ASEPTIC TECHNIQUE

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Element : B-4

- **Sub- Element (18)**
- **Activities for auditing:**

✓**(D)** documentation

✓**(SI)** Staff Interview

✓**(O)** Observation

- **Score** (0-1-2-NA)

Sub Element : B-4.1

- **There is a written policy and procedures for clean, aseptic and sterile techniques. (D)**

Review the policy, which should be:

1) **Comprehensive and well descriptive:** it covers all aspects of clean, aseptic and sterile techniques, including (but not limited to):
   - Proper preparation, dilution and/or preservation of medications in designated areas which are physically separated from patients' treatment areas
   - Essential safe practices for invasive procedures (required devices and supplies, antisepsis and recommended PPE & procedures)
   - Safe practices required for inserting peripheral venous catheter (i.e., fixing, dressing, labeling and replacement of peripheral venous catheters).

- Recommended aseptic techniques and safe practices for preparation and use of:
  a) Single-dose medication vials or single-use ampules
  b) Multi-dose medication vials
  c) Single-use devices (e.g., syringes, needles …etc.)
  d) Single-patient devices (e.g., cartridge devices as insulin pen)
  e) Reusable (multi-use) devices
  f) IV solution bottles
  g) IV sets (including secondary sets and add-on devices)
  h) Ventilation circuits
  i) Humidifiers, nebulizers and other aerosol generating system

- Necessary safe practices for urinary catheterization and handling collecting urine bags (required supplies, antisepsis and recommended PPE & procedures)
- Safe practices required for spinal/epidural space catheterization or injection (required supplies, antisepsis and recommended PPE & procedures)

2) **Fully applicable:** all elements of the policy can be applied and comply with the hospital's scope of services
3) **Based on scientific references** approved by MOH (GCC, CDC, WHO & APIC)

4) **Signed from authorized personnel** (i.e., owner of the policy / hospital director or medical director / concerned department)

5) **Approved by IC committee***

6) **Valid** (updated within 2 - 3 years and when indicated

Comment:

Approval by IC committee is required for the infection control manual as a whole before its distribution and also for individual policy after major changes

Sub Element : B-4.2

- **Separate clean area is available and maintained for preparation of medications (i.e., away from patients' treatment areas). (O, SI)**

Observe patient's care areas that should be separated and away from clean area specified for preparation of medications:

Check the availability of the dedicated medication preparation areas which are physically separated from patients' treatment areas.

- Observe medication preparation area(s) which should be provided with:
  - Controlled ventilation with monitor for recording the temperature and humidity (temperature ranges from 22 °C to 24 °C / relative humidity up to 70%)

- At least, one hand washing sink that is equipped with hot & cold water / plain and antimicrobial soap / towels
- At least, one alcohol-based hand rub dispenser.

- Observe if any patient requires medication during the visit, and where and how the responsible nurse is preparing this treatment.

- Medication preparation area is the place for preparing and preservation of the multi-dose medications, while single dose medications can be taken to patients' care areas for single use purposes and any remaining doses should be discarded immediately (i.e., single-dose vials cannot be stored for future use even on the same patient

Ask HCWs:

- Where is the area specified for medication preparation?

Or

- Where and how are you preparing medications (e.g. getting a dose from multi-dose vials and preparing supplies for dressing change)?
- Where you prepare medications? Especially if there is no available separated clean area
- Where is the area specified for transient storing of lab specimen?
- Where is the area specified for keeping used patient equipment before sending to CSSD?
- Where is the area specified for transient storage of other used patient supplies?

Comment:

Instead of direct questions, indirect ones or scenarios are advisable

Sub Element : B-4.3

- For invasive procedures, sterile devices and supplies are used after patient's skin antisepsis (e.g., sterile syringes, needles and medications are used after skin antisepsis with approved antiseptic wipes). (O,SI)

Visit medical stores and medication preparation areas:

1) Observe if sterile devices and supplies required for invasive procedures (e.g., sterile syringes, needles, sterile medications, skin antiseptics, antiseptic wipes …etc..) are available in adequate amounts in the medical stores or not?
2) Check if sterile devices and supplies required for invasive procedures (e.g., sterile syringes, needles, sterile medications, skin antiseptics, antiseptic wipes …etc..) are available in adequate amounts in the medication preparation areas or not?

