Nurse-Initiated Removal of Unnecessary Urinary Catheters:

How to Implement the Program
This presentation

• This presentation is for those who will be the main champions to promote the program at your facility. These include the nurse and physician leaders that support the program in addition to the healthcare worker champion that will be educating the nurses during the implementation.
Outline

1. Prepare for the program
2. Start the program
   a. Unit to choose
   b. Indications (appropriate)
   c. Indications (inappropriate)
3. Obtain baseline data
   a. Data collection tool
   b. Calculations
4. Implement the program
   a. Implementation process
   b. Data collection tool
   c. Calculations
5. After implementation
   a. Data collection tool
6. Sustainability
   a. Data collection tool
7. Evaluate the effect of the program
Effect of Nurse-Led Multidisciplinary Rounds on Reducing the Unnecessary Use of Urinary Catheterization in Hospitalized Patients

Mohamad G. Fakh, MD, MPH; Cathleen Dueweke, RN; Susan Meisner, RN; Dorine Berriel-Cass, RN, MA; Ruth Savoy-Moore, PhD; Nicole Brach, RN; Janice Rey, MT(ASCP); Laura DeSantis, RN, MSN; Louis D. Saravolatz, MD

(See the commentary by Cornia and Linsky on pages 820–822)

Objective. To determine the effect of nurse-led multidisciplinary rounds on reducing the unnecessary use of urinary catheters (UCs).

Design. Quasi-experimental study with a control group, in 3 phases: preintervention, intervention, and postintervention.


Intervention. A nurse trained in the indications for UC utilization participated in daily multidisciplinary rounds on 10 medical-surgical units. If no appropriate indication for a patient’s UC was found, the patient’s nurse was asked to contact the physician to request discontinuation. Data were collected before the intervention (for 5 days), during the intervention (for 10 days), and 4 weeks after the intervention (for 5 days). Two units served as controls.

Results. Of 4,963 patient-days observed, a UC was present in 885 (for a total of 885 “UC-days”). There was a significant reduction in the rate of UC utilization from 203 UC-days per 1,000 patient-days in the preintervention phase to 162 UC-days per 1,000 patient-days in the intervention phase ($P = .002$). The postintervention rate of 187 UC-days per 1,000 patient-days was higher than the rate during the intervention ($P = .05$) but not significantly different from the preintervention rate ($P = .32$). The rate of unnecessary use of UCs also decreased from 102 UC-days per 1,000 patient-days in the preintervention phase to 64 UC-days per 1,000 patient-days during the intervention phase ($P < .001$); and, significantly, the rate rose to 91 UC-days per 1,000 patient-days in the postintervention phase ($P = .01$). The rate of discontinuation of unnecessary UCs in the intervention phase was 73 (45%) of 162.

Conclusions. A nurse-led multidisciplinary approach to evaluate the need for UCs was associated with a reduction of unnecessary UC use. Efforts to sustain the intervention-induced reduction may be successful when trained advocates continue this effort with each team.

Prepare for the Program
Before Starting the Program

• Obtain leadership support:
  1. Administration
  2. Nursing
  3. Physician
• Identify both nurse and physician leaders to be the point people for the program at the hospital.
• Nursing: potential candidates include nursing director, or a very effective nurse manager/charge nurse
• Physician: the physician with interest in improving safety/quality (for example, an Infectious Diseases specialist, urologist, or hospitalist)
Before Starting the Program

• Hospital leadership will make sure that nurse and physician leaders know the program is a priority for the hospital.
• Hospitals involved should have a structure in place for daily nursing rounds to use the program.
• Nursing leadership will relate information about the planned program to nurse managers and nurses.
• Physician leadership will inform physicians about the planned program and encourage them for supporting it.
How to Start the Program

• Partner with nursing, case management, infection prevention, and physicians.
• Evaluate areas with high prevalence of utilization.
• Use point prevalence to help decide initial units.
• Start with one general medical/surgical unit.
Starting the Program
Program Plan

• Select unit(s) to begin the project. Evaluate units that have the highest urinary catheter utilization using point prevalence.

