



INFECTION CONTROL COMMITTEE
ST. LUKE'S HOSPITAL
MALTA

**GUIDELINES FOR THE
PREVENTION OF
CATHETER-ASSOCIATED
URINARY TRACT
INFECTIONS**

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Introduction:

The urinary tract is the most common site of nosocomial infection, accounting for more than 40% of the total number reported by acute-care hospitals. 66% to 86% of these infections follow instrumentation of the urinary tract, mainly urinary catheterization. Although not all catheter-associated urinary tract infections can be prevented, it is believed that a large number could be avoided by the proper management of the indwelling catheter. The following recommendations were developed for the care of patients with temporary indwelling urethral catheters.

Personnel

- Only persons (e.g., hospital personnel, family members, or patients themselves) who know the correct technique of aseptic insertion and maintenance of the catheter should handle catheters
- Hospital personnel and others who take care of catheters should be given periodic in-service training stressing the correct techniques and potential complications of urinary catheterisation.

Catheter Use

- Urinary catheters should be inserted only when necessary and left in place only for as long as necessary. They should not be used solely for the convenience of patient-care personnel.
- For selected patients, other methods of urinary drainage such as condom catheter drainage, suprapubic catheterization, and intermittent urethral catheterization can be useful alternatives to indwelling urethral catheterization

Hand Hygiene

- Handwashing or application of alcoholic hand rub should be done immediately before and after any manipulation of the catheter site or apparatus

Catheter Insertion

- Catheters should be inserted using aseptic technique and sterile equipment
- Gloves, drape, sponges, an appropriate antiseptic solution for periurethral cleaning, and a single-use packet of lubricant jelly should be used for insertion.
- As small a catheter as possible, consistent with good drainage, should be used to minimize urethral trauma
- Indwelling catheters should be properly secured after insertion to prevent movement and urethral traction

Closed Sterile Drainage

- A sterile, continuously closed drainage system should be maintained
- The catheter and drainage tube should not be disconnected unless the catheter must be irrigated.
- If breaks in aseptic technique, disconnection, or leakage occur, the collecting system should be replaced using aseptic technique after disinfecting the catheter-tubing junction.

Irrigation

- Irrigation should be avoided unless obstruction is anticipated (e.g., as might occur with bleeding after prostatic or bladder surgery); closed continuous irrigation may be used to prevent obstruction. To relieve obstruction due to clots, mucus, or other causes, an intermittent method of irrigation may be used. Continuous irrigation of the bladder with antimicrobials has not proven to be useful and should not be performed as a routine infection prevention measure.
- The catheter-tubing junction should be disinfected before disconnection.
- A large-volume sterile syringe and sterile irrigant should be used and then discarded. The person performing irrigation should use aseptic technique.
- If the catheter becomes obstructed and can be kept open only by frequent irrigation, the catheter should be changed if it is likely that the catheter itself is contributing to the obstruction (e.g., formation of concretions).

Specimen Collection

- If small volumes of fresh urine are needed for examination, the distal end of the catheter, or preferably the sampling port if present, should be cleansed with a disinfectant, and urine then aspirated with a sterile needle and syringe

Urinary Flow

- Unobstructed flow should be maintained. To achieve free flow of urine:
 - the catheter and collecting tube should be kept from kinking;
 - the collecting bag should be emptied regularly using a separate collecting container for each patient
 - the draining spigot and nonsterile collecting container should never come in contact
 - poorly functioning or obstructed catheters should be irrigated or if necessary, replaced
 - collecting bags should always be kept below the level of the bladder.

Meatal Care

- Twice daily cleansing with povidone-iodine solution and daily cleansing with soap and water have been shown in studies NOT to reduce catheter-associated urinary tract infection. Thus, at this time, daily meatal care with either of these 2 regimens cannot be endorsed.

Catheter Change Interval

- Indwelling catheters should not be changed at arbitrary fixed intervals but always according to the needs of the individual patients

Spatial Separation of Catheterized Patients

- To minimize the chances of cross-infection, infected and uninfected patients with indwelling catheters should not share the same room or adjacent beds
- It is also important that patients with potential sources of contamination (e.g. colostomy, gangrene) should as much as possible be kept separate from catheterised patients.

Urine Culture

- The value of regular bacteriologic monitoring of catheterized patients has not been established. This practice will only serve to promote unnecessary antibiotic use in patients who are simply colonised rather infected and subsequent proliferation of multi-resistant organisms. This practice is NOT recommended in asymptomatic patients.