If amounts of these devices and supplies are inadequate, it is more likely to utilize unsterile items, ignore skin antisepsis, reuse single-use supplies …etc.

3) Observe medical stores and medication preparation areas for the presence of opened sterile devices and supplies (e.g., opened syringes, needles, wound dressings, specific procedure kits, single-use medications …etc..) which are kept to be used later on for invasive procedures.

These practices are prohibited even if these devices and items are used for the same patient (whether labeled with patient's name or not / whether labeled with date & time of the first use or not)

Ask HCWs:

- **Instead of direct questions, indirect ones or scenarios are advisable, <u>Examples:</u>**

1) What are the types of devices and supplies required for a specific invasive procedure (e.g., IM injection, peripheral venous catheter insertion, wound dressing, folly's catheter insertion …etc.)?
   - **To assess their awareness about sterile devices and supplies that should be used**
   - **for invasive procedure and importance of patient's procedure site antisepsis**
1) How to properly apply patient's procedure site antisepsis for different invasive procedures?
2) What are the recommended safe practices for reusing syringes, needles, wound dressings or specific procedure's kits (regarding correct storage for future reuse / proper technique and labeling with date & time)

4) What are the precautions that should be strictly followed while storing a remaining dose in a prefilled syringe or single-use medication bottle for future use on the same patient? (Regarding correct storage for future reuse / proper technique and labeling with date & time / discarding when indicated or after expiration of reuse life)
5) How you deal with opened unused sterile devices or items (e.g., syringes, needles or wound dressing kits) after treatment session or patient discharge?
6) How you deal with unused sterile devices or items (i.e. unused items with intact
7) original wrap), that are brought to patient's care area?

- **Answer:**
- Only sterile devices and supplies are used for invasive procedures after patient's skin antisepsis (e.g., sterile syringes, sterile needles, sterile medications, sterile wound dressings, specific procedure kits, skin antiseptics, antiseptic wipes …etc.)
- Sterile single-use devices or items (sterile syringes, needles, wound dressing kits, single-use medications …etc..) are exclusively used for a single invasive procedure in a single patient. It should not be stored for future reuse even on the same patient (whether labeled with patient's name or not / whether labeled with date & time of the first use or not)
- Supplies are brought to patient's care area only when needed and after treatment session or patient discharge, all remaining single-use items are discarded while reusable ones are sent to CSSD for reprocessing (even unused items with intact original wrap).

Sub Element : B-4.4

- A peripheral venous catheter is properly fixed, with a clearly written date of insertion, and to reduce risk of infection and phlebitis, it is replaced - if still needed - as follows:
- In adults: it is not replaced more frequently than every 72 to 96 hours.
- In children: it is replaced only when clinically indicated. (O,SI)

Visit number of patients to observe fixed peripheral venous catheters & assess if:

1) Peripheral venous catheters are fixed properly (preferably with transparent sterile dressings)
2) Data of insertion are clearly written (date, time and responsible HCW)
3) Ask patient about the insertion time of peripheral venous catheter to insure that HCWs strictly follow the peripheral venous catheter related policy
4) Any peripheral venous catheter that is conflicting with the recommended duration for the replacement in adults (i.e., observe how frequent they are changing peripheral venous catheters in adult & children)
5) Peripheral venous catheter's insertion site is inspected each shift to be removed if signs of inflammation, infiltration, extravasation, signs of infection, occlusion or blockage are present, or if the PVC is no longer needed for therapy.
6) There is any sign that indicates replacement of peripheral venous catheter (e.g., signs of inflammation, infiltration, extravasation, signs of infection, occlusion, blockage … etc..)

