American College of Emergency Physicians®
ADVANCING EMERGENCY CARE

# ACEP 31

Title: Emergency Medicine: Appropriate Foley Catheter Use in the Emergency Department
Description: Percentage of emergency department (ED) visits for admitted patients aged 18 years and older where an indwelling Foley catheter is ordered, and the patient had at least one indication for an indwelling Foley catheter
Measurement Period: January 1, 2024, through December 31, 2024
Measure Steward: American College of Emergency Physicians (ACEP)
Measure Developer: American College of Emergency Physicians (ACEP)
Measure Scoring: Proportion
Measure Type: Process

| | |
|---|---|
| **Initial Population** | All emergency department visits for admitted patients aged 18 years and older where an indwelling Foley catheter is ordered |
| **Denominator** | All emergency department visits for admitted patients aged 18 years and older where an indwelling Foley catheter is ordered |
| **Denominator Exclusions** | Patients who had an existing indwelling Foley catheter at ED arrival |
| **Numerator** | Emergency department visits where the patient had at least one of the following indications for an indwelling Foley catheter:<br>-Acute urinary retention or bladder outlet obstruction<br>-Need for accurate measurement of urinary output with no reasonable alternative<br>-Pre-operative use for selected surgical procedures<br>-Open sacral or perineal wounds in incontinent patients<br>-Patient requires prolonged immobilization<br>-Comfort for end-of-life care<br>-Other institution-specific indication |
| **Numerator Exclusions** | Not Applicable |
| **Denominator Exceptions** | None |

Improvement Notation: Higher score indicates better quality

## Rationale

Catheter-associated urinary tract infections (CAUTIs) are among the most prevalent and costly hospital-acquired infections. Assessing whether there is an appropriate indication for catheter use should be part of the initial decision for catheter placement and is an important step in CAUTI prevention. Urinary catheters are commonly placed in the emergency department (ED).

For those patients who are subsequently admitted to the hospital, the catheter could remain in place for days, putting them at elevated risk for a CAUTI. As such, it is especially important for ED providers to limit catheter use to those cases when there is an appropriate indication.

Several studies have found that educational interventions in the emergency department (ED) regarding appropriate indications for urinary catheter use resulted in reduced urinary catheter use, increased appropriateness of inserted catheters, and increased documentation of indications for catheter use. Additionally, it has been established that reductions in overall catheter use are associated with reduced rates of catheter-associated urinary tract infections (CAUTIs).

## Clinical Recommendation Statement

**2009 CDC HICPAC CAUTI Guideline**
A. Examples of Appropriate Indications for Indwelling Urethral Catheter Use:
-Patient has acute urinary retention or bladder outlet obstruction
-Need for accurate measurement 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 the PACU)
*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 (e.g., 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 (e.g., structural repair of urethra or contiguous structures, prolonged effect of epidural anesthesia, etc.)
Note: These indications are based primarily on expert consensus

**2014 SHEA Compendium: Strategies to prevent catheter-associated urinary tract infections in acute care hospitals.**

1. Provide and implement written guidelines for catheter use, insertion, and maintenance (quality of evidence: III)

a. Develop and implement facility criteria for acceptable indications for indwelling urinary catheter use. While research assessing the appropriateness of indwelling catheter use is limited, expert consensus-derived catheter indications have been developed. Examples of appropriate indications for indwelling urethral catheter use are limited and include the following:
    i. Perioperative use for selected surgical procedures, such as urologic surgery or surgery on contiguous structures of the genitourinary tract; prolonged surgery; large volume infusions or diuretics during surgery; intraoperative monitoring of urine output needed.
    ii. Hourly assessment of urine output in patients in an ICU
    iii. Management of acute urinary retention and urinary obstruction.
    iv. Assistance in healing of open pressure ulcers or skin grafts for selected patients with urinary incontinence
    v. As an exception, at patient request to improve comfort (e.g., end-of-life care).

**Ann Arbor Criteria for Appropriate Urinary Catheter Use in Hospitalized Medical Patients**
**Guide for Foley Catheter Use in Hospitalized Medical Patients***

Appropriate indications

- Acute urinary retention without bladder outlet obstruction Example: medication-related urinary retention

- Acute urinary retention with bladder outlet obstruction due to noninfectious, nontraumatic diagnosis Example: exacerbation of benign prostatic hyperplasia

Caution: consider urology consultation for catheter type and/or placement for conditions, such as acute prostatitis and urethral trauma

- Chronic urinary retention with bladder outlet obstruction**

- Stage III or IV or unstageable pressure ulcers or similarly severe wounds of other types that cannot be kept clear of urinary incontinence despite wound care and other urinary management strategies***

- Urinary incontinence in patients for whom nurses find it difficult to provide skin care despite other urinary management strategies*** and available resources, such as lift teams and mechanical lift devices

    Examples: turning causes hemodynamic or respiratory instability, strict prolonged immobility (such as in unstable spine or pelvic fractures), strict temporary immobility after a procedure (such as after vascular catheterization), or excess weight (>300 lb) from severe edema or obesity

-Hourly measurement of urine volume required to provide treatment

    Examples: management of hemodynamic instability, hourly titration of fluids, drips (e.g., vasopressors, inotropes), or life-supportive therapy

-Daily (not hourly) measurement of urine volume that is required to provide treatment and cannot be assessed by other volume**** and urine collection strategies*****

    Examples: acute renal failure work-up, or acute IV or oral diuretic management, IV fluid management in respiratory or heart failure

- Single 24-h urine sample for diagnostic test that cannot be obtained by other urine collection strategies*****
- Reduce acute, severe pain with movement when other urine management strategies*** are difficult Example: acute unrepaired fracture
- Improvement in comfort when urine collection by catheter addresses patient and family goals in a dying patient
- Management of gross hematuria with blood clots in urine
- Clinical condition for which ISC or external catheter would be appropriate but placement by experienced nurse or physician was difficult or patient for whom bladder emptying was inadequate with non-indwelling strategies during this admission

**Inappropriate uses**

- Urinary incontinence when nurses can turn/provide skin care with available resources, including patients with intact skin, incontinence-associated dermatitis, pressure ulcers stages I and II, and closed deep-tissue injury
- Routine use of Foley catheter in ICU without an appropriate indication
- Foley placement to reduce risk for falls by minimizing the need to get up to urinate
- Post-void residual urine volume assessment
- Random or 24-h urine sample collection for sterile or nonsterile specimens if possible, by other collection strategies*****

** It is unclear whether a Foley catheter is appropriate for chronic urinary retention without bladder outlet obstruction (e.g., neurogenic bladder) when an ISC is feasible and adequate; appropriateness may vary according to reason for urinary retention and level of difficulty or discomfort inserting an ISC.
*** Other urinary management strategies: barrier creams, absorbent pads, prompted toileting, nonindwelling catheters.
**** Other volume assessment strategies: physical examination, daily weighing.
***** Other urine collection strategies: urinal, bedside commode, bedpan, external catheter, ISC.

- It is unclear whether a Foley catheter is appropriate for a patient with long-term ISC use who requests a "break" from the ISC by using a Foley catheter while admitted; transition to Foley catheter may lead to difficulties returning to an outpatient ISC regimen, but a patient's clinical capabilities to perform self-catheterization may be reduced

depending on the reason for admission. In addition, a patient with self-catheterization history may prefer to avoid catheterization by others.

- Patient or family request when no expected difficulties managing urine otherwise in nondying patient, including during patient transport
- Patient ordered for "bed rest" without strict immobility requirement Example: lower-extremity cellulitis
- Preventing urinary tract infection in patient with fecal incontinence or diarrhea or management of frequent, painful urination in patients with urinary tract infection

ICU = intensive care unit; ISC = intermittent straight catheter; IV = intravenous.
*This table provides guidance for Foley catheter use in the medical patient, excluding both appropriate and inappropriate uses in the perioperative setting.

