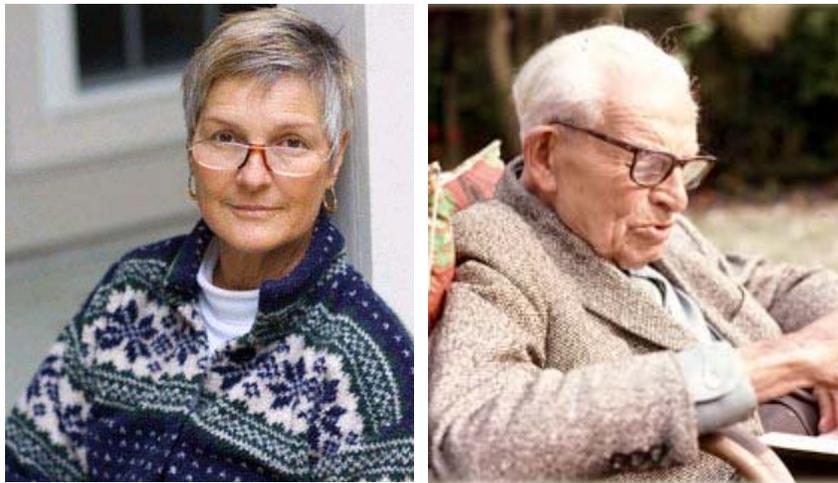


Overactive bladder and urgency incontinence



As a health care provider you can make a significant difference to the quality of life of patients like these by addressing urinary incontinence, introducing conservative therapies and utilizing professional resources when they are needed.

This educational tool is an introduction to urgency incontinence for the health care professional.

Its goals are to create awareness and provide information useful for advising clients and helping them to access resources.

It was written by Gloria Harrison, a Nurse Continence Advisor and Research Coordinator in Edmonton, Alberta, and by Derek Griffiths, a medical scientist who specializes in bladder problems.

Download copies of instruction sheets and blank bladder diaries from Griffiths Urodynamics and Pro-Continence Consulting's website (www.learncontinence.com).

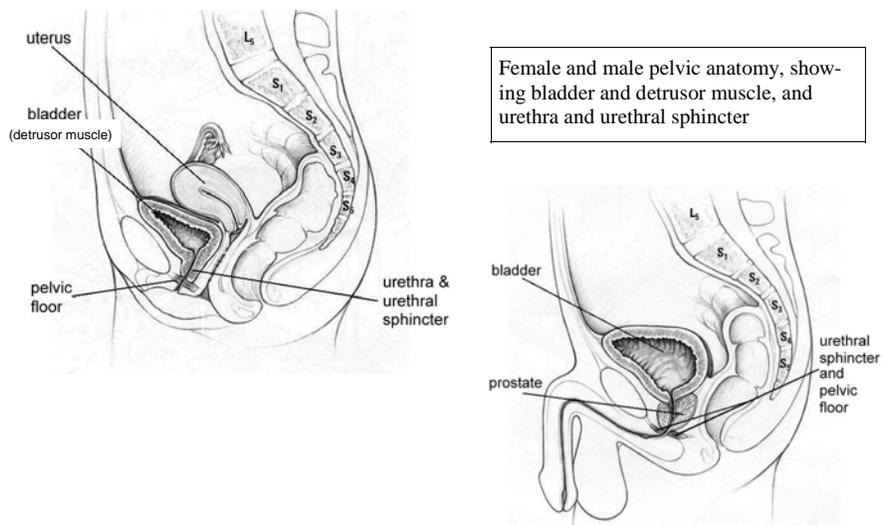
May 2012

Urinary incontinence is the complaint of any involuntary leakage of urine. There is more than one type of incontinence. **Stress incontinence** is leakage of urine related to coughing, sneezing, laughing, running, jumping, or any other activity that causes the abdominal pressure to rise, squeeze on the bladder and override the bladder's closure mechanism. **Urge or urgency incontinence** is the complaint of leakage of urine accompanied by urgency (a sudden compelling desire to pass urine) and inability to get to the bathroom in time. **Mixed incontinence** is a combination of stress and urgency incontinence: the complaint of involuntary leakage associated with urgency and also with physical exertion, sneezing or coughing.

