

Urinary Catheter Care Education for RNs

PHSA 14583



Providence AK Learning
2016 by Providence Health & Services AK
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Anchorage, AK 99508

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Course Purpose & Learner Outcomes

The purpose of this course is to review Evidence Based Practice (EBP) requirements for urinary catheter insertion and urinary catheter maintenance.

Learners will pass the quiz at the end of the module and perform skills that are in alignment with safe patient care and current EBP.

Course Disclosure

To successfully complete this activity and receive **1.00** nursing contact hours you must:

- Read the HealthStream module that follows
- Complete skills check-off on a task trainer during new hire or in the presence of your educator
- Pass the post-course quiz at 100%

There is no conflict of interest for any planner or presenter involved with this activity.

Credit: Providence Alaska Learning Institute, Providence Health & Services Alaska is an Approved Provider of continuing education in nursing by the Montana Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

All activities must be completed by **August 25, 2018** to receive credit.

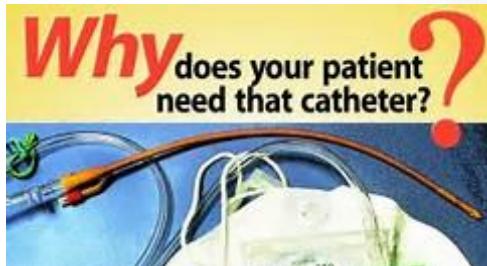
Urinary Catheters: CAUTI

- One of the most common health care-associated infections (HAIs) in the U.S.—accounts for 35% of all HAIs nationwide.
- Patients do not get a CAUTI without a urinary catheter.
- The risk of CAUTI increases each day the of indwelling urinary catheter remains in place.



Urinary Catheters: CAUTI

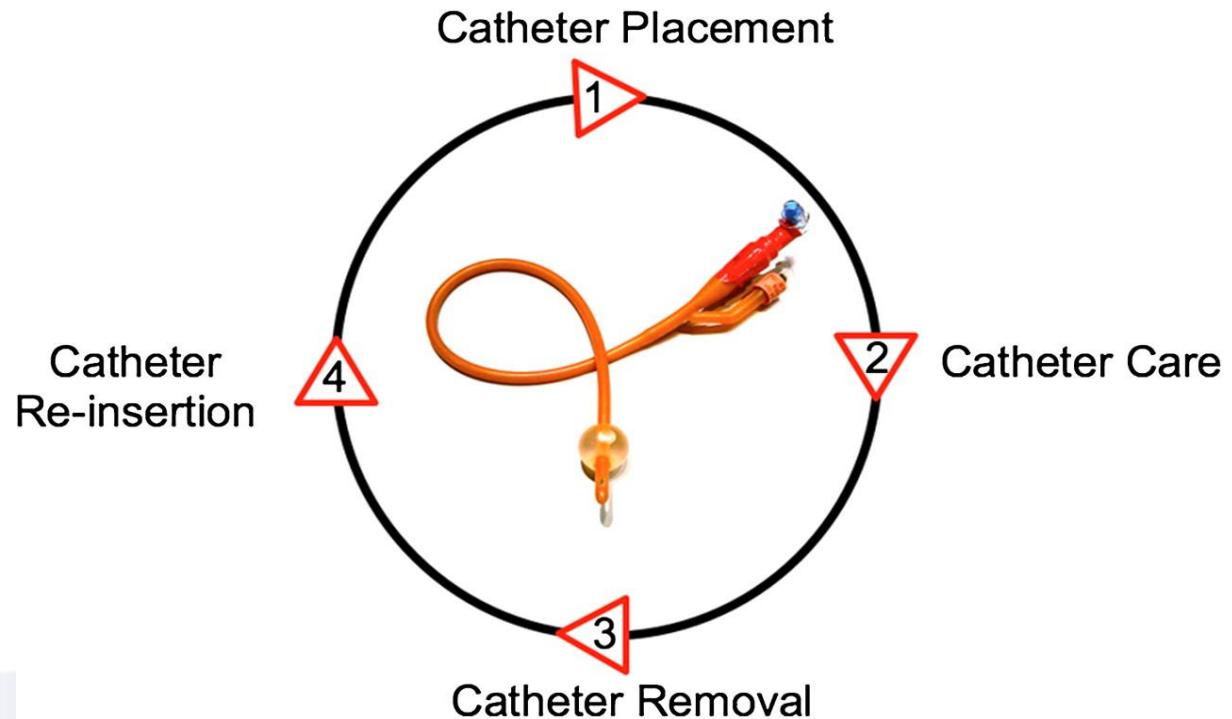
- Centers for Medicare & Medicaid have included CAUTI on the list of hospital-acquired conditions that have reduced payment implications.
- CAUTI can be prevented using evidenced based guidelines.
- Alternatives to indwelling urinary catheterization should be attempted when appropriate.



Lifecycle of the Urinary Catheter

At each point of the Urinary Catheter Lifecycle use your Caring Reliably tool – *Have a Questioning Attitude* and ask:

- Is this Catheter still needed?
- What alternatives could be used?

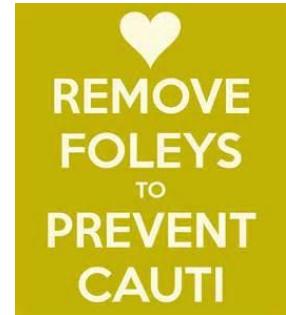


Jennifer Meddings, and Sanjay Saint Clin Infect Dis. 2011;52:1291-1293

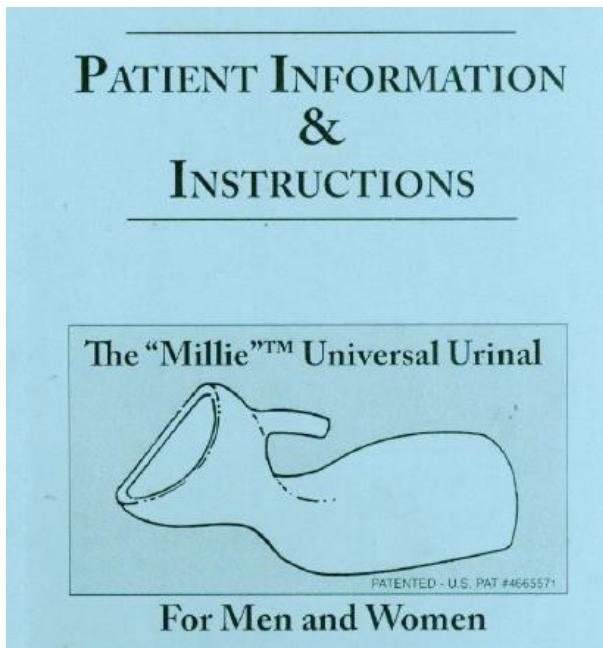
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Urinary Catheters: Consider Alternatives