Ask HCWs:

Instead of direct questions, indirect ones or scenarios are advisable, Examples:

1) What are the recommended safe practices for inserting peripheral venous catheter (focused on fixing, dressing, labeling and replacement of peripheral venous catheters)?
2) How frequent should you inspect peripheral venous catheters for signs that indicate replacement (e.g., signs of inflammation, infiltration, extravasation, signs of infection, occlusion, blockage … etc.)
3) What are the different indications for replacement of peripheral venous catheters (i.e., in adults and children)?

Ask HCWs:

Instead of direct questions, indirect ones or scenarios are advisable, Examples:

1) What are the recommended safe practices for inserting peripheral venous catheter (focused on fixing, dressing, labeling and replacement of peripheral venous catheters)?
2) How frequent should you inspect peripheral venous catheters for signs that indicate replacement (e.g., signs of inflammation, infiltration, extravasation, signs of infection, occlusion, blockage … etc.)
3) What are the different indications for replacement of peripheral venous catheters (i.e., in adults and children)?

To assess their awareness about indications for replacement of peripheral venous catheters either time related or clinically based

1) How you manage a peripheral venous catheter if signs of infiltration or extravasation are observed?
2) How you manage a peripheral venous catheter if signs of occlusion or blockage are observed?
3) How you manage a peripheral venous catheter if signs of inflammation or infection are observed?

Answer:

- Peripheral venous catheter should be fixed properly (preferably with transparent sterile dressings)
- Data of insertion should be clearly written (date, time and responsible HCW)
- Peripheral venous catheter's insertion site is inspected each shift to be removed if signs of inflammation, infiltration, extravasation, signs of infection, occlusion or blockage are present, or if the PVC is no longer needed for therapy.
- In adults, peripheral venous catheter is not replaced more frequently than every 72 to 96 hours
- In children, peripheral venous catheter is replaced only when clinically indicated.

Sub Element : B-4.5

- **Preparation & dilution of medications are only done by ready-made single-dose sterile solutions. (O,SI)**

Visit medical stores and medication preparation areas:

1) Check if ready-made single-dose sterile solutions' bottles of appropriate sizes are available in adequate amounts in the medical stores or not?
2) Observe if ready-made single-dose sterile solutions' bottles of appropriate sizes are available in adequate amounts in the medication preparation areas or not? **If amounts of these items are inadequate or there is shortage of supplies, it is more likely to use large IV solution bottles for preparation & dilution of medications**
3) Check if there is an opened large IV solution bottle in any medication preparation area specified for preparation & dilution of medications? Large IV solution bottle should not be used for preparation & dilution of medications even for the same patient (whether labeled with patient's name or not / whether labeled with date & time of the first use or not)

Ask HCWs:

Instead of direct questions, indirect ones or scenarios are advisable, Examples:

1) What are the types of sterile solutions that are used for preparation and dilution of different medications?
2) What are the recommended safe practices for using IV solution bottle in preparation and dilution of different medications (regarding correct storage for future reuse / proper technique and labeling with date & time / discarding when indicated or after expiration of reuse life)?
3) What are the precautions that should be strictly followed while using IV solution bottle in dilution and preparation of different medications for the same patient?
4) How can you safely keep any remaining amounts after using ready-made single- dose sterile solutions' bottles for preparation and dilution of different medications?

Ask HCWs:

- **Answer:**
- Only ready-made single-dose sterile solutions' bottles are used for preparation & dilution of different medications
- Ready-made single-dose sterile solution's bottle is exclusively used in preparation & dilution of medication for a single procedure/injection in a single patient. It should not be stored for reuse even on the same patient (whether labeled with patient's name or not / whether labeled with date & time of the first use or not)
- IV solution bottle should not be used for preparation & dilution of medications
- even for the same patient (whether labeled with patient's name or not / whether labeled with date & time of the first use or not)

Sub Element : B-4.6

- **Single-dose or single-use vial is used for a single procedure/injection in a single patient (i.e., single- dose or single-use vial is not stored for future use even on the same patient). (O – SI)**

Visit medical stores, medication preparation areas and patient's care areas:

Check if single-dose or single-use vial is used for a single procedure/injection in a single patient or not?

