

Quality Indicators for the Screening and Care of Urinary Incontinence in Vulnerable Elders

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Urinary incontinence (UI) is a common condition that affects many community-dwelling elderly people. Studies estimate the prevalence of UI in noninstitutionalized persons to be approximately 30% of community-dwelling elderly women and 15% to 28% of men.^{1–6} UI often causes poor quality of life, social isolation and significant psychological distress in persons affected and their family and caregivers. Despite the effects of UI, studies demonstrate that many patients do not disclose its symptoms to their healthcare providers and many healthcare providers do not routinely ask elderly patients about UI symptoms.⁷

This article reviews the available evidence for quality indicators (QIs) that could be applied when evaluating and treating vulnerable elders (VEs) for UI. Although symptoms of urgency and nocturia in the absence of UI are also important problems for VEs, this article focuses on UI.

METHODS

A total of 348 articles were considered in this review: 29 identified using a Web search, 62 through reference mining, 253 through the Assessing Care of Vulnerable Elders (ACOVE)-3 literature searches, and one from reference mining the ACOVE-1 monograph; 60 additional articles were included after peer review.

UI is defined as the complaint of any involuntary leakage of urine when the term is used in the QI's denominator (i.e., the IF statement). When "UI" is used in the QI's numerator, as is the case for QIs #1 and #2, a broader defi-

inition is used: the complaint of any involuntary leakage of urine, the leakage of urine on physical examination, or a urodynamic observation consistent with UI.⁸ This conceptualization of UI provides greater specificity during indicator implementation and reduces the chance that physicians would be incorrectly penalized for not treating UI appropriately.

RESULTS

Of the 15 potential QIs, the expert panel process judged 14 to be valid (see the QIs on pages S464–S487 of this supplement); one was rejected. One additional indicator related to elevated postvoid residual (PVR) management developed in the benign prostatic hyperplasia (BPH) condition is listed here. The literature that supports each of the indicators judged to be valid in the expert panel process is described.

Initial Evaluation and Annual Assessment of UI

1. ALL VEs should have documentation of the presence or absence of UI during the initial evaluation; and
2. ALL VEs should have documentation of the presence or absence of UI every 2 years;

BECAUSE UI is prevalent in older persons, has a considerable effect on quality of life and psychological well-being in affected persons and their families and caregivers, is often neglected because of patient or provider ignorance or avoidance, and is associated with a large practice variation in detection and treatment.

3. **IF** a VE has UI, **THEN** there should be documentation annually of whether the UI is bothersome to the patient or caregiver, **BECAUSE** UI and its effects on patient and caregiver may vary over time, patient and caregiver preferences for treatment may change over time, the patient's current treatment regimen may no longer be effective or appropriate, new symptoms may have developed since the patient was evaluated previously, and previous treatment may no longer be effective or tolerable.

Supporting Evidence

No direct evidence was found that routine inquiry about presence or absence of UI or assessment of whether UI is

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bothersome will lead to better detection, treatment, or outcomes, and there are no data to support or refute the interval at which inquiry should be performed, but improving outcomes for patients with UI will be more difficult without increased vigilance on the part of the healthcare provider. Multiple studies suggest that UI is prevalent, that elderly people may not disclose UI symptoms to their provider, and that UI adversely affects quality of life.^{1-6,9-11}

UI can predispose individuals to diminished physical, emotional, and social well-being,^{12,13} yet fewer than half of adults with UI report their condition to their healthcare provider,^{13,14} for various reasons, including a belief that UI is part of normal aging, shame, embarrassment, lack of awareness of treatment options, fear of surgery, and believing that UI is not a big problem.¹⁵ Similarly, many primary care providers fail to evaluate or underevaluate for the presence of UI.^{7,16} Several professional society guidelines support ascertaining bothersomeness of the patient's UI symptoms.¹⁷⁻¹⁹ Assessment of "bother" is demonstrated in the medical record as any evaluation of the patient's perspective on UI symptoms.

Targeted Basic History

4. IF a VE has new UI or established UI with bothersome symptoms, **THEN** a targeted history should be documented, **BECAUSE** a targeted history can help the clinician identify the reason for UI and the next steps necessary to evaluate and treat the patient.