Urgency incontinence is one of the symptoms that make up the overactive bladder syndrome (OAB). The other symptoms of OAB are urgency and frequency of voiding. OAB is often divided into OAB with incontinence (OAB_{wet}) and OAB without incontinence (OAB_{dry}).

Prevalence. According to a recent Canadian study, the overall prevalence of OAB is similar in women (14.7%) and men (13.1%). However, urgency incontinence (OAB_{wet}) is more prevalent in women (7.1%) than men (3.3%). Among incontinent men, most (73%) have urgency incontinence (including a few with mixed). Among incontinent women stress incontinence is the most common type but 32% have mixed or urgency incontinence. Urinary incontinence increases with age and in older women it is usually of the mixed or urgency type.

Urgency incontinence and **OAB** may be idiopathic or can be associated with many types of neurological disease. A bladder that is difficult to control because it contracts involuntarily at the wrong time and place (called 'detrusor overactivity') is usually the underlying cause of urgency incontinence.



Transient and established incontinence

Transient incontinence. Risk factors or causes contributing to the incontinence from outside the lower urinary tract are usually called **transient** or reversible. It is particularly important to seek and address them in older people.

The causes of transient incontinence are incorporated in the mnemonic **DIAPPERS**

D elirium I nfection (symptomatic UTI) A trophic urethritis/vaginitis (in women)* P sychological (e.g. severe depression, neurosis) P harmacological E xcess fluid intake or output R estricted mobility and environmental barriers S tool impaction (constipation)
--

* may lead to frequency and urgency rather than incontinence

Established incontinence is incontinence that fails to respond after transient causes have been addressed.

Risk factors for established urgency incontinence and OAB include:

- neurological disease (such as stroke, multiple sclerosis, Parkinson's disease, spinal cord disease or injury)
- diabetes
- cognitive impairment or dementia
- in women, estrogen deficiency, pelvic organ prolapse and surgical prolapse repair may play a role
- in men, detrusor overactivity may sometimes be linked to obstruction caused by an enlarged prostate.

Symptoms: Urgency incontinence is associated with:

- urgency
- frequency of voiding
- nocturia
- moderate to large amounts of leakage that occur day and night

Assessment: A simple history, a bladder (and bowel) diary and medication review are helpful in determining the likelihood of urgency incontinence.

Ask the following questions:

- How much does it bother you? (from not at all to a great deal)
- Do you leak with laughing, coughing, sneezing, physical exertion?
 - indicates stress incontinence
- Do you have to rush to the bathroom or do you leak on the way there?
 - indicates urgency incontinence (the topic of this booklet)

For patients with urgency incontinence the bladder diary will support the symptoms of moderate-large leakage, both night and day, associated with urgency, frequency and nocturia (see bladder diary on next page).

BLADDER AND BOWEL RECORD

DATE: *Thurs. Jan 12*

⊙ TIME	DRINKS Amount & type	↓ TOILET ✓ or amount	ACCIDENTS		BOWELS ** Bowel movement
			✓ Small/ medium/ large	Reason for leakage	
☼					
7 am	juice 1 cup coffee 1 cup	230ml	med	strong urge when I woke up	
8 ¹⁵ am	coffee 1 cup				
9 ¹⁰ am		120ml	large	strong urge	4 ✓
9 ¹⁵ am	coffee 1 cup	150ml	large	strong urge	
10 ⁰⁰ am		125ml	large	strong urge	
11 ⁵⁵ am		180ml			
12 ³⁰ pm		75 ml	large	strong urge	
3 ⁰⁰ pm		120ml			
5 ¹⁰ pm	tea 1 cup				

If a more extensive examination is needed, for example a physical assessment, the patient should be referred to a specialist. A targeted physical examination would include cognition, mobility, neurological, pelvic and rectal assessments.