- Observe if single-dose vials are available in adequate amounts (It is more likely to reuse these items if amounts are inadequate or there is shortage of supplies)
- Observe if these items are kept with remaining doses (single-dose vial should not be kept opened with any remaining dose whether labeled with any patient's name or not to avoid its reuse or storing for future use even on the same patient)

- **<u>Examples:</u>**
- While checking the medication refrigerator, you find opened single-use vial labeled with patient's name & medical record number. This means it is stored for future use on the same patient.
- While checking the medication refrigerator, you find opened single-use vial without patient's name or medical record number. This means it is more likely to be reused by multiple patients.

Ask HCWs:

Instead of direct questions, indirect ones or scenarios are advisable, <u>Examples:</u>

1) What are the best practices recommended for use of single-dose vials regarding number of patients, keeping remaining doses for future reuse and safe reuse life?
2) What are the precautions that should be strictly followed while storing a remaining dose in a single-use vial for future use on the same patient?
3) How can you safely inject multiple patients from one single-use medication vial?
4) How you deal with single-use vial after taking a small dose and patient discharge?

<u>Answer:</u>

- Single-dose or single-use vial is used exclusively for only a single procedure/injection in a single patient. It should not be kept opened with any remaining dose whether labeled with any patient's name or not to avoid its reuse or storing for future use even on the same patient

Sub Element : B-4.7

- **Needles and syringes including prefilled syringes, and vacutainer holders are used for a single procedure/injection. (O – SI)**

Visit medical stores, medication preparation areas and patient's care areas:

1) Check if needles, syringes including prefilled syringes, and vacutainer holders are used only for a single procedure/injection or not?
2) Observe if these items are available in adequate amounts (It is more likely to reuse these items if amounts are inadequate or there is shortage of supplies)
3) Observe if these items are kept sterile and with their original intact wrap (they should not be kept opened or labeled with any patient's name to avoid their reuse or storing for future use even on the same patient)

Examples:

- While checking the medication refrigerator, you find opened prefilled syringe labeled with patient's name & medical record number. This means it is stored for future use on the same patient.
- While checking the medication refrigerator, you find opened prefilled syringe without patient's name or medical record number. This means it is more likely to be reused by multiple patients.

Ask HCWs:

Instead of direct questions, indirect ones or scenarios are advisable, <u>Examples:</u>

1) What are the best practices recommended for use of needles, syringes including prefilled syringes, and vacutainer holders regarding number of patients, keeping them for reuse and safe reuse life?
2) What are the precautions that should be strictly followed while storing a remaining dose in a prefilled syringe for future use on the same patient?
3) How can you safely inject multiple patients from one syringe filled with large dose of medication?
4) How you deal with vacutainer holder after taking samples and patient discharge?

<u>Answer:</u>

- Needles, syringes including prefilled syringes, and vacutainer holders are used exclusively for only one procedure/injection. They should not be kept opened or labeled with any patient's name to avoid their reuse or storing for future use even on the same patient.

Sub Element : B-4.8

- **Cartridge devices such as insulin pens are used for only one patient. (O – SI)**

Visit medication preparation areas:

1) Check if cartridge devices such as insulin pens are used or not (e.g., presence of insulin pens in the medication refrigerator)?
2) Open the refrigerator, if cartridge devices such as insulin pens are present, and HCWs claim that each device is exclusively allocated only for one patient:

<u>Check that any used cartridge device is labeled with following data:</u>

- Patient's name & medical record number to be used exclusively for only one patient
- Date of the first use to be discarded after expiration of the reuse life recommended by the manufacturer.

3) Check the refrigerator, if you find used cartridge device such as insulin pen without patient's name or medical record number, this means it is used for multiple patients.

Ask staff members:

1) Are cartridge devices such as insulin pens are used?

   If yes:

2) Is cartridge device as insulin pen exclusively used for only one patient?

   If yes:

2) What are essential data required to be recorded on cartridge device?

Answer:

- Patient's name & medical record number to be used exclusively for only one patient.
- Date of the first use to be discarded after expiration of the reuse life recommended by the manufacturer.