- Assess the patient to verify a urinary catheter is needed
- Assess for alternatives to indwelling catheter use
 - Urinal
 - BSC
 - Condom catheter
 - Incontinence pad
 - Intermittent (straight) catheterization
- If necessary, use ultrasonography to measure the volume of urine in the bladder to avoid a catheter

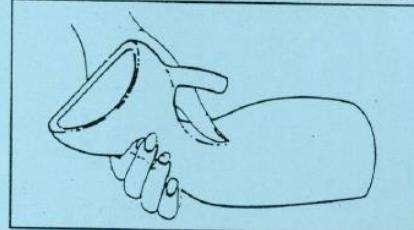


New Products – the universal urinal



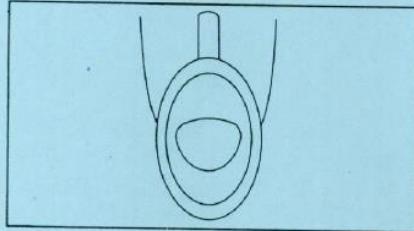
INSTRUCTIONS

1. Grasp the Urinal by the neck with the handle side up and the opening toward the body.



(Important: Handle must be up for the Urinal to fit against the body properly and to avoid spillage)

The lip of the Urinal has been specially designed to prevent spillage.



2. Bring the opening of the Urinal up firmly against the body.

3. When finished using the Urinal, simply hook the handle onto the bed rail or chair for measurement, disposal and easy access.

Note: This Urinal is intended to be used by only one patient.

Note: This Urinal may be disinfected with a 50% solution of bleach and water then easily rinsed with water.

While the "Millie" Universal Urinal can be used by everyone, it is uniquely designed to fit the needs of the female patient. When used properly, it can aid the female patient to urinate in a sitting or lying down position while in bed without spillage. The patient is easily able to use the "Millie" Universal Urinal conveniently and in complete privacy, without assistance.

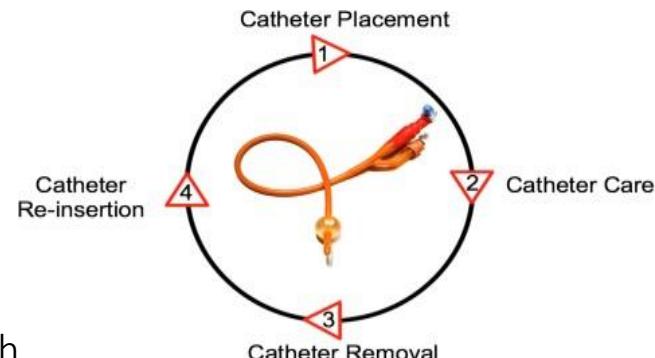
The neck of the "Millie" Universal Urinal is designed to be easily grasped with one hand. The opening is tapered to be anatomically correct. The easy to use and comfortable "Millie" Universal Urinal has a graduated scale for measurement and visual inspection. Also, a convenient handrail for hanging the unit on the bed rail or a chair. The urinal can be easily transported for disposal of contents without spillage.



Catheter Placement Indications

Insert only when appropriate:

- Acute urinary retention or bladder outlet obstruction
- Accurate urinary output in critically ill patients
 - Vasopressors
 - Fluid bolus
 - Active bleeding
 - DI
- Peri-operative use
 - Patient undergoing urological surgery or procedures of the genitourinary system
 - Large volume infusions
 - Diuretics anticipated during surgery
 - Intraoperative monitoring of output is required
- Stage III or IV sacral wound healing
- Prolonged Immobilization (potentially unstable vertebral or pelvic fracture)
- End-of-Life Comfort Measures



Special Note: Ensure indication is still appropriate on receiving a transferred patient.
For example, the need for accurate I/O in critical care may no longer be indicated on the medical unit.

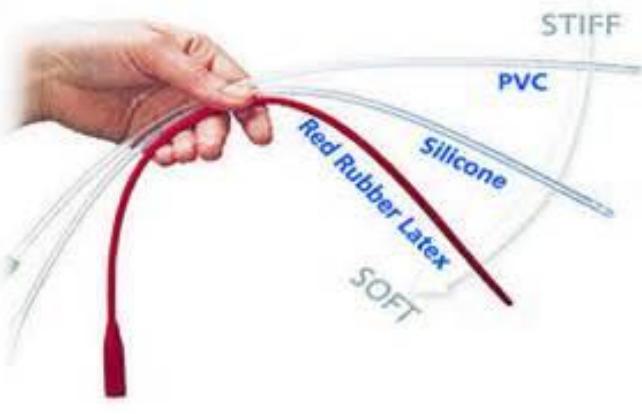
Catheter selection: use the **smallest size**

Age	Intermittent Catheter Size	Foley Catheter Size
Neonate and infant < 6 months of age	4–6 Fr	6–8 Fr
Young children > 6 months of age to 8 years	5–8 Fr	6–8 Fr
Male children 8 years to adolescence	10–12 Fr	10–12 Fr
Adolescent boys	10–14 Fr	12–16 Fr
Adults	14 Fr	14 Fr

Select the right type of catheter



- **Straight catheter:** intermittent catheterization
- **Indwelling Foley catheter:** provides continuous drainage
- **3-lumen CBI:** Continuous Bladder Irrigation
- **Coudé:** specialized tip - most commonly used for enlarged prostate
- **Suprapubic:** surgically placed for chronic need
- **Condom Catheter:** an external catheter for male patients
- **Temperature probe catheter:** includes internal temperature probe



