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ELDER CARE

A Resource for Interprofessional Providers

Urinary Incontinence - Diagnosis

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Many primary care providers are uncertain about the evaluation of urinary incontinence in older adults. In reality, the evaluation is relatively straightforward, and for the most part, the workup is well within the capabilities of primary care practice. Most diagnoses can be made with a history and physical exam, urinalysis (U/A), and measurement of a post-void residual urine volume (PVR). Urodynamic testing and more invasive tests are rarely required for the routine evaluation of incontinence.

This fact sheet will review the key steps in the primary care diagnosis of urinary incontinence. The next issue of Elder Care will discuss treatment.

Goals

The initial goals of an incontinence evaluation are twofold: to determine if a patient has a reversible cause of incontinence, or has findings that warrant referral for subspecialty or surgical care. If these concerns are not substantiated, the next step is to differentiate between the diagnosis of urge incontinence (uncontrolled bladder detrusor contractions) or

stress incontinence (an ineffective urinary outlet sphincter). Treatments are then prescribed depending on the type of incontinence identified.

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.

Providers 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 provider can move ahead and to the next step of an incontinence evaluation.

Conditions Requiring Further Evaluation or Subspecialty Care

History, physical, and urinalysis are

also used to identify conditions that require further evaluation or referral to 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 - but 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 the post void residual urine volume (PVR), which is 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.

TIPS FOR DIAGNOSING INCONTINENCE IN THE ELDERLY

- A good H & P, U/A and a PVR will identify most causes of urinary incontinence in older adults.
- Remember the mnemonic DIAPPERS to evaluate for reversible causes of incontinence.
- Common causes of reversible incontinence are prescription and OTC medications.
- 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.
- Ask the three incontinence questions to help diagnosis stress, urge or mixed incontinence.
- Simple office cystometry can further help to distinguish between stress and urge incontinence.

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An elevated PVR in men 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 provider to once again carefully review the medication list, looking for agents that interfere with bladder contraction (e.g., anticholinergics) or sphincter relaxation (e.g., 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 provider can proceed with confidence to the next step - which is to use the patient's symptoms to distinguish urge from stress incontinence.

Step 3 – Urge vs. 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 incontinence.

Some patients have mixed incontinence, with symptoms of both types. In the occasional case in which history and 3IQs cannot distinguish whether stress or urge is present, simple office cystometry can often help.

Treatment should be focused on the predominant symptom (see next issue).

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 the toilet on time when urge to void occurs)
- Stool impaction** (fecal impaction causing bladder outflow obstruction)

Table 2. Symptoms Distinguishing Urge from Stress

Symptom	Urge	Stress
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	Large	Small

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]

References and Resources

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