



ELDER CARE

A Resource for Providers

Urinary Incontinence—Diagnosis

By Barry D Weiss, MD

Many health care providers are uncertain about the evaluation of urinary incontinence in older adults. In reality, the evaluation is relatively straightforward, and with only a few exceptions, the workup is well within the capabilities of primary care practice. In most cases, all that is needed is a history, physical exam, urinalysis, and measurement of post-void residual urine volume. Urodynamic and other testing are rarely required for routine cases of incontinence.

This article will review the key steps in the diagnosis of urinary incontinence. A subsequent issue of the newsletter will discuss treatment.

Goals

The initial goals of the evaluation are twofold: to determine if a patient (a) has a reversible cause of incontinence or (b) has findings that warrant further evaluation or referral for subspecialty or surgical care. If neither is the case, the next step is to determine whether the diagnosis is urge incontinence (uncontrolled bladder detrusor contractions) or stress incontinence (an ineffec-

tive urinary outlet sphincter). Treatments are then prescribed depending on the type of incontinence identified.

Step 1 – Identify Potentially Reversible Causes

Potentially reversible causes of incontinence are spelled out in the commonly-used mnemonic, DIAPPERS (Table 1). If history, physical, or urinalysis suggests any of these potentially reversible conditions, the diagnosis should be confirmed and the condition treated. In some cases the patient's incontinence will resolve with treatment.

Clinicians should carefully review all medications, as drug side effects causing incontinence are among the more common and easily reversible causes of incontinence.

If no reversible causes can be identified, the clinician can move ahead and to the next step of an incontinence evaluation.

Step 2 – Identify Conditions Requiring Further Evaluation or Subspecialty Care

History, physical, and urinalysis should also be used to identify conditions that

require further evaluation or referral for subspecialty care.

Conditions typically requiring subspecialty referral include severe uterine prolapse (cervix protruding through the introitus), prior incontinence surgery, or prior pelvic radiation. Patients with recent (1-2 months) onset of urge incontinence require referral for cystoscopy to exclude bladder neoplasm.

Conditions that require further evaluation – for which initial assessment often can be performed in primary care practice – include hematuria in the absence of infection, and urinary retention. Urinary retention is diagnosed by measuring a post-void residual (PVR) urine volume.

PVR is measured by determining the amount of urine remaining in the bladder immediately after a patient urinates. PVR is measured either with a hand-held ultrasound bladder scanning device (preferred) or with urethral catheterization. A PVR >200 cc is considered abnormal in older adults.

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Tips for Diagnosing Incontinence in the Elderly

- A good history and physical, coupled with a urinalysis and measurement of post void residual volume, will identify most causes of urinary incontinence in older adults.
- Remember the mnemonic DIAPPERS to evaluate for reversible causes of incontinence.
- Be sure to ask about prescription and OTC medications, as these are common causes of reversible incontinence.
- Sudden onset of incontinence, hematuria in the absence of infection, previous radiation or pelvic surgery, or significant anatomical abnormalities (e.g. severe uterine prolapse) should prompt subspecialty referral.
- Don't forget the three incontinence questions to help differentiate between stress and urge incontinence—and remember many patients can have a mixed type of incontinence.
- Simple office cystometry can assist in distinguishing stress from urge incontinence when the cause is not clear from history, physical, and urinalysis.



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In men, an elevated PVR often signifies an enlarged prostate gland. In both men and women elevated PVR can indicate a neurological disorder that impairs bladder contraction.

An elevated PVR should also prompt the clinician to once again carefully review the medication list, looking for agents that interfere with bladder contraction (eg, anticholinergics) or sphincter relaxation (eg, alpha-adrenergic agonists or beta-adrenergic antagonists). If no reversible causes are

identified, and if the patient has no conditions requiring further evaluation, including a normal PVR, the clinician can proceed with confidence to the next step - which is to use the patient's symptoms to distinguish urge from stress incontinence.

Step 3 – Distinguishing Urge Incontinence from Stress Incontinence

The key symptoms distinguishing urge from stress incontinence are shown in Table 2. The “Three Incontinence Questions” (3IQ), shown below, can also be

used to distinguish stress from urge.

Some patients have mixed incontinence, with symptoms of both types. Treatment should be focused on the predominant symptom. Treatment of these conditions will be the subject of a future edition of this newsletter.

In the occasional case in which history and 3IQs cannot distinguish whether stress or urge is present, simple office cystometry can often help make the distinction.

Table 1. Reversible Causes of Urinary Incontinence (DIAPPERS)

- Delirium (cerebral dysfunction causing loss of voluntary and involuntary inhibition of urination)
Infection (acute urinary infection)
Atrophic vaginitis (associated with atrophy/inflammation of bladder trigone, resulting in uncontrolled bladder contractions)
Pharmaceutical agents (drug side effects)
Psychological disorders (causing inability to follow directions or perform self-care)
Excessive urination (osmotic diuresis from hyperglycemia; on rare occasions hypercalcemia is the cause)
Restricted mobility (inability to get to toilet on time when urge to void occurs)
Stool impaction (fecal impaction causing bladder outflow obstruction)

Three Incontinence Questions (3IQ)

Did you leak urine...

- when performing physical activity, such as coughing, sneezing, lifting, or exercise? [indicates stress incontinence]
when you had the urge or feeling that you needed to empty your bladder, but could not get to the toilet? [indicates urge incontinence]
without physical activity or a sense of urgency? [indicates a cause other than stress or urge]

Table 2. Symptoms Distinguishing Urge from Stress

Table with 3 columns: Symptom, Urge, Stress. Rows include: Loss of urine with coughing, sneezing; Urgency (sudden uncontrollable urge to void); Frequency (often 8 or more times/day); Nocturia; Amount of urine loss per void.

References

1. Brown JS, et al. The sensitivity and specificity of a simple test to distinguish between urge and stress urinary incontinence. Annals of Internal Medicine. 2006; 144:715-723.
2. Gibbs CF, et al. Office management of geriatric urinary incontinence. American Journal of Medicine. 2007; 120:211-220.
3. Fantl JA, et al. Urinary incontinence in adults: Acute and chronic management. Rockville, Md.: U.S. Dept of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research, 1996.
4. Weiss BD. The diagnostic evaluation of urinary incontinence in geriatric patients. American Family Physician. 1998; 57:2675-2684



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This story can fit 150-200 words.

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This would be a good place to insert a short paragraph about your organization. It might include the purpose of the organization, its mission, founding date, and a brief history. You could also include a brief list of the types of products, services, or programs your organization offers, the geographic area covered (for example, western U.S. or European markets), and a profile of the types of customers or members served.

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