</tr>
<tr>
<td>1</td>
<td>Explain patient evaluation steps based on Glasgow Scale</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Perform techniques on patient evaluation based on Glasgow Scale</td>
<td></td>
</tr>
</tbody>
</table>

REFERENCES

2. Website: Yte 123.com/kham-danh-gia-benh-nhan-hon-me-theo-thang-diem-glasgow/
OBJECTIVE

1. Identify cases when the patients need to have airway clearance, oxygen breathing or breath stacking ambu bag. (Competency 1.1; 2.1; 4.1; 4.2; 4.3; 6.1, 9.1)

2. Effectively carry out respiratory ventilation, oxygen breathing and breath stacking ambu bag (Competency 2.4, 3, 4.4, 4.5, 4.6, 4.7, 5.1, 6.2, 6.3, 8.1, 8.2, 9.2, 9.3, 9.4, 11.3; 15.3; 18.3; 20.2; 20.4; 24.4)

3. Become quick, accurate and safe when carrying out respiratory. (Competency 5.1, 5.2, 5.3, 24.1, 25.2)

CONTENT

1. Introduction:

Oxygen is a crucial element in human life. Every cell in the body needs oxygen to metabolize, nourish and create energy needed for activities. Oxygen deficiency causes dysfunction and structure in many organs, especially in the central nervous system and the cortex. Hypoxia in brain for more than 5 minutes may result to necrosis of the brain that cannot be recovered. The central nervous systems that are the most sensitive to hypoxia are the respiratory center and the circulatory center.

The lack of oxygen (hypoxia) disturbs the transformation from aerobic to anaerobic, which leads to acidosis that increases capillary permeability and other homeostasis that causes more severe hypoxia in lesions in tissues. At the beginning, the lesions can be recovered, but in case of severe and prolonged hypoxia, important organs (such as brain, heart, liver, kidney) will be irreversible disordered and dead.

There are many causes of hypoxia in the body, including: environment, obstruction in the respiratory tract, diseases affecting respiratory activity, damage in respiratory center, respiratory muscles or diseases that interfere with ventilation, etc. Respiratory intervention will contribute to resolving the above causes, improving respiratory process, providing oxygen to the patients with respiratory problems and make the treatment effective.

Good respiratory management helps to ensure the respiratory circulation, thereby maintaining the supply of oxygen and CO2 emission smoothly, respiratory management including: Correctly identifying the respiratory condition of the patients; apply appropriate respiratory measures to patients with hypoxia; effectively monitoring respiratory measures and the progress of patients. Apart from planning for a safe respiratory intervention to patients, the role of nursing is also
to coordinate with the treatment team to carry out the oxygen therapy, ambu bag; report to the doctor the abnormalities and the patients’ responses to the respiratory support; coordinate with physiotherapist staff in recovering the respiratory function for patients; educational communication to patients and their families about respiratory interventions.

**Respiratory support skills include:**

- Set a suitable position for breathing
- Get sputum out of mouth and pharynx
- Support the patients with oxygen
- Support the patients with breath stacking ambu bag
- Suck sputum through endotracheal tube, tracheal cannulae
- Take care of the endotracheal tube, opening trachea
- Take care of patients with mechanical ventilation

……

In this session, we will introduce some of the following respiratory support skills: Absorption of pharyngeal sputum, pharynx, suction through endotracheal tube or Tracheal Cannulae; support patients breathe with oxygen; Ambu bag.

2. Respiratory clearance

Respiratory clearance is a respiratory support technique which uses a catheter connected to a suction machine, insert the catheter into nose/mouth, the patient’s throat, or put the tube through the endotracheal tube /tracheal cannulae; aims to clean up sputum and stagnant in the mouth, nose, throat, respiratory tract of patients, clearing the respiratory tract for patients.

2.1. Apply respiratory clearance to some situations as following:

- The patients with a lot of phlegm that they cannot spit out.
- The comatose patients who have phlegm increased.
- The patient inhales vomit, food / drink
- Have treatment to patients with tracheostomy, intubation, mechanical ventilation.
- Newborn.

2.2. General principles

- Make sure to be sterile while sucking to avoid superinfection.
- Must regularly take the patients’ sputum out to keep the respiratory clearance. Each time of sucking is not over 10 – 15 seconds and not more than 3 - 5 times, because sucking continuously with long period causes lack of oxygen that leads to arrhythmia.
- Do not put the tube too deeply and must ensure suction pressure: pressure from 100-120
mmHg to adults and from 50 - 75mmHg to children. If applying strong pressure to children, their airway mucosa will be damaged.

- If there is no suction machine, you can use a 50 – 100ml injection and sonde tube for suction.

2.3. Procedures for practicing respiratory clearance technique

<table>
<thead>
<tr>
<th>No.</th>
<th>Procedure</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prepare equipment: Suction machine, suction tube, use water in case of clearance nose and mouth; Use disinfectant water for cases of endotracheal tube, disinfectant solution, gloves, garbage bags,...</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare nursing - Nursing clothes, hats and masks. - Regularly wash hands / disinfect hands</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Identify and prepare for patients - Identify respiratory condition and circulation of the patients before suction - Explain to the patients/ patients’ family members - Put the patients in the supine position, can put pillows under the shoulders or put them in fowler position depending on their situation</td>
<td>- Patients/ patients’ family members cooperate. - Suitable posture to bring the suction tube deeply in the respiratory tract</td>
</tr>
<tr>
<td>4</td>
<td>Prepare suction machines, install suction tubes and test the suction - Plug the power into the suction machine, turn on the machine to test and adjust suction pressure to be suitable for the patients. - Tear the catheter bag; gloved and insert the catheter into the suction wire and try sucking 0.9% sodium chloride through the tube</td>
<td>- The machine works well. The suction pressure is suitable and does not hurt the respiratory tract.</td>
</tr>
<tr>
<td>5*</td>
<td>Suck the sputum through the mouth and nose - Put the catheter to the suction position - Turn on the suction machine, start sucking: 15 seconds/time maximum, 5 times/turn. Suck in order in the mouth and nose (oral cavity, pharynx, nose, under tongue, nostril). - Clear the catheter. Suck the sputum through endotracheal tube or tracheal cannula - Put the catheter deeply to the endotracheal tube or tracheal cannula. Turn on the suction machine, pull out the catheter slowly, pull and twist the catheter, restrict pushing back.</td>
<td>- Clean up sputum in mouth, nose, throat and respiratory tract - Clean suction ways</td>
</tr>
</tbody>
</table>
- Suck sputum in 3 postures (supine, right and left sides).
- No more than 10 seconds/time and minimize number of time (Guideline for airway - sputum suction of The Japanese Respiratory Society. Between times, spend some seconds for the patients to breathe and then continue sucking.
- While sucking, you must observe the SPO$_2$ (if it is reduced or not) or lips or body parts (if they turn cyanosis or not) If SPO$_2$ is reduces or the patients become cyanosis, stop sucking for them to breathe.
- Clear the catheter

6 Finish sucking: turn off the machine, remove the catheter and put it into the antiseptic bottle / or put it in the garbage bag.
- Help the patients stay in a comfortable posture.
- Support the patients breathing after sucking

7 Identify the patients’ situation after suction
- Observe breathing, skin, mucosa, SPO$_2$
- Check the patients’ pulse, measure the blood pressure.
- Ask the patients about their feelings after being sucked

8 Tidy up tools and wash hands.

9 Records / Caring cards
Suction time, the situations of patients before, during and after being suck. Nurses sign

Note: if the 5th step is not done properly; the technique is not achieved.

Checklist for respiratory clearance technique

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Prepare equipment</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare nursing</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Identify and prepare for patients</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Prepare machines, install the suction tube, test suction</td>
<td></td>
</tr>
</tbody>
</table>
5. Suck the sputum through the mouth and nose pharynx. Suck the sputum through the endotracheal tube or tracheal cannula.

6. Finish sucking: turn off the machine Support the patients breathe after sucking.

7. Identify the patients’ situation after being sucked.

8. Tide up the tools Wash hands.


3. Support patients breathe with oxygen (oxygen therapy)

   Oxygen therapy is to provide breathing air with oxygen concentrations from 21% (oxygen ratio in air). Apply oxygen to patients who are in lack of.

3.1. The main signs and symptoms of hypoxia.

   - Difficulty in breathing, fast breathing (at the early stage), breathing disorders (fast, slow, irregular), patients feel uncomfortable and have to sit up to breathe, have a feeling of suffocation, anxiety, panic.
   - There are signs of respiratory muscle contraction, concave chest compressions (at children)
   - Cyanosis at lips, genuses, or the whole body.
   - Circulation: the first stage: Circuits, blood pressure increased to meet the body’s oxygen demand. The later stage: blood pressure reduced with rapid pulse pressure (at children: the pulse pressure is slow because of lacking oxygen)
   - $\text{SpO}_2$ reduced: less than 90% depending on the lack of oxygen.
   - Neurology: depending on the severity of hypoxia:
     + Wrestling.
     + Memory reduced: Memory is poor, far away and messy.
     + Vision reduced: blurred vision, double vision, etc.
     + Muscle tone and coordination of muscles reduced.

3.2. Principles when carry out oxygen therapy.

   - Oxygen therapy is carried out following doctors’ instructions; the doctors appoint to use oxygen breathing; oxygen time; oxygen flow; concentration of oxygen in breathing air; moisture and moisturizing method.
   - Ensure hygiene to prevent infection.
   - Use clean and sterile tools in accordance with regulations.
- If the duration of oxygen breathing is prolonged, it is necessary to change breathing tube / mask and ensure oral hygiene for patients 3-4 hours/ time.

- Prevent dry airway mucosa.

  Good implementation of moisturizing oxygen, ensure adequate amount of daily drinking water or infusion for patients as directed.

- Prevention of fire

  The most common methods used for patients with oxygen breathing are: Oxygen breathing with a nasopharynx, or with a catheter. Use oxygen masks, oxygen tents, incubators

  Within the scope of this session, oxygen breathing with nasopharyngeal catheter and glass catheter is provided.

3.3. Procedure for supporting patients to breathe with oxygen.

<table>
<thead>
<tr>
<th>No.</th>
<th>Procedure</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Prepare equipment:</strong> Oxygen tank or oxygen system from the central source of the hospital that leads to the patient rooms/ emergency rooms; pressure gauge; flow meter; oxygen conductor; bottle moisturizing oxygen; - Sterile Nelaton catheter/ or oxygen breathing glass catheter, or oxygen mask, gloves.</td>
<td>- Have enough suitable equipment for oxygen breathing.</td>
</tr>
</tbody>
</table>
| 2   | **Technician implementation**  
- Nursing clothes, hats, masks.  
- Routine hand-washing process. | |
| 3   | **Identify and prepare for patients**  
- Respiratory situation, perception, circulation, etc. of the patients.  
- Explain to the patients’/ patients’ families.  
- Place the patient in supine position, can put pillows under the shoulder or half-lying position depending on the situation of the patients. | - Patients/ Patients’ families are cooperative  
- Suitable posture for respiratory |
<table>
<thead>
<tr>
<th>4</th>
<th><strong>Prepare an oxygen system</strong></th>
</tr>
</thead>
</table>
| - Install oxygen breathing system and check the operation of the system and the humidifier;  
- Open the valve, adjust the oxygen flow as specified, when the test is finished, close the valve... | - Ensure the system works well, the flow of breathing is indicated. |

![Oxygen tank, warming, humidifier, flowmeter, pressure gauge](image)

(References: Nguyen Thi Minh Chinh and Vu Thi La (2019), Basic Nursing 2)

<table>
<thead>
<tr>
<th>5</th>
<th><strong>Suck the sputum to clear the respiratory tract</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses wear gloves; use cotton swab to clean patients’ noses; suck sputum for patients if they have sputum people who have sputum.</td>
<td>Clear the respiratory tract</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6</th>
<th><strong>Support the patients to breathe with oxygen</strong></th>
</tr>
</thead>
</table>
| *Breathe through the nasopharynx*  
- Measure and mark at the catheter head: Use the catheter to measure the distance from the nose to ear lobe on the side of the patient and mark the length to catheter.  
- Hold the catheter (like hold the pen) and put it into a nostril, gently insert the catheter deeply until reaching the mark.  
- Keep the catheter with adhesive tape  
- Connect the catheter to the oxygen conduction system  
- Open oxygen for the patient to breathe following prepared dose  
*Breathe with oxygen through glass catheter (breathing tube) or through mask*  
- Oxygen breathing with mask/breathing mask: Put the mask to cover patient’s mouth and keep it stable. | - Measure and mark the length to the catheter, ensure to have enough depth when taking the oxygen inhaler from nose to pharynx  
- Keep the catheter or mask stable and make sure it covers all patient’s mouth. |

![Catheter and mask](image)
- Breathe oxygen through the breathing catheter/breathing tube: place a glass catheter/breathing tube to the nose and keep it stable.

- Connect oxygen system with mask or breathing tube/breathing tube, open oxygen valve for patients to breathe.

7 **Identify the patient after giving them oxygen**
   - Observe breathing, skin, mucosa, any signs of difficulty in breathing? SpO₂?
   - Check pulse, blood pressure
   - Check the patient’s feeling when they are given oxygen
   - Follow up the patient during & after taking oxygen; identify the effectiveness and development of the patient.

8 **Tidying up equipment; Hand hygiene**

9 **Record follow-up form**
   Amount of oxygen flow, patient’s condition before, during and after oxygen breathing, the nurse signs
   - Record the information

3.4. Checklist for techniques to support patients breathe with oxygen

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Preparation of equipment: Oxygen bottle</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Person in charge of practicing the technique</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Identify and prepare for patient</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Prepare an oxygen breathing system</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Clean the nostrils or suck the sputum, clear the respiratory</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Support patient to breathe oxygen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Breathe through the nasopharynx</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Breathe by catheter through the nose or mask</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Identify the patient after giving oxygen</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Tidying up tools: Hand hygiene</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Recording to follow-up</td>
<td></td>
</tr>
</tbody>
</table>
4. Techniques to use Ambu bag to help breathing.

- Breath stacking ambu bag is an emergency respiratory technique that is used when the patient stops breathing or stops circulating. The aim of the Ambu bag is to create breaths for the patient to provide oxygen to the brain and organs in the body.

- Techniques performed by using Ambu balls: put the mask to the patient’s mouth and nose and squeeze the bag with oxygen. It can be combined with other cardiopulmonary resuscitation techniques (if the cardiac arrest occurs).

- Assign to use Ambu bag to help breathing in the following cases:
  + Stop breathing,
  + Stop circulation;
  + Severe respiratory failure that is unresponsive to non-invasive mechanical ventilation;
  + In case of emergency of respiratory failure happening outside the medical facility and there are not enough respiratory control facilities.

4.1. Procedure for using the Ambu bag

<table>
<thead>
<tr>
<th>No.</th>
<th>Procedure</th>
<th>Reason</th>
</tr>
</thead>
</table>
| 1  | **Prepare equipment:**  
- Ambu bag with mask (see the picture)  
- Oxygen, tracheal cannulae, suction machine | |
| 2  | **Person in charge**  
- In case when only 01 person use the Ambu bag: 1 nurse or 01 doctor.  
- In case of 2 people: 1 use the Ambu bag, 1 supporter  
Ensure to have enough medical uniform. | |
| 3  | **Prepare for patients**  
- Inform the patient’s family.  
- Place the patient in the supine position (can put pillows under the shoulder) - do not let the neck hang if the patient has a spinal cord injury.  
- Squeezing the bag that make the oxygen flow to the lung smoothly. | |
| 4  | **Quickly identify the patient’s situation**  
- Identify the consciousness – call and ask the patient.  
- Respiratory judgment: observe the skin, mucosa, breathing, SPO₂, etc.  
- Circulation identification – check the carotid arteries, observe through the monitoring machine (if any)  
- Identify the patient’s situation before squeezing the bag. | |
### Clear the airway
- Make the patient’s chest appear or undress the chest.
- Clean the mouth and nose of the patient.
- Take out any object inside (if any).
- Put the cannula in the mouth/nose (if needed).

- Clear the airway to make it easier to squeeze the bag to get air to the lungs; secretions or any object are not pushed into the lungs when squeezing the bag.

### Squeeze the bag

#### *One person performs*
- One hand keep the ambu bag
- One hand put the mask on the mouth and nose of the patient: the index finger and thumb hold the mask on the nose and mouth of the patient; the remaining three fingers lift the lower jaw so that the mask covers all mouth and nose.
- Squeeze the bag regularly, the frequency of squeezing is 12-14 times/minute (to adults) and about 25 times/minutes to children depending on their ages.

#### *02 people perform:*
- One person uses 02 hands to keep the mask and lift up the lower jaw of the patient so that the mask covers all nose and mouth of the patient.
- The other squeezes the bag: with the frequency as above.

In case that the circulation stops, squeezing the bag must be coordinated with chest compressions outside the chest (15 times of continuous cardiac compression and 2 times of squeezing the bag).

- Keep a mask carefully so that the air does not leak when squeezing the bag to bring air to patient’s lungs (to provide oxygen to brain and organs).

### Identify the patient’s situation while squeezing the bag
- Squeezing the bag is effective when seeing the expansion of the patient’s chest when squeezing the bag.
- Observe the color of skin, mucosa, SPO2.
- Check the vein (in case of cardiac arrest).

- Monitor the effectiveness of squeezing the bag; If squeezed properly, the mucosal skin will become pink, the SpO2 will increase compared to the time when the bag is not squeezed.
- Timely adjustment when squeezing is not correct

### Identify the patient’s situation after squeezing the bag
- Observe the patient’s breathing.
- Observe the face, skin, mucosa and SPO2.
- Check the pulse, measure the blood pressure (monitoring observation).
- Identify patient’s consciousness: Call and ask the patient.

- Monitor the patient after squeezing the bag; identify the effectiveness of the implementation process.
9. Place patients with suitable respiratory posture
   *If after the emergency, the patient can breathe*
   - Support the patient to breathe oxygen.
   - Continue to closely monitor the patient’s progress: breathing, skin, mucosa, \( \text{SPO}_2 \) (if any), pulse, blood pressure, etc. Install the monitoring machine (if any).
   **Note:** In case the patient cannot breathe, must continue to squeeze the bag, or implement other measures to support the respiratory as directed by the doctor.
   In emergency case that the cardiopulmonary arrest appears, applying electric shock and circulatory resuscitation need to be directed by the doctor.

   - Place a suitable posture for the patient to breathe himself.
   - Ensure the respiratory for the patient.

10. Tide up the equipment; Hand hygiene

11. Records
   - Record the information

   **Note:** Need to be done quickly to take advantage of time (when doing from step 3 to 5); If the step 6* is done incorrectly, the technical requirements are not met.

### 4.2. Checklist for practicing squeezing the bag to support breathing

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Prepare equipment</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Person in charge of performing</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Preparation for the patient.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Quickly identify the patient’s situation</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Airway clearance</td>
<td></td>
</tr>
<tr>
<td>6*</td>
<td>Squeeze the bag</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 01 person performs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Or 02 people perform</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Identify the patient during bag squeezing process</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Identify the patient after bag squeezing process</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Place the patient to a suitable posture for respiratory</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>If after implementation, the patient can breathe himself</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Support the patient to breath oxygen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Continue observing closely</td>
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</tbody>
</table>
5. Management of Airway Foreign Bodies

Airway foreign bodies are those stuck in the airway from the larynx to bronchial lobes.

- It is a common emergency case in Otorhinolaryngology. If it cannot early diagnose, quickly and properly management, it will lead to serious complications and death.

- Airway foreign body aspiration often common occurs in children rather than adult (75% happened for child under 4 years old) because children’s routine is putting objects in their mouth. However, it counts as common accident in daily life and happens for people at different ages, different situations.

5.1. Causes

Main causes of foreign body in the airway:

- Due to cry or laugh while eating.
- Due to the habit of keeping objects in mouth while playing and working.
- Due to disorders of the throat and laryn reflexes in children and old people. It can happen for comatose person, anesthesia or madness.
- Due to the habit of drinking spring water that has leeches. They move and live in the airway.

   Basically, all small objects that can put into the mouth then can fall into the airway. It may be an organic foreign body such as: peanut, sugar apple seed, sapodilla seed, apple pulp, bagasse etc... It may also be animal bones like shrimp, fish gill, crab claws, chicken and duck bones etc... even the leech. We also can recognize it as marble, sharpnel, part of ball-pen, plastic fragment and so on.

5.2 Symptom

The invasive syndrome can be recognized in 93% of patients, while 7% cannot such as the case of living foreign animals (leech), comatose person, small children cannot tell their story and no witness around, or they hide the reason.

The invasive syndrome dues to the tightening of the larynx reflex, which prevents the falling of object and the continuous cough in order to expel the object. The clinical symptom shows coughing, wheezing, sweating, rolling eyes and nose, sometimes incontinence. The attack lasts about 3-5 minutes, after then, there are three possibilities:

- Foreign bodies are ejected by the protective reflex of the larynx.
- Foreign body was too big to tightly seal the larynx causing the patient to suffocate and die before reaching the hospital.
- Foreign bodies become stuck on the airways, in the larynx, trachea or bronchi.
Depending on the stucking place of foreign body, it will lead to different clinical symptom.

- **Shortness of breath (dyspnea):** In the early stages when having no infection, the predominant symptom is shortness of breath. If the foreign body is lodged in the larynx, the patient may have different levels of laryngeal dyspnea depending on the diammension of the object and the length of time the object stuck in the airway. If the diammension of the foreign body is large, it may cause laryngeal dyspnea at level 2, 3 or suffocation. In case of smaller object, it may not cause dyspnea or laryngeal dyspnea at mild severity.

  Mixed breathing may caused by foreign body that located in the lower respiratory track or bronchus. Patients often have coughing and shortness of breath that occur during exertion or even at rest.

- **Fever:** it often happens after few days when patient being infected by contaminated foreign body such as bones, meat, peanuts, bagasse etc...

  Depending on the stucking place of foreign body, it will lead to different clinical signs.

* **Foreign body in the larynx:**

  The objects lodged in the larynx are often having flat, sharp and rough diammension such as eggshell, shrimp head, fish bones etc...

  - **Function:** frequently occur hoarseness, speechless at severity or mild level depending on the diammension of the foreign body lodged in the larynx.

  - **Inspiratory laryngeal obstruction:** the breathing difficulties have different level due to foreign body’s diammension and the length of time it lodged in the larynx. If the foreign body is big, it can cause the blockage of your severe laryngeal breathing or acute asphyxiation.

  - **Cough:** Frequent dry cough without phlegm, long coughing due to laryngeal irritation and laryngeal edema makes patients increasingly breathing difficulties.

  - **Physical symptoms:** Mostly listening to the lungs: even when you listen to the lung sound, it can be completely normal. However, you can also hear a hissing noise on both sides of the lungs, spreading from top to bottom, sometimes alveolar murmuring is reduced on both sides of the lung.

* **Foreign body in the trachea:**

  It is common a round and smooth objects, large size comparing to aperture of the patient’s bronchial air.

  - **Function:** Frequent coughing and choking coughs are caused by moving objects in the trachea, sometimes moving up the larynx also causing coughs. If the object moves up the larynx and sticks to the glottis, the patient will suffocate. If we cannot handle properly and timely, the patient will die.

  - **Physical symptoms:** the lungs sounds are hissing, snoring on both sides of the lungs. In case of large objects, we can listen the alveolar murmur reduced on both sides of the lungs. If the sound like flag flapping, it is specific sign of having foreign body in the trachea.
*Foreign body in the bronchus:*

- Function: mixed breathing difficulties, common happen when foreign body lodged one side of bronchus, and often in the right bronchus rather than left once.

- Fever: In the following days, there is usually an inflammation that causes complications in the bronchus and lungs. Hence, it often has fever and may have a moderate or high fever depending on the level of inflammation in the lungs.

- Physical symptoms:

  Listen to the lungs sound, we can hear the alveolar murmur reduced or lost one side; and it may accompany with hissing wheezing, snoring rales, may also have moist rales, rales...

  Chest percussion: Opaque sound when an abscess or collapse of one lung is presented. Clapping on the chest shows clear and chime when pneumothorax.

- X-ray for neck title or straight lung may allow the diagnosis of an airway foreign body. However, we only see clear foreign body in X-ray image if the object is metal. For others, it rarely shows on the image, mainly images of foreign-caused complications such as bronchitis, unilateral abscess or lung segment, collapse of one side or segment of lung, emphysema, pneumothorax, pneumothorax, pleural effusion, pleural effusion.

**5.3. Treatment**

Principle: Make sure the airway clear, remove foreign bodies as soon as possible.

If the victim’s body is still pink, crying, screaming, speaking, no breathing difficulties: it should be placed in sitting position, hold the child and take to the hospital to examine and remove the foreign body.

If the victim’s body is pale, has breathing difficulties, does not cry or weak cries. Quickly call emergency and proceed with the procedure.

- Children under 2 years old:

  + Place the child in downward posture, child’s head moves down ward and lies on your left arm, hold his head and neck tightly with your left hand.

  + Use your right hand to clap strongly on the baby’s back which between the shoulders.

  + Place the child stomach down on your right hand, if breathing is difficult, cyanotic, then use two left fingers press firmly 5 times in the 1/2 area under the breastbone.

  + If the foreign body has not yet fallen out, turn the child to stomach-down posture and continuous clap his back. You keep doing to clap his back and press his chest until the foreign body falls off the airway or when the child cries. Then, you stop and take the child to the nearest health facility for accurate examination.
Image 25.1 Clearance the airway for children under 2 years old

- For children and adult: Heimlich technique.
  + The victim is conscious:
    
    Step 1: The rescuer stands behind the victim’s back, one leg in front of the other; Foreleg stands between victim’s legs.
    
    Step 2: Wrap your arms on the victim, wrap around the victim’s stomach, the outside hand grabs the first of the inner hand (palms face down), close to the stomach above the navel, just below the sternum.
    
    Step 3: Pull sharply inward and upward, 4-5 times. This action must be done decisively and not pressed into the chest to be effective. Repeat 6-10 times until the foreign body has fallen out of the airway.

Image 25.2 Clearance the airway for awake person

+ The victim is unconscious:

Lay the victim on his back; you kneel next to his thigh.

Place your palm on the epigastric region and below the tip of the sternum then put another hand on top.
Press sharply and quickly 5 times into victim’s stomach in a direction from the bottom to the top.
Repeat 6-10 abdominal compressions until the object has fallen out of the airway.

*Image 25.3 Clearance the airway for comatose person*

- **Note:**
  If the victim stops breathing, you must perform two slow asphyxiation and integrate it during Heimlich procedure or clap the back or press the chest until the patient breathes or cries.

  After removing foreign body or victim can able to cry, you must take him to health facility for checking.

- **Thing to avoid:**
  + Do not intervene if the victim is still able to cough, breathe, shout and cry.
  + Do not try to remove or move the foreign body if you cannot see it; because it is more like that foreign body will fall deeper.

**LESSON TEST**

1. Select the most correct answer

**Question 1.1:** What need to be done before supporting the patient breathe oxygen

A. Monitor the respiratory situation of the patient
B. Explain to the patient/ patient’s family.
C. Note all necessary information to the patient caring record
D. Suck sputum to clear the airway, place the patient to a suitable posture.

**Question 1.2:** When will you squeeze the bag to support the patient’s respiratory?

A. Patients with respiratory distress: difficulty in breathing, rapid breathing rate, 92% SPO2
B. Patients with shock: can self-breathing, low blood pressure: 80/50 mmHg
C. Patients with respiratory distress: difficulty in breathing, slow breathing, SPO2 <80%
D. People with heart failure: tired, difficulty in breathing, breathing rate: 25 times / minute
Question 1.3: When will you suck the sputum for the patient?
A. The patient reduces respiratory
B. The patient with sputum in the respiratory tract that cannot be spitted out
C. The patient has difficulty in breathing
D. The patient with bronchial asthma

2. Case study
The patient Pham Van D, 52 years old, suffered from a traffic accident and was taken to the hospital. After checking, he was identified having a cranial injury. The patient was in a situation of drowsiness, when being asked, he does not respond sometimes. Glasgow: 11 points; checking pulse: 80 times/minute, blood pressure: 130 / 80mmHg, temperature: 36.7°C, breathing rate: 18 times/minute, lips: slightly purple, SPO$_2$: 93%;

Question:
2.1. Signs showing the risk of respiratory failure of patient D. (choose the most correct answer)
A. Slightly purple lips, SPO$_2$ 93%
B. Glasgow: 11 points, lips: slightly purple, SPO$_2$: 93%
C. Cranial injury, Glasgow: 11 points, lips: slightly purple, SPO$_2$: 93%
D. Traffic accident caused cranial injury

2.2. When the patient was at the hospital, the nurse saw that the patient had signs of wheezing and had sputum in his nose and throat. The doctor decided that patient had to breath with oxygen. The next steps of treatment for the patient is: (choose the best answer)
A. Place him at a posture, suck the sputum in the nasopharynx and provide him with oxygen breathing
B. Place him at a posture, wipe the sputum in the mouth and nose and give him oxygen
C. Ask the patient to spit out the sputum, then let them breathe oxygen
D. Provide the patient to breathe with oxygen

2.3. Choose an oxygen method that is the most suitable for patient D.
A. Breathing oxygen through the nasopharynx
B. Breathe oxygen through the breathing catheter/tube through the nose
C. Breathing oxygen with a mask
D. Breathe oxygen through the breathing catheter/tube through nose or mask
   Please explain your choice

2.4. After about 2 hours, the patient’s respiratory condition became worse – lips were more cyanosis, SPO$_2$: 85%; doctor decided to use Ambu bag to support the patient. What sign shows that using Ambu bag with the patient is effective?
A. Squeeze the bag with proper technique, the air does not reach the stomach
B. Chest is enlarged after each bag squeezing time, SPO$_2$ > 90%
C. Squeeze the ball with right technique, the patient’s lips are less cyanosis
D. The patient is more stable.
2.5. Practice using Ambu bag to support the respiratory on the model.

**ANSWER:**
1.1: D; 1.2: C; 1.3: B; 2.1: C; 2.2: A; 2.3:D; 2.4: B

3. Clinical case study

The preceptor selects a number of patients in the clinical department who has the indication to suck sputum in the respiratory tract; suck sputum in the endotracheal tube or trachea cannulae; indicated to breathe with oxygen and use the Ambu bag. Ask the trainees to identify the patients, perform suction of sputum and giving oxygen. The instructor observes and supports when needed. Then let the participants discuss and give feedback/ comments.

*Competency based assessment checklist for Respiratory support and airway management techniques*

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td>Can do independently without support (2)</td>
</tr>
<tr>
<td>1</td>
<td>Identify cases that the patient needs to clear the airway, breathe with oxygen, use Ambu bag</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Effectively conduct airway clearance technique</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Implement effectively technique to help the patient breathe with oxygen</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Effectively carry out the technique of using Ambu bag to help breathing</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Implement effectively and safely technique to clear the airway foreign body</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Express the attitude of emergency, accuracy and safety when implementing respiratory suction techniques, oxygen, using Ambu bag to help breathing</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES**

1. Ministry of Health, Instructions on Practicing 55 Basic Nursing Techniques (Vol. 2), Vietnam Education Publisher 2010
2. Ministry of Health, Lessons on Nursing Skills, Medicine Publisher 2012
3. Nguyen Thi Minh Chinh and Vu Thi La (2019), Basic Nursing 2, Medical Publishing House, Hanoi
LESSON 26

BASIC EMERGENCY CARE FOR CARDIAC ARREST

OBJECTIVES

1. Detect early victim, who suffer from cardiac arrest (competency: 1.1; 3.1; 4.1; 4.2; 9.1)

2. Perform skillfully emergency technique; monitor, take care patient of cardiac arrest (competency: 6.2; 9.3; 9.2; 9.4, 15.3; 16.3)

3. Show urgent, accurate and effective cooperation for the emergency case of cardiac arrest. (competency: 9.2; 9.3; 9.4; 24.1, 25.2)

CONTENTS

1. Introduction:

Cardiac arrest is a status that heart stop providing blood for the body, especially for important organs such as brain, coronary circulation and lung. There are 3 basic statuses namely asystole, ventricular fibrillation and electromechanical dissociation.

Some other terms call the name of sudden cardiac emergency such as emergency of cardio pulmonary arrest, resuscitation of clinical dead, cardio pulmonary resuscitation, cerebra - cardio-pulmonary resuscitation etc.

Cardiac arrest may happen suddenly in a healthy heart due to accidents like electric shock, drowning, anaphylactic shock, multi-trauma, etc. also can be the final consequence of an end stage chronic disease such as cancer, cirrhosis, heart failure, kidney failure etc.

Purpose of emergency: to supply blood with oxygen to brain cells in the fastest condition, especially within 5 first minutes of cardiac arrest. Therefore, cardio pulmonary emergency needs to be done urgently on site by proper technique.

Consequence of cerebral ischemia

Brain cells are the most special in human body, there is no reproduction like other cells once they are damaged. Under normal circumstance, maximal time of brain cell’s oxygen is 5 minutes. This time is called as clinical death period and emergency for provision of blood and oxygen for brain must be done in this period to save patient’s life. Over this period, brain cells are damaged without recovery, patient moves to the brain death period. In some special cases, hypoxemia capacity may last longer such as cardiac arrest under hypothermia condition (surgery with heart lung machine, hypothermia, cardiac arrest in iced and snowy weather, drowning in the cold water etc.), cardiac arrest in case of previous usage of medicine that decreases oxygen consumption such as: bacbituric, newborn baby...
2. Symptoms and identification of patient with cardiac arrest

Based on 3 basic following symptoms:

- Sudden conscious loss: it is identified when patient does not response to call and there is no awaken reflex.
- Apnea: identified when the chest and abdomen of patient does not have any breathing movement.
- Carotid pulseless: carotid artery is not palpated (it requires to palpate carotid artery at both sides of the neck)

In addition, patient also has other symptoms such as pale or cyanosis skin, mydriasis, loss of pupil’s reaction to the light. If patient is undergone surgery, blood at surgical site becomes black and stops bleeding.

If patient is under mechanical ventilation or coma, monitor alerts cardiac arrest, sudden reduction of oxygen saturation ($SpO_2$).

3. Principles of emergency care for patient with cardiac arrest or stop breathing

- Quickly remove victim from the accident area
- Lay down on a hard, flat, ventilated floor
- Expand clothing and belts such as belts, necktie, bras (for women)
- Clear the airway by:
  + Put neck up at maximum
  + Clean away any dirt or sand around nose or mouth
  + Open the mouth: remove any soil, sand, sputum…
- Conduct cardiopulmonary resuscitation as soon as possible, but must be persistent and continuous
- During cardiopulmonary resuscitation must care and assess the victim’s progression:
  + Good progress: Respiratory recovery, victim’s finger and lips become pink gradually, heart beating again. Continue first aid until the victim breathes evenly and deeply
  + Bad progress: Respiratory and circulatory failure, pale skin, pupils dilated, after 30 minutes no further treatment

4. Basic emergency care for cardiac arrest.

- When a cardiac arrest patient is detected emergency must be done immediately. There are many guidelines on emergency for patients who suffered from cardiac arrest, such as: Practical guideline for 55 basic nursing techniques, volume 2 of the Ministry of Health (2010), Training materials for basic emergency (2014) of the Ministry of Health, American Heart Association – AHA (2010)…, Regarding the recommendation from AHA for cardiac arrest the **CABD** (Chest compression, Airway clearance, Breathing and Defibrillation) is applied.
4.1. **Chest compression**: is a procedure that uses a strong force to press gently on the 1/3 of the breastbone, when the pressure changes in the heart’s chamber to stimulate the heart to beat again, then the circulation is restored.

4.2. **Airway clearance**: is the cleaning of foreign objects in the airway of the patient helps to keep the airway clear to ensure effective respiratory support. Patient is laying down on the hard floor with maximum neck up, face turned to the side. The reason for doing so is that when the heart stops, the muscle tone is lost, causing the lower jaw bone and the root of the tongue to block the airway of the victim, preventing artificial breathing. Rescuer opens the patient, with clean fingers to remove sputum, foreign objects, if possible. For foreign objects that are deep and difficult to collect, do not attempt to remove the object because it is time-consuming and may push the object further into the airway or completely block the airway. Heimlich method can be applied to push away objects out.

4.3. **Breathing**: Asphyxiation is an emergency method for victims of sudden cardiac arrest due to various causes. Asphyxiation is a technique performed by the rescuer breaths directly through the mouth of the victim or using ambu bag. Ambu bag is the most commonly used method to help positive pressure breathing for emergency team inside and outside the hospital. Commonly used ambu bag has a volume of 1600 ml, enough to expand the lungs. This method brings real effective when there are 2 experienced rescuers performing together.

4.4. **Medication and defibrillation**

4.4.1. **The first line drug is adrenalin** - in a vial 1mg/1ml, an adrenergic receptor on autonomic nervous system of the heart (especially sinoatrial node). The dose is 1mg per injection (adrenalin needs to be diluted in 20 ml Sodium Chloride 0.9% and quickly injected into vena), repeat every 5 minutes if the heart still does not beat again. The dose can be increased up to 3 mg for an injection if the dose 1 mg is not effective.

* Injection route of adrenalin: the most ideal is to **give injection via central venous catheterization**, if injection is given via peripheral vein, select exterior carotid vein or brachial vein or given directly to IV line (limb should be elevated to make quick flow of fluid and drug goes to central circulation quicker. Do not use lower limb’s vein because of less effectiveness)

- It is possible to **administer medication in patient’s trachea**, when IV administration is not set up yet. The dose should be higher (5mg adrenalin diluted in 5ml of Sodium Chloride 0.9%), injected in cricoid region. Patient must be ventilated and chest compression right after withdrawing needle.

- **Final administration route** (when the mentioned routes are not able to perform or ineffective) is to **inject medicine directly to the heart chamber**, select the needle with length of 7 - 10cm, size of 18 - 20G to limit injury for myocardium. Injection site is at 4th – 5th intercostal spaces, close to the left sternum and edge of lower rib. Direction of needle is from bottom to top, from outside to inside, from front side to back side. Needle should be gently inserted concomitant with aspiration until the blood comes to syringe easily. It shows that the tip of needle goes inside the heart chamber therefore medication should be injected rapidly. After withdrawal of needle, chest compression and ventilation must be done immediately.
4.4.2. Defibrillation by Automated external defibrillator (AED): ventricular fibrillation is a condition that the fibers of myocardium vibrate turbulently. It is impossible to eject the blood to other parts of body (so called as cardiac arrest). Defibrillation by AED is to use a current with low voltage and strong power to discharge through the heart axis with an aim at recovering normal automatism of cardiac nervous system. Emergent defibrillation will be the most effective within 5 first minutes after identifying diagnosis of cardiac arrest.

Carry out defibrillation by AED:

- Checking the monitor to administer the R-wave synchronization on ECG. Select the lead with the largest R wave amplitude
- Size of paddle: It’s very important, affects thoracic impedance and electrical impulse intensity through the heart
  + Adult: 8 – 10cm diameter
  + Children: 5cm diameter.
- Gel applicator: The electrode must be coated with conductive gel to prevent skin burns. Do not use alcohol instead of gel. Must keep the electrode clean, avoid rust, clean the gel after use. Do not apply the gel to the skin between the electrodes
- Electrode position: Determines the path of the electrical impulse through the chest. It should be set so that the cardiac muscle located on this path is the largest. Wrong electrode placement is the most common cause of defibrillation failure. There are 2 ways to place electrodes:
  + Antero – lateral placement
    • The front electrode is placed at the bottom of the heart, right on the left side of the sternum, at the join.
    • The lateral electrode is located at the top of the heart, so it deviates to the middle armpit
  + Antero-posterior placement:
    • The front electrode is placed at the bottom of the heart as above
    • The rear electrode is placed in the left shoulder muzzle (the patient is located on the rear electrode is a special electrode attached to the shoulder blades, much used in surgery)
  + The front-rear position helps to reduce 50% of the electric energy needed
  + The front-lateral position is more convenient in emergency defibrillation.
- Press the button to discharge the electric:
  + Must press the electrode strong enough (light on) then press the button
  + Press the button only when make sure no one is in contact with patient or the bed
  + In the case of synchronous shock, after pressing the button, must wait until the patient has a strong shock (discharged electric) then hand off.
- Electrical power level: There are 2 types of AED using at the hospitals:
  + Monophasic defibrillation waveform
Biphasic defibrillation waveform

- Shock power of biphasic defibrillation waveform is only 75% of the monophasic defibrillation waveform one. For example, the shock power for a case of ventricular fibrillation when using a monophasic defibrillation waveform is 200 Joules, in a biphasic defibrillation waveform, only 150 Joules are used.

4.5. Signs of effective cardiopulmonary resuscitation.

- The best clinical manifestations are the signs of vitality such as breathing, heart beating and consciousness recovery.

- In case there are only the signs: warm and pink lip membrane, pupil restriction (no signs of severe brain damage), not so long duration of hypoxemia and possible for recovery; emergency should be continued intensively, at the same time, call medical emergency teams or perform emergency and patient transportation at the same time to the nearest healthcare facilities.

5. Practical procedure for initial cardiac arrest emergency

<table>
<thead>
<tr>
<th>No</th>
<th>Implementation steps</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Immediately call for help when you see cardiac arrest victim: call other persons come to help or/ and call 115 (outside of the healthcare facility)</td>
<td>Inform everybody to get collaboration</td>
</tr>
<tr>
<td>2</td>
<td>Start emergency: right after not able to palpate carotid artery, patient does not breathe.</td>
<td>- Early emergency is especially important, the best is within first 3 -5 minutes</td>
</tr>
<tr>
<td>3</td>
<td>Quickly remove patient from the dangerous area</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Posture: place victim on supine position on plate and hard surface (ground surface, hard board, hard stretcher)</td>
<td>Ensure effectiveness of chest compression</td>
</tr>
</tbody>
</table>
5* **Chest compression**  
(C - Chest compressions)  
- Chest compression position is 1/3 – 1/2 lower part of sternum  
- Stack your other hand on top of the one that you just put in position. Lace the fingers of both hands together, put hands at chest compression position, keep elbows straight and compress to the depth of 4 - 5 cm (5-6 cm in adults according to recommendation of 2015), after that lift your hands to make the chest of victim come back initial position.  
- Compression rate: 30 chest compressions/ 2 rescue breathings; chest compression should be 100 – 120 rate/ minute (in adult, in children, the rate gradually increases depending on their ages) – recommendation of 2015  
- Chest compression must be done continuously until arrival of other healthcare workers or automated external defibrillator.  

- Ensure effectiveness during chest compression (bring blood from left ventricular to exchange the air at the lung and bring blood from left ventricular to coronary circulation, brain circulation. Blood will passively return to atrium when stop chest compression), no complication of rib fracture

6 **Airway clearance (A – Airway)**  
- Victim lies on his back on a hard surface, head and neck are extended maximally, turn victim’s face to one side.  
- Rescuer uses hands to open victim’s mouth, take out sputum and foreign body if possible.  

- Make airway of victim on straight direction, clear and convenient for giving rescue breathing/ artificial breathing

7* **Rescue breathing / Artificial breathing (B – Breathing)**  
Rescue breathing: mouth - mouth or nose - mouth; it is more effective with mouth - mouth breathing.  
- Rescuer use a hand – press your palm against forehead of victim and tilt his/ her head back, at the same time, use the index finger and thumb to press victim’s nostrils;  
- The second hand: lift the chin of victim and open his/ her mouth.  
- Rescuer breathes deeply and give a puff to the victim’s lung via mouth. After that release your fingers to let the air from victim’s lung go out.  

- Make the upper respiratory tract of victim in straight direction.  
Air comes to the lung easily  
Air goes out after ventilation
Breath rate: 10 - 12 rates/minute in adult (in children, the rate gradually increases depending on their ages)
- If there is artificial respiration device, place the mask and squeeze the bag or perform endotracheal intubation. Squeeze the bags as the same as the rate and cycle of rescue breathing; ideally, connect with oxygen source with the flow of 6 - 8 litter/minute.

8 **Combination of chest compression and rescue breathing:**
Both chest compression and rescue breathing manipulations must be done alternatively in harmony manner.
- A cardiopulmonary resuscitation cycle consists of 30 chest compressions and 2 rescue breathings – regardless of one or two rescuers
- If there are 2 rescuers one person will perform chest compression and another one gives rescue breathing; 2 people kneel at both sides of victim.

9 **Assessment of victim’s condition** during and after emergency:
- During emergency: after each proper chest compression cycle, femoral or carotid must be palpated; after each rescue breathing, we could observe the rise of victim’s chest.
- After the first 60 seconds, check again respiratory and circulation of victim (as step 1)
  + If there is pulse, continue to give emergency.
  + If there is clear pulse, victim still stops breathing and circulation, continue to give rescue breathing.
  + If pulse beats clearly and victim is able to breathe well by him/herself and recover consciousness etc., stop chest compression-rescue breathing, carry out other medical orders; monitor victim.
- If emergency time reaches 60 minutes, pupil dilates and heart does not beat again, it is allowed to stop emergency – patient dies.
Write down in medical record:
- Condition of victim before during and after performing chest compression
- Duration of technique performance
- Name of person, who perform technique

As a legal base

**Note:** incorrect implementation of steps* does not meet requirements of emergency technique.

### 4. Practical checklist for initial cardiac arrest emergency

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Achievement level</th>
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</thead>
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<tr>
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<td>Achieved</td>
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<tr>
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<td>Immediately call for help when you see cardiac arrest victim</td>
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<td>Start emergency immediately …</td>
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<td>3</td>
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<td>5*</td>
<td>Chest compression</td>
<td></td>
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<td>6</td>
<td>Airway clearance (A – Airway)</td>
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</tr>
<tr>
<td>7*</td>
<td>Rescue breathing / Artificial breathing (B – Breathing)</td>
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<tr>
<td>8</td>
<td>Combination of chest compression and rescue breathing: 30 chest compressions/ 2 rescue breathing</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Assessment of victim’s condition during and after emergency</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Write down in medical record</td>
<td></td>
</tr>
</tbody>
</table>

**LESSON TEST**

**1. Select the most correct answer**

**Question 1.1: Signs for detection of cardiac arrest**

A. Not possible to take radial artery, loss of consciousness, no breathing
B. Not possible to take carotid artery, sudden loss of consciousness, no breathing
C. Not possible to take artery, loss of consciousness, stop breathing
D. Rapid pulse, stop breathing, loss of consciousness
Question 1.2: What should a rescuer do when he/she detect cardiac arrest victim outside of a healthcare setting?