Supporting Evidence

A targeted UI history may include the following components: onset and duration of symptoms; types of UI symptoms (e.g., urgency, stress, nonspecific dribbling); frequency, volume, and timing of UI episodes; presence or absence of precipitants (e.g., activities, medications, or circumstances that lead to UI symptoms); amounts, timing, and types of fluid intake; access to toilet, including toilet availability; presence or absence of fecal incontinence; and tolerability of previous or current UI treatment (for men see also BPH QI #1).

A broad range of factors and conditions, including some that may be reversible, cause or contribute to involuntary leakage of urine in VEs.¹⁹ No studies that directly assessed the effects of a targeted history on identification of the underlying reason for or classification of UI and effect on treatment were identified, but a targeted history may uncover causes of UI that can be readily treated, including high blood sugar, which can cause an osmotic diuresis;²⁰ urinary tract infection (UTI);²¹ caffeine intake; rapid-acting diuretic use; and constipation with or without fecal impaction. Furthermore, UI may herald an underlying condition that requires further investigation and possible referral to a specialist (e.g., recurrent symptomatic UTI, sterile hematuria, severe pelvic organ prolapse). Some of the factors or conditions contributing to or causing UI may not involve the lower urinary tract (e.g., access to toilet, mobility, medications, other chronic conditions). Without a targeted history, it is not possible for the clinician to adequately assess the reason for the patient's UI symptoms. A targeted history may help in the classification of lower urinary tract UI types (e.g., stress, urge, mixed UI).²² A systematic review²³ of the literature that compared UI

classification based on history alone with classification based on urodynamic evaluation found history alone to be sensitive for diagnosing stress UI (90.6%) and urge UI (73.5%), although specificity was lower (stress UI, 51.1%; urge UI, 55.2%). The Third International Consultation on Urinary Incontinence (ICI) recommends taking a careful history when assessing patients with UI.¹⁹

Targeted Physical Examination and Laboratory Testing

5. IF a VE has new UI, **THEN** a targeted physical examination should be documented, **BECAUSE** a targeted physical examination can help the clinician identify the factors contributing to UI and the next steps necessary to evaluate and treat the patient.

6. IF a VE has new UI or established UI with bothersome symptoms, **THEN** a urinalysis (or dipstick urinalysis) and a urine culture, if the urinalysis demonstrates pyuria or hematuria, should be obtained, **BECAUSE** for patients with new UI, this information may help the clinician detect conditions contributing to the patient's UI, and for patients with established UI, this information may help the clinician detect conditions contributing to bother.

Supporting Evidence

A targeted examination may include mobility assessment, abdominal examination, cognitive status examination, genital system examination (women: pelvic and estrogen status of vulvo-vaginal tissues; men: prostate examination (see also BPH QI #2)), digital rectal examination for impaction or mass, and assessment of volume status. No studies were identified that directly assessed the effects of a targeted physical examination or laboratory testing on improving the likelihood of classifying UI symptoms correctly or improving treatment. The Third ICI recommends that the assessment of frail elderly people with UI include a physical examination and urinalysis to detect potentially treatable conditions and to identify problems related to cognitive function, mobility, and environmental factors that can contribute to UI in frail elderly people.¹⁹ The Canadian Continence Foundation recommends that healthcare providers initiate the basic evaluation of UI with a physical examination.²⁴

Postvoid Residual

7. IF a VE has a PVR greater than 300 cc, **THEN** he or she should have a serum creatinine within 72 hours and (if no reversible causes found) be referred to a clinician with urological expertise within 2 months (also see BPH, page S254, for supporting evidence); and

8. IF a VE with UI has a PVR of between 200 and 300 cc, **THEN** renal function should be assessed within 3 months; **BECAUSE** a high PVR can be associated with renal failure.

Supporting Evidence

Many guidelines agree that clinical examination is inadequate to identify patients with clinically meaningful urinary retention and that some patients should have a PVR checked,^{19,25} but there was insufficient evidence for the expert panel to create a QI identifying a subgroup of patients for whom a PVR must be checked (with the exception

of BPH QI #4, which recommends that men presenting with UI in the setting of neurological disease or a procedure that can affect innervation of the bladder or urethral sphincter mechanism have a PVR). This QI is based primarily on expert opinion. No studies were identified that directly assessed the utility of measuring PVR on improving patient outcomes. Nor were any studies found of incontinent patients that support or refute checking creatinine and blood urea nitrogen level in patients with a PVR greater than 200 mL. The Third ICI recommends an assessment of PVR in frail elderly people,¹⁹ and other guidelines recommend testing all people with UI (Finnish Medical Society,²⁶ Canadian Continence Foundation).²⁴

Classification Before Treatment

9. IF a VE has new UI or established UI with bothersome symptoms, and the UI is treated with medication or surgery, **THEN** classification of the type of or suspected reason(s) for UI should be documented, **BECAUSE** classification or documentation of the suspected reason(s) for UI (including reversible and non-lower urinary tract etiologies) may improve the likelihood that the underlying causes of the UI are addressed.