  1. Baseline data collection
  2. Implementation: educate nurses regarding when the urinary catheter is necessary and encourage them to initiate removal of urinary catheter if no indications are present for use
  3. After implementation: collect data on utilization of urinary catheters and feedback to units involved
  4. Sustainability: sustainability through continued periodic data collection and feedback to units involved
Deciding Which Unit to Begin Program

1. Evaluate unit(s) with high prevalence and/or unit(s) with increased non-indicated urinary catheter use.

2. Choose a unit with an effective unit manager (complete support of the unit leader is usually needed to be successful).
Perform Point Prevalence

• Perform point prevalence on all general medical units at your hospital to determine which units have the highest utilization of urinary catheters.

• Point Prevalence = (Number of urinary catheters / Number of patients at one point in time) x 100

• Example: During nurse shift change, count all urinary catheters in use and then count the number of patients on the unit.
Point Prevalence: Example

- Look at multiple units and decide the most feasible unit to start with:
- Unit B has the highest prevalence.

<table>
<thead>
<tr>
<th></th>
<th># of Urinary Catheters</th>
<th># of Patients</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit A</td>
<td>6</td>
<td>32</td>
<td>19%</td>
</tr>
<tr>
<td>Unit B</td>
<td>10</td>
<td>29</td>
<td>34%</td>
</tr>
<tr>
<td>Unit C</td>
<td>4</td>
<td>30</td>
<td>13%</td>
</tr>
</tbody>
</table>
How Many Units to Start?

• One or two units?
  – (depends on your resources)

• For a prevalence of 20%, units with 30 patients will have 6 patients with indwelling urinary catheters.
Label Variables

• Urinary catheter present: present (1), absent (0)
• Urinary catheter indicated: yes (1), no (0)
• Indications vs. non-indications for urinary catheter use are based on the new HICPAC guidelines.

Carolyn V. Gould, MD, MSCR; Craig A. Umscheid, MD, MSCS; Rajender K. Agarwal, MD, MPH; Gretchen Kuntz, MSW, MLSIS; David A. Pegues, MD; and the Healthcare Infection Control Practices Advisory Committee (HICPAC)

Table 2. Examples of Appropriate and Inappropriate Indications for Indwelling Urethral Catheter Use

A. Examples of *appropriate* indications for indwelling urethral catheter use
   - Patient has acute urinary retention or bladder outlet obstruction
   - Need for accurate measurements of urinary output in critically ill patients
   - Perioperative use for selected surgical procedures:
     - Patients undergoing urologic surgery or other surgery on contiguous structures of the genitourinary tract
     - Anticipated prolonged duration of surgery (catheters inserted for this reason should be removed in post-anesthesia care unit)
     - Patients anticipated to receive large-volume infusions or diuretics during surgery
     - Need for intraoperative monitoring of urinary output
   - To assist in healing of open sacral or perineal wounds in incontinent patients
   - Patient requires prolonged immobilization (eg, potentially unstable thoracic or lumbar spine, multiple traumatic injuries such as pelvic fractures)
   - To improve comfort for end-of-life care if needed

B. Examples of *inappropriate* uses of indwelling catheters
   - As a substitute for nursing care of the patient or resident with incontinence
   - As a means of obtaining urine for culture or other diagnostic tests when the patient can voluntarily void
   - For prolonged postoperative duration without appropriate indications (eg, structural repair of urethra or contiguous structures, prolonged effect of epidural anaesthesia, etc)

*Note.* These indications are based primarily on expert consensus.
Two issues to clarify

1. Accurate measurement of urinary output in the critically ill patients: this applies to the intensive care setting. This program addresses patients in the non-intensive care setting, thus this indication was not included in the variables collected.
Two issues to clarify

2. Chronic indwelling urinary catheter (defined as present for >30 days): it is not infrequent to see patients admitted from extended care facilities with a chronic urinary catheter without being able to find the reason for initial placement when assessed. We suggest that these patients represent a special category and may need a different assessment for the appropriateness of catheterization. We consider them to have and acceptable urinary catheter use in the hospital.
Label Variables: Acceptable Indications for Urinary Catheter Placement

- Acute urinary retention or obstruction = 1
- Perioperative use in selected surgeries = 2
- Assist healing of perineal and sacral wounds in incontinent patients = 3
- Hospice/comfort/ palliative care = 4
- Required immobilization for trauma or surgery = 5
- Chronic indwelling urinary catheter on admission = 6
Acute Urinary Retention or Obstruction = 1

- Outflow obstruction: examples include prostatic hypertrophy with obstruction, urethral obstruction related to severe anasarca, urinary blood clots with obstruction
- Acute urinary retention: may be medication-induced, medical (neurogenic bladder) or related to trauma to spinal cord
Perioperative Use in Selected Surgeries = 2

