

A Practical Approach to the Canadian Urological Association Guideline on Adult Overactive Bladder



Adult Overactive Bladder

OAB is a symptom syndrome consisting of urinary urgency with or without urinary incontinence, often accompanied by frequency and nocturia, in the absence of UTI or other obvious pathology.

The overall prevalence of OAB in a Canadian population is estimated at 14-18%. Most patients have a combination of OAB symptoms. In men with benign prostatic hyperplasia, OAB and bladder outlet obstruction often coexist (Grade B).

Decision to treat: Since OAB is not life-threatening, its impact on QoL plays a major role in the decision to treat patients.

- OAB significantly impacts daily activities, mental health, sexual function, and marital satisfaction.
- OAB symptoms are linked to depressive illness (LoE 3b, Grade C).
- Individuals who develop UI have worse QoL.
- OAB remains a serious concern in frail or multimorbid older people, although evidence on the psychosocial impact of OAB in this population is limited.

Diagnosis

Initial assessment includes a history and physical examination, patient self-completed QoL questionnaire, voiding diary observation for 3-7 days, and urinalysis (see Figure). Additional tests are indicated when the diagnosis remains uncertain after history and physical examination, when the symptoms do not correlate with physical findings, or after failed previous treatment (Expert opinion).

Comprehensive Diagnostic Assessment

Medical history (LoE 2b, Grade B)

Elicit information on the rapidity of onset, duration of symptoms, and baseline symptom levels

Physical examination (Expert opinion)

Perform a general evaluation and abdominal, pelvic, digital (rectum and/or vagina), and neurological (sacral neuronal pathways S1-S4) examinations

Self-completed QoL questionnaire (LoE 2b, Grade B)

Use OAB-q, OAB-S, OABSS, II-Q, or UDI (Grade A)

Self-completed voiding diary (LoE 2b, Grade B)

Document the time, type, and volume of fluid intake, urine volume voided, urgency episodes, and incontinence episodes over 3-7 days

Urinalysis (LoE 3b, Grade C)

Perform in the initial evaluation of patients suspected of OAB

Additional tests: Post-void residual volume (LoE 3b, Grade B); bladder/renal ultrasound (LoE 4, Grade C); cystoscopy (Grade C); CT/MRI (Grade C); UDS (LoE 1b, Grade A)

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First-line Treatment

Behavioral therapies (Grade B)

- Bladder training
- Pelvic floor muscle therapy

Lifestyle changes (Grade B/C)

- Modification of fluids/caffeine intake
- Control of weight and diet
- Management of bowel regularity
- Optimization of other comorbidities

First-line treatments strongly rely on patient compliance and adherence. Patient education empowers patients and engages them in their treatment plan. Clinicians should assess for compliance, efficacy, and side effects of all treatment options at each followup visit (Expert opinion).

Second-line Treatment (Pharmacological Management)

Second-line treatment of OAB should include the use of oral antimuscarinics, transdermal oxybutynin, or oral beta-3 adrenoceptor agonist (Grade A).

The lowest recommended dose should first be prescribed, followed by increasing the dose to obtain the best clinical improvement while monitoring for adverse events (Grade B). Immediate-release formulations of antimuscarinics should be avoided if other formulations are available (Grade A). If the initial selected drug is not tolerated or does not provide adequate symptom relief, patients should be offered an alternative medication, preferably with a different mechanism of action (Expert opinion). Patients who remain incontinent after initial monotherapy could be offered combination treatment with an antimuscarinic and beta-3 adrenoceptor agonist (Grade C).

Special Considerations

Age-related changes in pharmacokinetics affect antimuscarinic drugs for UI and these factors should be incorporated into treatment planning (Grade B).

Abbreviations: BID: twice a day; ER: extended-release; IR: immediate-release; OD: once a day; QID: four times a day; TID: three times a day.



Summary of Pharmacological Management of OAB

Drug	Recommended dose	Dose adjustment
Antimuscarinics		
Oxybutynin	IR: 5 mg BID, TID, or QID ER: 5 or 10 mg OD	Elderly
Oxybutynin transdermal	36 mg (3.9 mg/day) patch twice weekly 10% gel: 1 sachet (100 mg/g) OD	
Tolterodine	IR: 2 mg BID (or 1 g BID) ER: 4 mg OD (or 2 mg OD)	CYP3A4 inhibitors, renal, hepatic
Darifenacin	7.5 or 15 mg OD	CYP3A4 inhibitors, geriatric, renal, hepatic
Trospium	IR: 20 mg BID	CYP3A4 inhibitors, renal, hepatic
Solifenacin	5 or 10 mg OD	CYP3A4 inhibitors, renal, hepatic
Fesoterodine	4 or 8 mg OD	Renal, hepatic
Propiverine	Modified release: 30 or 45 mg OD	Renal, hepatic
Beta-3 adrenoceptor agonist		
Mirabegron	25 or 50 mg OD	Renal, hepatic

Third-line Treatment

OnabotulinumtoxinA (100 U) may be offered as long-term therapy for carefully selected patients with symptoms of frequency, urgency, and urgency incontinence who have had an inadequate response to or are intolerant of OAB pharmacotherapy (Grade A). Peripheral tibial nerve stimulation is safe and effective in carefully selected patients (Grade B). Sacral neuromodulation is more invasive and higher-risk, but suitable for patients with OAB symptoms refractory to preferred treatment options (Grade B).

Access all CUA guidelines online and a full version of the adult OAB guideline at

cua.org