Supporting Evidence

UI in VEs often has multiple contributing factors. No studies were identified that demonstrated an association between clinician classification of UI subtype or identification of causes of UI and better clinical outcomes, but identifying the cause(s) of the patient's UI is a logical first step toward treatment, especially if the causes are treatable with minimal adverse consequences. Although the same treatment may be effective for more than one type of UI (e.g., antimuscarinics for urge UI and mixed UI), other treatments are not appropriate for all types of UI (e.g., antimuscarinics are not appropriate for UI caused by a UTI). For some patients with UI, the cause may be non-lower urinary tract pathophysiology (e.g., decreased mobility and access to or availability of toilet), and these etiologies must be recognized so that appropriate treatment can be initiated. Therefore, the first step toward improving patient outcomes involves an attempt to identify the cause or causes of the UI (especially readily modifiable or reversible causes) and classification of UI type.

The Third ICI guidelines for the assessment of frail elderly people with UI recommend identifying potentially treatable conditions and factors such as impaired mobility and environmental factors that can contribute to UI in frail elderly people.¹⁹ Several other guidelines^{24,25,27–31} also recommend trying to identify reversible causes of UI and contributing factors and to classify the type of UI, which may dictate further management of the patient's UI symptoms.

Discussion of Treatment Options

10. IF a VE has new UI or established UI with bothersome symptoms, **THEN** treatment options should be discussed within 3 months, **BECAUSE** an explicit discussion of treatment options with a patient, family, or caregiver may improve the likelihood that a treatment plan consistent with the patient's goals is formulated and that the patient, family, or caregiver adheres to the treatment plan.

Supporting Evidence

In appropriately selected patients, the four major categories of treatment for UI (lifestyle, behavioral, pharmacological, and surgical) have been shown to be effective in improving UI.^{32,33} Appropriate discussion of UI treatment options may lead to development and implementation of more-effective management plans to improve bothersome symptoms and to greater adherence with the treatment plan, although no studies were identified that formally evaluated the effects of discussion of treatment options on management plans or adherence.

The evidence supporting lifestyle, behavioral, and surgical treatments is discussed elsewhere in this article (QIs #12–14). Several systematic reviews evaluated the evidence for using medications to treat UI.^{32,34,35} As is the case for many of the articles found on lifestyle, behavioral, and surgical treatments, these reviews did not focus on VEs. In a systematic review of medication therapy of urge UI, authors identified 24 trials assessing anticholinergic medications, 12 trials assessing medications with anticholinergic and calcium antagonistic properties, and 11 trials assessing other types of medications. Summary data presented in this systematic review suggest that older patients were excluded in only three studies. In 13 of 16 randomized, controlled trials (RCTs), anticholinergic agents increased rates of subjective improvement (statistically significant in 5 of the RCTs).³⁴ Eight RCTs that assessed the effect of other agents also found subjective improvement in UI symptoms.³⁴ Three RCTs reported improvement in bladder stability.³⁴ A systematic review³⁵ of 51 trials on antimuscarinic medications for treatment of overactive bladder syndrome found that antimuscarinic medications are associated with statistically significant improvement in symptoms (subjective cure or improvement relative risk (RR) = 1.41, 95% confidence interval (CI) = 1.29–1.54; change in leakage episodes in 24 hours weighted mean difference = –0.56, 95% CI = –0.73–0.39). In sensitivity analyses, age did not appear to modify these effects, although the small number of trials limited analyses. Consensus statements and specialty society clinical guidelines endorse the use of antimuscarinic agents in selected patients.^{19,24,25}