Instead of direct questions, indirect ones or scenarios are advisable, Examples:

1) What are the best practices recommended for use of cartridge devices regarding number of patients, keeping them while in use and reuse life?
2) What are the precautions that should be strictly followed while using a cartridge device such as insulin pen for multiple patients?
3) How can you safely inject a dose from a cartridge device such as insulin pen that is used for multiple patients?
4) How you deal with insulin pen after patient discharge?

Answer:

- Cartridge devices such as insulin pens are used exclusively for only one patient. It should be labeled with patient's name, medical record number and date of the first use to avoid its use for multiple patients and after expiration of the reuse life recommended by the manufacturer.

Sub Element : B-4.9

- **Supplies are brought to patient's care area only when needed and after patient discharge, all remaining single-use items are discarded while reusable ones are sent to CSSD for reprocessing (even unused items with intact original wrap). (O – SI)**

Observe the attitude of the staff members in different patient's care areas (especially critical care areas, e.g., ER) towards:

1) Supplies and single-use medications that are taken to patient's care areas (i.e., for any procedure, are only required or necessary number of supplies and medications brought to patient's care areas or not?)
2) Remaining unused supplies and medications taken to patient's care areas after termination of treatment session, completion of the procedure or patient discharge (i.e., are all remaining single-use items discarded while reusable ones sent to CSSD or not? even items with intact original wrap)

Supplies and single-use medications that are brought to patient's care area only when needed After termination of treatment session, completion of the procedure or patient discharge:

- All remaining single-use items are discarded, even unused ones with intact original wrap (i.e., they cannot be used on other patients or returned to clean areas, such as medical stores or medication preparation areas)
- All reusable items are sent for reprocessing, even unused ones with intact original wrap.

Example: Observe an ER nurse who wants to insert peripheral venous catheter:

- Is he/she brought supplies that are only needed for the procedure or extra supplies are taken there?
- If there are extra supplies, does he/she discard all unused single –use items and sent reusable ones to CSSD after patient discharge or not?

NOTE:

For successful observation, it is advisable to assess this standard during initiation & termination of different procedures or treatment sessions (e.g., HCWs bring and prepare medications and supplies before initiation of the procedures)

Ask staff members:

Instead of direct questions, indirect ones or scenarios are advisable,

Examples:

- What to do with extra supplies or single-use medications that are taken to patient's care area without being used during the procedure or the treatment session (items are still unused with intact original wrap)?
- How you safely handle or disinfect unused extra supplies and medications that are taken to patient's care area during the procedure or the treatment session before being used for other patients?
- In emergency situations, what are the rules that should be considered before returning unused extra supplies or medications that are taken to patient's care area to the central preparation area?

Answer:

- Remaining disposable supplies or single-use medications are discarded, even unused ones with intact original wrap (i.e., they cannot be used on other patients or returned to clean areas, such as medical stores or central preparation areas)

- All reusable items are sent for reprocessing, even unused ones with intact original wrap.

Sub Element : B-4.10

- **Whenever possible, multi-dose vial is used for a single patient, with recorded patient's name and date of the first use (when it has been accessed for the first time), and discarded after 28 days unless the manufacturer specifies a different shorter or a longer date (i.e., reuse life). (O – SI)**

Sub Element : B-4.11

- **If multi-dose vial is used for more than one patient, it is exclusively kept and accessed in the area specified for preparation of medications (i.e., away from patients' treatment areas). (O – SI)**

Visit medication preparation areas:

1) Check if multi-dose vials are used or not (presence of multi-dose vials to be used instead of single-dose vials)?

2) If multi-dose vials are present, and HCWs claim that each multi-dose vial is exclusively allocated only for one patient (or whenever possible, used for one patient):

Observe to ensure that the following data are recorded on used vials:

a) Date of the first use (when it has been accessed for the first time) to be discarded after 28 days unless the manufacturer specifies a different shorter or a longer date (i.e., reuse life).

b) Patient's name & medical record number to be used exclusively for only one patient (or whenever possible, used for one patient)

3) If multi-dose vials are present, and used for multiple patients:

Observe to ensure that:

4) Date of the first use is recorded on used vial, to be discarded after 28 days unless the manufacturer specifies a different shorter or a longer date (i.e., reuse life).