A. Call 115 urgently
B. Refer victim to the nearest healthcare facility
C. Give urgent emergency (chest compression, rescue breathing) and call 115 at the same time
D. Urgently call surrounding people to support in giving emergency

Question 1.3: What should a nurse do when she detects a cardiac arrest patient in the healthcare establishment?

A. Call for help urgently
B. Refer patient immediately to emergency room
C. Urgently give emergency (chest compression, rescue breathing)
D. Call for help, perform chest compression, rescue breathing right after detecting cardiac arrest patient

Question 1.4: Orders for giving cardiac arrest emergency according to new protocol (recommendation of the year 2015)

A. Chest compression - airway clearance - rescue breathing
B. Airway clearance - chest compression - rescue breathing
C. Airway clearance - rescue breathing - chest compression
D. Rescue breathing - chest compression - airway clearance

Question 1.5: Chest compression rate when performing cardiac arrest emergency for adult (according to new protocol - recommendation of the year 2015)

A. 80 - 100 rates/ minute
B. 80 - 120 rates/ minute
C. 100 - 120 rates/ minute
D. 100 - 130 rates/ minute

Question 1.6: Combination of chest compression and rescue breathing when giving cardiac arrest emergency

A. 30 Chest compressions/ 2 rescue breathings
B. 20 Chest compressions/ 2 rescue breathings
C. 30 Chest compressions/ 3 rescue breathings
D. 15 Chest compressions/ 1 rescue breathings

3. Case study

Patient Nguyen Van H, 61 years old, admits in a ward of Internal Medicine department of X hospital. He is diagnosed as heart failure. At 11.55, patient family tells nurse A (on duty nurse in the department) about abnormal progress of patient H. Nurse A is hurry up to go to the ward. She checks patient and recognize the signs such as follows: patient does not answer her call, yawning,
not possible to take carotid artery and cyanosis of lips. Right after that, she quickly gives oxygen therapy to patient and quickly run to on duty room to call doctor and take emergency tools.

Questions:
2.1. Please point out incorrect activities of nurse A in the mentioned scenario, make explanation using your opinions?

2.2. Correct management of on duty nurse at that time should be
   A. Urgently perform chest compression, rescue breathing to save patient’s life
   B. Call for help and perform quickly cardiac arrest emergency steps.
   C. Ask patient family call doctor on duty, urgently give emergency to patient.
   D. Explain to patient family and perform cardiac arrest emergency

2.3. The signs to recognize effective cardiac arrest emergency
   A. Patient’s lips become pink, pupil constricts
   B. Patient’s lips become pink, able to take carotid pulse
   C. Patient is conscious, able to take carotid pulse
   D. Patient breathes by him/herself, able to take carotid pulse, patient is conscious

2.4. Performance of cardiac arrest emergency steps (simulator based performance)?

2.5. After giving emergency, conditions of patient H are as follows: react to the call, able to take radial artery – What should the nurse do to continue taking care of patient H?

ANSWERS:
Question 1.1: B;      Question 1.2: C;
Question 1.3: D;      Question 1.4: A;
Question 1.5: C;      Question 1.6: A
Question 2.1: give oxygen therapy, run away to call doctor
Question 2.2: B;      Question 2.3: D;

Competency based assessment checklist for Basic Emergency care for Cardiac Arrest

<table>
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<tr>
<th>No</th>
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<th>Achievement level</th>
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<tr>
<td></td>
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<tr>
<td>1</td>
<td>Early detect of cardiac arrest patient</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Perform effective cardiac arrest emergency technique; monitor, take are patient after emergency</td>
<td></td>
</tr>
</tbody>
</table>
Urgent, accurate attitude, effective collaboration in giving cardiac arrest emergency.

REFERENCES
LESSON 27
PREVENTION AND MANAGEMENT OF ANAPHYLAXIS

OBJECTIVE

1. Detect early symptoms and levels of anaphylaxis (competency: 1.1; 3.1; 9.1)
2. Be able to prevent anaphylaxis in patient before administering medication (competency: 6.1; 6.3; 7.1; 7.4; 18.1; 18.3)
3. Perform primary emergency management for anaphylaxis level 1, 2. (competency: 2.6; 4.1; 4.2; 6.2; 7.1; 7.2; 7.6; 9.3; 9.2; 9.4; 15.3; 16.3; 24.4)
4. Show urgent, accurate working attitude and collaboration in teamwork to give emergency for anaphylaxis. (competency: 9.1; 9.2; 9.3; 9.4; 15.3; 24.1; 25.2)

CONTENTS

1. Concept

Anaphylaxis is an allergic reaction in human, it may occur from some seconds, some minutes to some hours after the body contacts with allergens causing different clinical status. There may be turned into severe that lead to dead rapidly.

Allergen is a strange factor that may allergic reaction for the body, including food, medication and other factors.

Anaphylactic shock is the most serious of anaphylaxis due to sudden ectasia of vascular system and brochospasm leading to fatality within some minutes.

Clinical progresses of anaphylactic shock are really diversified, it requires accurate and urgent management according to anaphylactic shock emergency protocol.

2. Guidance for classification of anaphylaxis level

2.1. Suggestive symptoms

Think of anaphylaxis if one of following symptoms appears:

a) Uticaria, edema, rapid pulse.
b) Dyspnea, chest pain, stridor.
c) Abdominal pain or vomit.
d) Hypotension or synCOPE.
e) Conscious disorder.
2.2. Symptoms by 4 levels of anaphylaxis

Anaphylaxis is divided into 4 levels (notice that the severity of anaphylaxis may progress quickly and does not follow sequence)

2.2.1. Mild (level I): Symptoms only presents on skin, sub tissue and membrane such as uticaria, itchiness, vascular edema.

2.2.2. Severe (level II): There are at least 2 manifestations in different organs
   a) Uticaria, vascular edema occurs rapidly.
   b) Difficult breathing, chest pain, hoarseness, running nose
   c) Abdominal pain, vomit, diarrhea.
   d) Blood pressure is normal or elevated, tachycardia or arrythmia.

2.2.3. Critical (level III): Presents in different organs with more severity as follows:
   a) Airway: vesicular breathing, laryngeal edema.
   b) Breathing: tachypnea, wheezing, cyanosis, breathing rate disorder.
   c) Consciousness disorder: comma, seizure, twitch, sphincter disorder.
   d) Circulation: shock, rapid pulse, hypotension.

2.2.4. Circulation arrest (level IV): Stop breathing and circulation.

2.3. Introduction of clinical conditions:

* Clinical condition 1: Symptoms occur in some seconds to several hours on skin, membrane (urticaria, vascular edema, ich...) and there is at least one in two following symptoms:
   a) Respiratory symptoms (difficult breathing, wheeze).
   b) Hypotension or consequences of hypotension (consciousness disorder, defecation, uncontrolled urination etc.)

* Clinical condition 2: At least 2 among 4 following symptoms occurs in several seconds to several hours after patient contacts with suspected factor:
   a) Manifestation on skin, membrane: uticaria, vascular edema, ich.
   b) Respiratory symptoms (difficult breathing, wheeze).
   c) Hypotension or consequences of hypotension (consciousness disorder, defecation, uncontrolled urination...).
   d) Digestive symptoms (vomit, abdominal pain ...).

* Clinical condition 3: Hypotension appears in several seconds to hours after contacting with suspected factor that patient used to suffer from allergy:
   a) Children: decreases at least 30% systolic blood pressure (Maximal pressure) or diastolic blood pressure compared with their age (systolic blood pressure < 70mmHg).
b) Adult: Systolic blood pressure < 90mmHg or decrease 30% of baseline systolic blood pressure.


Prevention of anaphylaxis activities include: exploit allergy history; prepare emergency drug box and medical equipment, minimal drugs for anaphylaxis emergency at the healthcare facilities; Regulation on announcement for colleges when having anaphylaxis patient.

3.1. Exploit allergy history

To prevent anaphylaxis when using medication for patient, Circular 51/2017/TT-BYT guides the contents for exploiting allergy history of patient/ patient family. Nurse asks patient/ patient family questions relating to allergy history, at the same time, record information in the following form:

<table>
<thead>
<tr>
<th>No</th>
<th>Contents</th>
<th>Name of medicine, allergen cause allergy</th>
<th>Yes / number of time</th>
<th>No</th>
<th>Clinical manifestation/ management</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What kind of medication or allergen cause allergy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>What kind of insect you have allergy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>What kind of food you have allergy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Allergy with other factors: pollen, dust, chemistry, cosmetic?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Do you have any allergic disease in the past (allergic to rhinitis, bronchial asthma...)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Allergy family history? (do parents, children, sisters, brothers acquire above mentioned history)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Allergic history must be implemented during physical examination and before using drug for patient.

3.2. Emergency drug box; medical equipment and minimal emergency drug for anaphylaxis emergency in the healthcare facility

According to regulation of the Ministry of Health, healthcare facilities have to prepare sufficient emergency drug box; medical equipment and minimal medication ready for anaphylaxis emergency.
3.2.1. Components of anaphylaxis emergency box:

<table>
<thead>
<tr>
<th>No</th>
<th>Contents of anaphylaxis emergency box</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Protocol, flowchart for emergency management of anaphylaxis (Annex III, Annex X)</td>
<td>sheet</td>
<td>01</td>
</tr>
<tr>
<td>2</td>
<td>Sterile syringes</td>
<td>piece</td>
<td>05</td>
</tr>
<tr>
<td></td>
<td>- 10ml</td>
<td>piece</td>
<td>05</td>
</tr>
<tr>
<td></td>
<td>- 1ml</td>
<td>piece</td>
<td>05</td>
</tr>
<tr>
<td></td>
<td>- Needles 14-16</td>
<td>piece</td>
<td>05</td>
</tr>
<tr>
<td>3</td>
<td>Alcohol immersed cotton</td>
<td>Pack/ box</td>
<td>01</td>
</tr>
<tr>
<td>4</td>
<td>Tourniquet</td>
<td>piece</td>
<td>02</td>
</tr>
<tr>
<td>5</td>
<td>Adrenalin 1mg/1ml</td>
<td>vial</td>
<td>05</td>
</tr>
<tr>
<td>6</td>
<td>Methylprednisolone 40mg</td>
<td>bottle</td>
<td>02</td>
</tr>
<tr>
<td>7</td>
<td>Diphenhydramin 10mg</td>
<td>vial</td>
<td>05</td>
</tr>
<tr>
<td>8</td>
<td>Distilled water 10 ml</td>
<td>vial</td>
<td>05</td>
</tr>
</tbody>
</table>

3.3. Medical equipment and minimal medication for anaphylaxis emergency at the healthcare facilities.

1. Oxygen.
2. AMBU bag and mask for children and adult.
4. Intubation set/ or tracheotomy set and/ or laryngeal mask airway
5. Solution Lipid 20% bottle 100ml (02 bottles) keep in emergency medication box in the place using anesthetic drug.
6. Anti-allergic drugs (oral route)
7. Fluid: natriclorid 0.9%.

3.4. Regulation on announcement for colleague when having anaphylaxis patient

Anaphylaxis is a critical emergency that rapidly progresses therefore it requires to have collaboration of other colleagues. When detect a patient having the signs of anaphylaxis, nurse has to urgently perform emergency steps and call other colleagues for help. Announcement for other colleagues by using alert or policy of each hospital.

4. Guidance for management of anaphylactic shock

4.1. General principle

- All anaphylaxis cases must be detected early and manage urgently on site and then continuous observation must be done within 24 hours.
- Physician, nurse, midwife, technician and other healthcare workers have to perform initial management of anaphylaxis emergency.

- **Adrenalin is a first line important drug, essential for saving the life of anaphylactic patient**, it should be **injected intramuscularly** right after making diagnosis of anaphylaxis from **level II and higher**.

- Apart of this guideline, for some special cases, management must be done according to guidance of Annex IV attached in the Circular.

### 4.2. Management of mild anaphylaxis (level I)

Right after identify the patient having mild anaphylaxis, nurse has to perform onsite emergency urgently and announce other colleagues for help.

Steps for management of anaphylaxis level I are as follows:

- Immediately stop contact with allergen if possible
- Instruct patient to lie onsite
- Use methylprednisolon or diphenhydramin oral or injection route depending on patient’s condition. Or perform medical order for injection or taking medicine (if there is a physician onsite).
- Prepare oxygen system to use for patient when necessary
- Observe patient closely at least 24 hours (pulse, blood pressure, dyspnea abdominal pain, vomit, diarrhea,…).
- When having abnormality, there must be good collaboration for timely management.
- Record sufficient information on patient’s progress in monitoring sheet/ medical record.
- Comfort, explain to patient/ patient family feel secure.

### 4.3. Emergency management of severe and critical anaphylaxis (level II) and (level III)

Anaphylaxis level II may be changed quickly to level III and level IV. Therefore, management must be done urgently in line with observation of progress:

- Immediately stop contact with drug or allergen (if any)
- Intramuscular injection of Adrenalin or IV infusion of adrenalin (according to guidance as below).
- Repeat injection of adrenalin every 3-5 minutes, the same dose as the first time until blood pressure and pulse stable.
- Let patient lie onsite, lower head position, turn to the left side if having vomit.
- Oxygen therapy: adult 6-10 litres/ min, children 2-4 litres/ min via mask.
- Observe respiratory assess, circulation, consciousness and signs on skin, membrane of patient. If it progresses more sever, carry out/ collaborate to perform management:
  - Chest compression and bag mask ventilation (in case of respiratory and circulation arrest).
  - Perform medical order for endotracheal intubation or emergency tracheotomy
- Establish adrenalin IV line with normal infusion set, big size needle (size 14 or 16) or place a venous catheter and another second IV line for rapid fluid infusion (according to guidance as below)

- Carry out other medical order given by physician (if any)

Protocol for usage of adrenalin and infusion

Purpose: elevate and maintain xaximal pressure in adult up to ≥ 90mmHg, children ≥ 70mm Hg and there is no respiratory signs such as wheezing, dyspnea; digestive signs such as vomit, diarrhea.

a) **Adrenalin** 1mg = 1ml = 1 vial, intramuscular injection: the dose is as follows:
   - Newborn or children < 10kg: 0,2ml (equivalent to 1/5 vial).
   - Children about 10 kg: 0.25ml (equivalent to 1/4 vial).
   - Children about 20 kg: 0.3ml (equivalent to 1/3 vial).
   - Children > 30kg: 0.5ml (equivalent to 1/2 vial).
   - Adult: 0.5-1ml (equivalent to 1/2 - 1 vial).

b) When having adrenalin IV line and the dose for maintainance of stable blood pressure, it is possible to monitor pulse and blood pressure every 1 hour up to 24 hours.

c) If pulse is not palpated and blood pressure is not taken, respiratory and digestive signs become more sever after 2 - 3 times of intramuscular injection as item (a) or having risk of circulation arrest, management should be done:
   - Infuse solution natriclorid 0,9% 1000ml – 2000ml in adult, 20ml/kg in children.
   - If adrenalin IV line is not established yet: give slow veinous injection of adrenalin solution 1/10.000 (1 vial adrenalin 1mg diluted with 9ml distilled water = dilution 1/10).

Dose:
   + **Adult:** 0,5-1ml (diluted solution 1/10.000=50-100µg) inject 1-3 minutes, after 3 minutes continue to give injection 2 or 3 times if pulse and blood pressure are not elevated. If IV line is established, shift to continuous intravenous infusion.
   + **Children from 10 kg or more:** dose 0,3ml (diluted solution 1/10.000=30µg). Do not give veinous injection of adrenalin for children < 10kg.
   - If IV line is established, continuous infusion of adrenalin (dilute adrenalin with solution natriclorid 0.9%) for patient, who have poor response to adrenalin intramuscular injection and reveive sufficient fluid. Start with the dose of 0,1µg/kg l/ min, every 3 - 5 minutes adjust the dose of adrenalin depending to response of patient.
### Practical checklist for emergency management of anaphylaxis level I

<table>
<thead>
<tr>
<th>No</th>
<th>Emergency steps</th>
<th>Achievement level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>1</td>
<td>Immediately stop contact with allergen (if possible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Instruct patient lie onsite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Use drug methylprednisolone or diphenhydramin through oral or injection route</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Prepare oxygen system to be ready for patient use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Closely observe patient at least 24 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Write down sufficient information about patient’s progress in monitoring sheet/ medical record</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Encourage, explain to make patient/ patient family feel comfortable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Record</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Practical checklist for emergency management of anaphylaxis level II

<table>
<thead>
<tr>
<th>No</th>
<th>Emergency steps</th>
<th>Achievement level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
<td>Not achieve</td>
</tr>
<tr>
<td>1</td>
<td>Immediately stop contact with allergen (if possible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Intramuscular injection Adrenalin, hoặc truyền tĩnh mạch adrenalin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Let patient lie onsite, lower head position, turn to the left side if having vomit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Cho NB oxygen therapy: adult 6 – 10 litres/ min, children 2 – 4 litres/ min via mask</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Observe, assess respiratory, circulation situation, awareness and signs on skin, membrane of patient.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>If it progresses more severe, perform/ collaborate for management:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Chest compression and bag mask ventilation (in case of respiratory and circulation arrest).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Perform endotracheal intubation or emergency tracheotomy (if having dyspnea)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Establish adrenalin IV line (according to guideline)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8 Carry out other medical orders given by physician (if any)

9 Closely observe patient’s condition

10 Record

**EVALUATION QUESTION**

1. Select the most correct answer

1.1. Respiratory symptom group of anaphylaxis level II in adult
   A. Tachypnea, wheezing, cyanosis, breathing rate disorder.
   B. Dyspnea, vomit, chest pain, hoarseness, running nose.
   C. Vesicular breathing, laryngeal edema.
   D. Breathing 16 rates/minute, wheezing

1.2. Right after patient is diagnosed with anaphylaxis, the first thing need to be done
   A. Quickly refer patient to emergency department of hospital
   B. Let patient lie onsite, lower head, turn to the left side (if having vomit)
   C. Stop contacting with medication or allergen
   D. Let patient lie onsite, upper head, call 115

1.3. Drug and administration route in emergency of anaphylaxis *(Circular 51/2017/TT-BYT)*
   A. Adrenalin vial 1ml-1mg; intramuscular injection right after diagnosis of anaphylaxis level II
   B. Adrenalin vial 1ml-1mg; intravenous injection right after diagnosis of anaphylaxis level II
   C. Adrenalin vial 1ml-1mg; IV infusion right after diagnosis of anaphylaxis level II
   D. Adrenalin vial 1ml-1mg; subcutaneous right after diagnosis of anaphylaxis level II

1.4. Anaphylaxis emergency level II *(according to protocol of Circular 51/2017/TT-BYT)*, which step will be done first in following steps:
   A. Let patient lie onsite, lower head, turn on right side (if having vomit).
   B. Oxygen therapy: adult 6-10litre/min, children 2-4litre/min through mask.
   C. Intramuscular injection adrenalin (1ml-1mg) – dose according to guidance of Circular 51
   D. Evaluate respiratory status, circulation, consciousness of patient

1.5. Patient receives treatment of mild anaphylaxis (level I), when patient is stable, what is following management *(according to regulation of Circular 51/2017/TT-BYT)*
   A. Let patient discharge
   B. Let patient discharge, instruct patient and patient family to continue observe patients
   C. Continue to observe at least 48 hours in the hospital
   D. Continue to observe at least 24 hours in the hospital
2. Recognize and supplement sufficient items in drug box for anaphylaxis emergency.

(Instruction for this question as follows:
Preceptor prepares some drug boxes for anaphylaxis emergency, of which, each box will lack of some components; then show it and students have to recognize and supplement lacking item)

3. Practical case study

Patient Vu Thi M, 35 years old, a seller; her history – she does not pay attention to the food allergy (she does not remember); patient is healthy, and does not need to use drugs; Regarding family history: her mother has allergic rhinitis (about 1-2 times/ year in the winter), physician prescribes medicine and sprayer whenever she has allergy (not sure what is medicine)

- Patient M admits hospital and she is diagnosed: urinary tract infection. She admits in the hospital and physician indicates IV antibiotic injection.

Question:

3.1. Select one of the most correct answer about skin test before giving AB injection for patient M

A. Test is necessary because her mother has history of allergic rhinitis
B. Test should be done or not, it depends on indication of physician
C. No need to do test because patient does not have allergic history
D. Perform test because patient may have food allergy

3.2. After giving AB injection to patient M in 5 minutes, she is conscious, she feels chest pain, difficult breathing; there is urticaria on her skin; rapid pulse 90 rate/ min; blood pressure 125/80 mmHg; physician diagnose that she has anaphylaxis

Please identify anaphylaxis level of patient M;

And perform anaphylaxis emergency for patient M (by role play method)

ANSWER

Question1.1: B; Question1.2: C; Question1.3: A; Question1.4: C; Question1.5: D

Scenario: Question 3.1: B; Question 3.2: Level II

<p>| Competency based assessment checklist for Prevention and management of Anaphylaxis |
|---------------------------------|-----------------|----------------|----------------|</p>
<table>
<thead>
<tr>
<th>No</th>
<th>Competency</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Early detect symptoms and level of anaphylaxis</td>
<td>Can do independently without support (2)</td>
</tr>
<tr>
<td>2</td>
<td>Prevention of anaphylaxis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management of anaphylaxis emergency level I</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>4</td>
<td>Management of anaphylaxis emergency level II</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Urgent, accurate attitude and teamwork collaboration for anaphylaxis emergency</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES**

CHAPTER 6
COMMUNICATION, CONSULTATION AND TEAMWORK
LESSON 28

COMMUNICATION SKILLS IN PATIENT CARE

OBJECTIVE

1. Describe basic communication skills and some remarks in communication of the nurses;
2. Describe the content of bad news notification (Competency: 13.1)
3. Make comments on communication cases of nurses in care practice (Competency: 13.1)
4. Perform appropriate and effective communication in patient care (communicate with patient, patient’s family, colleague including skills of bad news notification (Competency: 10,2;10.3;11;12.2;13)

CONTENT

A. THEORY PART

1. Definition of communication and communication skills

1.1 Definitions:

Communication is an exchange and contact activity between people and people. In process, participants create or share information and emotions with each other to achieve communication goals.