Antimuscarinics, which are the medications used most frequently to treat urge UI, can cause adverse effects, such as cognitive impairment, dry mouth, and constipation.^{32,36} One systematic review found that, in nine of 19 trials, anticholinergic medications led to withdrawal from the trial more frequently than placebo.³⁴ An RCT that compared the safety of one particular type of antimuscarinic agent in older and younger patients with overactive bladder found no difference in rates of adverse events based on age (<65, 50.5%; ≥65, 46.0%; $P = .31$). More recently, there has been discussion that antimuscarinics that target certain receptors (e.g., M1, M2, and M4 receptors) may be associated with greater risk of cognitive impairment than medications that target other muscarinic receptors.^{37,38} In summary, evidence suggests that antimuscarinics can improve urge UI symptoms, although the potential adverse effects of these medications are important considerations when treating VEs. A discussion about the various treatment options (lifestyle, behavioral, medication, and surgical or procedure) and associated risks is important when treating UI in VEs.

The Third ICI recommends that patient and caregiver preferences for care, patient-centered care goals, and “understanding of [the management plan’s] potential costs and benefits to the individual, caregiver, and health systems” be incorporated into the management of UI treatment plans for frail older people.¹⁹ Treatment of UI in the setting of BPH is also addressed in BPH QIs #10 and #11.

Response to Treatment

11. IF a VE is treated for UI, **THEN** response to treatment should be documented within 3 months, **BECAUSE** undertreated UI may adversely affect quality of life; some VEs may not respond to the prescribed treatments; other or additional treatment options beyond the patient’s current treatment regimen may be available and more effective (alone or in combination with the treatment the patient is already receiving) in improving patient satisfaction with UI therapy; and treatments for UI may have adverse effects.

Supporting Evidence

As reported earlier (QIs #1–3), UI can predispose individuals to diminished physical, emotional, and social well-being.¹² Inadequate treatment of UI, therefore, may adversely affect quality of life.¹³ Different UI treatment options have variable effectiveness and side-effect profiles. For example, some behavioral treatments are effective for stress, urge, and mixed UI and, in general, have fewer side effects than medications or surgical treatments. Patients with urge UI treated with antimuscarinics may have improvement in UI symptoms, but may experience dry mouth and constipation.³⁹ Follow-up assessments by clinicians to determine pharmacological effectiveness and tolerance of side effects may help guide changes in treatment. Similarly, surgery and other procedures for stress UI treatment may not cure some patients of their UI symptoms.^{40,41} Treatment of UI often requires trying different therapies until the most effective one or combination of therapies is found. This is most true of severe UI and mixed UI, which may require combined modality therapy. Some VEs, particularly those with advanced dementia or severe limitations in mobility, may not be cured with any therapy, although UI symptoms may improve.⁴² Therefore, providers should assess for treatment response.

The Third ICI recommends that the UI management plan of frail elderly people include proactive monitoring for adverse medication events in those who are using antimuscarinic agents.¹⁹ The European Association of Urology recommends a staged approach to the treatment of UI, particularly for VEs.¹⁸

Behavioral and Lifestyle Treatments

12. IF a cognitively intact, ambulatory VE has stress, urge, or mixed UI, **THEN** behavioral or lifestyle treatment should be offered, **BECAUSE** lifestyle treatments may decrease incontinence episodes without significant side effects and because some behavioral treatments have been proven as effective as drug therapy for urge and urge-predominant mixed UI and surgical interventions for stress UI and may be preferred by patients over other interventions.

Supporting Evidence

Lifestyle treatments include regulating the timing and amount of fluid intake. Although few empirical studies have tested the effect of lifestyle treatment on UI symptoms, the risk of lifestyle changes is small, and if successful, lifestyle changes may minimize the need for other forms of treatment. In a small trial that included women with urodynamically proven stress UI or idiopathic detrusor overactivity (IDO) (mean age 54.8, range 31–76), researchers tested three lifestyle interventions over a 4-week period: caffeine restriction, increased fluid intake, and decreased fluid intake. Although caffeine restriction had no statistically significant effect on UI symptoms or incontinence episodes, decreased fluid intake reduced symptoms for patients with stress UI ($P = .006$) and IDO ($P = .003$).³³ Although the subjects in this study were not VEs, the findings suggest that regulating fluid intake may improve UI symptoms.

