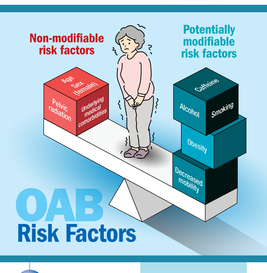
Clinical Pearls
for Overactive Bladder Diagnosis and Management

Defined by the International Continence Society and International Urogynecological Associaton as:

Urinary urgency	The sudden need to pass urine which is difficult to defer
Urinary frequency	Urinating ≥8 times in a 24-hour period
Urinary incontinence	The involuntary leakage of urine associated with a sudden compelling desire to urinate
Nocturia	Interrupted sleep ≥1 times per night to urinate

OAB causes significant impact on the affected individual's:
— quality of life
— productivity
— confidence

OAB Risk Factors



Reversible Factors of Incontinence symptoms or OAB in Adults

- **D** — **Delirium**
- **I** — **Infection** (acute UTI)
- **A** — **Atrophic urethritis or vaginitis**
- **P** — **Pharmaceuticals or psychological conditions** (depression, behavioral disturbance)
- **E** — **Excess urine output**
- **R** — **Restricted mobility**
- **S** — **Stool impaction**

From Jarvis B. In geriatric incontinence, think DAPERS mnemonic. https://www.mdedge.com/internalmedicine/article/172366/geriatrics/geriatric-urinary-incontinence-think-dapers-mnemonic, for educational purposes only.

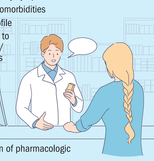
The Pharmacist's Role

Proactive Screening and Identification of Risk Factors

- Obtain a history of urinary symptoms
- Be aware of medical comorbidities
- Review medication profile
- Resolve issues related to anticholinergic burden/ medication-related AEs

Patient Counseling

- Behavioral and lifestyle changes
- Use and administration of pharmacologic treatment options
- Self-monitoring



OAB Management – An Overview

Initial Presentation, History, Physical, Urinalysis

1 FIRST LINE — **Patient education and behavioral modification**
- Behavioral therapies
- Lifestyle changes

2 SECOND LINE — **Medication therapy**
- Anticholinergics
- β3 AR agonists

3 THIRD LINE — **Neurologic approach**
- Percutaneous tibial nerve stimulation
- Sacral neuromodulation
- Onabotulinumtoxin A (intradetrusor)

AR = adrenergic receptor

Drug Treatments for OAB
Antimuscarinics and β3 AR Agonists

Antimuscarinics

Act on muscarinic receptors in the bladder wall to:

- Decrease involuntary contractility
- Increase in bladder volume voided
- Decrease micturition frequency, sensation of urgency, and number of urge incontinence episodes

Medication Name	Usual Daily Dosage Range and Formulation
Oxybutynin (Ditropan®; Ditropan® XL Oxytrol Patch®; Gelnique®)	2.5-5 mg 2-3 times per day 5-30 mg once daily (XL) 1 transdermal patch (3.9 mg/24 h) twice weekly 1 sachet (100 mg/g) or pump of gel (100 mg/g) once daily (topical gel)
Tolterodine (Detrol; Detrol LA)	1-2 mg BID (IR) 2-4 mg once daily (LA)
Trospium chloride (Sanctura; Sanctura XR)	IR and XR formulations: 20 mg BID (IR); 60 mg once daily in the morning (XR)
Solifenacin (Vesicare)	IR tablets: 5-10 mg once daily
Darifenacin (Enablex)	ER tablets: 7.5-15 mg once daily
Fesoterodine (Toviaz)	ER tablets: 4-8 mg once daily

Efficacy is similar between antimuscarinic agents
Choice of agent depends on patient-specific factors
All agents have potential to cause confusion among elderly, especially those with preexisting cognitive impairment
Monitor for anticholinergic effects (eg, dry mouth, constipation)

β3 Adrenergic Receptor Agonists

Stimulate β3 receptors on detrusor to relax bladder smooth muscle; Increases bladder capacity

Medication Name	Daily Dosage Range and Formulation
Mirabegron (Myrbetriq)	ER tablets: 25-50 mg once daily
Vibegron (Gemtesa)	75 mg once daily

Mirabegron may increase blood pressure. Mirabegron inhibits hepatic CYP2D6; consider potential drug interactions, including digoxin
Mirabegron is approved for use in combination with solifenacin
Not recommended for those with an eGFR <15 mL/min/1.73m^2 or severe hepatic impairment (Child-Pugh Class C)

Being studied for OAB and irritable bowel syndrome
Not FDA approved, results from phase 2 study

Medication Name	Daily Dosage Range and Formulation
Solabegron	125 mg BID

Clinical Pearls of Pharmacotherapy

- