HRET HEN 2.0 CAUTI Webinar
Disrupting the Catheter Lifecycle

October 27, 2015
11:00 AM- 12:30 PM CT
WELCOME AND INTRODUCTIONS

Angela Michalek, MS
Program Manager, HRET
11:00-11:05 AM
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Description</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00-11:05 AM</td>
<td>Welcome and Introductions</td>
<td>Review of platform and agenda.</td>
<td>Angela Michalek, MS, PMP Program Manager, HRET</td>
</tr>
<tr>
<td>11:05-11:10 AM</td>
<td>HEN Data Update</td>
<td>Provide an overview of the required measures for CAUTI in the HEN 2.0 project, including measure specifications, reporting options and information regarding the baseline period.</td>
<td>Rich Rodriguez, MPH Data Analyst, HRET</td>
</tr>
<tr>
<td>11:10-11:25 AM</td>
<td>Hospital Story – Jupiter Medical Center</td>
<td>Provide an example of how empowering certified nursing assistants helped to reduce CAUTI.</td>
<td>Linda Milillo Wilson, RN, CIC Infection Preventionist, Jupiter Medical Center</td>
</tr>
<tr>
<td>11:25-11:40 AM</td>
<td>Disrupting the Catheter Life Cycle</td>
<td>Review the clinical problems of unnecessary Foley catheter use and the Medicare policies motivating less Foley use.</td>
<td>Jennifer Meddings, MD, MSc Assistant Professor, Internal Medicine, University of Michigan Medical School</td>
</tr>
<tr>
<td>11:40 AM-12:00 PM</td>
<td>Disrupting the Lifecycle of the Urinary Catheter</td>
<td>Describe a model for organizing and prioritizing interventions to reduce unnecessary catheter use and CAUTIs.</td>
<td>Jennifer Meddings</td>
</tr>
<tr>
<td>12:00-12:10 PM</td>
<td>When are Urinary Catheters Appropriate?</td>
<td>Review the 2015 Ann Arbor Criteria for Appropriate Urinary Catheter Use, including audience-participation questions to guide discussion about the use of 3 urinary catheter types (indwelling Foley, intermittent straight catheterization and external catheters).</td>
<td>Jennifer Meddings</td>
</tr>
<tr>
<td>12:15-12:30 PM</td>
<td>Q&amp;A</td>
<td>All</td>
<td></td>
</tr>
</tbody>
</table>
Objectives for Today

1. Review the required CAUTI measures for HEN 2.0, including measure specifications, reporting options and information regarding the baseline period.

2. Understand how an initiative to empower certified nursing assistants helped to eliminate CAUTI at Jupiter Medical Center.

3. Review the clinical problems of unnecessary Foley catheter use and the Medicare policies that motivate less Foley use.

4. Describe a model for organizing and prioritizing interventions to reduce unnecessary catheter use and CAUTIs.

5. Review the 2015 Ann Arbor Criteria for Appropriate Urinary Catheter Use, including audience participation questions to guide discussion about the use of 3 urinary catheter types (indwelling Foley, intermittent straight catheterization, and external catheters).
Rich Rodriguez, MPH
Data Analyst, HRET
11:05-11:10 PM

HEN DATA UPDATE
## Relevant Required Measures

<table>
<thead>
<tr>
<th>Topic</th>
<th>Data to be Extracted</th>
<th>HEN 2 Measure(s) Supported</th>
</tr>
</thead>
</table>
| CAUTI- all inpatient locations, ICUs excluding NICU | • CAUTIs  
• Patient days  
• Urinary catheter days  
• Observed & predicted infections | • CAUTI SIR  
• CAUTI /1,000 catheter days  
• Urinary catheter utilization |
Current HRET HEN 2.0 Data

• Confer rights to NHSN Group:
  – SHA NHSN Group

• CAUTI Baseline: 2015
Linda Milillo Wilson, RN, CIC
Infection Preventionist
Jupiter Medical Center, Florida
11:25-11:40 AM