Several types of behavioral treatments are available for UI; studies on pelvic floor muscle training (PFMT) and bladder training provide support for this indicator. A Cochrane review⁴³ that included only randomized trials concluded that PFMT improved outcomes for women with stress or mixed UI, although outcomes and methods differed between trials, and many of the trials were small. Meta-analysis of two studies (one including patients with urge or mixed UI and another including only patients with stress UI) found that PFMT is associated with more reports of self-cure than placebo (RR = 3.1, 95% CI = 1.56–6.2).⁴³ A major limitation is that the trials included in the Cochrane review did not focus on VEs. A study⁴⁴ of patients with urge or mixed UI that compared three treatments (biofeedback-assisted behavioral treatment (bladder training and PFMT), medication treatment (immediate-release oxybutynin), and placebo) found that behavioral treatment led to the greatest reduction in number of accidents per week (mean reduction \pm standard deviation: behavioral 80.7 ± 24.8 , medication treatment 68.5 ± 37.2 , control 39.4 ± 80.0 , $P < .001$). Patients in the behavioral group reported less “any dry mouth” ($P < .001$) and less “inability to void” ($P = .002$). A study comparing PFMT to surgery for stress UI, as described in a Cochrane review, did not show any statistically significant differences in outcomes, cure or improvement (PFMT 17/24, surgery 23/26; RR = 0.80, 95% CI = 0.60–1.07),⁴³ but patients who undergo surgery may develop retropubic pain, persistent pelvic pain, persistent dyspareunia, and loss of libido.

Concerning bladder training, the aforementioned trial that compared biofeedback-assisted behavioral treatment (bladder training and PFMT), medication treatment (oxybutynin), and placebo showed that behavioral treatment was more effective than medication treatment.⁴⁴ An RCT involving community-dwelling women aged 55 and older with UI ($N = 123$) evaluated the effect of bladder training. From a mean of 21 and 20 incontinent episodes at baseline in the treatment and control groups, respectively, the treatment group had fewer incontinent episodes (9 ± 11 vs 19 ± 17 , $P < .001$) after 6 weeks. The authors found no relationship between age and treatment efficacy ($P = .36$).⁴⁵

The Third ICI recommends that prompted voiding should be offered for certain homebound frail (rather than vulnerable) elderly people.¹⁹ The National Institute for

Health and Clinical Excellence 2006 UI guidelines state, “A trial of supervised pelvic floor muscle training of at least 3 months’ duration should be offered as first-line treatment to women with stress or mixed UI. Bladder training lasting for a minimum of 6 weeks should be offered as first-line treatment to women with urge or mixed UI.”⁴⁶

Preoperative Urodynamic Testing

13. IF a female VE undergoes surgery for stress UI, **THEN** urodynamic investigations should be performed before surgery, **BECAUSE** urodynamic testing is necessary to correctly identify indications for these procedures, to help define the surgical approach, and to estimate the risk of surgery.

Supporting Evidence

Studies have examined the role of urodynamic testing in predicting postoperative complications from surgery for stress UI. For example, a record review–based study of women undergoing pubovaginal sling surgery for stress UI (mean age 61) reported that detrusor voiding pressure at maximum flow rate predicted postoperative urinary retention (i.e., need for even occasional self-catheterization); no woman with detrusor pressure greater than 12 cm of water had urinary retention.⁴⁷ Women who voided without detrusor contraction or with a weak detrusor contraction had urinary retention postoperatively. This study suggests that preoperative urodynamic testing is useful for counseling women regarding the risk of urinary retention after the pubovaginal sling procedure. A 2005 Cochrane Collaboration study could not conclude whether urodynamic-based diagnosis led to better clinical improvement in UI than therapy based on history and physical examination because of small sample sizes.⁴⁸

Although empirical evidence for this QI is weak, several guidelines promote urodynamic testing before surgery for stress UI^{19,49} or in case of treatment failure (e.g., Third ICI,¹⁹ Canadian Continence Foundation).²⁴

Surgery for Stress UI

14. IF a female VE has stress UI and undergoes a procedure or surgery for UI, **THEN** surgical correction with open retropubic suspension or a sling procedure (including tension-free vaginal tape or TVT) should be performed, or a periurethral bulking agent should be offered, **BECAUSE** these procedures may improve stress UI and have acceptable risks of complications.

