CONSIDERATIONS FOR OVERACTIVE BLADDER (OAB): FROM DIAGNOSIS TO FOLLOW-UP

Adapted from the Canadian Urology Association Guidelines and developed in association with a multidisciplinary panel of your peers:

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OAB is characterized by urinary urgency, with or without urgency urinary incontinence (UUI), often accompanied by frequency and nocturia. Since it is not life-threatening, its impact on quality of life (QOL) plays a significant role in the decision to treat patients.[1]

OAB Overview

What Is OAB?

The key symptoms of OAB are FUN:[1]

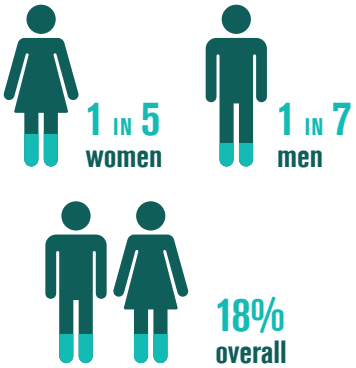
Frequency

Urgency
(with or without UUI)

Nocturia

Who is impacted?

In Canada, a survey indicated that OAB affects more than:[1,2*]



Although the prevalence of OAB symptoms increases with age in both sexes, **OAB is not a normal part of aging.**[1]

How could OAB affect patients?

According to the Canadian Urological Association (CUA), OAB is associated with a negative impact on:[1]

- QOL
- Older persons with multiple comorbidities
- Work productivity

30% of patients with OAB have depression[1]

Urological symptoms are associated with an increased risk of falls, fractures, and hospitalizations[1]

Economic burden due to decreased workplace productivity related to OAB[1]

* A computer-assisted telephone interview system survey of 3,249 Canadians, 35 years of age or older.[1,2]

Many patients are reluctant to start a discussion about OAB.[1,3]
If you detect symptoms, ask probing questions to uncover evidence of **FUN**.

IDENTIFYING OAB IN YOUR PRACTICE

Get the conversation started: Taking a patient history

	65 Y.O. MALE	50 Y.O. FEMALE
Symptoms (duration, severity, and bother)	▪ 5-year history of slower stream ▪ Increased daytime frequency and urgency over the past year ▪ Frustrated by 2–3 instances of nocturia Nocturia is not unique to BPE—it is also a common symptom of OAB.[1]	▪ 5 years of urinary frequency ▪ Now in new work environment with recent issue of urinary urgency (bathroom proximity issue; had a few embarrassing accidents)
Previous OAB treatment	Treatment naïve	Previously-treated patient **Discontinued treatment due to:** ▪ Poor tolerability due to side effects (dry mouth and constipation) ▪ Perceived lack of efficacy
Comorbidities	▪ Hypertension ▪ Obesity (BMI 31.1 kg/m^2)	▪ Type 2 diabetes mellitus (2 years, under control) ▪ Overweight (BMI 27.1 kg/m^2)
Surgical history	N/A	Hysterectomy in early 40s due to endometriosis
Other medications (e.g., OTC, prescription, NHP)	▪ ACE inhibitor	▪ Metformin ▪ DPP-4i
Fluid intake	▪ Limits fluid intake ▪ Avoids coffee ▪ 1–3 cans of beer (355 ml) weekly	▪ AM: 2 mugs of coffee (~500 ml) ▪ Noon: A diet soda (355 ml) ▪ PM: 3–4 tall cans of dry cider (455 ml) per week + glass of water (250 ml)

RED FLAGS

Is it OAB or an alternative pathology if you observe:[1,4]

- Hematuria
- Increasing incontinence
- Abnormal digital rectal exam (DRE)
- Neurological disorders (e.g., Parkinson's disease, multiple sclerosis) + voiding dysfunction

ACE, angiotensin-converting-enzyme; BMI, body mass index; BPE, benign prostatic enlargement; DPP-4i, dipeptidyl peptidase-4 inhibitors; NHP, natural health product; OTC, over the counter; y.o., year old.