HOSPITAL STORY – JUPITER MEDICAL CENTER
About Jupiter Medical Center

• 207 bed acute care hospital
• Specializing in orthopedic spines, oncology, maternal/child, cardiac and general medical surgery.
CNA CAUTI Champions

- We developed a CNA CAUTI champions team in October 2010. It consisted of 2 CNAs from each unit.
- We met every two weeks.
- We started out by in-servicing these champions on the importance of appropriate use of urinary catheters and the importance of removal ASAP.
- We empowered them to suggest removal to their nurse leaders.
Barriers & How We Resolved

• Surprises and what we learned:
  – Physicians would treat asymptomatic UTIs. ICCM sent out letter.
  – ED would put urinary catheters in everyone.
  – ICU would have to switch urometers over on their patients that were admitted through the ED.
Measures – What & How

• We measured improvement through daily rounding and a dashboard.

• Utilized both a manual count and computer data from the EMR.

• Data was shared with the team monthly.
Results

CAUTIs per year

- Champions program started October 2010

- CAUTI counts:
  - 2009: 33
  - 2010: 8
  - 2011: 3
  - 2012: 3
  - 2013: 0
  - 2014: 0
  - 2015: 0
  - 2016: 0
Lessons Learned

- Involve your CNAs
- Educate your staff
- Develop a sheet that has to be completed daily by the physician in order for a urinary catheter to be left in
Next Steps

• Planning to use CNA champions for falls, skin care and restraints.
Questions?

LINDA MILILO WILSON RN, CIC
LWILSON@JUPITERMED.COM
Jennifer Meddings, MD, MSc
Assistant Professor, Internal Medicine
University of Michigan Medical School
11:10-11:25 PM

MOTIVATION FOR INVESTING EFFORT TO REDUCE UNNECESSARY URINARY CATHETER USE
Disclosures

Funders of this Project:
• VA National Center for Patient Safety
• Agency for Healthcare Research and Quality (AHRQ)

Personal Disclosures of Presenter (J. Meddings):
• Research Funding: AHRQ
• Honorariums: SHEA, RAND, CSCR, QuantiaMD
Motivation #1: Clinical Hazards

- Urinary catheters are often placed \textit{unnecessarily}, in place without physician awareness and not removed promptly when not needed.\textsuperscript{1}

- \textbf{Prolonged catheterization is the #1 risk factor} for catheter-associated urinary tract infection (CAUTI).\textsuperscript{2}

\textsuperscript{3}Ann Intern Med. 2013;159:401-10. \textsuperscript{4}Ann Intern Med. 2002;137-125-7
Motivation #1: Clinical Hazards

- Urinary catheters are often placed unnecessarily, in place without physician awareness and not removed promptly when not needed.¹

- Prolonged catheterization is the #1 risk factor for catheter-associated urinary tract infection (CAUTI).²

- CAUTIs are often multi-drug resistant organisms.

- Antibiotics given for bacteriuria and symptomatic CAUTI increase the risk of *C. difficile* infection.

- Non-infectious harms from even short-term Foleys are common: pain, bleeding, urethral trauma/strictures, traumatic removal, blockage.³

- Foleys can act as a ‘one-point restraint’⁴ which immobilize patients, increasing risk of pressure ulcers, blood clots and even falls.

National Trends in Foley Catheter Use

Foley days in unit x 100% / Patient days in unit

60% for 2013 Q1-3

17% for 2013 Q1-3

Source: Gould C, Essential Hospitals Webinar, April 2014
Motivation 2: Public Reporting

Mandatory National Healthcare Safety Network (NHSN) CAUTI Reporting, on “Hospital Compare” website:

NHSN CAUTIs = Symptomatic CAUTIs/1000 Foley catheter days

- Surveillance data: collected by infection preventionists following CDC criteria using lab and Foley data, vitals, physician notes to search for qualifying symptoms