Consider a Coudé

Male

- Prostate enlargement
 - Known BPH
 - Known Flomax usage
- Prostate enlargement
- History of voiding difficulty
- Incomplete bladder emptying
- Frequent UTIs

Female

- Hypospadiac urethra
- Obese/difficult visualization



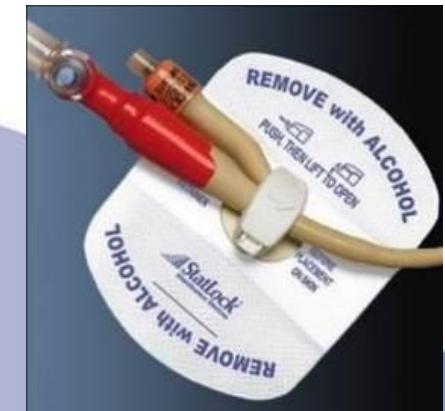
Prior to Insertion

- Verify patient
- Explain procedure
- **Educate on CAUTI – a CMS requirement**
- PAMC Policy now requires *2 staff present* for all catheter insertions - one must be a trained RN
- Follow strict sterile technique with insertion – **review Lippincott procedure**



Urinary Catheters: Insertion

- When urine begins to flow:
 - Women - advance another 2"-3"
 - Infants and young children – advance 1"- 2"
 - Men - advance to "Y" or bifurcation
- For female patients:
 - If catheter is accidentally inserted into the vagina, *leave it in place as a landmark*
 - Re-attempt with new sterile supplies
- Inflate balloon to appropriate size and gently pull back
- Secure the catheter to patient's thigh, place bag below level of bladder, avoid dependent loops



Urinary Catheter Maintenance

- Maintain a sterile, continuously closed drainage system
- Do not disconnect the catheter from the bag

IMPORTANT: If there is disconnection, leakage, or break in aseptic technique, CDC guideline is to replace entire system with sterile equipment using sterile technique

Urinary Catheter Maintenance

- Use gloves when manipulating system
- Maintain a sterile, continuously closed drainage system
- Avoid irrigation unless necessary
 - Perform bladder scan first if obstruction suspected
 - Consider replacing catheter if obstructed
 - If catheter cannot be replaced, obtain physician order to irrigate
 - Use sterile equipment to irrigate through the aspiration port.
 - Do not disconnect the catheter from the drainage tubing.



Urinary Catheter Maintenance

- Check catheter is **secure to patient's thigh** to prevent trauma or irritation
- Ensure urinary **flow is unobstructed**
- Avoid **dependent loops**
- Keep drainage **bag below level of bladder** at all times
 - Includes during mobilization and transport
 - “Keep the pee below the knee”
- Keep the **bag off of the floor**
- Empty drainage bag
 - Keep **< 2/3 full**
 - Prior to mobilization or transport



Urinary Catheter Maintenance

- Use designated Foley Catheter Hygiene Wipes
- Follow instructions on hygiene wipes packaging



DIRECTIONS FOR USE

SURESTEP™
POST INSERTION FOLEY CARE SYSTEM

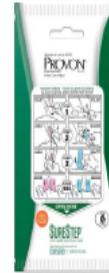
GATHER SUPPLIES

- Trash receptacle placed bedside
- Chux or absorbent pad
- Clean gloves
- SURESTEP™ Post Insertion Foley Care Pack

PROCEDURAL SETUP

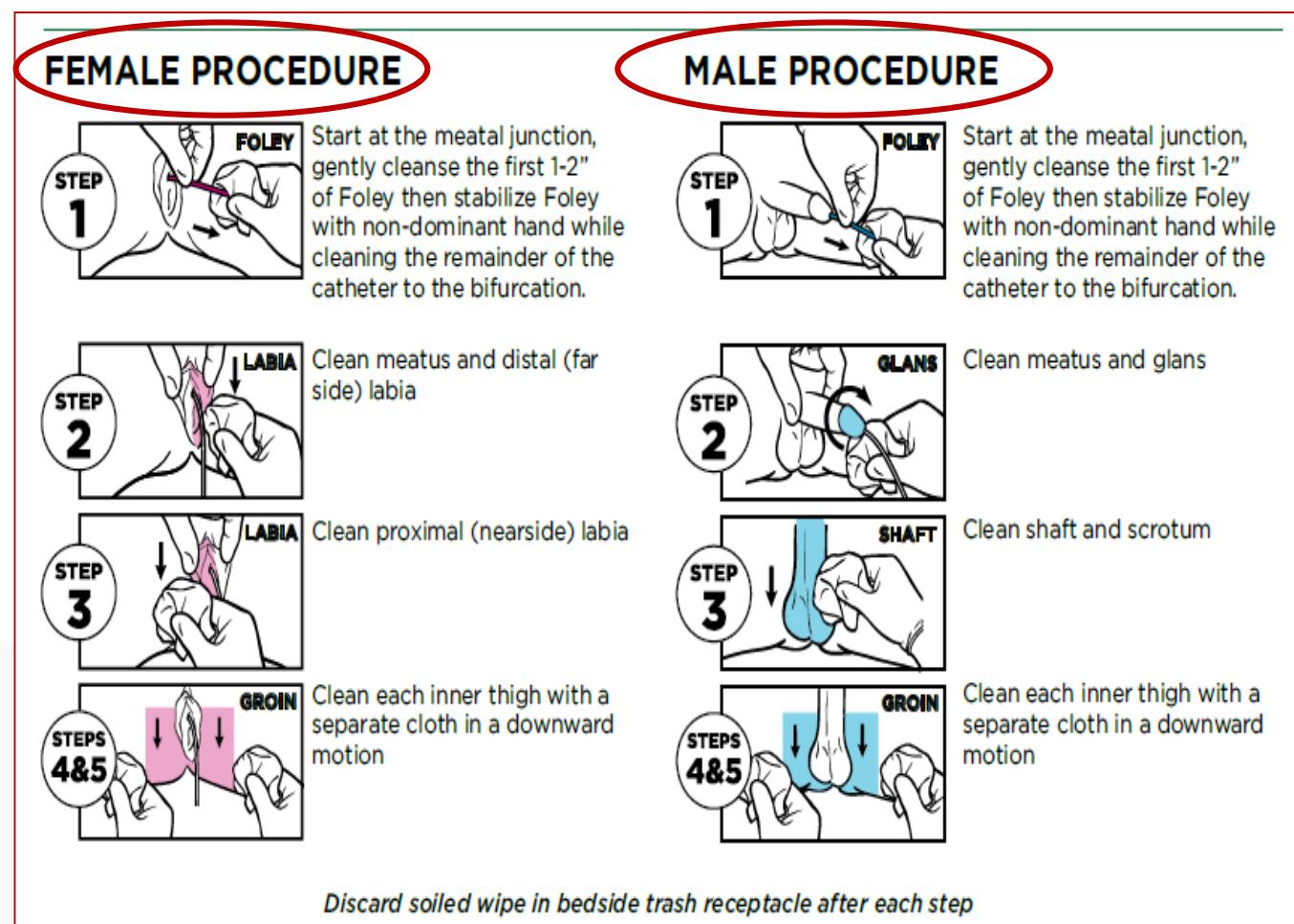
- Wash hands and don clean gloves
- Place absorbent pad or chux beneath patient
- Remove all 5 wipes from pack and set on absorbent pad
- Place empty pack to side to reference directions and to use orange compliance sticker following completion of procedure
- Note: The Foley catheter can remain secured to the patient throughout the procedure.

FOR USE



Urinary Catheter Maintenance

- Assess insertion area for irritation or pressure injury
- Note steps for Female and Male procedure – “5 wipes 5 swipes”
- Perform urinary catheter care every 12 hours & prn
- Document care in EPIC
- Place orange sticker on drainage bag



Urinary Catheter Maintenance



If a urinary sample is needed, use the sampling port on the catheter. Use sterile technique. Disinfect port before and after use.

Record output, monitor and promote fluid intake to help flush urinary system and reduce sediment (unless contraindicated):

Adults: target is 30 mL/kg/day

Pediatrics: target is

- 0-10KG = 4mL/kg/hr
- 10-20kg = +2mL/kg/hr
- >20kg = +1mL/kg/hr

Special Considerations - Urine Specimen

- Obtain a urine specimen for culture when:
 - Fever unattributed to an infection from another source/site
 - Leukocytosis
 - Flank or suprapubic pain

Reminder: malodorous urine alone is not an indication for culture.



- AND obtain a urine specimen for culture when these conditions occur:

Catheter has been
in place for > 2
weeks and **still**
indicated

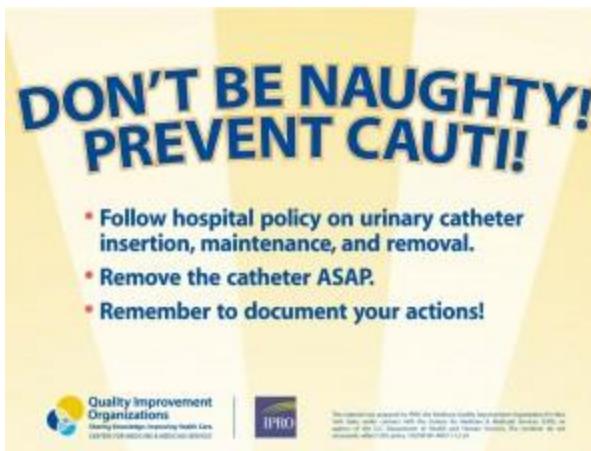
1. Replace catheter
2. Obtain specimen from newly placed
catheter prior to initiation of antimicrobial
therapy