Putting the pieces together: Making the diagnosis

65 Y.O. MALE

Perform clinical examinations[1,4,5]	Differentiate symptoms[1,4]	
	BPE	**OAB**
▪ Abdominal exam (rule out distended bladder) ▪ Examine urethral meatus and foreskin tightness (rule out obstruction) ▪ DRE (rule out BPE or possible prostate cancer) ▪ PSA testing (if appropriate) ▪ Urinalysis (rule out UTI)	Voiding difficulty (hesitancy, intermittent/poor flow)	**FUN**
EXAMPLES OF PATIENT COMPLAINTS	*"I have a slow stream and find it hard to get started"*	*"I need to run to the bathroom a dozen times a day, and 2–3 times a night"*

50 Y.O. FEMALE

Perform clinical examinations[1,4,5]	Differentiate symptoms[1,4]		
	Dry OAB	**Wet OAB**	**SUI**
▪ Abdominal exam (rule out distended bladder) ▪ Pelvic exam (assess vagina for prolapse, pelvic floor support, tissue quality/sensation) ▪ Urinalysis (rule out UTI and glucosuria)	Urgency and frequency with or without nocturia		Loss of urine associated with physical activity
	Without UUI	**With** UUI	
EXAMPLES OF PATIENT COMPLAINTS	*"I can't sit through a movie without needing the bathroom"*	*"I couldn't get to the bathroom in time and had an accident"*	*"I wish I didn't leak urine when I cough, sneeze, or exercise"*

LUTS, lower urinary tract symptoms; PSA, prostate-specific antigen; SUI, stress urinary incontinence; UTI, urinary tract infection.

NAVIGATING OAB TREATMENT OPTIONS: WHAT TO CHOOSE AND W

First-line therapies

1. Patient education

Establishing a realistic OAB treatment plan according to patients' expectations is <u>crucial</u> to first-line therapy adherence and compliance. Emphasize that 8–12 weeks of therapy is often required before its effects are obvious to the patient.[1]

2. Lifestyle changes

FLUID INTAKE MANAGEMENT[1]

- Use bladder diary to establish baselines and assess/monitor treatment outcomes
- Reduce consumption of bladder irritants (caffeine, alcohol, nicotine, and carbonated drinks)

DIETARY MODIFICATION[1]

- Reduce consumption of foods that are high in sugar, aspartame, fat, and/or spicy

WEIGHT MANAGEMENT[1]

- Refer to the new Canada's Food Guide for healthy eating suggestions
- Integrate exercise appropriate for patient's ability (e.g., walking, yoga, swimming)

3. Behavioural therapy

BLADDER TRAINING[1]

Different studies demonstrate that bladder training is more effective in symptom control than not providing physical behavioural therapy.

- **Timed voiding:** voiding at regular intervals has been shown to have beneficial results in comparison to standard care
- **Urgency control and suppression:** performing general relaxation can decrease intensity and urgency, therefore delaying the voiding process

PELVIC FLOOR MUSCLE TRAINING (PFM; ALSO KNOWN AS KEGELS)[1]

- Ask patient to imagine passing of gas without tensing muscles in legs, buttocks, and abdomen
- Incorporate into daily activities to promote compliance and adherence
- Consider referring your patient to a PFM therapist for further instruction

All first-line therapies listed above can be considered in both patient cases. Lifestyle changes involving modifications of fluids/caffeine intake, weight control, dietary modifications, management of bowel regularity, and optimization of other comorbidities may be an effective option in certain cases.

WHEN

Second-line therapies*

Class	Drugs	MOA	Receptor
Antimuscarinic (AM)[1]	▪ Oxybutynin (IR, TDS, ER) ▪ Tolterodine (IR, ER) ▪ Darifenacin ▪ Trospium ▪ Solifenacin ▪ Propiverine ▪ Fesoterodine	▪ Inhibits muscarinic receptors ▪ Prohibits detrusor muscle contraction ▪ Receptors located throughout the body	▪ Blocks M2 and M3 receptors to decrease afferent signals to the bladder ▪ May affect other muscarinic receptors
Beta-3 agonist[1]	▪ Mirabegron	▪ Activation causes detrusor muscle relaxation ▪ Increases bladder capacity ▪ Receptors localized to the bladder	▪ Acts on beta-3 receptors in bladder

* Comparative clinical significance is unknown.
ER, extended release; IR, immediate release; MOA, mechanism of action; TDS, transdermal patch.

What are your next steps for the two patient cases presented? What factors influence your decision?