5) Multi-dose vials are exclusively kept and accessed in the medications preparation areas (i.e., multi-dose vials used for more than one patient are never taken to patients' treatment areas)

Visit patients' care areas:

- Check if multi-dose vials are used instead of single-dose vials and present in patients' care areas?
- If multi-dose vials are present in patients' care areas:

  Observe to ensure that the following information are recorded on used vials:

  1. Date of the first use is recorded on used vial, to be discarded after 28 days unless the manufacturer specifies a different shorter or a longer date (i.e., reuse life).
  2. Patient's name & medical record number is recorded on used vial to be used exclusively for only this patient (i.e., multi-dose vial is never kept in patients' treatment areas without patient's name & medical record number to avoid its use for multiple patients)

Ask HCWs:

1) Are multi-dose vials available and used instead of single-dose vials? If yes:
2) Is multi-dose vial exclusively used for only one patient (or whenever possible, used for one patient)?

   If yes:

3) What are essential data required to be recorded on multi-dose vials?

Answer:

- ❖Date of the first use (when it has been accessed for the first time) to be discarded after 28 days unless the manufacturer specifies a different shorter or a longer date (i.e., reuse life).
- ❖Patient's name & medical record number to be used exclusively for only one patient (or whenever possible, used for one patient)

If no, and multi-dose vials are used for multiple patients:

4) What are the precautions that required to be strictly followed while using multi-dose vials?

Answer:

- ❖Date of the first use is recorded on used vial, to be discarded after 28 days unless the manufacturer specifies a different shorter or a longer date (i.e., reuse life).
- ❖Multi-dose vials are exclusively kept and accessed in the medication's preparation areas (i.e., multi-dose vials used for more than one patient are never taken to patients' treatment areas)
- ❖If multi-dose vial is present or kept in patients' treatment areas, patient's name & medical record number is recorded on used vial to avoid its use for multiple patients

5) To demonstrate how they can safely obtain a dose from a multi-dose vial that is used for multiple patients (i.e., required supplies, correct storage while in use, proper technique with labeling with date & time and discarding when indicated).

- ***Ask HCWs about:***
- The best practices for use of multi-dose vials regarding number of patients, keeping vails while in use and reuse life

Sub Element : B-4.12

- **The self-sealed rubber cap of a medication vial or an IV solution bottle is disinfected with approved antiseptic wipes (e.g., alcohol wipes) prior to any access. (O – SI)**

Visit medication preparation areas and/or patients' care areas:

1) Observe for availability of supplies required for disinfecting self-sealed rubber caps of medication vials or IV solution bottles prior to access (e.g., approved antiseptic alcohol wipes).
2) Observe to ensure that prior to any access to medication vial or IV solution bottle, its self-sealed rubber cap is disinfected with approved alcohol antiseptic wipes.
3) Check that IV solution bottles are only accessed through their self-sealed rubber caps after being disinfected.

Ask HCWs:

1) How can you safely get an access to the contents of a medication vial or an IV solution bottle?

   or

2) What are precautions required while handling medication vials or IV solution bottles to prevent contamination?

Answer:

- Sterile devices are only used to access medication vials and IV solution bottles with strict adherence to aseptic techniques

- Prior to any access to a medication vial or an IV solution bottle, its self-sealed rubber cap is disinfected with approved alcohol antiseptic wipe (i.e., vigorously scrub the self-sealed rubber cap with antiseptic wipe for 10 – 15 seconds / never touch the access site after the application of antiseptic / wait the access site to dry before being penetrated with sterile device)
- Exclusively, IV solution bottles should be accessed through their self-sealed rubber caps after being disinfected.

3) To demonstrate how they can safely obtain a dose from a medication vial or get an access to an IV solution bottle (i.e., required supplies, right access through self-sealed rubber cap, proper technique with labeling with date & time when required, and changing IV solution bottle or discarding medication vial when indicated).