Catheter has been
in place for > 2
weeks and **no longer**
indicated

1. Remove catheter
2. Obtain urine specimen from another method
(e.g. clean catch void)

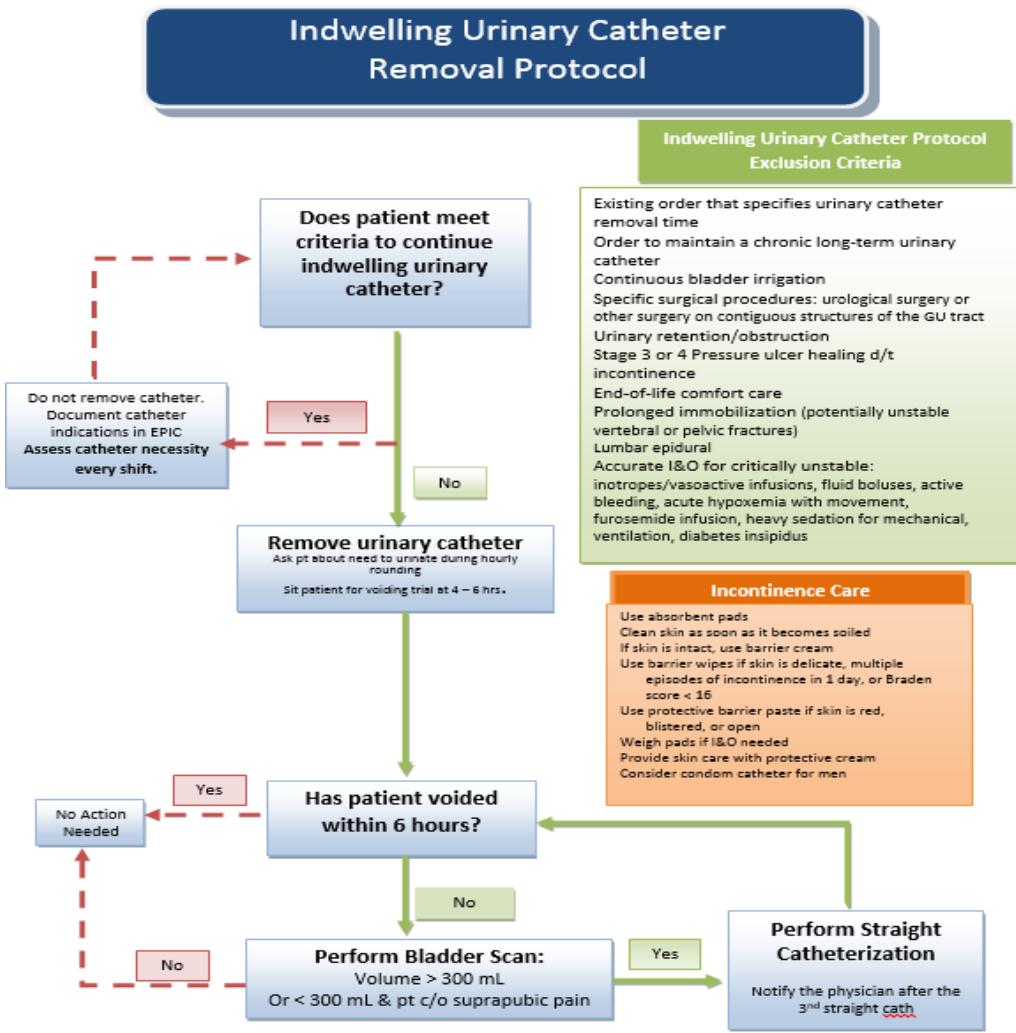
Urinary Catheter Removal

- Review indication for indwelling urinary catheter **each shift**, and remove if no longer indicated
- When a catheter is inserted for surgery other than urological reasons - **remove within 24 hours**, unless another indication exists:
 - Exception: Peds does not use the removal protocol
 - MD order is needed for Foley removal



Remember: CAUTI risk starts with catheter insertion and increases each day the catheter remains in place.

Nurse Driven Removal Protocol

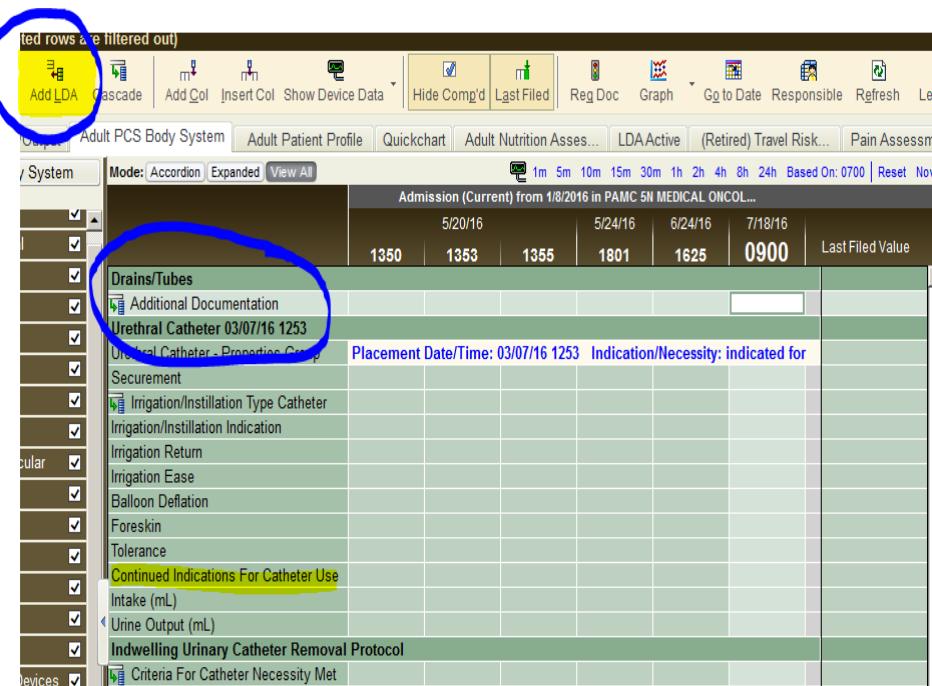


Key things to remember:

- When the physician orders a urinary catheter insertion, the protocol shown is the automatic default unless the physician deselects this option
- The physician order contains a link to the pdf of the protocol – so you can always reference the protocol from EPIC as needed

EPIC Documentation Insertion

- Add an LDA (Line/Drain/Airway) in your EPIC PCS Flowsheet.
- Be sure to include all relevant row information.



Selected rows are filtered out

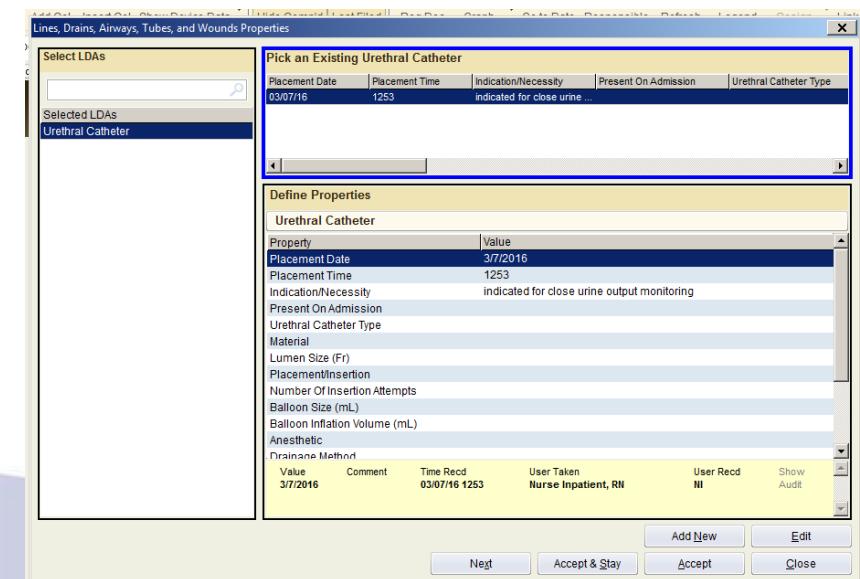
Add LDA Cascade Add Col Insert Col Show Device Data Hide Comp'd Last Filed Reg Doc Graph Go to Date Responsible Refresh Legend

Output: Adult PCS Body System Adult Patient Profile Quickchart Adult Nutrition Assess... LDA Active (Retired) Travel Risk... Pain Assessm...