Check with your local pharmacist to see what is covered in your province and ask your patients if they have private coverage.

Third-line therapies

Consider referring the patient to a specialist for these therapies:[1]

- Sacral neuromodulation (SNM)
- Intravesical onabotulinumtoxinA injections

SUMMARY OF CONSIDERATIONS FOR SECOND-LINE OAB TREATMENT[1]

Start with the lowest recommended dose of an AM **or** a beta-3 agonist

To optimize the dose for the best clinical outcome, try increasing the dose while routinely monitoring for ADEs

If the initial selection is intolerable/ineffective, try an alternative medication with a different MOA

ADE, adverse drug events.

Follow-up

- Ascertain compliance, efficacy, and adverse events/side effects using validated OAB-specific instruments
- Encourage patients to create realistic treatment goals based on their expectations
- If management is deemed ineffective or intolerable, then alternative treatment options should be presented, including drug dose-modification, change within drug class, change of drug class, or consideration of third-line OAB therapies

TROUBLESHOOTING

The male patient

When a male patient presents with both **voiding** and **urine storage** symptoms, a possible diagnosis may be…

LUTS secondary to BPE (voiding and storage symptoms)[1,5]

Voiding symptoms		Storage symptoms
▪ Interrupted stream ▪ Hesitancy ▪ Straining ▪ Terminal dribbling ▪ Feeling of incomplete emptying	+	▪ Frequency ▪ Urgency - With or without urgency urinary incontinence ▪ Nocturia

Refer to the Resources section for validated and simplified questionnaires that may be used to aid diagnosis.

Special considerations for frail and older persons

POLYPHARMACY

- The risk of AEs increases exponentially with each additional medication

AGE-RELATED EFFECTS ON PHARMACOLOGY

- Changes in pharmacokinetics, absorption, distribution, and metabolism
- Reduced drug clearance
- Blood brain barrier dysfunction and cognitive impairment are also of concern in frail and older persons

Patient motivation and counselling tips

Given the impact of OAB on patient psychological well-being and daily activities, it is important to be a source of encouragement throughout your patients' treatment journeys.

Ensure your patients are invested in their goals and their treatment plan—emphasize they are in control

Manage your patients' expectations about the effects medication and lifestyle changes can have

Collaborate with your patients to create realistic goals that can fit into their day-to-day lives

Show involvement in their care—discuss their concerns, celebrate milestones, and follow up frequently

SUMMARY

OAB has an impact on the psychological well-being and day-to-day activities of patients

Barriers to treatment include symptoms of OAB being mistaken as a natural part of aging and patient hesitancy to raise concerns to family physicians

Lifestyle changes—such as diet modification, bladder training, and fluid management—and patient education form the foundation of OAB management

Prescription medications are available for use if behavioural changes are not effective

If lifestyle changes and medications are unsuccessful, patients can be referred to a specialist to receive third-line treatments

Patients with OAB may benefit from support, encouragement, and frequent follow-up from their healthcare team

This newsletter was developed in collaboration with Astellas. Any references to products or treatment options should not be taken as an endorsement or recommendation.

References:

1. Corcos J, et al. CUA guideline on adult overactive bladder. *Can Urol Assoc J*. 2017;11(5):E142-E173.
2. Corcos J, et al. Prevalence of overactive bladder and incontinence in Canada. *Can J Urol*. 2004;11(3):2278-2284.
3. Filipetto FA, et al. The patient perspective on overactive bladder: a mixed-methods needs assessment. *BMC Family Practice*. 2014;15(1):96.
4. Barkin J, et al. The practical update for family physicians in the diagnosis and management of overactive bladder and lower urinary tract symptoms. *Can J Urol*. 2017;24(5s1):1-11.
5. Nickel JC, et al. Canadian Urological Association guideline on male lower urinary tract symptoms/benign prostatic hyperplasia (MLUTS/BPH): 2018 update. *Can Urol Assoc J*. 2018;12(10):303-312.