Sub Element : B-4.13

- **IV sets (including secondary sets and add-on devices) that are continually used to infuse crystalloid solutions (hypotonic, isotonic, or hypertonic), are replaced at least every 7 days, but not more frequently than 96-hour intervals. (O – SI)**

Sub Element : B-4.14

- **IV sets that are used to administer blood, blood products, lipid emulsions, or dextrose/amino acid TPN solutions are replaced within 24 hours of initiating the infusion. (O – SI)**

Visit patients' care areas:

1) In patients who are not receiving blood, blood products, lipid emulsions, or dextrose/amino acid TPN solutions (i.e., infusion of crystalloid solutions: hypotonic, isotonic, or hypertonic solutions), check that IV administration sets (including secondary sets and add-on devices) are continuously connected and replaced no more frequently than at 96 hour intervals, but at least every 7 days.

- **Rationale:** Extending the duration of use permits considerable cost savings to hospitals without significant increase in the risk of healthcare-associated BSI with peripheral IVs

2) In patients who are receiving blood, blood products, lipid emulsions, or dextrose/amino acid TPN solutions, check that IV delivery systems are continuously connected and changed within 24 hours of initiating the infusion.

3) Observe that IV administration sets are labelled with dates & times of initiating treatment (e.g., dates & times of initiating infusion of crystalloid solutions (hypotonic, isotonic, or hypertonic solutions) or administration of blood, blood products, lipid emulsions or TPN solutions).

Notes:

- If possible, coordinate IV tubing changes with IV solution changes.
- If an epidemic of infusion-associated BSI is suspected, it may be prudent and practical to change IV administration sets within 24 hours of initiating the infusion.

Ask HCWs:

1) How frequent you should routinely replace IV administration sets that are continuously connected (including secondary sets and add-on devices)

or

2) What are the maximum periods allowed for the use IV delivery systems that are continuously connected?

Answer:

- In patients who are not receiving blood, blood products, lipid emulsions, or TPN solutions (i.e., infusion of crystalloid solutions: hypotonic, isotonic, or hypertonic solutions), continuously connected IV delivery systems (including secondary sets and add-on devices) are replaced no more frequently than at 96 hour intervals, but at least every 7 days.

- In patients who are receiving blood, blood products, lipid emulsions, or TPN solutions, continuously connected IV administration sets are changed within 24 hours of initiating the infusion.
- If an epidemic of infusion-associated BSI is suspected, change IV administration sets within 24 hours of initiating the infusion.

3) What is the maximum period allowed for the use IV delivery system if an epidemic of infusion-associated BSI is suspected?

- **Answer:**
- In these circumstances, it may be prudent and practical to change IV administration set within 24 hours of initiating the infusion.

4) To demonstrate how they should prepare for infusion of crystalloid solutions (hypotonic, isotonic, or hypertonic solutions) or administration of blood, blood products, lipid emulsions or TPN solutions (i.e., required supplies, proper technique with labeling with date & time of initiating infusion or treatment and frequency of change of IV tubing and IV solution).

Sub Element : B-4.15

- For a ventilated patient, ventilation circuit is only changed when visibly soiled or mechanically malfunctioning. (D – SI)

Review the following documents:

❖ Documented evidence that demonstrates proper application of this sub-standard:

- Specific policy for change of ventilation circuits in the ventilated patients (Multidisciplinary policy approved from medical department, respiratory therapy department and nursing department)
- Documents that record events of changing ventilation circuits in the ventilated patients with indications for replacement (either hard copies or soft copies / either individual patient's file, unit's records or respiratory therapist logs)

Ask HCWs (nurses – RT):

❖How frequent you should routinely change ventilation circuit in a ventilated patient, (what is the maximum period allowed to prevent VAP)?

Answer:

For a ventilated patient, ventilation circuit is not routinely changed.

Only changed when:

- It is visibly soiled.
- It is damaged, disrupted or mechanically malfunctioning

Sub Element : B-4.16

- **Sterile solutions are used in nebulizers, humidifiers, or any aerosol generating system and changed between patients and every 24 hours for the same patient unless the manufacturer of ready-made sterile solutions specifies different dates. (O – SI)**

Visit patients' care areas to:

1) Observe for availability of supplies required for filling nebulizers, humidifiers, and any aerosol generating system (e.g., ready-made single-use bottles of sterile saline or sterile water / prefilled humidifiers with sterile solutions).