Mode: Accordion Expanded View All

Admission (Current) from 1/8/2016 in PAMC 5N MEDICAL ONCOL...

	5/20/16	5/24/16	6/24/16	7/18/16	
	1350	1353	1355	1801	1625
Drains/Tubes					0900
Additional Documentation					
Urethral Catheter 03/07/16 1253					
Urethral Catheter - Properties Group					
Securement					
Irrigation/Instillation Type Catheter					
Irrigation/Instillation Indication					
Irrigation Return					
Irrigation Ease					
Balloon Deflation					
Foreskin					
Tolerance					
Continued Indications For Catheter Use					
Intake (mL)					
Urine Output (mL)					
Indwelling Urinary Catheter Removal Protocol					
Criteria For Catheter Necessity Met					



Lines, Drains, Airways, Tubes, and Wounds Properties

Select LDAs

Selected LDAs

Urethral Catheter

Pick an Existing Urethral Catheter

Placement Date	Placement Time	Indication/Necessity	Present On Admission	Urethral Catheter Type
03/07/16	1253	indicated for close urine output monitoring		

Define Properties

Urethral Catheter

Property	Value
Placement Date	3/7/2016
Placement Time	1253
Indication/Necessity	indicated for close urine output monitoring
Present On Admission	
Urethral Catheter Type	
Material	
Lumen Size (Fr)	
Placement/Insertion	
Number Of Insertion Attempts	
Balloon Size (mL)	
Balloon Inflation Volume (mL)	
Anesthetic	
Drainage Method	

Value Comment Time Recd User Taken User Recd Show Audit

3/7/2016 03/07/16 1253 Nurse Inpatient, RN N/A

Add New Edit

Next Accept & Stay Accept Close

EPIC Documentation CAUTI Bundle

Remember to document

- Upon insertion
- Ongoing/shift care

Present On Admission	<input checked="" type="checkbox"/> yes
Indication/Necessity	<input checked="" type="checkbox"/> indicated due to specific surgical procedure <input type="checkbox"/> indicated for critically ill with need for accurate I&O <input type="checkbox"/> indicated for acute urinary retention/obstruction <input type="checkbox"/> indicated for chronic urinary retention/obstruction <input type="checkbox"/> indicated for pressure ulcer healing due to incontinence <input type="checkbox"/> indicated for end-of-life comfort care <input type="checkbox"/> diagnostic study <input type="checkbox"/> required for prolonged immobilization due to unstable fractures <input type="checkbox"/> other (see comments) CDC (2009) Criteria for Indwelling Urinary Catheter (IUC) Insertion: Acute urinary retention (sudden and painful inability to urinate (SUNA, 2008) or bladder outlet obstruction To improve comfort for end-of-life care if needed Critically ill and need for accurate measurements of I&O (e.g., hourly monitoring) Selected surgical procedures (GU surgery/colorectal surgery) To assist in healing open sacral or perineal wound in the incontinent patient Need for intraoperative monitoring of urinary output during surgery or large volumes of fluid or diuretics anticipated Prolonged immobilization (potentially unstable thoracic or lumbar spine, multiple traumatic injuries such as pelvic fractures)
Pre-insertion bundle elements followed:	<input checked="" type="checkbox"/> All elements <input type="checkbox"/> Smallest Catheter <input type="checkbox"/> Perineum cleaned <input type="checkbox"/> Second person present Patient/family educated about Indication/CAUTI prevention Pre-Insertion Elements: Smallest appropriate catheter selected Perineum cleaned Second person present Patient family educated on reason for insertion and CAUTI prevention
Insertion bundle elements followed:	If all elements not used document those used. <input checked="" type="checkbox"/> All elements <input type="checkbox"/> All staff performed hand hygiene <input type="checkbox"/> Hand hygiene re-performed after perineum cleaned <input type="checkbox"/> Site prep <input type="checkbox"/> Balloon was not pre-inflated to test <input type="checkbox"/> Checked for appropriate urine flow prior to balloon inflation <input type="checkbox"/> Balloon inflated per manufacturer's instructions Insertion Bundle Elements: All staff performed hand hygiene Hand hygiene re-performed after perineum cleaned Site prep Balloon was not pre-inflated to test After insertion - balloon inflated per manufacturer's instructions Checked for appropriate urine flow prior to balloon inflation --Females: Catheter advanced 1-2.5 cm beyond point of urine flow prior to balloon inflation --Males: Catheter inserted to Y connection & checked for urine flow prior to balloon inflation
Post-Insertion bundle elements followed:	If all elements not used document those used. <input checked="" type="checkbox"/> All elements <input type="checkbox"/> Catheter securement applied <input type="checkbox"/> Bag positioned below the bladder <input type="checkbox"/> System checked to verify closed connections & no dependent loops, obstructions/kinks Post Insertion Bundle Elements: Catheter securement applied Bag positioned below the bladder System checked to verify closed connections & no dependent loops, obstructions/kinks
	If all elements not used document those used.



EPIC Documentation Education

- Education point is added under the *Generic Teaching Goals* in the EPIC Education Tab when you add the urinary catheter LDA
- Document the education you provide to the patient or family