## Definition

None

## References


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## Disclaimer

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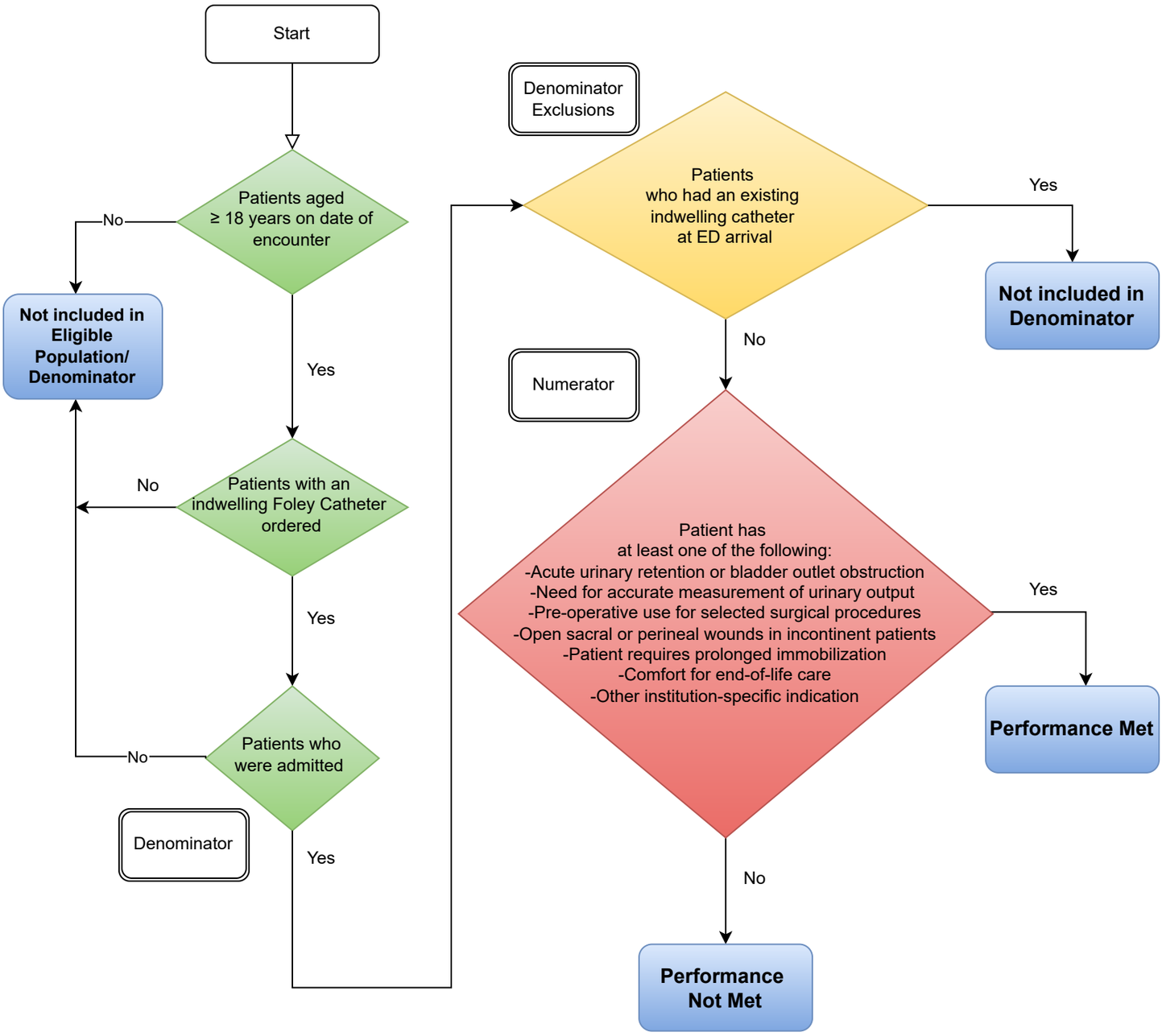
Start
Patients aged ≥ 18 years on date of encounter
No
Not included in Eligible Population/ Denominator
Yes
Patients with an indwelling Foley Catheter ordered
No
Yes
Patients who were admitted
No
Denominator
Yes
Denominator Exclusions
Patients who had an existing indwelling catheter at ED arrival
Yes
Not included in Denominator
No
Numerator
Patient has at least one of the following:
-Acute urinary retention or bladder outlet obstruction
-Need for accurate measurement of urinary output
-Pre-operative use for selected surgical procedures
-Open sacral or perineal wounds in incontinent patients
-Patient requires prolonged immobilization
-Comfort for end-of-life care
-Other institution-specific indication
Yes
Performance Met
No
Performance Not Met