- ICU reporting mandatory since January 2012
- Non-ICU reporting began in January 2015
Motivation 3: Financial Penalties

1. **Hospital-Acquired Condition Reduction Program**: Oct 2014 Hospitals with composite complication score in worst 25% will be penalized by 1% reduction for all Medicare payments
Motivation 3: Financial Penalties

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- 35% of hospital’s score is from 9 other complications from billing data
- 65% of hospital’s score is from NHSN rates for CAUTI and CLABSI
Motivation 3: Financial Penalties

1. **Hospital-Acquired Condition Reduction Program**: Oct 2014
   Hospitals with composite complication score in worst 25% will be penalized by 1% reduction for all Medicare payments

   35% of hospital’s score is from 9 other complications from billing data

   65% of hospital’s score is from NHSN rates for CAUTI and CLABSI

2. **Hospital Value-Based Purchasing Program**: Oct 2015
   NHSN CAUTI and CLABSI data used again in this program
Motivation 3: Financial Penalties

Hospital-Acquired Condition Reduction Program

9 complications from billing data: AHRQ Patient Safety Index 90
- Pressure ulcer 3/4
- Iatrogenic pneumothorax
- CLABSI
- Post-op hip fracture
- Post-op PE or DVT
- Post-op sepsis
- Wound dehiscence
- Accidental puncture/laceration

Expansions over time:
FY 2015 (Oct 2014): CAUTI, CLABSI
FY 2016 (Oct 2015): Surgical site infections: colon, abdominal hysterectomy
FY 2017 (Oct 2016): MRSA C. Difficile Infection
Payment ‘Removal’ for Complications

Hospital-Acquired Conditions Initiative

“No Pay Policy,” October 2008

CMS was directed to choose 3 hospital-acquired complications for which hospitals no longer receive additional payment, guided by 3 criteria:

1. high volume and/or cost,
2. results in higher payment when listed as secondary diagnosis,
3. “reasonably preventable” through evidence-based guidelines.

CAUTI was the first complication chosen for non-payment
Disrupting the Lifecycle of the Urinary Catheter

Jennifer A. Meddings MD, MSc
University of Michigan Medical School
“Lifecycle” of the Urinary Catheter

1. Catheter Placement
2. Catheter Care
3. Catheter Removal
4. Catheter Replacement

Disrupting the Urinary Catheter Lifecycle

1. Prevent Unnecessary and Improper Placement
2. Maintain Awareness and Proper Care of Catheters in Place
3. Prompting Catheter Removal
4. Preventing Catheter Replacement

Interventions Utilizing Catheter Indication Lists to Reduce Catheter Use

1. Prevent Unnecessary and Improper Placement
2. Maintain Awareness and Proper Care of Catheters in Place
3. Prompting Catheter Removal
4. Preventing Catheter Replacement
Interventions Utilizing Catheter Indication Lists to Reduce Catheter Use

1. Prevent Unnecessary and Improper Placement
   - Catheter placement restrictions & use alternatives to Foleys (ISC, condom catheters, bladder scanner, etc)

2. Maintain Awareness and Proper Care of Catheters in Place
   - Catheter reminders and stop orders

3. Prompting Catheter Removal

4. Preventing Catheter Replacement

Interventions Utilizing Catheter Indication Lists to Reduce Catheter Use
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1. Prevent Unnecessary and Improper Placement
   - Catheter placement restrictions & use alternatives to Foleys (ISC, condom catheters, bladder scanner, etc)

2. Maintain Awareness and Proper Care of Catheters in Place
   - Catheter reminders and stop orders
     - 53% fewer catheter-associated UTIs* (Meddings et al. BMJ Qual Saf. 2013)

3. Prompting Catheter Removal

4. Preventing Catheter Replacement
When are Urinary Catheters Appropriate?

Jennifer A. Meddings MD, MSc
University of Michigan Medical School
Our Research Team