Management

Address issues suggested by DIAPPERS, then reassess.

Further management of urgency incontinence includes the following:

1. Lifestyle changes
 - adjusting volume, timing and types of fluids
 - Decrease fluids if intake excessive but maintain adequate fluid intake of 6-8 cups (1500-2000 ml) per day
 - Decrease evening fluid intake if nocturia present
 - Decrease intake of caffeine and other bladder irritants such as citrus, tomato, spicy foods, aspartame
 - voiding every 3 to 4 hours during the day
 - bowel management. Teach the 4 F's:
 1. Fluids: 1500 to 2000 ml, balanced throughout the day.
 2. Fibre: Intake of 25-30 g per day for healthy bowel function.
 3. Fitness: Suitable activity daily for general and bowel health.
 4. Feet: Firmly on the floor, bend forward. Good positioning helps evacuate bowels.
 - quitting smoking
 - losing weight (if overweight). Studies have shown that weight loss has a significant effect on leakage.
2. Behavioural therapy includes pelvic floor muscle training, urge suppression and bladder retraining. This therapy teaches the patient to progressively

postpone voiding using urge suppression and pelvic muscle contraction. The patient should be referred to physiotherapy for additional pelvic muscle rehabilitation and biofeedback if needed.

For functional limitations consider: timed voiding (base timing on bladder diary), improved bathroom access and lighting, bedside commode and addressing clothing issues

For cognitive limitations, consider timed voiding or prompted voiding (ask if patient wants to go to bathroom; give positive feedback if “yes”).

3. Medication. If conservative therapies are unsuccessful, consider a trial of antimuscarinic (anticholinergic) medication (e.g. oxybutynin, tolterodine, darefenacin, solifenacin, or trospium).
In women with atrophic vaginitis, vaginal estrogen may help OAB symptoms, especially urgency. This can be administered in the form of vaginal cream, tablet, or ring insert.
4. Pessary. This vaginal device can be effective in managing urgency incontinence in females, especially when it is associated with pelvic organ prolapse. It may be used in combination with vaginal estrogen.

Absorbent products

Absorbent products are not the first line of management but they are an important component of a comprehensive approach. Use of good quality products enhances quality of life. Patients should be encouraged to use an incontinence product rather than a menstrual type to protect the skin and control odour. In urgency incontinence more absorbency may be required.



Top row: Pull-ups (female and male);
Bottom row: Slip-on and fitted brief

Professional resources:

- Family physician with an interest in the field
- Gynecologist or Urogynecologist
- Urologist with an interest in this field
- Specially trained physiotherapist
- Nurse continence advisor
- Nurse practitioner with an interest in this field

A number of continence clinics offer multidisciplinary care.

Patients who have associated pain, hematuria, recurrent urinary tract infection, a pelvic mass, history of pelvic radiation, previous pelvic lower urinary tract surgery, prolapse beyond hymen (women) or suspected fistula (continuous leakage) should be referred to a specialist.

Case study # 1



Roberto is a 75 year old male on home care assistance. He was hospitalized 2 months ago for a right-sided stroke. He has residual left arm and leg weakness and now uses a walker to ambulate. His past medical history includes osteoarthritis of the hips and knees, hypertension and angina. He had a TURP for benign prostatic hyperplasia 2 years ago. His medications are: furosemide 20 mg, ASA 81 mg daily and celecoxib 200 mg daily. He has continued to experience urinary incontinence since his hospital discharge but has not consulted his physician. He finds the incontinence very distressing. He says that he gets a

very sudden, strong urge sensation and then has trouble making it to the bathroom in time. Occasionally he leaks moderate to large amounts of urine. His leakage is especially bad later in the mornings, so he is afraid to go out and misses his seniors' morning out. He is not using an incontinence product. His bladder diary indicates that he voids every half hour in the a.m. but less frequently in the afternoon. He is up to the bathroom 3 times at night. Last night he tripped trying to make it there on time. He is worried he is going to wet the bed. He has been cutting back on his fluid intake but has 3 cups of coffee in the morning and one in the evening. Recently he has had constipation symptoms.