• Anticipated prolonged duration of surgery, large volume infusions during surgery, or need for intraoperative urinary output monitoring

• Urologic surgery or other surgery on contiguous structures of the genitourinary tract

• Spinal or epidural anesthesia may lead to urinary retention (prompt discontinuation of this type of anesthesia should prevent need for urinary catheter placement)
Assist Healing of Perineal and Sacral Wounds in Incontinent Patients = 3

- This is a relative indication when there is concern that urinary incontinence is leading to worsening skin integrity in areas where there is skin breakdown.
Hospice/Comfort Care/Palliative Care = 4

• Patient comfort at end-of-life is a relative indication.
Required Immobilization for Trauma or Surgery = 5

• Including:
  1. Unstable thoracic or lumbar spine
  2. Multiple traumatic injuries, such as pelvic fractures
  3. Acute hip fracture with risk of displacement with movement
Chronic Indwelling Urinary Catheter on Admission = 6

- Patients from home or an extended care facility with a chronic urinary catheter
Unacceptable Reasons for Placement

- Urine output monitoring OUTSIDE the intensive care unit = 7
- Incontinence without a sacral or perineal pressure sore = 8
- Prolonged postoperative use = 9
- Others = 10 (include those transferred from intensive care, morbid obesity, immobility, confusion or dementia, and patient request)
Urine Output Monitoring OUTSIDE Intensive Care = 7

- Monitoring of urine output in patients with congestive heart failure receiving diuretics is not an indication for urinary catheter placement.
Incontinence without a Sacral or Perineal Pressure Sore = 8

- Incontinence should not be a reason for urinary catheter placement. Patients admitted from home or from extended care facilities with incontinence managed their incontinence without problems prior to admission. Mechanisms to keep the skin intact need to be in place. Avoid urinary catheter placement in these patients.
Prolonged Postoperative Use = 9

• Prompt discontinuation of the urinary catheter (within 24 hours of surgery) is recommended unless other indications are present.
Other Non-Indicated Reasons = 10

- Including:
  1. Patients transferred from intensive care to floor
  2. Morbid obesity
  3. Immobility
  4. Confusion or dementia
  5. Patient request
Morbid Obesity and Immobility

• Morbid obesity should not be a trigger for urinary catheter placement. Patients that are morbidly obese have functioned without a urinary catheter prior to admission. The combination of immobility and morbid obesity may lead to inappropriate urinary catheter use. This however, may lead to more immobility with the urinary catheter being a “one-point restraint.”
Confusion or Dementia

• Patients with confusion or dementia should not have a urinary catheter placed unless there is an indication for placement (numbers 1-6).
Patient Request

- Patient request should not be the reason for placement of unnecessary urinary catheters. Explain to the patients the risk of infection, trauma, and immobility related to the use of the urinary catheter. The only exception is in patients that are receiving end-of-life or palliative care (reason 4).
Baseline: urinary catheter prevalence with evaluation for indications (15 days)

Implementation: nursing staff education, daily assessment of urinary catheters and evaluation for indications, and discussion with nursing staff about removal of non-indicated catheters. Rationale given to obtain order to discontinue unnecessary urinary catheters with nursing (10 days)

After Implementation: urinary catheter prevalence, one day a week for 6 weeks (6 days). Patient’s nurse to daily assess need for catheter

Sustainability: urinary catheter prevalence, 1 week quarterly (5 consecutive days) for 5 quarters. Patient’s nurse to daily assess need for catheter

Nurse-Initiated Removal of Unnecessary Urinary Catheters Program

Data review and unit feedback
Baseline Data
Baseline: Weeks 1-3

- For baseline data, collect 15 working days of urinary catheter prevalence.
- Evaluate the need for urinary catheters.
- Determine the reason for all urinary catheters used.
Baseline Data Collection Tool

<table>
<thead>
<tr>
<th>Unit</th>
<th>Date</th>
<th>Urinary Catheter Prevalence Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Weeks 1 - 3**

<table>
<thead>
<tr>
<th>Room/bed</th>
<th>Patient #</th>
<th>Urinary Catheter present</th>
<th>Indicated?</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Indications:**
- Acute urinary retention or obstruction = 1
- Perioperative use in selected surgeries = 2
- Perineal and sacral wounds in incontinent patients = 3
- Hospice/comfort/ palliative care = 4
- Required immobilization for trauma or surgery = 5
- Chronic indwelling urinary catheter on admission = 6