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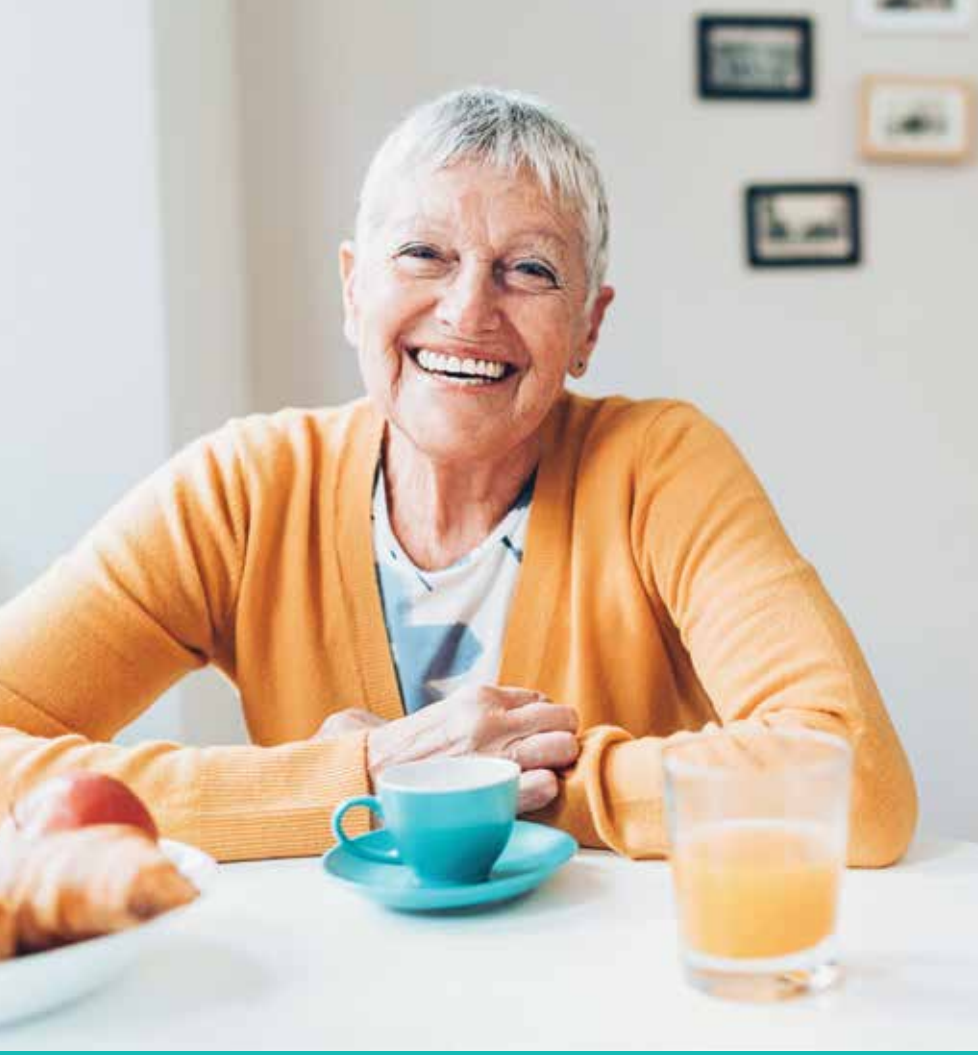

RESOURCES

Useful links

Canada's Food Guide
www.food-guide.canada.ca/en/

Behavioural therapy guide
www.canadiancontinence.ca/EN/treatment.php

Bladder diary example
www.niddk.nih.gov/-/media/Files/Urologic-Diseases/diary_508.pdf

Validated questionnaires

OAB-q
www.bmj.com/content/suppl/2012/04/17/bmj.e2365.DC1/mars000342.w2_default.pdf

I-PSS (for men)
www.urospec.com/uro/Forms/ipss.pdf

Some considerations for diagnosing OAB[4]

Questions	Diagnosis to consider if answer is "yes"
Do you get sudden urges to go to the bathroom that are so strong you cannot ignore them?	OAB
Do you go to the bathroom more than 8 times in a 24-hour period?	OAB
Do you get up 2 or more times during the night to go to the bathroom, and void small volumes?	OAB
Do you have uncontrollable urges to urinate, which sometimes lead to wetting accidents?	UUI
Do you leak urine on the way to the bathroom?	UUI
Do you leak urine when you laugh, sneeze, or lift something?	SUI
Do you use absorbent pads to keep from wetting your clothes?	UUI or SUI
Do you have a slow stream, hesitance, dribbling, or (for men) spraying?	BPE