5.3 ASEPTIC WOUND DRESSING

2. INTRODUCTION

Aseptic technique is employed to maximize and maintain asepsis and is applicable in any clinical setting. According to S. Rowley (UCLH, 2003) states, "research shows one of the most effective way of containing hospital acquired infection is through the application of a standardized aseptic technique for clinical procedures".

“Asepsis is a method by which we prevent microbial contamination during invasive procedure or care of breaches in the skin’s integrity” (ICNA, 2003). Two types of asepsis can be classified: medical and surgical asepsis (Ayliffe, 2000).

Medical asepsis is where all “procedures used to protect the patient and his environment from the spread of infectious organisms.”

Surgical asepsis is a strict process and includes “procedures used to sterilize and to keep sterile any objects or articles that are to be introduced into a wound or body cavity or that is to penetrate the skin.”

(http://nursing411.org/Courses/MDo540 Sterile Procedures/2-01 Sterile procedures.html)

Wound dressing is a core nursing responsibilities and utilizes aseptic technique. The goal of aseptic technique is to protect the patient from infection.
2. **STANDARD**:
The nurses observe principles of surgical aseptic technique during wound dressing to minimize introduction of potential infection and or its spread.

2. **OBJECTIVES**:

2.1 To ensure nurses perform wound dressing using principles of aseptic technique.

2.2 To assess the caring component during dressing

2.3 To document findings accurately and completely in patient's medical record.

4. **CRITERIA**

<table>
<thead>
<tr>
<th>Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screen / Procedure Room.</td>
</tr>
<tr>
<td>2. Dressing trolley.</td>
</tr>
<tr>
<td>4. Relevant protective personal equipment (PPE).</td>
</tr>
<tr>
<td>5. Clinical waste bin.</td>
</tr>
<tr>
<td>6. Domestic waste bin.</td>
</tr>
<tr>
<td>7. Protective cover.</td>
</tr>
<tr>
<td>8. Sterile dressing set.</td>
</tr>
<tr>
<td>11. Adhesive tapes.</td>
</tr>
<tr>
<td>14. The nurse is competent in performing aseptic wound dressing.</td>
</tr>
</tbody>
</table>
### Process

1. Identify the right patient.
2. Identify type of wound dressing required.
4. Explain the procedure.
5. Perform pain assessment.
6. Administer analgesic if indicated.
7. Perform hand hygiene.
8. Wear mask.
9. Prepare trolley for dressing.
10. Provide privacy.
11. Place patient in a comfortable position.
12. Place protective cover.
13. Perform hand hygiene.
14. Open outer layer of dressing set.
15. Discard soiled dressing.
17. Perform hand hygiene.
18. Open inner layer of dressing set.
19. Pour cleansing agent, add soft dressings / supplementary.
20. Perform hand hygiene.
21. Wear sterile gloves
22. Perform dressing
23. Secure the dressing
24. Make patient comfortable after procedure.
25. Discard used dressing set
27. Document findings.
**Outcome**

1. Dressing performed adhering to principles of aseptic technique.
2. Patient is informed of the progress of his/her wound.
3. Respect and comfort of patient is maintained.
4. Wound findings and its progress are documented.

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**5. METHODOLOGY**

5.1 Design : Direct observation of Registered Nurse performing wound dressing
5.2 Setting : All Wards/ Unit/ Clinics
5.3 Population Registered Nurses
   5.3.1 Inclusion criteria : All patients with wounds
   5.3.2 Exclusion criteria : Burn wound
5.4 Sample Design : Convenient sampling
5.5 Sample size : 30% of registered nurse in wards
5.6 Time frame : 2 months
5.7 Instrument : Check list (E5-AF 5.3) – one check list for one observation.

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**6. DEFINITION OF OPERATIONAL TERMS:**

6.1 **HAND HYGIENE** – washing hands with soap and water, or other detergents containing an antiseptic agent (WHO, 2009).
6.2 MAINTAIN STERILE FIELD:

This includes the followings:

Sterile field refers to the area within the sterile packaging, i.e. 1 inch around the working area be kept free of instruments.

6.2.1 Ensure body / any part of uniform of nurse does not touch sterile field

6.2.2 Hands do not cross sterile field at all times.

6.3 CORRECT ASEPTIC TECHNIQUE:

This includes the followings:

6.3.1 Apply correct technique when opening sterile set ie;

6.3.1.1 Open the pack: unwrap folded layers of wrapping material away from the center of the pack, touching only the outside edges of the wrapping material. Always pull edges toward your body keeping the pack at arms’ length away. Unwrapped the far side by reaching your arm around the pack, and then unwrap the left and right side follow by near side.