For example: At health facilities, officers and medical staff usually communicate to each other and communicate with patient and his/her family every day. Though the communication, both parties not only shared their information (on works, health condition, treatment, etc….) but also their emotion (sympathy, happiness, sadness) in order to reach the common goals which are taking care of health and curing people.

Behavior is the way people choose to treat each other in communication so that it is appropriate and effective; it is the reaction of people when they receive the behavior of others and in specific situations.

For example:

- Case 1: When patient comes to the hospital for health examination with of painful and tired expression, doctors often show considerate and sharing attitude by asking some questions so that patients can reduce his anxiety. The patient would feel secure to tell his actual condition to the doctor.

- Case 2: During the treatment, although it is so painful, the patient still tries to endure thanks to kind attitude of the doctor, nurses and other medical staff and gives thanks to them.
Through 2 cases mentioned above, it shows that both medical staff and the patient select appropriate communication method that bring effectiveness to medical examination and treatment.

On the other hand, if the doctor shows his cold and yelling at the patient (in case 1) or the patient does not try, does not know how to express thanks (case 2), the examination and treatment may still occur, but both sides are not happy. Similar behaviors will lead to the atmosphere in hospitals becoming tense and cold. That is the cause of the anger and conflicts between the two sides.

*Communication skills:* is the process of using verbal and non-verbal means to orient, adjust, and control the communication process to reach a certain purpose

1.2. Importance of communication for nurses

For nursing activities, communication plays a very important role in formulation and development of good relationship with patients, their families and colleague. Communication is one of three essential factors that decides effectiveness of nursing activities in patient care. Good communication and behavioral skills will help nurses: Demonstrate professionalism in performing professional tasks; complete the role of nurse; Help nurse to confirm his position with patient and his family members; Avoid the limitations in communication which may cause unreasonable conflicts to patient and his family.

2. Basic communication skills of nurses

In order to have effective communication, it is initial to define who is partner of communication. In communication, understanding of partner plays a very important role. Knowledge on the partner would help information transformer to find the most effective way of communication and avoid confusion during communication. Normally, nurses should have basic information of patients and their family, such as:

- Demographic characteristics: Age, sex, career, region, educational background, marriage status.
- Understandings level of patients about their disease situation (much or less)
- Patient’s attitude toward health condition (care or not care)
- Personalities (type of people)

It is possible to understand the patients through available reports, direct observation or using questionnaires.

2.1 Interviewing skill with patient

Interview aims to collect necessary information to make care plan by using questionnaire. There are 2 types of questions: close question and open question. With close question, the patients just select “yes” or “no”. With open question, the interviewee needs to give explanation or description, then the questions normally start with “how”, “why” that also helps nurses to understand more about awareness and knowledge of the patients. Questionnaire should be short and easy to understand and in line with condition of patient and his family.
Humor sense is good way to communicate with the patients that can help to release stress not only for patients but also for nurses.

2.2 Listening skill

Active listening plays a very important role in communication of nurses because through active listening, nurses can understand hidden meaning of voice, behavior and symptom of the patients.

Active listening requires the listeners not only to pay attention to action, behavior and voice changes of the patient but also have to understand what the patients cannot speak out.

- In order to have active listening, nurses should:
  + Sit opposite to the patients with comfortable feeling;
  + Friendly attitude;
  + Slightly incline toward the patients;
  + Eye contact with the patients;
  + Relax to listen

- Some factors disturb active listening of the nurses:
  + Bureaucracy, hurry, hasty, hurry, psychological stress, anxiety.
  + Sitting uncomfortable.
  + Lack of attention when listening;

2.3 Understanding skill

“Understanding” from nurse to patient is: understanding and willing to share with the patients. “Understanding” can be transferred to the patient by verbal or non-verbal way.

Summary of understanding and non-understanding skill
(Reference: Nguyen Ngoc Bao (2015), Communication skills in nursing practice)

<table>
<thead>
<tr>
<th>Understanding skill</th>
<th>Non-understanding skill</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Verbal</strong></td>
<td></td>
</tr>
<tr>
<td>- Emotional</td>
<td>- No emotion</td>
</tr>
<tr>
<td>- Mention about emotion</td>
<td>- Not mention about emotion</td>
</tr>
<tr>
<td>- Open question.</td>
<td>- Close question</td>
</tr>
<tr>
<td>- Warm voice.</td>
<td>- Boring voice</td>
</tr>
<tr>
<td><strong>Non-verbal</strong></td>
<td></td>
</tr>
<tr>
<td>- Look into eyes.</td>
<td>- Look at another place.</td>
</tr>
<tr>
<td>- Nod a head.</td>
<td>- Nod a head too much.</td>
</tr>
<tr>
<td>- Smile</td>
<td>- So serious.</td>
</tr>
<tr>
<td>- Gentle</td>
<td>- Laugh.</td>
</tr>
<tr>
<td>- Slightly incline toward ahead</td>
<td>- Fold arms</td>
</tr>
<tr>
<td>- Comfortable</td>
<td></td>
</tr>
</tbody>
</table>
2.4 Appropriate touching skill

Touching is one of effective way in communication to show their understanding (sympathy), sharing or calming down to the patients. Sometimes patient feels better with only holding his hand. However, it is important to use it in proper circumstance with proper subjects at acceptable level and to certain patient.

2.5 Silent skill

Communication does not mean that nurses have to use verbal way all the time. Sometimes nurses have to keep silent to encourage patients to speak them out. Silence gives time to nurses to observe patients when they try to communicate verbally. Nurses can take that chance to observe action, face, attitude, etc…of the patients to assess whether patients are calm or not and base on it to decide whether to continue communication or not. Through observation, nurses can understand deeply and clearly about disease and personality of the patients.

2.6 Writing skill

One of important nursing activities is writing report, medical record and make care plan. Therefore, it requires that content of writing needs to be transparent, accurate, full and easy to understand. Some contents need to be included:

- Time (date, month, time) of action
- Just describing action of patients through observation
- Using standard words and use abbreviation only when it has been standardized.
- Short and simple description.

3. Some remarks during communication of nurses

3.1 Communication between nurses and patients

Communication between nurses and patients is aimed intervention that focus on patients’ needs and helps them to express their emotion or problems relating to their diseases, treatment and care. Communication aims to achieve effective implementation of nursing procedure, such as: collecting information during assessment period, contacting with patients on the beds when taking nursing techniques and nursing care activities; providing health education.

First step of communication is collecting information. In order to get trustable information, nurses need to communicate with patients in different circumstances and situation. Nurses also need to have active attitude when collecting information, understanding custom, habit, education background of the patients and pay most attention to the disease history of the patients.

Nurse should try to get good first impression from the patients. If the first impression is not good, it may take time to maintain communication effectively. Nurses should positively get sympathy from the patients, sometimes they can create new impression and surprises in communication.

It is better that nurses encourage any improvement of the patients, do not use personal prejudice when taking communication with patients. They also need to keep balance of mind when
performing communication with patients; control their tired, worry or angry feelings, etc…by self-confidence. The most effective way is using natural attitude. It is necessary to give time to the patients to finish all their ideas because “knowing how to listen will make the patient talk” in order to collect useful information; It is better to use clear words, peaceful and polite intonation, positive sentences in combination with non-verbal behavior such as: shaking head, smiling, opening eyes to show surprise, etc.

Nurses should give greetings naturally and say the sentence “Can I help you” with sincerity. Feelings of a person can show through their voice, sound and the expressiveness of greetings. The conversation between nurses and patients should be finished properly and impressively to both of them.

3.2. Communication between nurses and patient’s family

Family and relatives of patients play important role during caring and treating process. If the nurses can create good communication with patient’s family, it would take good impact to the treatment and care process. Hence, nurses have to understand family background of the patient, relationship and role of family, relatives with the patient.

Communication between nurses and patient’s family need to maintain continuously in order to get most effective caring and treatment. Through communication with patient’s family, nurses can find most trustable person who has strong belief from patient, and then this person can coordinate with nurse to solve problems of the patient in emergency cases.

3.3. Communication among nurses

In order to have effective nursing care and medical treatment, all members of the group have to exchange information and closely coordinate to each other in work.

When communicating with colleagues, nurses need to pay attention to the following issues:

- Respect colleagues; have a sense of learning from the orders with professional experience and knowledge, ethics, good lifestyle;
- Understand roles, responsibilities and relationship with colleagues to fulfill their tasks together;
- Coordinate, cooperate and support colleagues in works and life; just ask your co-workers for help and support when you have tried and worked hard; say thanks to colleagues when receiving support from them and know to apologize for errors or accidentally hurt your co-worker;
- Sincerely praise the advantages of colleagues naturally, not flattering; give advice on restrictions by goodwill; compete with colleagues in a polite way for the common purpose of the department and unit; Avoid jealousy, or make it difficult for colleagues;
- Clarify between professional works and private issue when communicating with colleagues;
- Behaviors to be avoided in the relationship with colleagues: Curious about private life, bad comments behind their backs, deeply intervene in family matters, setting up unreal stories to badly affect to relationship with colleagues.
4. Bad news delivery skills

4.1. Definition of bad news and bad news delivery

Bad news is considered as unexpected information by both patients and nurses on health condition and sickness development (more severe) including status of antibiotic, high risk of disability or death. Therefore, informing more severe situation to patient and his family is always very difficult.

Bad news often causes shock to the patients and might be the reasons to unexpected changes of mind, behaviors which may affect too much to the patients themselves.

Reactions of patients after receiving bad news are different. Some of them are calm and follow instruction of nurses, but some are shocked which leads to negative reactions such as psychosis, treatment stop, complication or suicide.

Bad news delivery is hard but it is very important skill that all nurses need to gain, practice and ready to face up with. It is not good to be hurry up to deliver bad news. Nurses need to prepare everything in advance before delivering bad news to the patient and his family in order to ensure success of communication (can deliver information the patients and minimize bad effects from bad news to the patients).

4.2. Preparation of bad news delivery

4.2.1. Preparing information resources of bad news

Nurse needs to identify information resources of bad news and deliver it to the patient only when having secured results.

It is not allowed to deliver bad news to the patient without medical diagnosis.

Information which needs to deliver to the patients must be accurate, clear and understandable.

Nurses need to prepare necessary information which plans to deliver and explain to the patients: List of questions that patients may ask potentially and prepare proper answers; Forecast negative mental reactions of patients and solution plan with support from colleagues.

4.2.2. Bad news deliverer

Bad new deliverer normally is nurse-in-charge because he/she takes all responsibility for whole caring process in patient’s bed and is person who understand well about sickness process of the patient. Sometimes the nurse-in-charge can appoint his/her colleague to deliver bad news to the patient in case the nurse understands that his/her colleague have better capacity to deliver bad news than her

4.2.3. Time of bad news delivery

Nurses should not deliver bad news before operation, surgery when patient just overcomes a severe situation or emergency case (after surgery, emergency). It is better to select the time after patients have meal or rest and feel comfortable for communication, when family or relatives of patients are also nearby and ready to support them mentally and physically; Should select day time in order to timely solve negative problems happens after receiving bad news.
In case of emergency, patients are in severe situation and are not capable to receive and process information, all information including bad news need to be delivered to patient’s family.

4 2.4. Venue of bad news delivery

Venue of bad news delivery must be professional environment, safe and ensure secret of patient’s information where should be consultation room or nursing department, sometimes it can be patient’s bed if he/her is in serious condition.

Bad news should not be delivered at administration department due to noise and crowded people where the secret of patient’s information is not secured. Nurse should not deliver bad news at non-professional areas such as hospital balcony, outside patient’s bed…. Nurse also should not deliver bad news via phone.

4.2.5. Bad new receivers

In reality, patients have right to receive all medical information relating to their health condition. However, if the patients are in unconscious situation or serious condition, the bad news receivers must be their family’s members.

In case the patient is in conscious situation but unstable mental condition, nurses should consider to recommend them to appoint their family’s members to be substitution for information receiving in order to ensure best condition of the patients.

Only person over 18 years old who are capable enough for communication and bad news receiving have right to accept or refuse information announced by the nurses.

Children, adolescent (under 18 years old) and patient over 18 years old without communication capacity will receive information through their parents or protector.

4.2.6. Understandings of bad news receiver

Nurses need to collect necessary information on patient (bad news receiver) before delivering information and check whether they know anything about what you are planning to talk.

Having patient’s information and understanding will help nurses to have good preparation and proper explanation when delivering bad news. For the patients who have no idea of their disease, nurses need to find suitable explanation and use understandable words.

4.3. Bad news delivery process

4.3.1. Showing sympathy with health condition of patients

Nurses should start bad news delivery process by greetings and short questions to show his/her sympathy and care to the patient. It is better to ask them about their feelings on health improvement by using sincere questions which are suitable with condition of the patient.

Example:

Nurse: Good morning. How do you feel today? Did you enjoy meals and feel better than yesterday? ... (continue talking after having answers from patients)
4.3.2. Starting by understanding of patients and their family

The best way to deliver bad news is starting by health condition of the patients that patients, their family and nurses have understood clearly before. Hence, this is acceptable and understandable information to the patients. For example:

Nurse: *As you know, before having MRI on chest, you had difficulty in breathing, and on chest X-ray film shows a blurry tumor in the middle of the chest.*

Patient A: Yes, I see. *Nurse also showed me that blurry tumor.*

Nurse: *In order to study more about that blurry tumor, we propose you to have MRI on chest and you agreed, right?*

Patient A: Yes, I agree

4.3.3. Bad news announcement

After checking that patient is ready for listening with stable mind, nurse can start announce bad news, at the same time, observe feelings, behavior and reaction of the patient.

Nurse: *Based on result of your chest MRI, the result is not as our expectation (observe attitude of patient when receiving information)*

Patient: Anything wrong?

Nurse: *On MRI result, it has abnormal tumor and its size is a little big that it compressed into the trachea and esophagus. As the result, you have difficulties in breathing and acataposis (stop talking and then observe attitude of the patient)*

Information should be delivered in form of short and understandable sentences. Nurse should have eye contact with the patient when delivering information, so that nurse can observe attitude and reaction of patients and their family. If it finds any chances of behavior or reaction from the patient, nurses should stop delivering bad news.

4.3.4. Mental support

Mental support is necessary skill during bad news delivery process.

In order to provide effective mental support to patients, nurses need to:

Always listen to patients, show sympathy with hurts and difficulties that patient is facing up with (bad health, decreasing income, long time of hospitalization…); Find and understand non-verbal communication of patients in order to foresee unexpected reactions and behavior of patients.

Use friendly and understandable words to communicate with patients; encourage them to share their thoughts and problems.

In case patients have negative reactions such as crying, shouting…, nurse should stop delivering bad news, observe patient’s reaction. Basing on basic patient identification, nurse can start communicate with patient or wait to talk with them in another time while patient feeling calm.

Nurse: *Should we change the topic? Do you enjoy your meals? Do you follow the diet recommended by us?*
Patient: I am still trying to follow your recommendation

Nurse: Yeah, try your best! Good diet can help to improve your resistance.

Or nurse can share bad feelings with patients.

Nurse: I feel so sorry to give you such bad information. We expected to have better testing result than this.

Patient: So, my life is over ...

Nurse: You should not think on that way. Some patients can live more than 5 years after it and it can be recognized that they won cancer disease. We still have hope on next treatment steps. We will come back to the discussion on treatment options, can you?

In case patients have so negative behaviors (such as shouting) or harming to himself or others, nurses need to stop delivering bad news and call support from patient’s family to encourage them timely. At the same time, nurses need to continue observing patients in order to timely find and solve any problem that aims to protect patients.

Nurse needs to remind patient’s family or person in charge of caring patient to prevent idea of suicide. If needed, nurse can change patient’s bed into safer place (far from window for example), remove potential harmful materials nearby patient such as knife, scissors, sleeping pills,…There is always one person stay with patient and do not remind him about bad news.

4.3.5. Re-checking delivered bad news

After announcing bad news, nurse needs to double check whether patient can understand exactly what we have delivered. If patient has wrong understanding, nurse has to explain it again in detail until having correct understandings from the patient.

Nurse needs to encourage them to raise any question on any unclear part of what they have received. It is necessary for nurse to answer all question and give explanation to the patient.

Nurse: We have had long discussion and information sharing, could you kindly repeat it?

Patient: You have informed me that my both kidneys are out of function at stage IV and I need to take dialysis.

Nurse: Do you need any more explanation?

Patient: So, from now on, my life will forever run with kidney machine?

Nurse: At present, it is the best way for you. This machine will work as same as your kidneys and help to improve poison release. Therefore, we need to use this machine every several days. However, we still can keep hope to have kidney replacement after you finish necessary checking and testing. Many patients have had successful kidney replacement, so if you want, we will send you to Surgery Department for checking and consultation.

4.3.6. Promote hopes and optimism of the patient

Normally, patients after receiving bad news often have pessimistic and depressed feelings. Nurses should promote hopes and optimism of the patients and encourage them to accept unhappy news, accept treatment and following nursing care process.
Nurse should not repeat bad news that makes them more worry. Nurse should inform them optimistic news such as percentage of successful cases, new advanced treatment that brings good result to the improvement of patient’s health.

*Nurse: It is the good news that your tumor was found at early stage with small size and it is highly possible that we can have operation soon.*

*Nurse: Among cancers, your case is evaluated to have longest life. Many patients with early stage of breast cancer like you can live 20 years more after operation. I believe you also can do the same thing.*

*Nurse: Even if your illness does not accept medication, please don’t think about it too much. You also can extend your life with comfortable mind and happy feelings. We will give you some painkiller medicine to make you feel better.*

### 4.3.7. Consultation to patients

Bad news delivery skill is not only delivering necessary information, but also consultation to the patient to help them come over their health problems. Some matters that patients often ask nurses:

- Is it possible to cure my disease?
- How many effective treatments for my case?
- How long can I live?
- Will I be disable for my whole life?
- Is it possible that my disease can be transmitted to others? Is it inherited?
- How much do I need to pay if accepting this treatment?
- How long can I live more if accepting operation?

Nurses need to help them to solve the problems relating to bad news:

- If patient accepts to continue the treatment, nurse needs to inform them next stage of nursing care…
- In case of transferring patient to another department or another hospital, nurse needs to explain to them the reasons, purpose, schedule, procedure and support them to finish all necessary process.
- In case patient need to have mental support: Nurse should arrange a meeting between patient and nurse in charge of mental consultation as soon as possible.
- When patient discharges from hospital, nurse delivers prescription with detail explanation of usage, diet, self-care and self-monitoring, re-check schedule (if any)

### 4.4. After delivering bad news

For patients with severe prognosis or near death, nurses should show condolences with the patient’s family. Nurse should also provide final solutions to help the patient’s family choose the best solution. For example:
Nurse: We did the best for him, but unfortunately, his lungs were so damaged that he couldn’t recover.

Mother of the patient: (Crying)

Nurse: We would like to share condolences to your families. We can help one more thing for him to maintain his breathing machine for a while, to wait for the family’s decision. We can also send people to maintain the ball to maintain oxygen for him to come home, if the family chooses to take him back.

4.5. Attitude of nurses when delivering bad news

When delivering bad news to patient, nurse needs to show her sympathy with hurts of patient: ready to listen any sharing on difficulties and problems of patients; do not hurt them anymore; kind and gentle voice; patiently explained to the patients to understand and accept the news; willing to help patients solve health problems related to bad news.

If the patient has an excessive psychological reaction such as agitation, depression ... nurse should temporarily stop providing bad news, to stabilize the psychology of the patient, and wait for the appropriate time later.

The response of each patient to the bad news is very different, the nurse must be trained and practice in bad news delivering skills in order to be able to handle it well in any case. One of the ways to train the skill of delivering bad news and to show empathy with the patient is that a nurse can recall his own experiences when he receives bad news, or when he was informed that loved one passed away. Thereby, the nurse will be able to understand the patient’s feelings when receiving bad news. Nursing should always show empathy for the pain of the patients and their families.

B. PRACTICE PART

1. Procedure of communication skill with the patient

Communication with patient and his family is daily work when nurse performs patient care duty. Depending on content of care services and context of care activities, nurse can select to apply appropriate communication methods in order to help to care of patient effectively and make his family satisfied. In actual situation, there are many different contexts of communication, sometime it is greetings only, or when nurse comes to check health condition of the patient daily, or explanation from nurse to patient when taking minor operation, or encouragement from nurse to patient and his family when they have mental problems, pain, financial problems, or health education and consultation to the patient/his family on self-care during hospitalization and after hospital discharge,… Depending on context of communication and characters of each patient, nurse needs to decide appropriate communication methods to achieve nursing care targets.

The table below is communication procedure between nurse and patient including 17 steps. Depending on certain context of communication, nurse should select suitable steps (it is not necessary to finish all the steps).
<table>
<thead>
<tr>
<th>No</th>
<th>Procedure</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assessment of patient/his family: Ability of speak, listen, communication, educational background, custom, belief, mental condition and health situation…</td>
<td>Relating to effectiveness of communication</td>
</tr>
<tr>
<td>2</td>
<td>Nurse: Wear uniform as regulation with name tag</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Preparation: Inform time and venue of communication (beside patient’s bed in case he cannot move)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Prepare venue of communication: clean, cool, quiet, having table, chair and lights, ensure privacy…</td>
<td>Ensure necessary condition of communication</td>
</tr>
<tr>
<td>5</td>
<td>Greetings (using appropriate pronouns) Self-introduce to patient and his family</td>
<td>Perform procedure of communication, create friendly, open respectful and polite environment</td>
</tr>
<tr>
<td>6</td>
<td>Explain purposes and objectives of communication</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Raise questions (open and close questions) in line with content of communication; Use simple and easy-to-answer questions that patient/his family can give feedback</td>
<td>Facilitate communication</td>
</tr>
<tr>
<td>8</td>
<td>Create trustable and friendly environment. Nurse shows her empathy and support to patient</td>
<td>Help patient understand that he is receiving nursing care</td>
</tr>
<tr>
<td>9</td>
<td>Using appropriate non-verbal communication means (eyes contact, open attitude, same position with patient, leaning toward the patient)</td>
<td>Create concentrative and active environment for communication</td>
</tr>
<tr>
<td>10</td>
<td>Assess information through non-verbal actions of the patient (body language)</td>
<td>Help to have accurate information exchange between nurse and patient</td>
</tr>
<tr>
<td>11</td>
<td>Re-explain when patient is still not clear or do not understand the information</td>
<td>Help patient/his family understand clearly</td>
</tr>
<tr>
<td>12</td>
<td>Active listen (leaning toward the patient, shake head, face, attention, do not take private action…)</td>
<td>Patient receives care from nurses</td>
</tr>
<tr>
<td>13</td>
<td>Ask about expectation of the patient/his family</td>
<td>Pay attention to needs of patient, help them feel secure and trustable</td>
</tr>
<tr>
<td>14</td>
<td>Ask patient about health condition, living conditions, medical care system and other medical related issues in his locality</td>
<td>Create active relationship between nurse and patient, promote trust</td>
</tr>
<tr>
<td>15</td>
<td>Encourage patient to raise his questions if he is not clear on situation; give time to patient to present what he wants to say Answer questions from patient</td>
<td>Help patient understand more clearly and feel comfortable during communication</td>
</tr>
<tr>
<td>16</td>
<td>End of communication: summarize discussed points</td>
<td>Nursing and patients have consensus and mutual understanding.</td>
</tr>
</tbody>
</table>
Give thanks to patient/ his family and say goodbye when finishing communication

Checklist of procedure of communication skills with the patient

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>Achievement level</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
<td>Not achieved</td>
</tr>
<tr>
<td>1</td>
<td>Assessment of patient/ his family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Nurse: uniform, name tag</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Preparation: informing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Venue preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Greetings, self-introduce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Explain purpose of communication</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>Give appropriate questions (open and close questions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Create trustable and friendly environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Use appropriate non-verbal communication means</td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>Assess information through observation</td>
<td></td>
<td></td>
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<tr>
<td>11</td>
<td>Re-explain if needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Actively listen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Ask about expectation of patient/his family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Ask about health condition…</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Encourage patient to raise questions; answer questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Complete communication: summarize…</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Give thanks to patient/ his family and say goodbye when finishing…</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Communication skills in some special cases

When practicing nursing care to patients, nurse can meet patients with communication difficulties, such as hearing difficulties, speaking difficulties, depressed or hard-going person… That is, nurse needs to have appropriate skills to be able to communicate with all these subjects to ensure effective care.