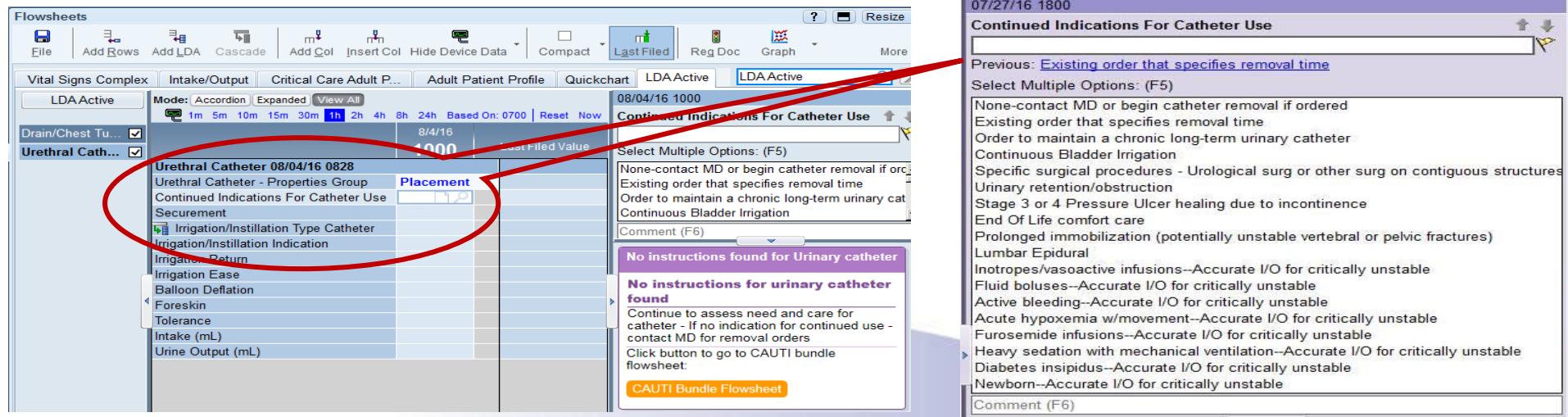
Unresolved Education		Assessment		Unresolved Education		Education Review		Manage Education		?																													
<p>Title/Topic/Teaching Point:</p> <p>Point Description/Learner Progress:</p> <table border="1"> <tr> <td>  Generic Teaching Goals/Outcomes <ul style="list-style-type: none"> Catheter Associated Urinary Tract Infections </td> <td colspan="10"> <p>Description: Educate patients and their families, as needed, who have undergone a catheterization about catheter associated urinary tract infection prevention.</p> <table border="1"> <thead> <tr> <th>Learner</th> <th>Ready?</th> <th>Method</th> <th>Res...</th> <th>Comments</th> <th>Taught By</th> <th>Date</th> <th>Time</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td colspan="9"></td> </tr> </tbody> </table> </td> </tr> </table>											 Generic Teaching Goals/Outcomes <ul style="list-style-type: none"> Catheter Associated Urinary Tract Infections 	<p>Description: Educate patients and their families, as needed, who have undergone a catheterization about catheter associated urinary tract infection prevention.</p> <table border="1"> <thead> <tr> <th>Learner</th> <th>Ready?</th> <th>Method</th> <th>Res...</th> <th>Comments</th> <th>Taught By</th> <th>Date</th> <th>Time</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td colspan="9"></td> </tr> </tbody> </table>										Learner	Ready?	Method	Res...	Comments	Taught By	Date	Time	Status									
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EPIC Documentation

Ongoing/Daily Shift Care

Every shift document indications for continued catheter use

Select indication from list



Flowsheets

Vital Signs Complex Intake/Output Critical Care Adult P... Adult Patient Profile Quickchart LDA Active LDA Active

Mode: Accordion Expanded View All

1m 5m 10m 15m 30m 1h 2h 4h 8h 24h Based On: 0700 | Reset Now

Drain/Chest Tu...

Urethral Cath...

Urethral Catheter 08/04/16 0828

Urethral Catheter - Properties Group Placement

Continued Indications For Catheter Use

Securement

Irrigation/Instillation Type Catheter

Irrigation/Instillation Indication

Irrigate, Return

Irrigation Ease

Balloon Deflation

Foreskin

Tolerance

Intake (mL)

Urine Output (mL)

08/04/16 1000

Continued Indications For Catheter Use

Select Multiple Options: (F5)

No instructions found for Urinary catheter

No instructions for urinary catheter found

Continue to assess need and care for catheter - If no indication for continued use - contact MD for removal orders

Click button to go to CAUTI bundle flowsheet

CAUTI Bundle Flowsheet

07/27/16 1800

Continued Indications For Catheter Use

Previous: Existing order that specifies removal time

Select Multiple Options: (F5)

None-contact MD or begin catheter removal if ordered

Existing order that specifies removal time

Order to maintain a chronic long-term urinary catheter

Continuous Bladder Irrigation

Specific surgical procedures - Urological surg or other surg on contiguous structures

Urinary retention/obstruction

Stage 3 or 4 Pressure Ulcer healing due to incontinence

End Of Life comfort care

Prolonged immobilization (potentially unstable vertebral or pelvic fractures)

Lumbar Epidural

Inotropes/vasoactive infusions--Accurate I/O for critically unstable

Fluid boluses--Accurate I/O for critically unstable

Active bleeding--Accurate I/O for critically unstable

Acute hypoxemia w/movement--Accurate I/O for critically unstable

Furosemide infusions--Accurate I/O for critically unstable

Heavy sedation with mechanical ventilation--Accurate I/O for critically unstable

Diabetes insipidus--Accurate I/O for critically unstable

Newborn--Accurate I/O for critically unstable

Comment (F6)

EPIC Documentation

Ongoing/Daily Shift Care

Document Foley Care Hygiene under Quickchart Hygiene: Perineal care

Equipment						
Venous Thromboembolism		sequenti...		sequenti...		
Bladder Scan Volume (mL)						
Hygiene						
Bathing/Skin Care						
Oral Care		oral care...				or
Perineal Care		perineal ...	10			
Hygiene Assistance		per care...				
Elimination Assistance		incontin...				
Procedural/Surgical Skin						
Stool Documentation						

Remember the Patient List has Foley Days column color coded to help you

Blank = day 0 or no Foley

Green = day 1

Yellow = 2-3 days

Red = 4+ days

PTA	Days Foley in Place
⚠	3
✓	12
⚠	1
⚠	4
⚠	

EPIC Documentation CAUTI BUNDLE

Flowsheets

File Add Rows Add LDA Cascade Add Col Insert Col Hide Device Data Last Filed Reg Doc Graph Go to Date Responsible Refresh Legend Design Link Lines MAR

Vital Signs Intake/Output Adult PCS Body System Adult Patient Profile Quickchart Epidemic Risk LDA Active Patient Belongings CAUTI Bundle Adult Nutrition A CAUTI Bundle

Mode: Accordion Expanded View All

1m 5m 10m 15m 30m 1h 2h 4h 8h 24h Based On: 0700 | Reset Now

01/04/17 0900

Continued Indications For C...