What do we advise?

It may be reassuring to mention to Roberto that although incontinence is a common result of a stroke, it may gradually improve over time. Studies suggest that incontinence is persistent in only 15% of stroke survivors at 6 months.

1. Medication review

The furosemide is affecting his condition significantly. You could discuss this issue with his physician. If he needs to keep taking a diuretic, consideration could be given to alternate medication or changing the time of the dosage (for example, delaying the timing on the mornings he wishes to go out).

2. Lifestyle changes

Fluid adjustment. You should advise Roberto to gradually decrease his caffeine intake to 1½ cups in the early part of the day and to replace the rest of his intake with other fluids, to reach 6 to 8 cups per day. His evening fluid intake should be minimal because of the nocturia.

Environmental adjustment. Falling on the way to the bathroom is a concern. He might benefit from a bedside urinal. Ensure that he has had an assessment by a physiotherapist or occupational therapist to address whether he needs adaptive clothing or toileting aids.

3. Behavioural therapy

Urge suppression and bladder retraining may be beneficial and Roberto should be encouraged to try them first.

4. Medication

If behavioural therapy is unsuccessful, antimuscarinic medication could be trialed under the supervision of a physician.

5. Products

While Roberto's incontinence persists an undergarment or protective underwear would be appropriate. Make sure that he can easily apply it and remove it for toileting. Suggest that he should use a reusable bed pad for night-time.

Case study # 2



Lydia is a 52 year old female with a 2-year history of urinary incontinence. She works as an accountant and is distressed with the impact this is having on her work and social life. She experiences frequency every 30 min to one hour during the day and gets up twice at night. She gets a sudden urge to void and loses moderate to large amounts, especially at night. Her urgency is triggered by running water and cold temperatures.

She had a hysterectomy at age 50. Her BMI is 27 (overweight) but she is otherwise healthy. Urinary tract infection has been ruled out.

She restricts her fluids, has given up caffeine with some good effect and does not drink alcohol.

Her bladder diary shows a low fluid intake (1 cup of water in the early morning and 2 cups in the evening). She voids 8 times during the day. Her leakage occurs day and night and usually on the way to the bathroom.

Discussion

Lydia's history and bladder diary are an indication of urgency incontinence, and her symptoms of urgency and frequency with leakage match the definition of OAB_{wet}.

What do we advise?

Initially we would try conservative therapy. This would include:

- 1 Lifestyle changes
 - Fluid adjustment: encourage fluid intake of 6-8 cups with a balanced intake throughout the day but decrease evening intake due to nocturia. Continue to eliminate caffeine and check for other bladder irritants.
 - Encourage weight loss, as it may improve urgency symptoms.
- 2 Behavioural therapy includes:
 - Pelvic floor muscle training, urge suppression and bladder retraining. This therapy teaches the patient to progressively postpone voiding us-

ing urge suppression and pelvic muscle contractions. It can be helpful in reducing or curing frequency and urgency.

- If Lydia is not improving she should be referred for additional training with biofeedback.

3. Medication

- If conservative therapies are unsuccessful, Lydia should see a physician regarding a trial of antimuscarinic (anticholinergic) medication (e.g. oxybutynin, tolterodine, darefenacin, solifenacin, or trospium). A combination of drug and behavioural therapy might help her.

4 Products

- While incontinence persists, suggest that she use a product suitable for her absorbency requirement. It might be an extra absorbent pad, undergarment, or protective underwear,

As a health care provider you can make a significant difference to the quality of life of patients like Lydia or Roberto by addressing urinary incontinence, introducing conservative therapies and utilizing professional

Supported by an unrestricted grant from



Prepared by Griffiths Urodynamics & Pro-Continence Consulting

www.learncontinence.com