**Communication with patients with hearing and speaking difficulties:** This group of patients often has sensitive and vulnerable psychology. Therefore, when taking communication, nurse needs to assess the ability of hearing, speaking, information receiving, expressing of the patient and the attention of the patient with the communication content... and always show respect, sympathy and...
politeness. Nurse should use simple, concise, easy-to-understand sentences, the speed of speaking is slow, clear, and apply speaking while observing how patients receive information to have timely adjustment.

2.1. Communication with patient with worries

It is necessary to evaluate level of anxiety and find factors which lead to anxiety to the patient (for example: hospitalization, worries about disease, medical costs...), discuss with members of patient’s family about reasons for anxiety; It helps to reduce anxiety of patient through empathy and detail explanation or guidance how to relax, breath and enjoy.

2.2. Communication with depressed patient

It is needed to evaluation which action shows depression of the patient and find out reasons/factors for depression. When communicating with patient, the nurse should show his/her sympathy and understanding to the patient, actively listen, accept existing condition of the patient and pays attention to advantages of the patient. Nurse need to concentrate on observation and listening in order to understand actual feelings of the patient, then give them appropriate advises and consultation.

2.3. Communication with angry patient

Nurse needs to keep calm, stable mind, do not confuse and should look at the patient’s eyes to encourage them to speaking out their feeling or their story. The nurse should not absolutely show his/her impatience to give comments or criticism. When communicating, the nurse needs to keep a firm attitude, show confidence and professionalism, not be humble or afraid too much.

3. Procedure of bad new delivery skill

<table>
<thead>
<tr>
<th>No</th>
<th>Procedure</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assessment of patient/ his family: Capacity, mental condition…</td>
<td>Foresee reaction of the patient when receiving bad news</td>
</tr>
<tr>
<td>2</td>
<td>Nurse: wears uniform as regulation with, name tag</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Venue: should be personal room, should not be patient’s room or administrative room of the department</td>
<td>Do not affect other patients, ensure privacy</td>
</tr>
<tr>
<td>4</td>
<td>Greetings (use proper pronouns) Self-introduce if patient/his family does not know about the nurse in charge</td>
<td>Follow the procedure of communication, create friendly and respectful environment.</td>
</tr>
<tr>
<td>5</td>
<td>Starting: - Explain purpose of communication; ask the patient whether he is ready to receive bad news or not; observe attitude and reaction of the patient; - Ask some questions about health condition and daily activities of the patient; discuss with patient on his understanding about actual health condition.</td>
<td>- Identify cooperation from the patient - Psychological prepare for patients, avoid for patient and his family from sudden shock.</td>
</tr>
<tr>
<td>No.</td>
<td>Content</td>
<td>Achievement Level</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Assess patient/patient family: educational background, mental condition...</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Nurse: uniform</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Venue preparation: private room</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Greetings, ask/call patient’s name, self-introduction...</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>- Explain purpose of communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ask some opening questions</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Delivery bad news in short, accurately and easy to understand</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Observe the patient and his family</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Re-check content of the bad news which has been transferred to the patient</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Encourage patient to raise questions relating to content of the bad news</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Answer questions from the patient</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Sharing sympathy and understanding with the patient</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Give thanks to patient/ his family and say goodbye</td>
<td></td>
</tr>
</tbody>
</table>
EVALUATION QUESTION

1. Select the best answer

**Question 1.1: Purpose of communication between nurse and patient/family in the hospital**
   A. Perform interaction between people in society
   B. Collect information for assessment
   C. Collect information, information sharing with patient/family
   D. Take patient assessment, practice nursing care activities, health education to patient/family

**Question 1.2: Basic communication skills of the nurse**
   A. Interviewing
   B. Listening
   C. Understanding
   D. Interviewing, listening, understanding

**Question 1.3: Attitude of nurse when communicating with colleagues, except:**
   A. Praise the advantages of colleagues naturally and sincerely
   B. Strictly criticize when not happy with colleagues
   C. Support, cooperation, help colleagues in work and life
   D. Respect colleagues; consciously learning from colleagues

**Question 1.4: How to deliver bad news to patient/ family, except:**
   A. Clear and short communication
   B. Repeat bad news many times
   C. Use simple sentences
   D. Select proper time

**Question 1.5: Interviewing skills when communicating**
   A. Interview patient and his family
   B. Use open and close questions properly
   C. Use only close questions that is easy to answer
   D. Use open questions to collect more information

**Question 1.6: Active listening skill**
   A. Listen when patient is talking; pay attention to voice, behavior and face of the patient
   B. Listen all what patient/his family wants to say
   C. Make note when listening
   D. Listen and ask patient to explain clearly
2. Questions on communication skills  
(According to the Guidelines for Conducting Communication of Health Officers - Vietnam Medical Union)

This is dialogue between nurse (Ms. Thuy) and the patient (Mrs. Vu Thi Hoa, 56 years old) at examination department.

Nurse: 
- Good morning.
- I am nurse of Medical examination department
- Please come here for health examination.

Patient:
- Yes, thank you. Which room should I come?

Nurse:
- Yes, please come to this room (The nurse pointed to a room near the patient is waiting)
  After receiving the patient to the department and preparing, the nurse told the doctor to examine (sitting in the next room).

Nurse:
- Would you take examination? Patient has finished preparation

Doctor:
- Thank you. I am coming.

Questions:

2.1. Could you make your comments on communication of nurse with patients through above conversation? Specify which sentences/phases that nurse follow/not follow the instruction on communication? (in comparison with instruction on communication skills in Guidelines for Conducting Communication of Health Officers - Vietnam Medical Union)

2.2. According to Guidelines for Conducting Communication of Health Officers - Vietnam Medical Union, how to change those improper sentences/phases?

3. With your understanding on communication and experience through the clinical learning process in Nursing School, could you raise at least 2 practical examples of good communication and at least 2 examples of improper communication of nurse when taking care of the patient?

4. Role play

4.1. Role play: communication between nurse and patient in the hospital

Suggestion: Trainee writes a short script (6 to 8 sentences) about communicating with the patient who is being treated in the hospital (communication content chosen by the trainees) and practice communicating according to the scenario (invite another practitioner to make it.)
4.2. **Play a role on communication between nurse and family when patient has prognosis of death** *(nurse and family)*

**Suggestion:** Trainee writes a short script (6 to 8 sentences) about **communicating with the patient’s family when patient has prognosis of death** *(communication content chosen by the trainees)* and practice communicating according to the scenario *(invite another practitioner to make it.)*

4.3. **Play a role on communication between nurse and patient with hearing difficulties** *(Nurse and patient)*

**Suggestion:** Trainee writes a short script (6 to 8 sentences) about **communicating between nurse and patient with hearing difficulties** and practice communicating according to the scenario *(invite another practitioner to make it.)*

5. **Case study**

The patient- Ms. Le Thuy Ha, 25 years old; teacher in a high school, single and being an active member of the performing arts activity team in the school. Her history is healthy. During the periodic health check-up, the doctor diagnosed: left ovarian cyst; need to take surgery to remove cysts. The patient was very confused, worried and scared because the surgery is coming.

**Questions:**

5.1. Identify the factors that make the patient Le Thuy Ha nervous, afraid before the surgery

5.2. Being the nurse of charge of this patient, could you explain to secure the patient and encourage them to accept treatment? *(present by role-play)*

**ANSWER:**

Question 1.1: C;  
Question 1.2: D;  
Question 1.3: B;  
Question 1.4: B;  
Question 1.5: B;  
Question 1.6: A;  
Question 2:

Awareness communication: Thuy has taken steps Communicate according to the instructions, about details that are not according to the instructions.

<table>
<thead>
<tr>
<th>Unproper sentence/phase <em>(According to Guidance…)</em> in the conversation</th>
<th>How to change <em>(according to Guidance…)</em></th>
</tr>
</thead>
</table>
| When communicating with patient:  
- Good morning – need to call name of patient | - Good morning, Mrs Hoa |
| - I am nurse…. – Need to introduce your name to the patient | - My name is Thuy, I am nurse…. |
- Please come to this room
  Need to clarify room number

- Please come to the room No.2 for health check-up

**When communicating with colleague**
- Would you take examination? – Unproper word as the guidance

- Would you come for health examination, doctor?

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*Competency based assessment checklist for Communication skills in patient care*

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>Achievement level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Can do independently without support (2) Can do with support (1) Cannot do/do wrongly (0)</td>
</tr>
<tr>
<td>1</td>
<td>Describe basic communication skills and some remarks in communication of the nurses.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Describe the content of bad news notification</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Make comments on communication cases of nurses in care practice</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Make comments on communication cases of nurses in care practice</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES**

1. Chu Van Duc (2005), *Communication Skills Curriculum*, Hanoi Publisher
3. Ministry of Health (2012), *Nursing Techniques Lecture*, Medicine Publisher
4. Ministry of Health (2015), “*Instructions on communication and behavior of Medical Staff*”. 
LESSON 29

HEALTH EDUCATION

OBJECTIVE

1. Describe some fundamental features about communication skills in health education which is related to nursing activities: the meanings of communication in health education, all communication skills and requirements to communicate effectively.

2. Develop a suitable and effective plan for patient, patient’s families after discharging from hospital (Competent standards: 10.3; 11; 12.2; 13.1; 14.1; 14.2; 14.3; 14.5; 14.6)

3. Have good knowledge about health consultation and health education; with friendly attitude, open-hearted and respectful performance during health educating period (Competent standards: 10.1; 11.1; 24.1; 25.2)

CONTENT

A. THEORY

1. OVERVIEW OF HEALTH EDUCATION

1.1. Regulation of health education for nurse
- According to Circular 07/2011/TT-BYT, requires 12 specialized missions of Nurse when taking care patients. The first mission is Consultation and guidance of health education.
- Hospital has regulations and organize suitably health education and consultation.
- During treatment, patients will be consulted, educated about health and taken care, monitored by Nurses and midwife.

1.2. Definition of health education

Health education has been defined in many different ways by different researchers,
- “Health education attempts to close the gap between what is known about optimum health practice and that which is actually practiced” (Griffiths, 1972).
- “Bringing about behavioral changes in individuals, groups, and larger populations from behaviors that are presumed to be detrimental to health, to behaviors that are conducive to present and future health” (Simonds, 1976).
- “Any combination of learning experiences designed to facilitate voluntary adaptations of behavior conducive to health” (Green, Kreuter, Deeds, and Partridge, 1980).
- “The process of assisting individuals, acting separately or collectively, to make informed
decisions about matters affecting their personal health and that of others” (National Task Force on the Preparation and Practice of Health Educators, 1985).

Common aspects among these concepts are that health education includes not only instructional activities and other strategies to change individual health behavior but also organizational efforts, policy directives, economic supports, environmental activities, mass media, and community-level programs.

1.3. Health behavior

1.3.1. Definition of health behavior

Health education is attempted to influence health behavior. Health behavior is defined, for example;

- Any activity undertaken for the purpose of preventing or detecting disease or for improving health and wellbeing (Conner and Norman, 1996)
- Behavior patterns, actions and habits that relate to health maintenance, to health restoration and to health improvement (Gochman, 1997).

Health behaviors within this definition include;

- Medical service usage (e.g., physician visits, vaccination, screening)
- Compliance with medical regimens (e.g., dietary, diabetic, antihypertensive regimens),
- Self-directed health behaviors (e.g., diet, exercise, smoking, alcohol consumption).

In the health facility, health education performs for high-risk person, patient, patient’s family and others like training for medical staffs which is a part of daily medical caring.

1.3.2. Preventive behavior

1. Primary Prevention—intervening before health effects occur, through measures such as vaccinations, altering risky behaviors (poor eating habits, tobacco use), and banning substances known to be associated with a disease or health condition.

2. Secondary Prevention—screening to identify diseases in the earliest stages, before the onset of signs and symptoms, through measures such as mammography and regular blood pressure testing.

3. Tertiary Prevention—managing disease post diagnosis to slow or stop disease progression through measures such as chemotherapy, rehabilitation, and screening for complications.

* Primordial prevention- prevention of risk factors related social and environmental conditions.

1.3.3. Health literacy

Health literacy implies the achievement of a level of knowledge, personal skills and confidence to take action to improve personal and community health by changing personal lifestyles and living conditions. Thus, health literacy means more than being able to read pamphlets and make appointments. By improving people’s access to health information, and their capacity to use it effectively, health literacy is critical to empowerment.
1.4. Nurses’ roles in health education

The role of Nurse in Health System has more changes than in the past. Nurse is not only the person who take care health but also consult for patients and patients’ family. With reality knowledge and experiences, Nurse can consult with patients and patients’ families on how to care about health properly, to help them get well soon. For examples: which food patients should eat, should not eat or drink, how to take a rest or do exercise and work suitably, how to take correct pills and follow-up drug usage, etc.

Consultation is a period to help patient understand and deal with psychological stress, family and community’s problem and diseases. Nurses can focus on encouraging patients to be controlled by themselves.

Nurses can consult to patients or groups. Consultation does not need to be followed the procedures or samples. It can combine in taking care patient’s period. In order to have suitable and effective health consultation, it requires nurses to have skill of identification, analysis situation, summary information, select suitable content and consultation method, evaluate the patient’s improvement after the consultation. Current health caring focuses on how to improve and maintain good health rather than treat diseases. Hence, patients and patients’ families also need to get minimum knowledge and skills to take care themselves so they can leave hospital soon and take care themselves at home.
1.5. Behavior change theory

To identify the determinants to influence health behavior and decide and carry out appropriate strategy of health education is required competency for health professional including nurses. Behavior change theories could help to develop the health education activities.

In this section, some of theory and model of individual and inter-personal level which often used in health care setting are introduced.

1.5.1. Health belief model

The Health Belief Model (HBM) addresses the individual’s perceptions of the threat posed by a health problem (susceptibility, severity), the benefits of avoiding the threat, and factors influencing the decision to act (barriers, cues to action, and self-efficacy).

HBM was one of the first theories of health behavior, and remains one of the most widely recognized in the field. It was developed in the 1950s to explain why so few people were participating in programs to prevent and detect disease. The HBM is a good fit for addressing problem behaviors that evoke health concerns (e.g., high-risk sexual behavior and the possibility of contracting HIV).

When applying the HBM to planning health programs, practitioners should ground their efforts in an understanding of how susceptible the target population feels to the health problem, whether they believe it is serious, and whether they believe action can reduce the threat at an acceptable cost. Attempting to effect changes in these factors is rarely as simple as it may appear.

1.5.2. Theory of Planned Behavior

Theory of Planned Behavior (TPB) explores the relationship between behavior and beliefs, attitudes, and intentions. TPB assume behavioral intention is the most important determinant of behavior. According to these models, behavioral intention is influenced by a person’s attitude toward performing a behavior, and by beliefs about whether individuals who are important to the person approve or disapprove of the behavior (subjective norm). TPB assume all other factors
(e.g., culture, the environment) operate through the models’ constructs, and do not independently explain the likelihood that a person will behave a certain way.

(Theory at a Glance, 2005)

1.5.3. Social Cognitive Theory

Social Cognitive Theory (SCT) describes a dynamic, ongoing process in which personal factors, environmental factors, and human behavior exert influence upon each other. According to SCT, three main factors affect the likelihood that a person will change a health behavior: (1) self-efficacy, (2) goals, and (3) outcome expectancies. If individuals have a sense of personal agency or self-efficacy, they can change behaviors even when faced with obstacles. If they do not feel that they can exercise control over their health behavior, they are not motivated to act, or to persist through challenges. As a person adopts new behaviors, this causes changes in both the environment and in the person. Behavior is not simply a product of the environment and the person, and environment is not simply a product of the person and behavior.

(Theory at a Glance, 2005)
2. COMMUNICATION IN HEALTH EDUCATION

Communication is one of the most important skills of health consultants. The method which helps people having good connection in living environment is communication by language, verbal or non-verbal, and by some support medium.

Communication is a connecting bridge between people. Johnson (1986) considered communication is a method, which people can send message to the others and receive responses (feedbacks).

2.1 Basic steps in communication

Communication contains 3 basic steps:
- Sender
- Communication channel
- Receiver

![Diagram 1: Three basic steps in communication](image)

The effectiveness of communication process depends on these 3 basic steps. If the information from deliver sources is not well managed, it will not accurate or cannot be delivered to right persons. The information receivers cannot understand if the information is not clear, enough or suitable. When information is sent via communication channels, there are some features can make noise. The knowledge, current situations and personal character from obtain sources can affect to the effectiveness of receiving information.
Analyze all features which can affect to the success of communication, divide and consider all separate once: Senders, receivers and communication channels will build communication programs properly.

The first step to make plan for any communication program is about targeted people because a plan can be successful with this object could be failed with another one. Two people that listen to the same audio, watch the same poster can understand and explain them differently. Some relevant information about targeted people need to be found out to make communication plan, and the consultants also need to care about faith, health and sphere of influence of these targeted people.

2.2. Communication’s influence to targeted people

Communication can affect to targeted people through these stages:

**Stage I: Communicate to targeted people**

Communication will work well when targeted people listen and see all messages. Information has to come directly to expected objects when they can listen and see. To do that, the senders have to understand expected objects, find out where they can see the posters, banners and their reading and listening habit.

![Diagram 2: Stages of communication’s influence to targeted people](image)

**Stage II: Attract attention of expected objects**

Any communication of health education methods also needs to attract attention of targeted people, to make them listen, see and read message. At any times, targeted people will not pay attention to all reactions of their senses when they receive information. Attention is a process which targeted people can choose the best part of message to pay attention to and ignore other parts at the same time. There are many factors can make targeted people pay attention or not. Thus, to know how to attract attention of targeted people is very important.
Stage III: Understand messages

People will pay attention to the messages when they understand them. Understanding message is called awareness. Awareness is a subjective process of each person. Two people can listen to the same program or see the same picture but they can explain the meanings differently. Therefore, there will be different reaction.

Stage IV: Promote changes

Communication is not only receiving, understanding the message but also believe in and accept with the messages. There are many factors affected to truth the messages. It is easy to change if the information the people receive in recent. In contradictory to that, it is quite difficult to change the information that exists for a long time.

Stage V: Create and change behavior

Communication can lead to awareness raising, change in belief but cannot change the behavior. The reason is communication does not lead to change the belief that is the most impact factor to behavior. People can have good attitude and they want to take action, such as: Use family planning methods, take children to hospital to get vaccinated… but the pressure from the others can stop them from doing these good things. One more factor can make people do not change their behaviors is lack of money, time or health services. Thus, to change someone’s behavior in this period, it is necessary to create suitable environment and support them.

Stage VI: Improve health

Improving health happen when all behaviors are chosen and done in an appropriate way by expected objects based on scientific foundation because it impacts to the health. If the messages are out of date, they are not effective. Therefore, messages need to be correct, updated and well-managed.

3. FEATURES OF COMMUNICATION EFFECTIVENESS

3.1 Requirements of health communication educator

To get good result, heath communication educator has to get these standards:

- Have medical knowledge: The health communication educators have to have good medical knowledge to create messages for each type of expected objects.

- Have psychological and behavioral science knowledge: To analyze psychology and behavior of expected objects and then choose the suitable communication.

- Have education skills and knowledge: Health education is teaching so the educators have to get teaching skills.

- Good knowledge about culture, customs and community’ problems: To assure the consultants will have suitable approach to targeted people and are accepted by them.

- Enthusiastic in health education work: It’s a moral standard for all health communication consultants.
3.2 Requirements to health education messages

Messages need to have core communicated contents including pictures, attractive things and sounds so that it can be transferred. To assure getting effectiveness of health education, messages need to have all these standards:

3.2.1. Clear: The senders can make message clearly by preparing carefully before sending them. They need to determine the target, all the issues which the receiver has to think and do. Then the senders can use simple words or symbols to explain message.

3.2.2. Accurate: The senders need to assure their messages are accurate. The message could be simple and repeatable. Before speaking or writing, the senders need to choose key words to transfer message clearly and reject all superabundant words to avoid mistakes.

3.2.3. Completed

The senders can make message completely by choosing information which the receivers can understand and do it. For example: the message to ask people do something need to be cleared these questions:
- What need to do?
- Why have to do?
- How to do that?
- Who will do it?
- Where would they do?
- When would they do?

If the messages are not done completely, the sender can misunderstand or do something wrong.

3.2.4. Persuasive

All messages have to be persuasive. To convince targeted people, all messages have to be scientific, reality, accurate and assure the requirements. If needed, the reasons why they are implemented also be clearly. People will have good reaction when they know why they should make things with this way not with the other way, especially when they realize the benefit of this method. Choosing the means to transfer message persuasively, using concise and succinct words and pictures to make strong impression to receivers is need to considered.

3.2.5. Possibility of the messages

One of the best important meanings of messages is possible. Thus, the senders have to understand the receiver well, predict their ability and all supports from the others so that they can perform it.

Above are 5 messages’ requirements which are considered basic principles to create message in health education. These principles can use for oral and written messages.

A message is effective when its targeted people’s issues are clear, not only with suitable contents and forms but also with understandable and acceptable methods. When creating a message, the senders need to predict the ability to understand of expected objects.
The best way to create a good message is experimenting it on the receivers and referencing with colleagues before using it officially in community.