2) Check that only ready-made single-use bottles of sterile solutions are used to fill nebulizers, humidifiers, and any aerosol generating system (the use of prefilled humidifiers with sterile solutions is preferable).

3) Notice if sterile solutions used in nebulizers, humidifiers, and any aerosol generating system are changed between patients and every 24 hours for the same patient.

   Observe to ensure that when humidifier or nebulizer is in use, it is labelled with date & time of initiating treatment (e.g., date & time of filling the humidifier or nebulizer with sterile solution).

4) Always follow instructions of the ready-made sterile solutions manufacturer when different dates for change are specified (e.g., the use of some prefilled humidifiers may extend for 1 month).

Ask HCWs:

1) What are the supplies required for using or filling nebulizers, humidifiers, and any aerosol generating system?

   Answer: only ready-made single-use bottles of sterile saline or sterile water / prefilled humidifiers with sterile solutions.

2) How frequent you should routinely change sterile solutions used in nebulizers, humidifiers, and any aerosol generating system (what are the maximum periods allowed)?

   Answer: Sterile solutions used to fill nebulizers, humidifiers, and any aerosol generating system should be changed:

Ask HCWs:

- In-between patients (after each patient).
- Every 24 hours for the same patient.
- As specified by the ready-made sterile solutions manufacturer (e.g., the use of some prefilled humidifiers may extend for 1 mon

3) To demonstrate how they should prepare for and perform inhalation therapy using nebulizers, humidifiers, and any aerosol generating system (i.e., required supplies, proper technique with labeling with date & time of initiating treatment and frequency of change of sterile solutions)

Sub Element : B-4.17

- **Hand hygiene practiced before breastmilk expression and sterile container is used for breastmilk collection and preservation. (O, SI)**

Observe:

- Availability of dedicated room / are for breastmilk expression
- Observe availability of hand washing sink and ABHR dispenser in the specified room/ area.
- Availability of education material and instructions for mother to follow and practice hand hygiene before expression of breast milk:
  - Availability of WHO" Education tools for reminders
  - Hand Hygiene: When and How Leaflet
  - SAVE LIVES: Clean Your Hands Screensaver
  - How to Hand rub Poster
  - How to Hand wash Poster
- Observe availability of sterile container to be used for breastmilk collection and preservation in order to avoid any contamination.

Interview:

- Ask about the procedure / process and infection control measures to be taken to ensure expressed breast milk is safe and free from any contamination.
- Ask about mothers' education on appropriate hand hygiene to be followed & how it is monitored to ensure compliance of mother.
- how they are using and implementing hand hygiene.
- Randomly ask the mother to perform hand rub. (If applicable)
- Ask staff to show sterile container which are used for breastmilk collection and preservation.

Sub Element : B-4.18

- **HCW wears mask during insertion of a catheter or injection into spinal or epidural space. (O – SI)**

Visit patients' care areas to:

1) Check if invasive procedures into spinal or epidural spaces are applicable in this unit(s) or not?
2) Observe for availability of all supplies required for strict adherence to aseptic technique while performing invasive procedures into spinal or epidural spaces (e.g., antiseptic wipes, sterile gloves, sterile drapes, and **surgical mask**)
3) Check if aseptic technique including wearing of a surgical mask is strictly applied while performing invasive procedures into spinal or epidural spaces (i.e., inserting catheter or injection into spinal or epidural space)?

Ask HCWs:

- What are the best practices that should be applied while performing invasive procedures into spinal or epidural spaces (i.e., inserting catheter or injection into spinal or epidural space)?
  - **Answer should include wearing of a surgical mask.**
- To demonstrate how they should prepare for invasive procedures into spinal or epidural spaces (i.e., required supplies, PPE, and steps for inserting catheter or injection into spinal or epidural space)?
  - **Answer should include wearing of a surgical mask.**

THANK YOU