**Not Indicated Urinary Catheters Reasons:**
- Urine output monitoring OUTSIDE intensive care = 7
- Incontinence without a sacral or perineal pressure sore = 8
- Prolonged postoperative use = 9
- Others = 10 (include those transferred from intensive care, morbid obesity, immobility, confusion or dementia, and patient request)

**Legend:**
- No = 0
- Yes = 1
- Non-Indicated = 0
- Indicated = 1

Calculations

• Urinary catheter prevalence =
  \[\text{Number of urinary catheter-days} \times 100 \div \text{Total number of patient-days}\]

• Non-indicated urinary catheter-days % =
  \[\text{Number of non-indicated urinary catheter-days} \times 100 \div \text{Total number of urinary catheter-days}\]
Baseline (e.g., Week 1): Urinary Catheter Prevalence

<table>
<thead>
<tr>
<th></th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Catheters</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>37</td>
</tr>
<tr>
<td>Number of Patients</td>
<td>24</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>24</td>
<td>123</td>
</tr>
<tr>
<td>Prevalence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30%</td>
</tr>
</tbody>
</table>

• Urinary Catheter Prevalence = (37 ÷ 123) x 100 = 30%
• Note: need to collect data for 3 weeks for baseline period
### Baseline: Non-Indicated Urinary Catheter-days

<table>
<thead>
<tr>
<th></th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Urinary Catheters</strong></td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>37</td>
</tr>
<tr>
<td><strong>Number of Non-Indicated Urinary Catheters</strong></td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td><strong>Number of Patients</strong></td>
<td>24</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>24</td>
<td>123</td>
</tr>
</tbody>
</table>

- Non-indicated urinary catheter-days % = \( \frac{21}{37} \times 100 = 57\% \)
Implementation
Implementation

• Educate nursing staff on appropriate urinary catheter utilization.

• This may include providing them with printed educational material, lectures, posters, pocket cards.

• The most important education occurs during rounds where the healthcare worker champion discusses the appropriate indications for urinary catheter use with the nurses.
Implementation

• A healthcare worker champion (usually a nurse, alternatively an infection preventionist, or quality improvement healthcare worker who is knowledgeable of indications for urinary catheter utilization) participates in daily nursing rounds.

• Members of nursing rounds may include:
  1. Nurse Manager (or charge nurse)
  2. Case Manager (or discharge planner)
  3. Social Worker
  4. Bedside nurses assigned to patients
Implementation

- During nursing rounds, each patient is assessed for urinary catheter presence. The nurses are educated regarding the indications for urinary catheter utilization. If the patient has a urinary catheter, the reasons for use are reviewed with the nurse caring for the patient.
- If there are no valid indications for the urinary catheter, the nurse is asked to contact the physician to discontinue the urinary catheter.
- Key Factor for Success: a nurse manager who supports this initiative and holds the nursing staff accountable for removing non-indicated urinary catheter.
Implementation

• Each unit needs to have a facilitator who will take the responsibility to reinforce the process after the initial intervention is completed to ensure sustainability.

• A case manager or discharge planner may be considered for the facilitator role after implementation.

• Other potential facilitators include a unit nurse champion with interest in patient safety or the charge nurse.
Implementation

• The patient’s nurse will be coached to own the process of evaluating whether the patient has a urinary catheter placed, and to evaluate the need for the catheter.

• The patient's bedside nurse should note the catheter's presence and evaluate the indication during the patient's daily nursing assessment. This will be continued after implementation.

• The process may be enforced by integrating it into the patient’s daily nursing assessment.
Implementation: Weeks 4 & 5

- During Weeks 4 & 5: 10 days of urinary catheter prevalence collection with evaluation of need, nursing staff education, and suggestion to discontinue non-indicated urinary catheters.
## Urinary Catheter Prevalence Sheet

<table>
<thead>
<tr>
<th>Unit</th>
<th>Date</th>
<th>Urinary Catheter Prevalence Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Week 4 &amp; 5 Implementation</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Room/bed</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-indicated = 0</td>
</tr>
</tbody>
</table>