Supporting Evidence

Several systematic reviews that summarized the effects of treating stress UI with surgical procedures were identified, but none focused on surgical treatment of UI in VEs. Furthermore, problems related to use of heterogeneous criteria for classification of UI, confounding, low statistical power, and lack of external validity limit interpretation of the studies. Nevertheless, if surgery is selected as the form of treatment, evidence suggests that certain types of surgical procedures may be more beneficial than others. A Cochrane review⁵⁰ concluded that open retropubic colposuspension offers lower failure rates than anterior colporrhaphy over time (RR of failure = 0.51, 95% CI = 0.34–0.76) or needle suspension beyond 5 years (RR of failure = 0.32, 95%

CI = 0.15–0.71). No significant difference in failure rates was found from suburethral slings or laparoscopic retro-pubic colposuspension. Another systematic review⁵¹ found a trend toward higher complication rates, shorter hospital stay and duration of catheterization, and quicker return to normal activity with open colposuspension than with laparoscopic colposuspension. Another systematic review⁴¹ found that subjective outcomes of anterior colporrhaphy were inferior to those of open (abdominal) suspension.

A systematic review⁵² identified 13 trials comparing the efficacy of suburethral slings with that of other surgical procedures and did not find any significant differences in cure rates or complications for stress UI, although CIs were wide, reflecting small sample sizes. A critical review of the TVT procedure found comparable cure rates with retropubic colposuspension, 85% to 95%, for subjective and objective measures.⁵³ Quality-of-life scores after TVT also improved greatly. Urinary retention occurred in 3% to 16% of subjects, and bladder penetration occurred in 0% to 7% of cases. Symptomatic intravesical and vaginal erosions of mesh materials may be a concern, but studies are needed to confirm this association.⁵⁴

For patients who do not adequately benefit from lifestyle and behavioral treatments, are poor surgical candidates or prefer nonsurgical treatments, and undergo a procedure for UI treatment, the evidence suggests that periurethral injection is an acceptable option, although the available studies do not focus on VEs, and most of the efficacy literature is Level 4 evidence. No studies compare the efficacy of periurethral injection with nonprocedure or surgical treatments,⁴⁰ and few compare this procedure with surgery. In a study that compared periurethral injection therapy with surgery for women with stress UI (mean age 58),⁵⁵ cure rate in the surgical group was higher than in the collagen injection group (72.2% vs 53.1% cured, difference –19.7%, 95% CI = –32.7 to –2%) at 12 months, but side effects were higher in the surgical group (63% vs 36%, $P = .003$). Changes in quality of life and patient satisfaction were similar. A systematic review that assessed the efficacy of periurethral injection therapy⁵⁶ concluded that “approximately 3 out of 4 women are improved or cured following injection therapy in the shorter term, albeit there is a dearth of long-term, follow-up data,” and they noted that the efficacy literature is limited (e.g., patient heterogeneity, methods, and outcome criteria variation).⁵⁶ A study of 187 women focusing on the effect of age (mean age 62.9, range 15–94)⁵⁷ found that, at follow-up (mean 22 months), injection therapy failed in 25% of patients and that this was unrelated to age ($P = .21$).⁵⁷ Complication rates were low. A systematic review of patient perceptions of injection therapy identified a randomized trial comparing polydimethylsiloxane with pubovaginal sling; there were no significant differences in satisfaction (60% of injection vs 81% of surgical patients satisfied, $P = .41$).⁵⁸

The Third ICI states, “Age alone is not a contraindication to surgical treatment of UI.”¹⁹

Catheter Use

15. IF a VE has clinically significant urinary retention, and a long-term (> 1 month) urethral catheter is placed, **THEN** there should be documentation of justification for its use,

BECAUSE treatment of certain underlying cause(s) of urinary retention (e.g., treatment of constipation or bladder outlet obstruction) may carry less risk than long-term urinary catheterization.

Supporting Evidence

No studies were identified that demonstrated better outcomes associated with documenting a search for reversible causes of urinary retention before placement of indwelling urinary catheters, but an indirect argument can be made in support of this performance measure, based on the known risk of UTI and other complications associated with chronic indwelling catheters (e.g., obstruction, urethral meatal damage, urethral strictures, bladder stones, and bladder spasms).^{59,60} Because chronic indwelling urethral catheterization is associated with higher morbidity than intermittent catheterization, necessity should be established before insertion.

The Third ICI¹⁹ supports the use of intermittent catheterization for selected frail elderly people with chronic urinary retention who can self-catheterize or whose caregivers can perform the technique. They list “urinary retention that cannot be corrected surgically or medically; or cannot be managed practically with intermittent catheterization” as one of the indications for long-term indwelling catheters.¹⁹

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