Previous: Order to maintain a chronic l...

Select Multiple Options: (F5)

None-contact MD or begin catheter remo
Existing order that specifies removal time
Order to maintain a chronic long-term uri
Continuous Bladder Irrigation
Specific surgical procedures - Urological
Urinary retention/obstruction
Stage 3 or 4 Pressure Ulcer healing due
End Of Life comfort care
Prolonged immobilization (potentially uns
Lumbar Epidural
Inotropes/vasoactive infusions--Accurate
Fluid boluses--Accurate I/O for critically
Active bleeding--Accurate I/O for critically
Acute hypoxemia w/movement--Accurate
Furosemide infusions--Accurate I/O for c
Heavy sedation with mechanical ventilati
Diabetes insipidus--Accurate I/O for criti
Newborn--Accurate I/O for critically unsta

Comment (F6)

No instructions found for
Urinary catheter

No instructions for urinary
catheter found

Continue to assess need and
care for catheter - If no indication
for continued use - contact MD for
removal orders

Click button to go to CAUTI
bundle flowsheet

CAUTI Bundle Flowsheet

Row Information

Urethral Catheter 08/10/16 ✓
Perineal Care ✓
Adult Indwelling Urinary Catheter ✓
Bladder Scan/PVR ✓

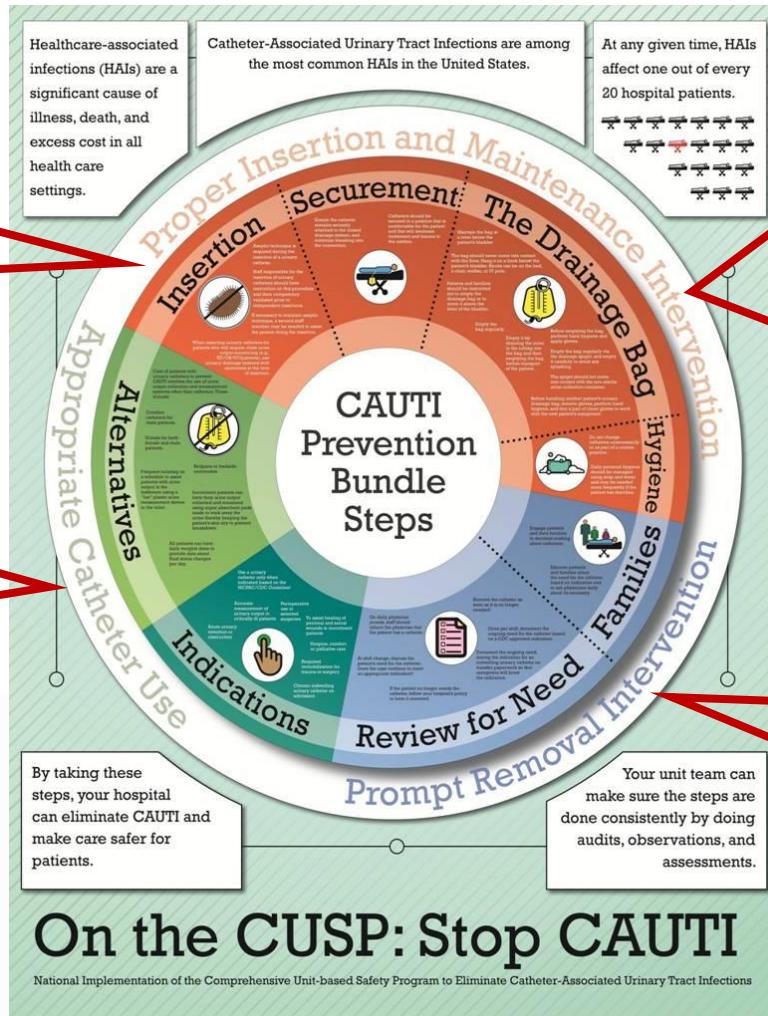
Urethral Catheter 08/10/16

Placement Date: (c) 08/10/16 Present On Admission: yes

	1/3/17	1/4/17				
	1800	0630	0635	0800	0900	Last Filed Value
Urethral Catheter - Properties Group						
Continued Indications For Catheter Use	Order to...	Order to...	Order to...	Order to...	Order to...	Order to main...
Securement	secured...	secured...	secured...	secured...	secured...	secured to up...
Irrigation/Instillation Type Catheter						
Irrigation/Instillation Indication						
Irrigation Return						
Irrigation Ease						
Balloon Deflation						
Foreskin						
Tolerance						
Intake (mL)						
Urine Output (mL)	425	1075	200	200	200	200
Perineal Care						
Perineal Care	perineal ...	catheter...	catheter...	catheter...	catheter care;...	catheter care;...
Adult Indwelling Urinary Catheter Removal Protocol						
Begin Catheter Removal Protocol?						
Bladder Scan/PVR						
Bladder Scan Volume (mL)						
Post Void Residual (Non-Calc)						
Intermittent Cath Volume (mL)						

Check All Uncheck All

CAUTI Bundle Pulling it all Together



Was catheter inserted using sterile technique using 2 people?

Can alternatives be used instead of indwelling?

- Foley Secure to patient?
- Closed system?
- No kinks, or dependent loops?
- Pee below knee?
- Bag emptied when 2/3 full & before mobilization or transport?
- Catheter hygiene done every shift & prn?
- Orange compliance dot on drainage bag?

- Is there still a need for catheter?
- No longer indicated- remove as soon as possible
- Provide education & involve patient & family in care

References

- Lippincott Procedure, (2015). *Indwelling (Foley) urinary catheter insertion, care and management*. Lippincott, Williams & Wilkins.
<http://procedures.lww.com/lnp/home.do>. (accessed March, 2016).
- PAMC Policy Stat: Available from the PAMC Intranet homepage
- Center for Disease Control (CDC). www.cdc.gov

*Please contact your resources including: Clinical Nurse Educator, Division Clinical Nurse Specialist (CNS), or PALI for assistance with any questions or concerns. Thank for taking time to review this module.