6.3.2 Keep forceps facing downwards and above waist line.

6.3.3 No contact of forceps when transferring soft dressing from one hand to another.

6.3.4 Soiled forceps should be discarded.

6.3.5 Swab from clean area to dirty area

6.3.6 Use one swab for each stroke

6.3.7. Clean the skin area around wound thoroughly.

6.3.8 Discard soiled dressing involves loosening dressing, removing soiled dressing, discard soiled dressing forceps and observing wound condition

6.4.9 Cover wound appropriately.
6.5. **ASSEMBLE NECESSARY ITEMS USING A NON TOUCH TECHNIQUE:**

6.5.1 The right quantity of soft dressing (cotton/gauze/gamgee) is added into sterile field without contamination

6.5.2 When pouring cleansing agent, the pouring container should not touch the receiving container. Avoid splashing and spillage.

*FAILURE TO COMPLY WITH ANY OF THE ABOVE WILL BE CONSIDERED NON-CONFORMANCE TO ASEPTIC TECHNIQUE.*

6.6. **ACCURATE AND COMPLETE DOCUMENTATION**

This include the followings:

6.6.1 Wound size and depth.

6.6.2 Nature of the wound includes swelling, dirty, clean, slough, gangrene, healing process and nature of discharge - smell, color, serous, bloody, pus

7. **COMPLIANCE OF ASEPTIC WOUND DRESSING AUDIT.**

Every step in the process must be performed.

A) **TECHNICAL**

- Perform hand hygiene.
- Wear mask.
- Assess the wound
- Perform hand hygiene.
- Open outer layer of dressing set.
- Perform hand hygiene.
- Open inner layer of dressing set.
- Pour cleansing agent.
- Add soft dressings / supplementary.
- Perform hand hygiene.
- Wear sterile gloves (optional).
- Remove soiled dressing with forceps (optional).
- Discard used forceps into receiver.
- Perform dressing.
- Cover the wound with appropriate dressing.
- Discard used dressing set.
- Perform hand hygiene.

B) ESSENCE OF CARE (SOFT SKILLS)

- Greet patient.
- Perform pain assessment.
- Administer analgesic (if indicated).
- Inform patient and explain procedure.
- Provide privacy to the patient
- Make patient comfortable before, during and after procedure
- Reassess pain.

C) DOCUMENTATION

Documentation of wound findings include (TIME):

- **T**: Tissue: 
  i) Viable – granulation and new epithelial
  ii) Non- Viable – necrotic tissue, slough tissue
- **I**: Infection/Inflammation – Signs and symptoms of infection
  e.g: presence of pus, pain, malodour
- **M**: Moisture Imbalance – Exudate level dry/minimal or moderate/wet
- **E**: Epidermal margin – advancing or non- advancing

7.4 SCORE

7.4.1 Conformance Standard : 90% which include:-

- Technical skill : 100%
- Documentation : 100%
- Soft skill : 100%

** Overall marks ( % of Technical skill + % documentation + % soft skill ÷ 3 )
8. **AUDIT FORM**

<table>
<thead>
<tr>
<th>NATIONAL NURSING AUDIT, MINISTRY OF HEALTH MALAYSIA.</th>
<th>VERSION 6/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEMENT 5 : CONTINUUM OF CARE</td>
<td>DATE: 11 April 2019</td>
</tr>
<tr>
<td>TOPIC : 5.3 ASEPTIC WOUND DRESSING</td>
<td>PAGE NO 1/5</td>
</tr>
<tr>
<td>DOCUMENT NO : E5 AF 5.3</td>
<td></td>
</tr>
</tbody>
</table>

8.1 **STANDARD :**

The nurses observe principles of surgical aseptic technique during wound dressing to minimize introduction of potential infection and or its spread.

8.2 **OBJECTIVES :**

8.2.1 To ensure nurses perform wound dressing using principles of aseptic technique.

8.2.3 To assess the caring component during dressing

8.2.2 To document findings accurately and completely in patient’s medical record.

Date of Audit: ..................................................

Locality : ..........................................................

Auditors: 1..................................................