**Diagram 3: Basic factors of good message**

- **Correct on scientific side.**
- **Meet the actual demand.**
- **Requirements about time and effort to implement.**
- **Possible.**
- **Accept about culture.**
- **Meet the passion demand, attractive.**
- **Easy to understand.**
- **Easy to remember.**

### 3.2.6. Attractive

Attractive is the way which senders use to create a message to get belief and convince people. There are many ways to make messages more attractive:

- **Threat:** Message can contain bad result to threaten people in order to make people implement it. The symbols can be used are death, skull, deformed model... It is proved that threats can attract two attentions and make people change. However, too much threat will not be acceptable and people can refuse message. For example: In England, heath educator shows people the harmful and bad effect of cigarette in health with lung disease but it did not work well because smokers refuse these communication methods.

- **Humor:** Message is transferred with funny method such as cartoon, short humorous stories or propaganda. Humor is the best way to attract attention. It also helps to alleviate tension when has strict problems. Relaxing and entertaining can make good result, be easy to remember and learn well. However, humor cannot always lead to change belief and behavior. Humor is also subjective. Some people can laugh with this issue, the others don’t.

- **Logical attraction / reality:** The message can make people implement it with real statistic, real information about disease or real health matter...

- **Affection attract:** Try to convince people by imagination, feelings or passion than using all statistic and matter. For example: Smile of healthy babies, families have toilet room in their houses and safe sexual can create happiness.

- **One-side message:** Show the advantages of implement it without mentioning about disadvantages.

- **Two-side message:** Describe both advantages and disadvantages of the issues.

- **Attraction of positive message:** Communication requires people to do some good things such as building toilet room, breastfeeding babies.

- **Attract attention with positive and negative message:** Attract attention with negative messages means that people can use the term of “avoid”, “not” to encourage people not to implement harmful things for health, such as “Do not feed babies with milk bottle”, “Do not...
practice open defecation”, etc. Most of health educator agrees to use positive message *(better than negative message)* to promote good behavior for health such as “Breastfeeding babies”, “Using hygienic toilet room”, …

- **Message structure:** Theologically, you can use all senses to transfer: See, hear, touch, smell and taste. However, senses which are use frequently in communication are **See** and **Hear**. Information could be transferred by sounds, oral or written words or songs. Information also could be transferred by wordless communication such as performance, voice, countenance, gesture or glint. Wordless communication can combine with speech communication to transfer message to targeted people.

- **Real content of the message:** Real content of the message include words, pictures, sounds to make the attraction of communication. In TV or audio programs, contents could be advices, words, voices, sound. A poster can combine pictures, words or concise phrases, photos, symbols or different colors.

  In vision communication, senders can “analyze vision” and analyze content of vision communication concretely:

  - Which issues are mentioned? Which words can be used?
  - Which font can be used: Caps Lock, Normal, Underline or Italic text.
  - What is the size of words?
  - What color and method of printing?
  - Which propaganda, type of picture, simple or specific shapes, or cartoons can be used?
  - What size and color of pictures?

3.3 Requirements to communication channels:

- Communication channel has to be suitable to targeted people: When choosing information channel, you must consider the approach abilities of targeted people. The principle to choose communication channel is assuring the targeted people have enough conditions to collect information from this communication channels.

- All means and facilities have to assure all technique standards. For examples: All audiovisual facilities to transfer images, sounds, words, writing must be clear and concrete. Try to avoid the technical problems that can occur when communicating because it could make audience and viewer distract and lose their attention to the programs.

- Do not have bad effects (sound, wrong information).

- Transfer message on time, accurately, completely.

- Easy to use, use for long time, maintain conveniently…
4. BASIC COMMUNICATION SKILLS NEED TO BE TRAINED

In practice, communication effectively between people is different. Most of good communicators learn and practice in their real lives.

4.1 Speaking skill

Words are tool to communicate between people every day. In health education, using words directly is to make the best effect. But not all people can use words effectively. To make the others remember and persuade them take action need to be practiced. Speaking can be combined words and non-verbal communication like gesture, countenance, glint (called body language, non-verbal language).

Each person can use these basic principles to make words more attractive:

- Assure the accurately: The mentioned issues have to be scientific and realistic.
- Speak clearly: Words have to be chosen carefully and concisely.
- Speak enough: Assure to speak enough information to avoid misunderstand.
- Speak logistically and structurally: The contents have to be continuously; the previous content is relevant to next content. All contents associate closely and not identically.
- Convince targeted people: to assure the content that meets the demanding of targeted people, speak attractively, educationally to attract attention and be suitable to current circumstances so that changes the behaviors of the targeted people.
- In health education, speaking is not enough. It should be combined speaking, guiding and showing the direction to targeted people. Words will be stronger when being used with images and real examples.

When speaking, should concentrate to 3 factors of words:

- Speed of speaking: Speak with good, clearly, suitable speed for audience, not speak too fast or too slowly.
- Volume of speaking: Speak loudly enough.
- Timbre of speaking: Emphasis, change the voice to suitable to the audience, stop at right places so that people can think and understand, avoid monotonous voice that can make people fall asleep and bored.

When speaking, need to avoid things that can make people discomfort such as repeating unnecessary words, wrong pronunciation, using difficult or specialized word, unsuitable gesture or unexpectedly.

4.2 Questioning skill

Questioning is to have information from targeted people, especial to collect feedback. Questioning is to understand awareness, attitude, behavior of expected objects and then give suitable guidance, advices and actions. With health education activities, questioning directly is to explore all actions and make friendly, open communicate environment, attract attention and
focus on thinking, creativeness thought, experience of targeted people. The questions have to express basic things: What? Where? When? Who? and How?... There are two types of question: Open question and Close question. Close question focuses on expected objects who answer with only one word or some countenance words like “yes” or “no”. Close question can be used when starting, finishing or during the communication process. Open question is used to collect more information. Targeted people can answer all relevant information according to their thought. Open question is asked after using close question. Some requirements to question:

- Question is clear and concise.
- Question is succinct, no need to explain
- Question is suitable to experience and knowledge of targeted people.
- Question focus on the core issues.
- Question encourages thinking of targeted people.
- Keep silent after questioning.
- Question each issue.
- Question alternately close question and open question.
- Combine easy and difficult, general and specific question which relevant to health education contents.
- Avoid questions which make targeted people feel offended.

Before questioning, questioners have to attract attention, find out if the targeted people are willing to answer or not, or the targeted people can answer questions or not, or all question could make targeted people feel hurt and offended or not? After questioning, keep silent so that the audience will have time to think the answer and the questioners can see and know who want to answer. Questioning at right time, right place and right person is a good way to encourage people in communication process, attract attention of targeted people in health education. Health communication educators have to express their goodwill and communicate positively by make question and answer. Always be ready to receive question from expected objects with respectful attitude and answer all their questions. The content of answer can combine with the content of health education to affirm the right of educated communication knowledge and all behaviors need to be practiced.

4.3 Listening skill

* Health communication educators need to know how to listen to targeted people to:

- Collect all general information, assessment of knowledge, attitude, practice and new ideas of expected objects.
- Have enough and correct feedbacks to know if the contents of message are understood accurately and concretely.
- Have more information and ideas to adjust health education process.
- Encourage targeted people to join in health education.
- Express the sympathy, understand targeted people’ matters and circumstances.

* Requirements during listening:

- Keep quiet.
- Make good condition to help speaker feel confidently.
- Listen with ears, eyes, gesture and performance to encourage speakers.
- Express friendly by looking in speaker’s eyes.
- Do not interrupt.
- Do not do other work, speak to others or look to another places while listening.
- Be patient; do not express the impatience, uncomfortable while listening.
- Question and use suitable words.
- Ask other people listening.

4.4 Watching skill

Watching is using eyes to collect information. Watching can predict targeted people pay attention to contents or not, the providing information rate is suitable or not? Watching helps educator to understand targeted people has positive action or not to adjust. Watching also made targeted people pay more attention to issues.

Requirement during watching:

- Watching all the targeted people.
- Find the targeted people’ abnormal expression to adjust.
- Attract attention and remind targeted people.
- Promote targeted people join in health education.

4.5 Persuading skill

Persuading in health education is combination skill because the most important aim of health education is convincing expected objects taking good action for health. To convince expected objects, it need to combine many skills to get acquainted, speak, question, listen, use tools, images and examples, support expected objects. Need to make expected object believe in messages from senders and follow it. Need to know how to explain to convince expected objects. Explaining plays a role to convince expected objects and make them follow senders.

* Requirements during explaining:

- Understand well matter
- Explain clearly, completely.
- Explain concisely, succinctly.
- Use understandable words.
- Use examples, pictures to explain more clearly.
- Explain all questions from targeted people.
- Express the sympathy, respectfulness to expected objects through gesture, do not express the disregard.
- Explain patiently.

4.6 Encouraging, promoting skill

Encouraging and promoting is important to make expected objects confidently, delightfully so they are ready to receive and provide information as well. It’s easy to accept advices to change behavior.

Requirements to encourage and promote:
- Express friendly, respectfulness to expected objects via communication with word or without words.
- Do not criticize the misunderstanding or wrong action of expected objects.
- Try to find the advantages to promote expected objects.
- Let all expected objects join in health education via questions which let them express their opinions or experiences.
- Attract the support and sympathy to promote expected objects.
- Support expected objects implement good action.
- Spiritual and psychological support, in some cases can support by materials.
- Create supports from surrounding environment to encourage expected objects (families and community environment).

4.7 Using health education documents

Using health education document can create the interesting education and help expected objects understand more. Using examples at the right time, right place, right content, right person can convince much more than words.

* Requirements when using health education document:
- Use suitable document with matter and expected objects.
- Use official printed document with scientific contents.
- Use document at right time, right place to attract attention, avoid distraction of expected objects.
- Let expected objects see and understand documents clearly.
- Introduce and explain completely so that expected objects can understand documents clearly.
- Guide what the structure of document and how to use it.
- Give information about places that contain relevant documents so that the expected objects can come and find them.
4.8 Some other skills

- Select time for health education.
- Select expected objects and places.
- Make evaluation questions.
- Choose communication channels.

PRACTICE

1. PROCESS OF HEALTH EDUCATION FOR DISCHARGE

After hospital, taking care and monitoring at home is very important to help patients get well, prevent diseases and improve health. For chronic disease patients, monitoring and caring at home can help disease reduce stably.

Nurses are people who help, support, consult and guide patients and patients’ families how to take medicines (follow the prescriptions) directly. Nurses need to understand patients’ health and their pathological signs so that nurses can consult patients’ family how to monitor and take care of them. The most important is that nurses need to have suitable communication skills to transfer information to patients and patients’ family.

The targets of health consultation are patients or/and patients’ family.

Before health consultation, nurses need to know clearly some factors about patients or patients’ family so that they can consult them best.

Identification content:

- Patients’ condition before consulting: general health, perception…
- Patients’ feelings after hospital: happy, glad, worry, puzzled or unconscious…
- The cooperation of patients/ patients’ family with health consultation: ready to cooperate or refuse...
- Patients’ custom, culture or religion.
- Read and understand ability of patients/ patients’ family.
- Language and communicate method of patients / patients’ family.
- The awareness of patients/patients’ family about health.
- Current habit: harmful or helpful.
- Disadvantages of patients/patients’ family: Awareness, constitution…
- Demand of patients/patients’ family about taking care at home.
  + Ability to care themselves
  + Health monitoring, disease preventing.
  + Patients’ regimen and rest.
  + Take medicine at home (follow prescription).
In reality, nurses do not consult about health for patients/patients’ family at suitable time. They often combine with taking health care activities. Thus, the consultation is not enough and methodical. It made bad result and the nurses do not have enough time to prepare for health consultation.

### Process of health education for discharge

<table>
<thead>
<tr>
<th>No.</th>
<th>Process of health education</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assess patients/patients’ family: Ability of listening, understanding consultation and self-care at home</td>
<td>facilitate consultation get good result.</td>
</tr>
<tr>
<td>2</td>
<td>Prepare for consultation: - Nurse: Dress, gesture, voice; Prepare contents (may be with script) before consulting. - Consultation room: Quiet, clean, airy (can consult at bed side if do not have consultation room). - Documents: Poster, pictures, documents… (if needed).</td>
<td>Make good impression to patients/patients’ family.</td>
</tr>
<tr>
<td>3</td>
<td>Communication: Greetings to patients/patients’ family, introduce themselves and call patients’ name base on their customs</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Tell patients/patients’ family about reasons and time to leave hospital. Explain why they need to be consulted.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Consultation’s content: - Ask patients/patients’ family information about themselves: jobs, awareness ability about disease, ability about caring and monitoring, habit… - Explain to patients/patients’ family about the next disease happening after hospital. - Consult how to monitor all the signs/abnormal symptom (if had) and how to take care. - Explain about medicine and how to take it, consult how to use medical tools at home. - Consult about patients’ regimen, patients’ diet, resting and practicing. - Consult working regulations - Consult how to get suitable sanitation for patients who need help from patients’ family. - Consult how to prevent disease: Clean surrounding environment, food hygiene at home/ community, vaccine injection…</td>
<td>- Collect needed information from patients/patients’ family. - Help patients/patients’ family understand about disease. - Help patients/patients’ family can take care themselves at home.</td>
</tr>
</tbody>
</table>
6. Choose the suitable consultation method: Consider to awareness ability, communication ability of patients/patients’ family. Consult with words, can combine with brochure which contains health consultation after hospital and relevant information. Help patients/ patients’ family collect information effectively.

7. Use suitable wordless communication (communicate with glint, open attitude, sit at same level with patients/patients’ family…) Create comfortable and lively communicate environment.

8. Encourage patients/patients’ family question, discuss about health caring at home. Find out the disadvantages of patients/ patients’ family when caring at home.

9. - Answer patients’ questions: understandable, succinctly. - Explain again if patients do not understand or have not been known about it. Help patients understand information clearly.

10. Listening positively (do not do private work, concentrate to patients, nod to agree…) Let patients/ patients’ family see the caring of nurse.

11. Finish consulting: Nurse summary all contents, emphasis on advantages of patients/patients’ family, point the current problems and give them solution. Meet the consultation demand.

12. Ask patients/ patients family: - If they received discharged papers, medical instruction and follow-up examination papers or not? - Consult patients to book date for follow-up examination and periodic examination. - Support patients on time. - Help patients examine their health on time.

13. Wish patients get well and goodbye.

2. TABLE OF PRACTICING HEALTH CONSULTATION FOR DISCHARGE

<table>
<thead>
<tr>
<th>No.</th>
<th>Content</th>
<th>Level of achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Achieved</td>
</tr>
<tr>
<td>1</td>
<td>Assess patients/patients’ family: Ability of listening, understanding consultation, self-care at home</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prepare for consultation: Nurse, consultation room and documents</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Communicate: Nurse greetings patients and introduce themselves.</td>
<td></td>
</tr>
</tbody>
</table>
4. Tell patients/patients’ family about reasons and time to leave hospital. Explain why they need to be consulted.

5. Consultation’s content:
   - Explain about the next disease happening after hospital, consult how to monitor, take medicine, get good patients’ regimen, resting, preventing and sanitation.

6. Choose the suitable consultation method

7. Use suitable wordless communication

8. Encourage patients/patients’ family question, discuss about health caring at home.

9. Answer patients’ questions, explain information again

10. Active listening

11. Finish consulting: Nurse summary all contents, emphasis on advantages of patients/patients’ family, point the current problems and give them solution.

12. Ask patients/ patients family: If they received discharged papers, medical instruction and follow-up examination papers or not?

13. Wish patients get well and goodbye.

3. EXAMPLES: PLAN TO HEALTH CONSULTATION FOR DISCHARGE, NOTE THE PLAN WITH “HEALTH EDUCATION” FORM – SEE THE APPENDIX.

3.1. Case study

Mr. Pham Van P, age 65, retired. Home address: No. 07 Nguyen Trai Street, … District, …. Province. His height is 1.58m, weight: 64kg. He had a history of hypertension and has been treating for 5 years. He lived with his wife (named Hoang Hai Y) who was good at cooking housewife. His wife could cook many delicious foods so he liked them and eat too much. He also likes to drink so always invited friend to his home. He walked around 40 – 50 minutes every evening. He took medicine every day following the prescription but sometimes he forgot. He came to medical station to check his blood pressure.

He was taken to Binh Han medical station at 22 Dec, 2018 under the condition: his head was dizzy and palpitate. The nurse welcomed, monitored his vital signs and the result was: Pulse: 75 times / minutes, breathing rate 20 times / minutes, body temperature 36.50C, blood pressure 175/100mmHg.
He took medicine to reduce his blood pressure rate: Coversin 5mg x 1 pill, drink. After using medicine, his condition was stable: stop dizzy and palpitate. Pulse was 70 times/ minutes, breathing rate 16 times/ minutes, blood pressure 140/ 90mmHg, body temperature 36.20C. Doctor gave him medical instruction and he could go home – Drinking medicine to reduce blood pressure 1 pill/ day, in the morning after breakfast.

**Questions:**

Make plan and consult Mr. P so that he can go home and health caring at home.

3.2 Make plan to health consultation for patient Pham Van P

*(Write a plan base on sample of Appendix 4 – Training New nurses Program)*

**FORM: HEALTH CONSULTATION FOR DISCHARGE**

Student’s full name: **Le Van T**

Class: **training new nurse course i – 2018 – X general hospital**

Subject: **Internal Clinical**

*(Above is student’s information)*

1. **Patients’ general information**

- Full name: Pham Van P. Age 65
- Sex: Male
- Address: No 7, Nguyen Trai Street, … District, …. Province.
- Job: Retired
- Contact when needed: Wife: Hoang Hai Y. Phone no. 0904…..
- Hospitalization: 20 Dec, 2018
- Department: Binh Han Medical station.

2. **Medical information**

- Reason: Dizzy, hot face, nervous
- Diagnosis: high blood pressure.
- History of hypertension for 5 years.

3. **Patient identification**

- Culture, religion, custom of patient:
  Mr. P is retired.
- Reading, understanding ability of patient/patient’s family
  Normal
- Ability and skill about health awareness of Patient/Patient’s family
Not clearly about current health
+ Forget to take medicine
+ Do not monitor blood pressure frequently
+ Do not know or do not care about weight loss => Mr. P eat too much.

- Harmful and helpful habit:
  + Harmful habit: Eat too much, drink alcohol.
  + Helpful habit: Go for walk every day, go to medical station to test blood pressure.

- Disadvantages of patient/patient’ family: Awareness and constitution matter
  + Constitution: Increase blood pressure for 5 years, BMI = 25.6 => Weight gain.
  + Awareness: Forget to take medicine, drink alcohol – Not clear about caring health for increase blood pressure people.

- Language and communication method of patient/patient’s family
  Vietnamese, verbal communication.

4. CONSULTATION CONTENT:

<table>
<thead>
<tr>
<th>Issues</th>
<th>Consultation plan (solution)</th>
<th>objective</th>
<th>Implement</th>
<th>Evaluate</th>
</tr>
</thead>
</table>
| 1. Consult about taking medicine | - Explain to patients about the harmful of forget taking medicine
- Consult how to take medicine properly. Avoid forgetting take a pill. | Patient understand the harmful and know how to take medicine accurately. | - Explain how harmful if patient do not take medicine frequently
- Guide patient set alarm to take medicine or tell his wife remind him. | - Patients understand them harmful of forget taking medicine.
- Patient try to take a pill frequently – his wife will remind him every day. |
### Lesson 29: Health Education

#### 2. Consult about nutrition and loss weight

- Explain patient and his wife: Eat and drink affect to weight, drink alcohol can increase blood pressure
- Consult how to give up alcohol, adjust food, reduce food.
- Consult how to lose weight and remain suitable weight.

- Patient listen and understand the interact of food and blood pressure
- Patient will change after consulting.

- Explained patient the harmful of alcohol to blood pressure.
- Explained patient his current BMI is pre-fat, need to lose weight, need to adjust food and remain good weight.
- Consult how to give up alcohol.

- His wife understands and helps Mr. P.
- Mr. P is in divided mind as to giving up alcohol.

#### 3. Consult about monitoring blood pressure

- Explain to patient/patient’s family why they have to test blood pressure frequently.
- Consult the signs of increase blood pressure.
- Advice patient buy sphygmomanometer and how to use it.

- Patient understand and implement following the construction.

- Explained: Test blood pressure frequently is important to maintain the health care and know when it increases suddenly.
- Consult patient the signs of increasing blood pressure.
- Introduce about electric sphygmomanometer so that patient can choose (if he want to buy it).

- Patient realize monitoring frequently is necessary.
- Patient is not ready to buy sphygmomanometer because he does not know how to use it.

Trainee’s opinion:

- Attained contents:
  Consulted some matter to patient/patient’s family, feel happy because they listen to me.

- Not attained contents:
  Not happy about explanation how patient can maintain a suitable weight. I am lack of knowledge about nutrition and consultant skill. I think I have to try harder.

- Supported contents:
  Knowledge about nutrition and consultant skill.

Date……Month…….Year 20…
Feedback/Comment of Preceptor:

You prepared specific plan, point out all suitable matter to consult to patient. However, the content for each matter need to be more suitable for patient. Need more specific about the content of consulting patient how to monitor blood pressure. Need to add more content about how to deal with increase blood pressure suddenly. Need to practice how to convince patient. Hope you do it better next time.

EVALUATION QUESTION

1. Practical case study:

   Nguyen Van L, age 58, carpenter. He worked for many years with experiences so he had lots of work. His economic was stable, his children grew up. He lived with his wife. His children lived in their own houses next to him.

   He was strong, eat too much because he thought he had to eat to work. He never went to hospital before. Half month ago, he was sent to hospital because he was diagnosed as suffering from diabetes type 2. He left hospital after 2 weeks.

   His condition after hospital: he was conscious and worried about his health because his disease had to be treated for long time. Weight 69 kg, Tall 1.63m, pulse: 71 times/minutes, blood pressure: 145/90mmHg, body temperature 36.50C, breathing rate 17 times/minutes. Blood test when hungry: Glucose 6.7mmol/l, HbA1C 7.2%

   Doctor gave him medical instruction at home:

   - Medicine for diabetes: Drink 2 times/day.
     Insulin 10 units, injection under skin before dinner 30 minutes and pill after breakfast. Diagnosed every day.

   - Follow-up examine: After 1 month or has abnormal signs.

Questions:

1.1 Give adjustment about Mr. L condition after hospital.

1.2 Make plan to consult for Mr. L and his family about health caring at home, monitoring and taking medicine at home… after hospital. (Make consultant plan following sample (Appendix 2 and example at 3). Consult for Mr. L and his family with “Role play” method.