### Indications:
- Acute urinary retention or obstruction = 1
- Perioperative use in selected surgeries = 2
- Perineal and sacral wounds in incontinent patients = 3
- Hospice/comfort/palliative care = 4
- Required immobilization for trauma or surgery = 5
- Chronic indwelling urinary catheter on admission = 6

### Not Indicated Urinary Catheters Reasons:
- Urine output monitoring OUTSIDE intensive care = 7
- Incontinence without a sacral or perineal pressure sore = 8
- Prolonged postoperative use = 9
- Others = 10 (include those transferred from intensive care, morbid obesity, immobility, confusion or dementia, and patient request)
## Implementation: Prevalence rate rate

<table>
<thead>
<tr>
<th></th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Urinary Catheters</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td># of Patients</td>
<td>25</td>
<td>25</td>
<td>26</td>
<td>25</td>
<td>24</td>
<td>125</td>
</tr>
<tr>
<td># of Urinary Catheters</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>33</td>
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<tr>
<td># of Patients</td>
<td>24</td>
<td>26</td>
<td>25</td>
<td>25</td>
<td>21</td>
<td>121</td>
</tr>
</tbody>
</table>

Prevalence rate = \(\frac{(27+33)}{(125+121)} \times 100 = 24\%\)
## Implementation:
### Rate of Non-Indicated Catheters

<table>
<thead>
<tr>
<th>Week</th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong># of Urinary Catheters</strong></td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td><strong># of Non-Indicated Urinary Catheters</strong></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td><strong># of Patients</strong></td>
<td>25</td>
<td>25</td>
<td>26</td>
<td>25</td>
<td>24</td>
<td>125</td>
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<table>
<thead>
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<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td><strong># of Urinary Catheters</strong></td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>33</td>
</tr>
<tr>
<td><strong># of Non-Indicated Urinary Catheters</strong></td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td><strong># of Patients</strong></td>
<td>24</td>
<td>26</td>
<td>25</td>
<td>25</td>
<td>21</td>
<td>121</td>
</tr>
</tbody>
</table>

Non-indicated urinary catheter-days % = \[
\frac{(10+10)}{(27+33)} \times 100 = 33\
\]
After Implementation

• Immediately follows implementation
After Implementation

• A champion from the unit will promote appropriate urinary catheter utilization on the unit; this will be encouraged through daily nursing rounds.

• Units involved will receive feedback on the results of program implementation.

• Perform urinary catheter prevalence one day a week for 6 weeks (weeks 6 - 11).
After Implementation

• The patient's bedside nurse should note the catheter's presence and evaluate the indication during the patient's daily nursing assessment.

• This is incorporated into the patient’s nurse daily assessment.

• The patient’s nurse will initiate the urinary catheter discontinuation process if there are no appropriate indications for utilization present.
# After Implementation: Data Collection Tool

## Urinary Catheter Prevalence Sheet

<table>
<thead>
<tr>
<th>Unit</th>
<th>Date</th>
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</table>

**Weeks 6-11** After Implementation

<table>
<thead>
<tr>
<th>Room/bed</th>
<th>Patient #</th>
<th>Urinary catheter present</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

- No=0
- Yes=1

Downloaded from www.catheterout.org
After Implementation

- Prevalence may be calculated by adding the number of urinary catheters used over the 6 days, divided by the total patient days (6 days) during that period (weeks 6 - 11)
Sustainability

• The patient's bedside nurse should note the catheter's presence and evaluate the indication during the patient's daily nursing assessment.

• This is incorporated into the patient’s nurse daily assessment.

• The patient’s nurse will initiate the urinary catheter discontinuation process if there are no appropriate indications for utilization present.
Sustainability

• Collect quarterly urinary catheter prevalence data for 5 consecutive weekdays for 5 quarters.

• Provide feedback and current results to units (urinary catheter utilization).

• If no improvement from the baseline is seen, then evaluate the unit for reeducation and re-implementation of the program.
# Sustainability: Data Collection Tool

<table>
<thead>
<tr>
<th>Unit</th>
<th>Date</th>
<th><strong>Urinary Catheter Prevalence Sheet</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Quarterly</strong></td>
</tr>
<tr>
<td></td>
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<td><strong>Sustainability</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 days</td>
</tr>
<tr>
<td>Room/bed</td>
<td>Patient #</td>
<td>Urinary catheter present</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

No=0
Yes=1

Downloaded from www.catheterout.org
Important Issues

• A continued reduction in urinary catheter utilization may be a marker of the program’s success.

