

# The Case of an Inappropriate Scrub of the Hub

Improving Skin Care and MDRO Prevention in Long-Term Care



## The Case

A 70-year-old male resident is scheduled to receive his antibiotics through his central line catheter. The nurse must access the catheter by attaching the antibiotic tubing to the hub of the catheter.



## The Challenge

The nurse does not have any more alcohol swabs to clean the catheter prior to access. The nearest alcohol swab is in the stock room on another floor. She knows she needs to clean the catheter before accessing the line, but she still has medications to administer, and she's already running behind.

## The Error

The nurse decides to wet a paper towel and clean off the hub of the central line catheter with water, instead of using a 70% isopropyl alcohol swab. The resident becomes febrile 12 hours later and needs to be admitted to the hospital with a bloodstream infection.

## Knowledge Check Questions

- Why is it important to scrub the hub of the central line catheter with a 70% isopropyl alcohol swab or Chlorascrub™?**
  - Properly scrubbing the hub of the catheter ensures that germs on the hub are not pushed into the central line during access.
  - Scrubbing the hub of the catheter prevents bacteria from adhering to the hub of the catheter for up to 12 hours.
  - A central line catheter will begin to break down if it is not regularly scrubbed with a 70% isopropyl alcohol swab or Chlorascrub.
  - All of the above.
- What should the nurse have done instead of scrubbing the hub with a paper towel and water?**
  - Correctly scrub the hub of the catheter with 70% isopropyl alcohol or Chlorascrub for 10 seconds, using pressure and friction to clean the catheter.
  - Inform management at the facility of the need to have more alcohol swabs stocked and available on the unit.
  - Delegate the responsibility for obtaining more alcohol swab to an available staff member.
  - Continue to improve work efficiency to save time on medication passes in the future.
  - All of the above.

## Rationale for Each Answer

### Rationale for question 1

The hub of a central line catheter must be scrubbed before each access. Germs can adhere to the hub of the catheter, and are pushed into the bloodstream after access. This results in bloodstream infections.

### Rationale for question 2

All staff members should ensure that proper infection prevention and control are being prioritized and implemented. Using pressure and friction to scrub the hub of a catheter, with isopropyl alcohol or Chlorascrub for 10 seconds, helps prevent central line-associated bloodstream infections. It is important for clinical staff to look for ways to improve work efficiency, such as having necessary supplies available on the unit, delegating responsibilities, and keeping a shift schedule.

Answers to the Knowledge Check: 1-A; 2-E