2..........................................................
**N.B. Instructions for Auditors**

1. To tick [√] at appropriate column.
2. S / T / D indicate soft skill / technical skill / documentation respectively.

<table>
<thead>
<tr>
<th>S/NO</th>
<th>ITEM</th>
<th>SOURCE OF INFORMATION</th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
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<tbody>
<tr>
<td>T1</td>
<td>Identify the right patient</td>
<td>Listen/Observe nurse.</td>
<td></td>
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<tr>
<td>T2</td>
<td>Identify type of wound dressing required.</td>
<td>Observe nurse</td>
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<tr>
<td>S3</td>
<td>Greet patient</td>
<td>Observe nurse</td>
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<tr>
<td>S4</td>
<td>Inform patient and explain procedure</td>
<td>Listen/Observe nurse.</td>
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<tr>
<td>T5</td>
<td>Perform Pain Assessment</td>
<td>Observe nurse</td>
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<tr>
<td>T6</td>
<td>Prepare trolley for dressing</td>
<td>Observe nurse</td>
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<tr>
<td>S7</td>
<td>Provide privacy to the patient.</td>
<td>Observe nurse</td>
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<tr>
<td>S8</td>
<td>Place patient in comfortable position.</td>
<td>Observe nurse</td>
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<tr>
<td>T9</td>
<td>Place personal protective cover</td>
<td>Observe nurse</td>
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<td>T10</td>
<td>Perform hand hygiene</td>
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<td>T11</td>
<td>Wear mask.</td>
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<tr>
<td>T12</td>
<td>Open outer layer of dressing set.</td>
<td>Observe nurse</td>
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<tr>
<td>T13</td>
<td>Discard soiled dressing.</td>
<td>Observe nurse</td>
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<tr>
<td>T14</td>
<td>Assess Wound</td>
<td>Observe nurse</td>
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<td>T15</td>
<td>Perform hand hygiene</td>
<td>Observe nurse</td>
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<tr>
<td>T16</td>
<td>Open inner layer of dressing set and assemble necessary items using non touch technique.</td>
<td>Observe nurse.</td>
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<tr>
<td>T17</td>
<td>Perform hand hygiene</td>
<td>Observe nurse</td>
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<td>T18</td>
<td>Wear glove</td>
<td>Observe nurse</td>
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<tr>
<td>T19</td>
<td>Perform dressing :</td>
<td>Observe nurse</td>
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<tr>
<td>T19.1</td>
<td>Maintain sterile field.</td>
<td>Observe nurse</td>
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<td>ITEM</td>
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<td>T19.2</td>
<td>Correct aseptic technique while performing dressing</td>
<td>Observe nurse</td>
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<tr>
<td>T19.3</td>
<td>Apply and secure appropriate wound dressing properly.</td>
<td>Observe nurse.</td>
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<tr>
<td>T20</td>
<td>Perform hand hygiene.</td>
<td>Observe nurse.</td>
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<tr>
<td>S21</td>
<td>Establish rapport with patient throughout procedure</td>
<td>Observe nurse.</td>
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<tr>
<td>D22</td>
<td>Document findings (TIME):</td>
<td></td>
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</tr>
<tr>
<td>D22.1</td>
<td>T: Tissue – Viable / Non - viable</td>
<td>Check document</td>
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<tr>
<td>D22.2</td>
<td>I: Infection/ Inflammation</td>
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<tr>
<td>D22.3</td>
<td>M: Moisture Imbalance</td>
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<tr>
<td>D22.4</td>
<td>E: Edge of wound / epidermal margin</td>
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</tbody>
</table>

**AUDIT REPORT**

*(please [✓] the appropriate box)*

**RATING:**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Item</th>
<th>Conformance</th>
<th>Non conformance</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical</td>
<td>18</td>
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</tr>
<tr>
<td>Documentation</td>
<td>4</td>
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</tr>
<tr>
<td>Soft skill</td>
<td>5</td>
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<tr>
<td><strong>Total</strong></td>
<td>27</td>
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</tbody>
</table>
REMARKS:

Auditor 1 (name and signature): ……………………………………………………………

Auditor 2 (name and signature): ……………………………………………………………

**Calculation:  Item conformance \( \times \) 100
Total item – item N/A
Example:

**Calculation:** \( \text{Item conformance} \times \frac{100}{100 - \text{item N/A}} \)

Technical: \( \frac{16}{18} \times 100 = \frac{1600}{18} = 88.89\% \)

Documentation: \( \frac{4}{4} \times 100 = \frac{400}{4} = 100\% \)

Soft skill: \( \frac{5}{5} \times 100 = \frac{500}{5} = 100\% \)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Item</th>
<th>Conformance</th>
<th>Non conformance</th>
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<tbody>
<tr>
<td>Technical</td>
<td>18</td>
<td>88.89%</td>
<td>11.11%</td>
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<td>Documentation</td>
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<td>100%</td>
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<td>0</td>
</tr>
<tr>
<td>Soft skill</td>
<td>5</td>
<td>100%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>27</td>
<td>(88.89 + 100 + 100 = 288.89 ÷ 3) = 96.30 %</td>
<td>(11.11 + 0 + 0 = 11.11 ÷ 3) = 3.70 %</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: To minimize N/A as much as possible. The nurse can be lead to answer if situation arises.