- Sanjay Saint MD, MPH
- Karen Fowler MPH
- Elissa Gaies MD, MPH
- Andy Hickner MSI
- Sarah Krein PhD, RN
- Steven Bernstein MD, MPH
## 2009 HICPAC Urinary Catheter Indications

### A. Examples of Appropriate Indications for Indwelling Urethral Catheters

<table>
<thead>
<tr>
<th>Indications</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient has acute urinary retention or obstruction</td>
<td></td>
</tr>
<tr>
<td>Need for accurate measurements of urinary output in critically ill patients</td>
<td></td>
</tr>
<tr>
<td>Perioperative use for selected procedures:</td>
<td></td>
</tr>
<tr>
<td>• Urologic surgery or other surgery on contiguous structures of genitourinary tract</td>
<td></td>
</tr>
<tr>
<td>• Anticipated prolonged surgery duration (removed in post-anesthesia unit)</td>
<td></td>
</tr>
<tr>
<td>• Anticipated to receive large-volume infusions or diuretics in surgery</td>
<td></td>
</tr>
<tr>
<td>• Operative patients with urinary incontinence</td>
<td></td>
</tr>
<tr>
<td>• Need for intraoperative monitoring of urinary output</td>
<td></td>
</tr>
<tr>
<td>To assist in healing of open sacral or perineal wounds in incontinent patients</td>
<td></td>
</tr>
<tr>
<td>Requires prolonged immobilization (e.g., potentially unstable spine) thoracic or lumbar spine)</td>
<td></td>
</tr>
<tr>
<td>To improve comfort for end of life care if needed</td>
<td></td>
</tr>
</tbody>
</table>

2009 HICPAC Urinary Catheter Indications

B. Examples of Inappropriate Uses of Indwelling Catheters

<table>
<thead>
<tr>
<th>Indication</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a substitute for nursing care of the incontinent patient or resident</td>
<td></td>
</tr>
<tr>
<td>As a means of obtaining urine for culture or other diagnostic tests when</td>
<td>Gould C, et al.  Infection Control &amp; Hospital</td>
</tr>
<tr>
<td>the patient can voluntary void</td>
<td>Epidemiology, 2010;31:319-326.</td>
</tr>
<tr>
<td>For prolonged postoperative duration without appropriate indications (e.g.,</td>
<td></td>
</tr>
<tr>
<td>structural repair of urethra or contiguous structures, prolonged effect</td>
<td></td>
</tr>
<tr>
<td>of epidural anesthesia, etc.)</td>
<td></td>
</tr>
</tbody>
</table>
Challenges Implementing These Indications in Medical Inpatients

### A. Examples of Appropriate Indications for Indwelling Urethral Catheters

<table>
<thead>
<tr>
<th>Indications</th>
<th>Questions/Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient has acute urinary retention or obstruction</td>
<td>When can ISC be used? How long is Foley appropriate?</td>
</tr>
<tr>
<td>Need for accurate measurements of urinary output in critically ill patients</td>
<td>Often used as reason for non-ICU patients. Always needed in ICU?</td>
</tr>
<tr>
<td>To assist healing of open sacral/perineal wounds in incontinent patients</td>
<td>But Foley also used to prevent wounds. Is Foley always needed?</td>
</tr>
<tr>
<td>Requires prolonged immobilization (e.g. potentially unstable spine)</td>
<td>To improve comfort for end of life care if needed.</td>
</tr>
<tr>
<td></td>
<td>What about other patient/family requests for Foleys as comfort?</td>
</tr>
</tbody>
</table>
Challenges Avoiding These Uses in Medical Inpatients

B. Examples of Inappropriate Uses of Indwelling Catheters

As a substitute for nursing care of the incontinent patient or resident
  Foleys for incontinent patient’s dignity and to prevent skin issues?
  Difficulties providing skin care for morbidly obese or edematous?