2. Case study/clinical case study

   The preceptor chooses some patients in Clinical Department who will leave hospital. Require student/groups to judge the patient, make plan and implement health education for them. The preceptor watches and support student if needed. And then the preceptor can organize for students discuss and feedback.
### Competency based assessment checklist for Health education

<table>
<thead>
<tr>
<th>No</th>
<th>Content</th>
<th>Level of achievement</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Can do without support (2)</td>
</tr>
<tr>
<td>1</td>
<td>Describesome fundamental features about communication skills in health education which is related to nursing activities: the meanings of communication in health education, all communication skills and requirements to communicate effectively</td>
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<tr>
<td>2</td>
<td>Develop a suitable and effective plan for patient, patient’s families after discharging from hospital</td>
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<tr>
<td>3</td>
<td>Have good knowledge about health consultation and health education; with friendly attitude, open-hearted and respectful performance during health educating period</td>
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</table>
LESSON 29: HEALTH EDUCATION

HEALTH EDUCATION FORMAT TO DISCHARGE

Name of nurse: …………………………………………………………………………………
Class: …………………………….. Subject: …………………………………………………

1. Basic information of patient
- Name: …………………………………………….…… Age: ............ Gender: ............
- Address: …………………………………………….………………………………….
- Occupation: …………………………………………………………………………….
- Contact person in need………………………………………………….………………
- Date of hospitalization: ………………………………………………………………..
- Department: …………………………………………………………………………….

2. Medical information
- Reason for hospitalization: ……………………………………………………………..
- Diagnosis: …………………………………….……..……………………………………
- Medical history………………………………………………………………………………

3. Assessment

Cultural, spiritual or religious factors of patients:
………………………………………………………………………………………………
………………………………………………………………………………………………

Reading and understanding level of patient/ family:
………………………………………………………………………………………………
………………………………………………………………………………………………

Understanding and skills of patient/family about current health condition
………………………………………………………………………………………………
………………………………………………………………………………………………

Current habits: beneficial and harmful
………………………………………………………………………………………………
………………………………………………………………………………………………

Difficulties of patient/family: physical, educational disadvantage
………………………………………………………………………………………………
Language and communication tools with patient/family

Content of health education/consultation

<table>
<thead>
<tr>
<th>Issue</th>
<th>Education content (solution)</th>
<th>Expected outputs</th>
<th>Implementation</th>
<th>Evaluation</th>
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</tbody>
</table>

Date...... month.........year.........

Comments of trainees:

Can do

..............................................................................................................

..............................................................................................................

Cannot do

..............................................................................................................

..............................................................................................................

Need support

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..............................................................................................................

Comments/feedback and conclusion of trainers.

..............................................................................................................

..............................................................................................................
GUIDANCE ON FILLING UP FORMAT OF HEALTH EDUCATION FOR DISCHARGE
(This format is filled by trainee oneself when learning/practicing)

1. **Basic information/ medical information:** based on medical profile

2. **Assessment:** Based on collected information from patient/family directly: sufficient, short.

3. **Content of health education/consultation:**
   
   3.1. Issues: It depends on each patient to identify appropriate issues for education, make priority list. For examples: consultation on nutrition, drug usage, exercise…
   
   3.2. Health education plan: Based on education content to make proper plan.
   
   3.3. Expected outputs: Identify objective of each content.
   
   3.4. Implementation: Write in detail of implementation plan for each content.
   
   3.5. Evaluation: Make evaluation for each content after implementing the plan.
REFERENCES


LESSON 30

TEAMWORK SKILLS IN HEALTH CARE

OBJECTIVES

1. Present 6 benefits of the team in health care (Competency: 15, 21.6)
2. Analyze 4 stages of team establishment and development
3. Discuss measures to enhance team work effectiveness (Competency: 15, 21.6)

CONTENTS

1. General view of health care team

   Nowadays, health care industry is performed on the basis of a multi-disciplinary approach to patient care. Doctors, nurses, midwives and other medical groups work together closely to provide comprehensive care services. Team work is the most important factors to ensure that the patients are cared continuously, safety and quality.

   In fact, it is very rare that the patient is taken care of just by one medical staff. In the context of a complex health care system, the effective teamwork is necessary for the patient’s safety.

   One team can include 2 or more people working or discussing together for a common team target in a certain time.

   Health care team is the provision of medical services to individuals, families and communities by at least 2 medical service providers, cooperate with patients and families to achieve targets of taking care patient’s health safety, effectively and of high quality.

   Patients always care about their own health-care, therefore, they should be the care team members from very beginning and through out the treatment process. The facilitation of the participation of patients in the medical team has been shown to reduce errors and reduce the risk for patients.

2. Benefits of teamwork in health care

2.1. Patients have more satisfaction

   Health officials do not provide services independently but are multidisciplinary teams / groups. These teams include doctors, nurses, midwives, technicians and other professions. The most ideal one is every team member working together towards common goals are enhancing patient’s health and providing the most possible highest care level.
Once multidisciplinary teams cooperate and inform each other regularly, they can assess the patients more thoroughly. Due to daily continuous communication with patients, the nurses and team members can assess the patient’s changes and give the best suggestion for patient’s care management.

Continuous and consistent communication with patients will increase the trust and satisfaction of patients as long as the team works effectively and all members well cooperate with each other.

2.2. Nurses get more satisfactory with works

Once team works effectively and supportively, every member can get benefit from the assistance of other team members.

Nursing career with challenges from prolonged shifts and frequent facing with extreme stressful emergency situations. Therefore, it is important for nurses to maintain a high level of satisfaction in their works to reduce stress. A research report of the Human Resource Management Association has announced teamwork is closely related to job satisfaction.

An effective team is a team members, including patient cooperates together in making decision of patient’s care and treatment, as well as communication among the members is smoothly and patients are informed fully about upcoming activities to cooperate with medical officials.

2.3. Increase job responsibility

The importance of communication and teamwork is becoming more widely recognized in the health care industry. Educational institutions are emphasizing the importance of teamwork and communication to develop a stronger foundation for successful health care results.

Combination of responsibilities and sharing responsibilities among team members in health care systems brings great benefits to both patients and health workers. However, in fact, responsible cooperation without high-quality teamwork can lead to the risk for patients immediately. For example, poor communication and interrupted communication between members of the care team can lead to medical problems due to mistaking the wrong person and wrong medication, and wrong surgery have actually occurred in many health facilities. Furthermore, poor team coordination can also lead to costly using health resources and cannot control the expenses.

Health care is a multidisciplinary career in which doctors, nurses and health official from different expertise must work together, each person has different expertise knowledge and responsible for different tasks. These multidisciplinary teams are designed to solve the health problems of individuals, families and communities.

Teamwork and team-training are currently considered as a crucible part of medical education. Teaching students the basic principles of teamwork and cooperative care that help students get better understanding the needs of patients - especially in areas of many social and health problems. The World Health Organization recommended that students begin to use teamwork principles in problem-based education, allowing students to work together, sharing information and solving clinical problems as a group.
2.4. Minimize personal errors and increase safety in health care

According to MOH under the Circular No.19/2013/TT-BYT guiding on quality management at health facilities has pointed 1 of 7 reasons leading to medical adverse events are communication between care team members not enough and timely.

In the process of teamwork, it is difficult to avoid the errors of each individual related to many stages of the system and team members such as new, old, hardworking, talkative, less-work members... The mutual supports for weakness of technical matters or experience is valuable to minimize potential risks in each health care team.

Patients who come for medical examination and treatment at the hospital will be provided services by many individuals and departments. Hence, information between medical officials for common care and treatment of patient is very meaningful. Furthermore, the hospital’s activities are often suspended by shifts, weekends, holidays, therefore information channel through out the treatment process will ensure patient are cared continuously and safely.

2.5. Develop collective strength, increase effectiveness and efficiency of work

Many researches have proved that teamworking makes effectiveness and efficiency of each person significantly higher than average effectiveness and efficiency of each person working independently. Because when working in a team, skills and experience complement each other. For example, in the past (before the year of 2000), the model of nursing care activities depends on the works. To compare with current team-based patient care, it is cleared that work-based patient care model showed many weak points such as assignment of nurse to take blood for testing, to change bandage, injection... each nurse in charge of a task, who finishes first off first, it leads to someone is too busy, someone is too idle and these members can only know their own tasks without general patient’s information, when doctor asks no one know clearly about patient’s information. The care becomes like machine, there is no close connection and coordination among nurses. Therefore, the role of nurse is not highly appreciated, causing loss of credibility for the nursing system.

2.6. Development of working environment to learn from each other

The knowledge and experience of the individuals in the care team complement each other, the given decisions of patient care/treatment are more suitable and comprehensive. The team can take advantage of the best of each person in his expertise and beyond, the members can study the best things from one another, improve their attitudes and behaviors.

3. Classification of team in health care

3.1. Official teams

The official teams are established under the request of organization or jobs with clear assignment of duties for the member as: care team, surgical team, expertise council... The official teams often give the professional opinions according to their own areas.
3.2. Unofficial teams

A group of people gather together due to having same hobbies, opinions, lifestyle. In health sector, the unofficial teams can be established by a person to solve temporary works or cases or special issued in a short time.

4. Teamwork formation and development stages

4.1. Team formation

Formation is the time members gathered. Everybody is very cautious and timid. Conflicts are rarely spoken directly, mostly in a personal nature and completely negative. Because it is newly established so individuals are limited by their own opinions and generally closed. It is absolutely right for a less important member and too much anxiety.

This stage, the team mostly tends to hinder those who excel as a leader.

4.2. Conflicts

Confliction is next stage when factions are formed, different characters fight each other and no one wants to step back.

The important thing is little communication because no one is listening and some of them are not willing to talk openly

Honestly, this conflict seems to be an extreme in your team but if you look through the outside kindness and see sarcasms, offenses, allusions, maybe a picture will be clearer

4.3. Normalization stage

Later, there will be a normalization stage. At this stage, the team starts recognition of cooperative benefits and reduce the internal conflicts.

With a new cooperative spirit, every member feels safe in expressing their opinions and issues are discussed openly will all team members.

The most improvement is everybody can listen. Working methods are formulate and all members can recognize.

4.4. Smooth operation stage

Final is smooth operation stage.

It will be a top, once the team is working in a stable system and allow to discuss freely and get strong supports from all members for each individual and conclude the team decision.

5. Teamwork principals

- **Consensus**: the target of the team needs to be clearly identified, discuss and disseminate to all members for implementation. To achieve highest results, the targets need to harmonized the common targets and the personal targets.

  The new member needs to be supported by long experience members.
- **Encourage creativity:** The team includes members who have different opinions and thoughts of doing. Some people work empirically and tend to hinder innovation. Therefore, it is necessary to limit passivity and encourage all members to be creative at work. Hence, you should always welcome the diversity of ideas and lead the discussion to the consensus.

- **How to make authorization in the team:** The authorization consists of two forms: job authorization and power authorization. Job authorization is dividing working plan into partial separated works with a particular purpose and assign to the members of the team. Then, leave them alone and intervene only once they cannot reach the target. Power authorization is after getting consultation, giving a person full power to act on it.

- **Encourage people to rise up their opinions:** The leader should encourage members to discuss even on opposite ideas, it may bring values.

- **Responsibility sharing:** Add more measures of operation, progress monitoring, creative, constructive when the team facing temporary difficulties. It is necessary to create understanding atmosphere among the members particularly about progress and any changes of working direction.

**6. Improvement of information sharing in the team**

In health care activities, doctors, nurses and the medical staff are not working alone but in a team. Therefore, the improvement of information sharing among the medical officials and between medical officials with patients and families is very important to ensure the patient care safety and effectively. The form of information improvement including:

- Daily meeting at the department’s meeting room
- Bed-side shift handover
- Accompany with doctor to the bed-side
- Visit bed-side during working shift
- Available information on board
- Information of patient through patient records, caring monitor sheet
- Information through electronic devices, intranet
- Information through telephone
- Information sharing through performing professional procedures, checklist
- Information through videos, conferences…

**7. Resolving team problems**

**7.1. Identify the problems**

The team is facing difficulty. You want everybody gets along each other but seems they are having disagreements each other or entire team. Make a question to find out where is problem or why they have disagreement
7.2. Communicate with each member

It is necessary to solve personal matter between members with constructive spirit. Do not rush to react to the things until you know the reason well. Every team has own difficulty to overcome. It should prevent the “blame” to others – otherwise it loses team spirit.

7.3. Handle with trouble maker

After talking to the trouble maker, further action might be needed. Make effort to heal every relationship. Things to be noted:

- Say honestly what you see
- Look at the problem from a team perspective
- Take advantage of problem to push up changes
- Be optimistic when solving problems.
- It is better to solve a problem than to delay your work.
- Do not stubborn with the grumpy people
- Do not bother with anyone in the group.
- Do not neglect the target of the group.
- Do not rush to secure assistance from outside
- Do not ignore the tensions that make matters worse

7.4. Solving conflicts

- The personal conflict can quickly become the issues of the team.
- Make a chance for one or both explain to you for calming down
- If it is caused by your operational mistake, you must talk to all team member to rise the overcome.
- The matter is to improve the behavior, to prevent any blame and judgement.

7.5. Using problem explanation method

- Consider the working related issues as the chance for studying and improving. Interpret the problem so all team members can recognize and learn.
- It could assign one person to solve problem and report the progress and results

EVALUATION QUESTION

1. Select the most correct answer:

1.1. Members of patient care team in a hospital consists of:

A. Doctor, nurse, patient
B. Doctor, nurse, pharmacist
C. Doctor, nurse, rehabilitation technician
D. Members of care team established depend on the patient’s care needs

Answers: 1.1: D

2. Discussion question:

Health care team normally consists of some medical officials patient and patient family.

2.1. Please indicate the role of the patient when he is a member of the health care team?

2.2. In your opinion, when the patient is a member of the health care team, what condition do they need to have about physical and mental?

3. Discussing on strong points, weaknesses of a nurse when he/she works together with doctor and other medical officials in patient care in a hospital; Applying principles and problems resolve when working in a team to give measures to overcome the weaknesses.

- States your experience of teamwork in health care.

4. When implementing the model of teamwork patient care at hospital, what are the benefits and limitations? (refer to 6 benefits mentioned in the lesson). Discussing with your classmates about benefits, difficulties, challenges and solving methods when you are working in a team in health care.
PRACTICE

1. Gaming
   Theme: Thumb Wrestling/War
   Method:
   1. please find your partner
   2. please “win” as many as possible during 30 seconds. Let’s compete the number you win
   3. reflection after game
      - What did you think and how you feel when this game start? What is your image of “competition”?
      - How influence these perceptions to your behavior?

2. Discussion
   Theme: What you have to do (or not to do) towards collaboration with team member? Please list up as much as possible with concrete expression.
   Method:
   1. Please write down the behavior, attitude and verbal communication on post it one by one (quantity over quality!)
      Please list up based on your experiences on
      - What you have done as member of team
      - From the case of medical adverse event or near miss in your hospital
   2. please share with team members and consolidate
## ANNEX 1

### LIST OF SEVERE MEDICAL ADVERSE EVENTS

<table>
<thead>
<tr>
<th>SURGERY RELATED ADVERSE EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wrong site surgery:</td>
</tr>
<tr>
<td>Is defined as surgery taken on a wrong body part that is not mentioned in the medical record of the patient except following cases:</td>
</tr>
<tr>
<td>A. Changing surgery site that happens and is decided during surgery process. Or</td>
</tr>
<tr>
<td>B. Acceptance of change. Or both.</td>
</tr>
<tr>
<td>2. Wrong patient:</td>
</tr>
<tr>
<td>Is defined as surgery taken on wrong patient who is not patient mentioned in medical document.</td>
</tr>
<tr>
<td>3. Wrong method (wrong procedure):</td>
</tr>
<tr>
<td>Is defined as the surgical method performed on patients which is not correct with the surgical consultation minutes except following emergency cases:</td>
</tr>
<tr>
<td>A. Changing surgical method that happens during surgery process. Or</td>
</tr>
<tr>
<td>B. Acceptance of change. Or both.</td>
</tr>
<tr>
<td>4. Neglect medical equipment/tools in patients after surgery or other invasive procedures, except following cases:</td>
</tr>
<tr>
<td>A. That equipment/tool is allowed to put it into patient’s body (based on diagnose)</td>
</tr>
<tr>
<td>B. That is existing equipment before the surgery and will be kept intendedly.</td>
</tr>
<tr>
<td>C. That equipment does not exist before the surgery and but will be kept intendedly due to possible danger if removed such as very small needles or screw debris.</td>
</tr>
<tr>
<td>5. Dying during surgery or right after surgery on patient with class I of ASA including death caused by anesthesia, surgery plan can/cannot be undertaken.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADVERSE EVENT RELATED EQUIPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Patient dies or gets severe sequelae due to contaminants, equipment or biologicals are provided easily</td>
</tr>
<tr>
<td>Includes detection of contamination in drugs, medical equipment and biologicals regardless of origin of contamination or items.</td>
</tr>
</tbody>
</table>
| 7  | Patient dies or gets severe sequelae due to usage of medical equipment or functions of equipment in which the usage and the functions of equipment are not like estimation/regulations. Include the following tools (unlimited):
|    | A. Catheter
|    | B. Drainage tube or other special tubes
|    | C. Intravenous infusion pump
|    | D. Mechanical ventilation
| 8  | Patient dies or gets severe sequelae due to intravascular air embolism during inpatient care and treatment.
|    | Except neurosurgery techniques which are defined to high possibly cause intravascular air embolism

**ADVERT EVENTS RELATING TO PATIENT MANAGEMENT**

| 9  | Delivering the wrong infant
| 10 | Patient dies or gets severe sequelae when escaping from the hospital
| 11 | Patient suicides or gets severe sequelae due to suicide in healthcare facility.
|    | Is defined as unexpected problems happen after patient is received in hospital for treatment.

**ADVERT EVENTS RELATING TO PATIENT CARE**

| 12 | Patient dies or gets severe sequelae due to drug use errors:
|    | A. Drug name
|    | B. Dosage
|    | C. Patient
|    | D. Time to take drug
|    | E. Frequency of drug use
|    | F. How to mix drugs
|    | G. How to take drugs
|    | Including: Asking patient to take a drug that knowing the patient has a history of drug allergy and drug interactions are likely to result in death or serious sequelae.
| 13 | Patient dies or gets severe sequelae relating to Hemolysis due to infusion of wrong blood type or blood products.
<table>
<thead>
<tr>
<th></th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Maternal patient dies or gets serious sequelae related to childbirth in low-risk pregnancy period when being taken care at the facility. Including problems happen in postpartum period (42 days after childbirth), except deaths in following cases: A. Pulmonary or amniotic fluid embolism B. Acute fatty liver during pregnant period C. Cardiomyopathy</td>
</tr>
<tr>
<td>15</td>
<td>Patient dies or gets severe sequelae due to hypoglycemia.</td>
</tr>
<tr>
<td>16</td>
<td>Patient dies or gets severe sequelae (kernicterus) due to Hyperbilirubinemia in infants.</td>
</tr>
<tr>
<td>17</td>
<td>Pressured ulcer at level 3 or 4 during hospital stay period. Except, due to development of existing pressured ulcer at level 2 or 3 before hospitalization.</td>
</tr>
<tr>
<td>18</td>
<td>Patient dies or gets severe sequelae due to physical therapy</td>
</tr>
<tr>
<td>19</td>
<td>Wrong sperm or eggs of donors when taking artificial insemination.</td>
</tr>
</tbody>
</table>

**ADVERT EVENTS REALATING ENVIRONMENT**

<table>
<thead>
<tr>
<th></th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Patient dies or gets severe sequelae due to electric shock. Except error caused by treatment by electricity (breaking vibration electric shock or adjusting rhythm by selective electric shock)</td>
</tr>
<tr>
<td>21</td>
<td>Accidents caused by production of oxygen or other gases to patient such as: A. Wrong gas. Or B. Gas with toxic substances</td>
</tr>
<tr>
<td>22</td>
<td>Patient dies or gets severe sequelae due to burns happening at any time during care period in the facility.</td>
</tr>
<tr>
<td>23</td>
<td>Patient dies or gets severe sequelae due to falling down during care period in the facility.</td>
</tr>
<tr>
<td>24</td>
<td>Patient dies or gets severe sequelae due to fixed equipment for patients or by bed barriers.</td>
</tr>
</tbody>
</table>

**CRIME-RELATED INCIDENTS**

<table>
<thead>
<tr>
<th></th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>To be fake medical staff to provide medical treatment services to patient</td>
</tr>
<tr>
<td>26</td>
<td>Abduction (or seduction) patients of all ages</td>
</tr>
<tr>
<td>27</td>
<td>Sexual attack in the area of hospital</td>
</tr>
<tr>
<td>28</td>
<td>Cause death or serious sequelae to patients or colleagues by weapon in the area of hospital</td>
</tr>
</tbody>
</table>
ANNEX 2

FORMAT OF MANDATORY REPORTING ON MEDICAL ADVERSE EVENTS

| FORMAT OF MANDATORY REPORTING OF MEDICAL ADVERSE EVENTS | Report No.:  
| Report date:  /  /  
| Department:  |

<table>
<thead>
<tr>
<th>Patient’s information</th>
<th>Object of incidents/adverse events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full name:</td>
<td>□ Patient</td>
</tr>
<tr>
<td>Number of medical profile:</td>
<td>□ Relatives/visitors</td>
</tr>
<tr>
<td>Date of birth:</td>
<td>□ Medical staff</td>
</tr>
<tr>
<td>Gender:</td>
<td>□ Equipment/infrastructure</td>
</tr>
<tr>
<td>Department:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place of incidents/adverse events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Department/venue of incidents/adverse events:</strong> (for example: ICU department, ground of hospital)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of incident/adverse events:  /  /</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short description of incident/adverse events:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initial proposals:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Undertaken initial treatment/solution:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Report to doctor-in-charge/responsible person</th>
<th>Record into medical profile/relating documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Yes  □ No  □ No record</td>
<td>□ Yes  □ No  □ No record</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inform patient’s family/protector</th>
<th>Inform patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Yes  □ No  □ No record</td>
<td>□ Yes  □ No  □ No record</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initial classification of incident/adverse event</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Not yet happened  □ Already happened</td>
</tr>
</tbody>
</table>
### Initial evaluation of impacts from incident/adverse event

- □ Strong (reserve damaged or die)
- □ Medium (damage at medium level)
- □ Weak (damage at weak level or no damage)

### Reporter

<table>
<thead>
<tr>
<th>Name:</th>
<th>Tel:</th>
<th>Email:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Nurse (title: )</td>
<td>□ Patient</td>
<td></td>
</tr>
<tr>
<td>□ Family/visitor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Doctor (title: )</td>
<td>□ Other (detail: )</td>
<td></td>
</tr>
</tbody>
</table>

Witness 1: Witness 2:
# FORMAT OF VOLUNTARY MEDICAL AdVERSE EVENTS REPORT

## I. GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Patient ID:</th>
<th>Age:</th>
<th>Gender:</th>
<th>Diagnose:</th>
</tr>
</thead>
</table>

| Time of incident/error: | ……hour……minute; day……month……year…… |
| Reporting time of incident/error: | day……month……year…… |

<table>
<thead>
<tr>
<th>Medical adverse events classification</th>
<th>1. Happened</th>
<th>2. Near miss</th>
</tr>
</thead>
</table>

## II. DETAIL DESCRIPTION OF INCIDENT/ADVERSE EVENTS

(venue, condition of patient after incident, solution right after incident…)

## III. CONSEQUENCES OF INCIDENTS TO PATIENT

1. Death
2. Emergency
3. Permanent function loss
4. Temporary function loss
5. Hospitalization
6. Long hospital stay
7. No damage
8. Others (in detail): ………………… |

## IV. CLASSIFICATION OF REASONS FOR INCIDENT/ADVERSE EVENTS

1. Wrong patient
2. Wrong/insufficient information
3. Drug/blood/ chemicals
4. Wrong technique
5. Wrong surgery
6. Hospital infection
7. Environment (electric shock, burn…)
8. Fall
9. Insufficient/broken equipment
10. Care/treatment
11. Crime
12. Others (in detail): ………………… |

## V. RECOMMENDATION/PROPOSAL
ANNEX 4

FORMAT OF CASE STUDY/CLINICAL CASE

Full name of trainee: ..........................................................................................................................

