


Narayana Hrudayalaya Hospitals
Caring with Compassion



WADHWANI FOUNDATION

Session 5: Errors, Safety and Maintenance

Learning Objectives


After completing this session you will be able to:

- Know how to correctly and safely use the syringe pump
- Understand and interpret the display, types of errors/alarms and correction
- Document unresolved errors for Biomedical team
- Be aware and follow safety protocols and avoid common mistakes
- Understand the maintenance of the syringe pump for correct operation and durability

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Essentials for Syringe Pump Usage

- Read "Instructions for Use" or manual before starting
- Use only under supervision by specially trained staff
- Before use, look at the device for possible damage or problems
- Ensure the unit is properly positioned and secured.
 - Ensure that infusion line is not twisted
- Before and during use, always check for sound and visual alarms



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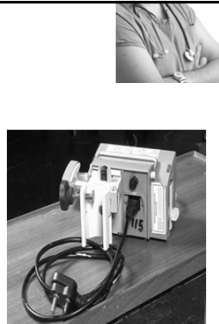
Safety – Handling and Transport

- When attaching to pole, use a proper pole clamp
 - Attach the pump from above, clicking it into place. To release, press the black button and lift the pump from the clamp. Attach each device separately to pole.
- Ensure not more than 3-4 syringe pumps are attached to a single pole
 - The setup is unstable and may fall
 - The drugs may leak from the pump above
- Do **NOT** attach to pole with IV drip hanging from it
 - To avoid dripping of fluid onto the pump



Safety – Electric Hazard

- Ensure the plugs are firmly in place without any loose connections
- Do not leave the plug ends on the floor, especially if it is wet
- Protect the device from moisture to prevent electric shock, etc.
- Ensure electric cord is rolled and kept when not in use



Safety – Patient and Clinical

- Connect to patient only after switching on the device
- Select syringe/catheter suitable for use with intended application
- Position the infusion line free of twists
- Change disposables after 24 hours
- Possible explosion hazard if used in presence of flammable anaesthetics
- Compare displayed value with entered value. Stop if they are different
- Do not use the device when service indicator is displayed permanently



Maintenance and Care - Cleaning of Syringe Pump



- The pump should be kept clean, dry and sterile all the time
- Clean the pump regularly using isopropyl alcohol, before and after use
- Do not clean the display and keypad area using wet gauze. Use only dry gauze for them
- Do not wet or wash the pump, especially the electric plugs/sockets



Maintenance and Care – Dos and Don'ts



- Dos:
 - Regular cleaning
 - Pre-checking of syringe pump
 - Pay attention to alerts
 - Keep power cord dry and off the ground
 - Carry using the handle
 - Avoid rough handling
- Don'ts:
 - Hang IV fluid on the same stand
 - Stack more than 3-4 pumps in a single stand
 - Use water to clean pump



Activity 1 – Clean the Syringe Pump



- **Activity Time (suggested): 15 MINUTES**
- **Items Needed: Syringe pumps and cleaning sets (gauze and isopropyl alcohol)**
- **Group Formation:** Divide yourselves into groups, depending upon number of syringe pumps and cleaning sets (gauze and isopropyl alcohol) available.
 - Nominate a leader who will direct the activity
- In turn, 1 person should be the demonstrator and the others observers.
- The demonstrator should demonstrate how to clean the syringe pump. The observers should point out things done correctly/incorrectly.
- Another new volunteer should come up and demonstrate it correctly a second time.

Activity 3 – Visit to the ICU



- **Activity Time (suggested): 30 MINUTES**
- **Items Needed: Nil**

- Take a tour of the ICU.

- Observe at least 3 good practices and 1 bad practice regarding Syringe Pumps, while on the floor.

- Return and discuss what you saw in the ICU.

Closing Story

Yes Sister I feel much more confident. I know how to handle a syringe pump. I ensure that it is clean and prevent spread of infections. I also take precautions to avoid any problems when I see a syringe pump.

Wow, Bee complex, you seem to have become an expert at Syringe pumps now. Now you have all the knowledge to operate a syringe pump.

Credits and References

We would sincerely like to thank the following entities for the resources and references:

- B. Braun Medical Ltd.

For further reference please check:

- www.bbraun.co.in