As a means of obtaining urine for culture or other diagnostic tests when the patient can voluntary void
  Delays, pragmatic challenges in urine collection -
  Delay in diagnosis, treatment, length-of-stay?
Limitations of Current Foley Indication Lists

- Limited evidence assessing the risks and benefits of urinary catheters as intervention in the literature
- Most lists are generated by expert consensus
- Indication lists vary by expert type and care setting…
  - physicians (medicine, surgery, specialty)
  - ED, acute care (ICU, non-ICU), long-term care

Current lists rarely include input from nurses!
Refining Urinary Catheter Use Criteria

Share research results to clarify appropriate catheter use.

Research project objective:
Develop a list of catheter indications assessed as appropriate, inappropriate, or uncertain appropriateness for:
- Indwelling Foley catheters,
- Intermittent straight catheters (ISCs) and
- External “condom” catheters
to serve as a guide for nurses and physicians caring for hospitalized medical patients when urinary catheters are considered.
An appropriate procedure is one in which the “expected benefit (e.g., increased life expectancy, relief of pain, reduction in anxiety...) exceeds the expected negative consequences (e.g., mortality, morbidity, anxiety, pain...) by a sufficiently wide margin that the procedure is worth doing, exclusive of cost.” - Robert H. Brook

“Appropriateness” is not the same as “Necessity.” Procedures can be appropriate and necessary, or appropriate but not necessary.
15 member Multi-disciplinary Expert Panel

- Nursing: Floor (non-ICU)
- Nursing: Emergency
- Nursing: ICU
- Nursing: Wound Care
- Infection Prevention
- Epidemiology
- Hospital Medicine: General Medicine
- Hospital Medicine: Geriatrics
- Intensive Care (Pulmonary & Anesthesia)
- Cardiology (Heart Failure Specialist)
- Infectious Disease
- Urology
- Neurology
The Ann Arbor Criteria for Appropriate Urinary Catheter Use in Hospitalized Medical Patients: Results Obtained by Using the RAND/UCLA Appropriateness Method

Jennifer Meddings, MD, MSc; Sanjay Saint, MD, MPH; Karen E. Fowler, MPH; Elissa Gaires, MD, MPH; Andrew Hickner, MSI; Sarah L. Krein, PhD, RN; and Steven J. Bernstein, MD, MPH
The Ann Arbor Criteria for Appropriate Urinary Catheter Use in Hospitalized Medical Patients: Results Obtained by Using the RAND/UCLA Appropriateness Method

- Table 2. Guide for Foley Catheter Use
- Table 3. Guide for Intermittent Straight Catheterization
- Table 4. Guide for External Catheter Use
- Table 5. Side-by-side comparison of appropriateness of urinary management strategies (Foley, ISC, External, non-catheter) for common uses of urinary catheters.
- Figure 4. ICU Daily Checklist for Foley Catheter Use
## 2009 HICPAC Urinary Catheter Indications

**A. Examples of **Appropriate** Indications for Indwelling Urethral Catheters**

<table>
<thead>
<tr>
<th>Patient has acute urinary retention or obstruction</th>
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</table>

**Perioperative use for selected procedures:**

- urologic surgery or other surgery on contiguous structures of genitourinary tract
- anticipated prolonged surgery duration (removed in post-anesthesia unit)
- anticipated to receive large-volume infusions or diuretics in surgery
- operative patients with urinary incontinence
- need for intraoperative monitoring of urinary output

**To assist in healing of open sacral or perineal wounds in incontinent patients**

**Requires prolonged immobilization (e.g., potentially unstable spine)**

**To improve comfort for end of life care if needed**

Is it appropriate for a patient to have this urinary catheter type placed because the patient is being cared for in the ICU?

Foley catheter:
A. Yes
B. No
Is it appropriate for a patient to have this urinary catheter type placed because the patient is being cared for in the ICU?

Intermittent straight catheter:

A. Yes
B. No
Is it appropriate for a patient to have this urinary catheter type placed because the patient is being cared for in the ICU?