Class: .......................................................................................................................... Subject.

1. Administrative information
   - Name of patient: .......................................................... Age: .... Gender: Male/female
   - Ethnic group: ..........................................................................................................................
   - Address: ..............................................................................................................................
   - Occupation: ..........................................................................................................................
   - Contact person in emergency case: .....................................................................................
   - Date of hospitalization: ......................................................................................................
   - Department: ......................................................................................................................

2. Medical information
   - Reasons for hospitalization: .......................................................... ............................................
   - Diagnosis: ............................................................................................................................
   - Treatment method: ............................................................................................................... 
   - Ordered medicine: ............................................................................................................... 

3. Assessment
   Medical history (summary):
   ..................................................................................................................................................
   ..................................................................................................................................................
   ..................................................................................................................................................
   ..................................................................................................................................................

   Experienced diseases:
   ..................................................................................................................................................

   Subjective information (interview):
   ..................................................................................................................................................
   ..................................................................................................................................................
   ..................................................................................................................................................
   ..................................................................................................................................................
Objective information: (clinical examination, result of tests)

4. Care plan

<table>
<thead>
<tr>
<th>Nursing matters/ Nursing diagnosis</th>
<th>Making care plan (plan, expected outputs)</th>
<th>Implementation</th>
<th>Evaluation/ Result</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Day ........ Month ....... Year ...........

Comments from trainees:

Comments/feedback and confirmation from preceptor:
ANNEX 5

ETHICAL STANDARDS OF NURSES
(According to Decision no.20/QĐ-HĐD dated 10/9/2012 by President of Vietnam Nurses Association)

Chapter I: GENERAL PROVISIONS

Article 1. Scope of regulation and subject of application

These ethical standards of nurses are applicable to all members of the Vietnam Nurse Association, Nursing Teachers and Chief Nurses at different levels (hereinafter referred to as Nurse).

Article 2. Objectives

1. To educate nurses about the self-application of ethical standards in line with admitted nursing profession by the society.

2. To assist nurses in making appropriate decisions in each situation, in line with ethical standards; To disseminate ethical standards for Vietnamese nurses, on which people, patients, and management authorities can use for monitoring and evaluation activities of nurses.

3. To disseminate ethical standards for Vietnamese nurses, which are aligned with the implementation of the Mutual Recognition Arrangement in Nursing Services, adopted by Vietnam and other ASEAN Member States.

Chapter II: ETHICAL STANDARDS OF NURSES

Article 3. Ensure safety of patients

1. Maintain best practices at work.

2. Be responsible for all decisions and clinical practices in patient care.

3. Take timely interventions and report to responsible persons when experiencing clinical practices of professionals unsafe for patients.

Article 4. Respect patients and their family’s members

1. Respect patients’ age, gender, ethnicity, religion.

2. Respect patients’ autonomy when taking care of them.

3. Respect patients’ dignity, self-respect, self-esteem and ensure their privacy and confidentiality when taking care of them.

4. Provide adequate information about their treatments.

5. Safeguard patients’ secrets related to their diseases and personal lives.

6. Treat all patients fairly and equally.
Article 5. Be friendly with patients and their family’s members
1. Provide self-introduction and greetings to patients and their family’s members in a friendly way.
2. Listen to patients and their family’s members and reply in a caring and polite way.
3. Take care of patients with a friendly smile.
4. Help patients relieve their pains caused by their diseases and surgeries.

Article 6. Be honest at work
1. Be honest in managing and using medicines and other treatment materials.
2. Be honest in practicing professional care for patients and prescriptions.
3. Be honest in providing information to their medical records.

Article 7. Maintain and enhance professional capacity
1. Fully perform responsibilities of a nurse.
2. Follow technical processes, clinical instructions when taking care of patients.
3. Study continuously to update knowledge and professional skills.
4. Participate in research and evidence-based practice.

Article 8. Promote the profession’s ethical standards
1. Maintain and preserve the profession’s reputation when its values and standards are threatened and harmed by others.
2. Be dedicated to patient care and follow working regulations.
3. Refuse to receive money or other benefits from patients, their family’s members for being prioritized in examination and treatment.
4. Respect Regulations of the Vietnam Nurse Association and participate in activities of the Association at different levels.

Article 9. Be honest and cooperate with colleagues
1. Cooperate and assist colleagues in fulfilling tasks.
2. Respect and protect dignity and reputation of colleagues.
3. Share professional experiences and lessons learnt with colleagues.

Article 10. Commit oneself to community and society
1. Talk and act in accordance with legal regulations.
2. Be exemplary in community and at place of residence.
3. Participate in philanthropy and environment protection.
Chapter III: PROVISIONS OF IMPLEMENTATION

Article 11. Responsibility of the Central Executive Committee of the Vietnam Nurse Association

1. Collaborate with the Ministry of Health and the Vietnam Medical Association in promoting the implementation of these ethical standards.

2. Develop an implementation plan of the Ethical Standards for nurses at provincial/city level and branches of the Vietnam Nurse Association.

3. Monitor and evaluate the implementation of Ethical Standards for nurses at different levels of the Vietnam Nurse Association.

4. Organize preliminary and summary meetings to disseminate experience, lessons learnt, and case studies for replication to the whole system of the Vietnam Nurse Association.

5. Provide recommendations on timely rewards for branches of the Vietnam Nurse Association at different levels and individuals who show good performance and propose disciplines and punishments for those who make violations against these standards.

Article 12. Responsibility of Chairperson of Provincial Nurse Associations and Heads of Branches

1. Chairperson of Provincial/City Nurse Association
   a) Collaborate with the Department of Health, Chief Nurse of the Department of Health, related departments at local levels to promote the implementation of Ethical Standards for nurses and develop an implementation plan for all branches of the Vietnam Nurse Association.
   b) Monitor and evaluate the implementation of Ethical Standards for nurses at branches under direct management.
   c) Organize preliminary and summary meetings to disseminate experience, lessons learnt, and case studies for replication to all branches of the Vietnam Nurse Association.
   d) Provide recommendations on timely rewards for branches of the Vietnam Nurse Association and individuals who show good performance and propose disciplines and punishments for those who make violations against these standards.

2. Heads of branches
   a) Collaborate with leaders of related departments, Chief Nurses of hospitals to develop an implementation plan and to organize trainings on Ethical Standards for nurses so that they will follow in their profession.
   b) Provide instructions for each member to fill out the self-evaluation form in accordance with the Ethical Standards (Annex 1).
   c) Collaborate with Chief Nurses to evaluate the implementation of Ethical Standards of members and provide feedbacks to each of them based on instructions of the Vietnam Nurse Association (Annex 2).
   d) Report the implementation of Ethical Standards of all members to the Vietnam Nurse Association and healthcare management agencies at the same level.
   e) Provide recommendations on timely rewards for members who show good performance and propose disciplines and punishments for those who make violations against these standards.
### ANNE 6

**SOME SAMPLES OF CARE RECORD**

<table>
<thead>
<tr>
<th>Date</th>
<th>11/3</th>
<th>12/3</th>
<th>13/3</th>
<th>14/3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time/m</td>
<td>Temperature</td>
<td></td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>160</td>
<td>41</td>
<td></td>
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<tr>
<td>140</td>
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<td>120</td>
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<td>60</td>
<td>36</td>
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<tr>
<td>40</td>
<td>35</td>
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</tr>
</tbody>
</table>

1. Blood pressure (mmHg)
2. Weight (Kg)
3. Breathing (times / minute)
4
5
Signature
**RECORD OF INFUSION**

**Dept. of Health:** …

**Hospital:** ………

**Department:** ………

- Name of patient: ………………………………………………………… Age: ……….. Gender:………..

- Bed number: ……………………………. Room number: ……………………………………………………

- Diagnosis: …………………………………………………………………………………………………………………

<table>
<thead>
<tr>
<th>Date</th>
<th>NAME OF PERFUSION/ CONTENT</th>
<th>Quantity</th>
<th>Lot/Product number</th>
<th>Drop speech/minute</th>
<th>Time</th>
<th>Order by doctor</th>
<th>Implementation by nurse</th>
</tr>
</thead>
<tbody>
<tr>
<td>28/3</td>
<td>Glucoza 5%</td>
<td>500</td>
<td></td>
<td>30</td>
<td>9.20</td>
<td>14.20</td>
<td>BS Quốc Tuấn</td>
</tr>
</tbody>
</table>


## MEDICATION REPORT

**Number:** .....................

- Name of patient: .............................................. Age: .................. Gender: ..................
- Bed number: ........................................... Room number: ...................... Date of hospitalization: ............../............../..............
- Diagnosis: ................................................. Date of hospital discharge: ............../............../..............

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of drug, content</th>
<th>Unit</th>
<th>Date</th>
<th>Total</th>
<th>Unit price</th>
<th>Amount</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Total used drugs**

**Signature**

**Patient/**

**Patient family**
HOSPITAL DISCHARGE PAPER

- Name of patient: ............................................................... Age: ................ Gender......

- Region: ........................................ Occupation: .............................................................

- Health insurance: valid from: ....../....../....... to....../....../....... No.: ........................................

- Address: ....................................................................................................................................

- Hospitalization: ........ hour........ minute, day...... month ...... year ........................................

- Discharge:....... hour........ minute, day...... month ...... year ..................................................

- Diagnosis: .................................................................................................................................

- Treatment: ..................................................................................................................................

- Advice of doctor: ........................................................................................................................

...........................................................................................................................................................

Day....... month ...... year ............ Head of Department

Day....... month ...... year ............ Hospital Director

Name ................................................. Name .........................................................

Printing: A5 size, landscape, 1 side
REFERRAL LETTER

To: .................................................................................................

Our hospital would like to introduce:

- Name of patient: ......................................................................... Age: ....................... Gender........
- Region: ................................................................................ Nationality: ...................................
- Occupation: ........................................................................... Place of work: ..........................
- Health insurance: valid from: ...../...../........ to..../...../........ No.: ........................................
- Address: ...........................................................................................................
- Have been treated/examined at department of ..............................................................
- From ........../........./............... to ............/.........../.............

Health condition summary

- Clinical signs: .................................................................................................
- Result of tests: .....................................................................................................
- Diagnosis: .............................................................................................................
- Drug in use: ...........................................................................................................
- Condition of patient when transferring: .....................................................................
- Reasons for transferring: ........................................................................................
- Time of transferring: ....... hour........ minute, day...... month ...... year ............
- Means of transportation: ...........................................................................................
- Name and title of accompanied staff: ..........................................................................  

______________________________________________________  
Doctor in charge                                      Hospital Director

Day...... month ...... year ..........

Name .............................................. Name ..............................................

Printing: A4 size, portrait, 1 side
**ALLERGY TEST**

- **Name of patient:** .......................................................................................................Age: ........................ Gender: ……………….

- **Address:** ............................................................................................................................................................................................................................

- **Departure:** .................................................................................................Room number: ......................... Bed number: ........

**Diagnosis:** ..............................................................................................................................................................................................................................

<table>
<thead>
<tr>
<th>Testing time</th>
<th>Name of medicine, country of production, lot, production number, content, unit</th>
<th>Testing method</th>
<th>Ordered by doctor (Name, signature)</th>
<th>Tested by (Name, signature)</th>
<th>Checked by doctor (Name, signature)</th>
<th>Time of result</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**Printing:** *A4 size, landscape*
Drug allergy monitoring

Name: ................................. Age: ........
Gender: 
Add: .........................................................
Main diagnosis: ..............................
- Blood type: ........................................

Issued on date: ............

Doctor

Name: .................................

Having allergy with following drugs and another allergen:
..................................................................
..................................................................
..................................................................
..................................................................

- Type of allergy: ..............................
- Current disease (asthma, diabetes, mental diseases...):
..................................................................
..................................................................
..................................................................

Bring this paper when taking health examination/treatment
### BLOOD TRANSFUSION

**DOH:** ..................................

**Hospital:** ..................................

**Dept:** ..................................

**Name of patient:** ..............................................................................

**Age:** ..............

**Gender:** ..........................

**Dept:** ...................................................................

**Room number:** ..............

**Bed number:** .......................  

**Diagnosis:** ............................................................................................

**Type of blood products:**....................................

**Code (name):**.......................................**Date:** .......................  

**Expired date:** ................................................**Quantity:**.........................

---

#### 1. Results of screening of infections for blood units:

<table>
<thead>
<tr>
<th>Anti HIV&lt;sub&gt;1,2&lt;/sub&gt; (negative)</th>
<th>Technique</th>
<th>HBsAg (negative)</th>
<th>Anti HCV (negative)</th>
<th>Syphilis (negative)</th>
<th>malaria (negative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of product negative ..........</td>
<td></td>
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</tbody>
</table>

---

#### 2. Result of blood type matching:

**a. Blood type:**

**Donor:** ................................**Patient:** .................................

**b. Cross-reactivity:**

**Bag 1:** ........................................

**Bag 2:** ........................................

**Blood deliverer**

**Head of laboratory**

**1st staff**

**2nd staff**

---

#### 3. Order, perform and monitor blood transfusion at the patient’s bed:

**Type of blood product** .................

**Code (name):** ................................**Expired date:** .......................**Time of transfusion:** ..................................

**Doctor in charge:** .........................

**Blood type of donor:** .................

**Blood type of patient:** .................

**Result of blood type matching at bed:** ........................................

**Transfused blood amount:** ....ml

**Starting time:** ....... hour........ minute, day....... month ...... year ...

**Facial color**

**Breathing**

**Temp. (°C)**

**Blood pressure mmHg**

**Pulse Time/minute**

**Other changes during transfusion**

---

**Finishing time:** ....... hour.... minute, day...... month ...... year....

**Actual amount of transfused blood:** ....ml

**Doctor in charge**

**Nurse in charge of transfusing and monitoring**

---

**Name:** .............................................

**Name:** .............................................
DEATH CERTIFICATE

To: ..................................................

Name of patient: .................................................. Age:........... Gender:..................................
Region: ............................................................ Nationality: ..........................................................
Occupation: ........................................................ Place of work: ..................................................
Address: ...........................................................................................................................................
Patient no.: .......................................................................................................................................
ID/Passport No.: .................. Date and place of issue: .................................................................
Time of arrival to hospital:.... hour.... minute, day....... month ....... year …
Died at: .... hour.... minute, day....... month ....... year …
At department: ............................................... Hospital.................................................................
Reasons for death: ...................................................................................................................................

.................................................................................................................................................................

Day...... month ...... year ...

Hospital director
(sign)

ACCEPTANCE OF SURGERY

Name of patient: ............................................................ Age: .......... Gender: ..................................
Region: ........................................... Nationatily:  .............................................................................
Occupation: .................................... Place of work:  ..........................................................................
Address: ............................................................................................................................................

Being patient/representative of patient named:........who is having medical treatment at department.... of hospital....

After understanding health condition of mine/my relative/ possible dangers without surgery, and possible risks of surgery, I summit this letter for:

+   Acceptance of surgery and using this letter as evident
+   Refusal of surgery and using this letter as evident

Day ...... month ...... year...
Patient/ representative of patient
(sign)
REQUEST FOR MEDICAL EXAMINATION/TREATMENT ON DEMAND

To: ........................................................................................................................................

Name:................................................................ Age:... Gender: ......................................................

ID/Passport No.: .............................................. Issued by: ......................................................

Region: ........................................................ Nationality: ......................................................

Occupation: ..................................................... Place of work: ...................................................

Address: ....................................................................................................................................

Contact person in emergency case: ............................................................................................

Being patient/representative of patient named:............. who is having medical treatment/

examination at department…. of hospital….

After understanding regulations on health examination/treatment of the hospital, I agreed to select

services on demand and decided following health care services:

Doctor in charge of examination/surgery/childbirth/care: ..........................................................

Nurse in charge of patient care on bed:..........................................................................................

Using drugs based on order of the assigned doctor.

Using bed type of........... with following accessories: air conditioner, freighter, warm water,

separated toilet.

I agree to make advance payment of amount...............VND

In words: ......................................................................................................................................

Full payment will be done by me after hospital discharge.

If any incident/unexpected issue happens during my treatment/examination on demand, hospital

staff is recommended to contact to me/my family for timely payment.

I will comply all regulations on health examination/treatment of the hospital, trust in quality and

take all responsibilities for my requests.

........................................ Date…. month ....... year .......

Approved by Hospital director
(sing)

Patient/ representative of patient
(sing)

* Printing: A4 paper, 1 side
This letter will be made into 2 copies, hospital and patient keep each.
HOSPITALIZATION PAPER

Department of health examination: Emergency room:

I. Administration:
1. Name of patient: ............................................................................................................................
2. Date of birth: ..................................................................................................................................
3. Gender: ............................................................................................................................................
4. Occupation: ....................................................................................................................................
5. Address: ........................................................................................................................................
6. Time of health examination: ............................................................................................................
7. Diagnosis of transferring hospital: ................................................. or directly come to hospital:

II. Reasons for hospitalization:

III. Medical record
1. Disease record: ..................................................................................................................................
2. Experienced diseases:
   - Patient: ........................................................................................................................................
   - Family: ........................................................................................................................................

IV. Examination:
1. Whole body: .................................................................................................................................
2. Body parts: ....................................................................................................................................
3. Tests: .............................................................................................................................................
4. Initial diagnosis: .............................................................................................................................
5. Initial treatment (drug, care): ............................................................................................................
6. Hospitalized into department: ..........................................................................................................  
7. Remark: ........................................................................................................................................

...................................................................................................................... Date…. month…. year….

Doctor in charge
(sign)

Pulse: ……………. time/minute
Temperature: ……….°C
Blood pressure: …../…….mmHg
Breathing: ……… time/minute
Weight: ……….kg

* Printing: A4 paper, portrait, 1 side
SPECIALIZED EXAMINATION

To: ..............................................................................................................

Name of patient: ......................... Age: ............ Gender: ...........................................................

Address: .................................................................................................Health insurance: ..................................................

Bed number:...................... Room number: ...............Department:......................................................

Diagnosis: .................................................................................................................................

Request for specialized examination:


........................... Date…. month…. year…

Doctor in charge
(sign)

* Printing: A5 paper, landscape, 2 sides

Result:


........................... Date…. month…. year…

Specialize doctor
(sign)
MEDICAL CONSULTATION MINUTES

Name of patient:......................................................... Age:........ Gender: ............

Treatment from:....../....../......to....../....../......

Bed number:........... Room number:...... Department:..........................................................

Diagnosis: .......................................................... Consultation at:.....time.....date...../...../.....

Chairperson:........................................ Secretary:..........................................................

Members: ..........................................................................................................................................

...........................................................................................................................................................

Summary of disease development, treatment process and patient care:

...........................................................................................................................................................

Conclusion (after examination and discussion):

...........................................................................................................................................................

Plan of upcoming treatment: .......................................................... ..................................................

................. ........... Date..... month..... year.....

Secretary
(sign)

Chairperson
(sign)

Members: all members have to sign on the minutes with name and title

* Instruction: Printing: A4 paper, portrait, 1 side. This minutes needs to be attached into medical profile.
DEATH CONFIRMATION RECORD

Name of patient: ............................................................. Age: ........ Gender: ............

Patient no.: ..........................................................................................................................

Time of arrival to hospital: ..................................................................................................

Time of death: .....................................................................................................................

At department: ....................................................................................................................

Confirmation of death on: .....................................................................................................

Chairperson: .......................................................... Secretary: ...........................................

Members: ................................................................................................................................

Summary of disease development, treatment process and patient care: .............................

..............................................................................................................................................

Conclusion:

..............................................................................................................................................

......................................................... Date…. month…. year…

Secretary
(sign)

Chairperson
(sign)

Members: all members have to sign on the minutes with name and title
DRUG DISTRIBUTION RECORD
Date:.... month:.... year:....

<table>
<thead>
<tr>
<th>No.</th>
<th>Code</th>
<th>Name of drug</th>
<th>Unit</th>
<th>Quantity</th>
<th>Remark</th>
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<tbody>
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<td>Order</td>
<td>Distribute</td>
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Total:

Date:....month:....year:....

Head of pharmacy dept: .......
Distributor: .......
Receiver: .......
Head of Department: .......

Name: .......
Name: .......
Name: .......
Name: .......

* Instruction:
- Write on coal paper, 2 copies, save original paper in Pharmacy Dept, copies paper for storage.
- Code and barcode depending on the level of computer use in management.
RETURN OF DRUGS/ CHEMICAL/
CONSUMABLE MEDICAL MATERIALS

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of drug, chemical, consumable</th>
<th>Unit</th>
<th>Controlled amount</th>
<th>Quantity</th>
<th>Unit price</th>
<th>Amount</th>
<th>Remark</th>
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Total:  

Date......month....year...

Head of pharmacy dept  
Distributor  
Receiver  
Head of Department

Name:.......  
Name:.......  
Name:.......  
Name:.......  

* Note:  
Above formats are referred from formal book of documents and medical records in hospital (by Decision No. 1333/1999/QD-BYT dated 3rd May 1999 by Ministry of Health)
GUIDANCE ON FILLING UP FORMAT OF HEALTH EDUCATION FOR DISCHARGED PATIENT
(This format is filled by trainee oneself when learning/practicing)

1. **Basic information/ medical information**: based on medical profile

2. **Assessment**: Based on collected information from patient/family directly: sufficient, short.

3. **Content of health education/consultation**;
   3.1. Issues: It depends on each patient to identify appropriate issues for education, make priority list. For examples: consultation on nutrition, drug usage, exercise…
   3.2. Health education plan: Based on education content to make proper plan.
   3.3. Expected outputs: Identify objective of each content.
   3.4. Implementation: Write in detail of implementation plan for each content.
   3.5. Evaluation: Make evaluation for each content after implementing the plan.