

Early Removal of Unnecessary Urinary Catheters

Urinary catheters are often placed unnecessarily, remain in place without physician awareness, and are not removed promptly when no longer needed. Prolonged catheterization is the strongest risk factor for catheter-associated urinary tract infection (CAUTI). Promptly removing unnecessary catheters is an important step in reducing a patient's risk of CAUTI.

In most hospitals, 4 steps are required before a urinary catheter is removed:

1. Physician recognizes that a urinary catheter is *present*,
2. Physician recognizes that the urinary catheter is *unnecessary*,
3. Physician *writes the order* for urinary catheter removal,
4. Nurse *removes the catheter* in response to the physician's order.

Thus, many hours and days can pass before a urinary catheter that is no longer necessary is recognized and removed; by default, urinary catheters usually remain in place until these steps occur. In contrast, using strategies to remind and prompt removal of unnecessary urinary catheters has the potential to bypass several of these steps, and reduce the occurrence of hospital-acquired catheter-associated urinary tract infections.

Two types of reminder systems have been studied:

1. "Reminders" function simply to remind the clinicians (physician and/or nurse) that a urinary catheter is still being used, and may provide an educational list of reasons to continue or discontinue the urinary catheter. "Reminders" help bypass steps 1-2.
2. "Stop orders" prompt the clinician to remove the catheter *by default* after a certain time period or a set of clinical conditions has occurred (such as 24 or 48 hours post-operative) unless the catheter remains clinically appropriate. Stop orders "expire" in the same fashion as restraint or antibiotic orders, unless action is taken by physicians.
 - Stop orders directed at physicians require an order to renew or discontinue on the basis of review at specific time intervals (bypassing steps 1-3).
 - Stop orders directed at nurses will empower nurses to remove the catheter on the basis of a list of indications, without requiring the nurse to obtain a physician-signed order before removing the catheter (bypassing steps 1-4).

Challenges and pearls to keep in mind when implementing catheter removal strategies:

- Capitalize on “nurse-to-nurse” communication at times of care transition (between shift and between units) as opportunities to reassess catheter need. Having a nurse champion on every shift may facilitate reassessment, especially if shift schedules make it difficult to share information.
- Reminder system chosen should be tailored to the care setting (stickers, electronic, etc). Both low-tech and high-tech strategies have been effective.
- Simple reminders are often ignored. It is challenging to sustain the impact of reminders.
- If using electronic reminders/stop orders, make sure the reminder/stop order is directed at the primary team and not the consultants.
- Using electronic catheter orders can increase catheter use inadvertently by making indwelling catheters easier to order than alternatives.
- Physicians and/or nurses should document the rationale for leaving the catheter in if appropriate indications are not met. Documentation makes the rationale explicit and communicates it to the rest of the health care team.
- Nurses may not be comfortable initially with the responsibility of removing urinary catheters without a physician order. Supportive nursing and physician leadership can help overcome nurses’ reluctance to act using nurse-empowered orders.
- Incontinence is a very tempting reason for placing a urinary catheter. Encourage bedside staff to avoid placing catheters for incontinence by providing other readily available strategies to manage incontinent patients, including bedside commodes, incontinence garments, condom catheters for male patients, and “people power” to provide prompted toileting and bed linen changes.

- Posting weekly or monthly catheter prevalence on the unit and in a physician venue can maintain engagement by providing feedback on progress and sending the message that early removal is important.
- Consider instituting a protocol in which the appropriate use of urinary catheters is assessed prior to transferring patients from one unit to another.