External (condom) catheter in male:
A. Yes
B. No
### Panel Result for Measuring Urine Volume

<table>
<thead>
<tr>
<th></th>
<th>Foley</th>
<th>ISC</th>
<th>External catheter</th>
<th>Non-catheter options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily (not hourly) urine volume <strong>required</strong> to guide treatment.</td>
<td>Yes IF cannot be assessed without catheter</td>
<td>Uncertain by panel scoring disagreement</td>
<td>Yes IF cannot be assessed without catheter</td>
<td>Exam/daily weight. Urinal, bedpan, commode hat, etc.</td>
</tr>
<tr>
<td>Hourly urine volume <strong>required</strong> to provide treatment.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
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**Examples:**
- When acute renal failure work-up REQUIRES it, fluid management in respiratory failure.
- Examples: manage hemodynamic instability, hourly titrate IVF, drips (vasopressors, inotropes, diuretics)
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</tr>
<tr>
<td><strong>Hourly</strong> urine volume <strong>required</strong> to provide treatment.</td>
<td>It is INAPPROPRIATE to use a urinary catheter simply because a patient is being cared for in an intensive care unit!</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examples: when acute renal failure work-up REQUIRES it, fluid management in respiratory failure

Examples: manage hemodynamic instability, hourly titrate IVF, drips (vasopressors, inotropes, diuretics)
## 2009 HICPAC Urinary Catheter Indications

### A. Examples of **Appropriate** Indications for Indwelling Urethral Catheters

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<tr>
<td>To improve comfort for end of life care if needed</td>
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</table>

Is this urinary catheter type appropriate to use to prevent skin breakdown in incontinent patients?

Foley catheter:

A. Yes
B. No
Is this urinary catheter type appropriate to use to prevent skin breakdown in incontinent patients?

Intermittent straight Catheter:

A. Yes
B. No
Is this urinary catheter type appropriate to use to prevent skin breakdown in incontinent patients?

External (condom) catheter in male:

A. Yes
B. No
<table>
<thead>
<tr>
<th></th>
<th>Foley</th>
<th>ISC</th>
<th>External catheter</th>
<th>Non-catheter options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Incontinence (no skin issue), nurses can turn/provide skin care</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td><strong>Uncertain</strong> by panel scoring disagreement</td>
</tr>
<tr>
<td><strong>Incontinence, can be turned, patient requests catheter</strong></td>
<td>No</td>
<td>No</td>
<td></td>
<td><strong>Per panel nurses, skin issues from urinary incontinence can often be prevented or managed without catheters: e.g., barrier creams, prompted toileting, etc.</strong></td>
</tr>
</tbody>
</table>
Panel Result for Managing Incontinence, No Skin Issues, with Difficulty Turning due to:

<table>
<thead>
<tr>
<th></th>
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<th>Non-catheter options</th>
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</thead>
<tbody>
<tr>
<td>Excess weight (&gt;300 pounds) from obesity or edema</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Per panel nurses, skin issues from urinary incontinence can often be prevented or managed without catheters: e.g., barrier creams, prompted toileting, etc.</td>
</tr>
<tr>
<td>Turning causes hemodynamic or respiratory instability</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Strict temporary immobility post-op from vascular procedure</td>
<td>Yes. All catheters appropriate if cannot manage urine otherwise.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Panel Result for Managing Incontinence When Patient has These Skin Issues:

<table>
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<th>Non-catheter options</th>
</tr>
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<tbody>
<tr>
<td>Incontinence-associated dermatitis</td>
<td>No</td>
<td>No</td>
<td>Yes if severe, otherwise uncertain as panel disagreed</td>
<td>Per panel nurses, urinary incontinence dermatitis can often be managed without catheters: e.g., barrier creams, prompted toileting, etc.</td>
</tr>
<tr>
<td>Closed pressure ulcers: stage I, deep tissue injury</td>
<td>No</td>
<td>No</td>
<td>Uncertain as panel disagreed</td>
<td></td>
</tr>
</tbody>
</table>
| Open pressure ulcers: stages II-IV, unstageable | Stage II: **Uncertain** by disagreement | Stage III-IV, unstageable: Yes | Yes if ISC adequate to manage the incontinence | Stage II: **Uncertain** as panel disagreed  
Stage III-IV, unstageable: Yes | All non-catheter options appropriate if would not worsen ulcer due to location |
<table>
<thead>
<tr>
<th>Is this method of urine collection appropriate?</th>
<th>Foley</th>
<th>ISC</th>
<th>External catheter</th>
<th>Non-catheter options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty voiding with respiratory failure due to dyspnea with position changes required for managing urine</td>
<td>Yes</td>
<td>Uncertain, as ISC could be distressing</td>
<td>Yes</td>
<td>Barrier creams, garments</td>
</tr>
<tr>
<td>Improve comfort (address patient/family goals) in dying patient</td>
<td>Yes</td>
<td>Uncertain, as ISC could be distressing</td>
<td>Yes</td>
<td>Yes for all options</td>
</tr>
<tr>
<td>Family or patient request in non-dying patient with no incontinence or other urinary difficulties</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes for all options</td>
</tr>
</tbody>
</table>
### Panel Result for Urine Specimen Collection

<table>
<thead>
<tr>
<th></th>
<th>Foley</th>
<th>ISC</th>
<th>External catheter</th>
<th>Non-catheter options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sterile sample for urine culture</td>
<td>No</td>
<td>Yes, if cannot use non-catheter options</td>
<td>Uncertain, by panel disagreement</td>
<td>No</td>
</tr>
<tr>
<td>Non-sterile random urine sample</td>
<td>No</td>
<td>Yes, if cannot be collected by non-catheter options.</td>
<td>Yes, if cannot be collected by non-catheter options</td>
<td>Yes (e.g., commode hat, urinal, bedpan)</td>
</tr>
<tr>
<td>24 hour urine sample</td>
<td>Yes</td>
<td>Uncertain, by neutral scores</td>
<td>Yes, if cannot be collected by non-catheter options</td>
<td>No</td>
</tr>
<tr>
<td>Measure post-void residual volume</td>
<td>No</td>
<td>Yes, if no bladder scanner</td>
<td>No</td>
<td>Bladder scanner</td>
</tr>
</tbody>
</table>
Common Misunderstandings about Urinary Catheter Types

- **Indwelling catheters**: urology consultation may be needed to assess most appropriate catheter (Foley vs. suprapubic) for certain types of acute urinary retention with obstruction (e.g., prostatitis, urethral injury).

- **Intermittent straight catheters**: clinicians worry about the discomfort ISC may cause ill patients and express uncertainty about deciding when ISC is adequate for managing urinary issues.
Common Misunderstandings about Urinary Catheter Types

- **External condom catheters:** even experienced clinicians may not be aware these catheters are inappropriate to address urinary retention or to measure hourly urine output. The development of an external catheter for females is critically needed to reduce Foley use in incontinent females.

- **Non-catheter alternatives:** even experienced clinicians may not be aware of the potential for non-catheter strategies (e.g., barrier creams, prompted toileting) to adequately address incontinence-related concerns.
1. With refined urinary catheter criteria, physicians and nurses may feel more comfortable implementing interventions to restrict urinary catheter use because practical challenges regarding catheter use and urinary management have been addressed.

2. These appropriateness criteria can inform:

- **Interventions** focused on avoiding placement/prompting removal of unnecessary catheters,
- Development of national surveillance measures of appropriate urinary catheter use, and
- Development of a standardized device utilization ratio for comparing hospital performance.
Thank you!
meddings@umich.edu
catheterout.org
Q&A
Project Priorities

• Submit your hospital commitment letter to your state hospital association lead

• Complete your needs assessment

• Check out the HRET HEN 2.0 website: www.hret-hen.org

• PDSA, PDSA, PDSA!
Thank you!

More info: [www.hret-hen.org](http://www.hret-hen.org)

Questions/Comments: [hen@aha.org](mailto:hen@aha.org)