• If no significant improvement is noted after implementation, you may need to reexamine whether or not compliance with indications has decreased.

• The risk of urinary tract infection increases the longer the urinary catheter is present. A single patient who has a urinary catheter placed without indication for a prolonged period of time may affect your effort significantly.

• For the baseline and implementation periods, measure daily encounters (for the same patient, the non-compliance with indications will be counted daily until the urinary catheter is removed).
Important Issues, continued

• The intensive care units have a high prevalence of urinary catheter utilization. Utilization may be significantly reduced on the general medical-surgical units if patients transferred out of the intensive care units are evaluated for catheter necessity.

• The emergency department and the operating room are areas where a large number of urinary catheters are placed. Addressing the appropriateness of placement of urinary catheters in the emergency department and promoting removal of the urinary catheters post-operatively in the recovery area may also help reduce unnecessary urinary catheter use.
How to Get Successful Results

• Both nurses and physicians should evaluate the indications for urinary catheter utilization.

• Physicians should promptly discontinue catheters when no longer needed.

• Nurses evaluating catheters and finding no indication should contact the physician to promptly discontinue the catheter.

• Partner with different disciplines (e.g., case management, nursing, infection prevention) to successfully achieve your goals.
How to Sustain Your Success

- After implementing the program, identify unit champions to promote the need to evaluate the appropriateness of urinary catheter use.

- Incorporate the following questions during nursing rounds:
  - Does the patient have a urinary catheter?
  - What is the reason for use?

- Provide feedback on performance to nurse managers related to prevalence of utilization.

- If no improvement in utilization is seen, evaluate appropriateness of utilization (indications vs. non-indications).

- The long term goal is for the patient care nurses to own the process of evaluation of urinary catheter need.
Additional Areas to Address

• Leadership support is crucial.
• Define barriers to implementation.
• Obtain physician and nursing buy-in.
• Provide alternatives to the “Foley” catheter.
• Look closely at the emergency department and intensive care units. Both areas utilize a high number of urinary catheters.
Optional Tools and Calculations

• These may be used in conjunction to what is reported to Care Counts but are not required.
Evaluating Effects of the Implementation

- Optional: Evaluate the impact of the intervention on discontinuation of catheters. All non-indicated urinary catheters should have a recommendation for discontinuation → (calculate discontinuation rate for non-indicated urinary catheter).

- The discontinuation rate may help evaluate how successful you are at removing the unnecessary urinary catheters.

- Discontinuation rate of non-indicated urinary catheter = $\frac{\text{Number of non-indicated urinary catheters discontinued}}{\text{All cases of urinary catheter evaluated without indication}} \times 100$
Implementation: Weeks 4 & 5

- Optional: During implementation phase, you may evaluate the compliance with the recommendations to discontinue unnecessary urinary catheters. This is captured in the data collection (discontinued = 1; not discontinued = 0).
## Intervention Collection Tool: Weeks 4 & 5

<table>
<thead>
<tr>
<th>Room/bed</th>
<th>Patient #</th>
<th>Urinary Catheter Present</th>
<th>Indicated?</th>
<th>Indication</th>
<th>Discontinuation</th>
</tr>
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<tbody>
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</table>

**Indications:**
- Acute urinary retention or obstruction = 1
- Perioperative use in selected surgeries = 2
- Perineal and sacral wounds in incontinent patients = 3
- Hospice/comfort/ palliative care = 4
- Required immobilization for trauma or surgery = 5
- Chronic indwelling urinary catheter on admission = 6

**Not Indicated Urinary Catheters Reasons:**
- Urine output monitoring OUTSIDE intensive care = 7
- Incontinence without a sacral or perineal pressure sore = 8
- Prolonged postoperative use = 9
- Others = 10 (include those transferred from intensive care, morbid obesity, immobility, confusion or dementia, and patient request)

Optional: if you want to track discontinuation following your recommendation
No = 0, Yes = 1
## Discontinuation Rate of Non-Indicated Urinary Catheters

<table>
<thead>
<tr>
<th></th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
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<td>Recommend</td>
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<td>3</td>
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<td>1</td>
<td>1</td>
<td>10</td>
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<td>1</td>
<td>1</td>
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<td>1</td>
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</table>

Discontinuation rate = \[\frac{(5+5)}{(10+10)} \times 100 = 50\%\]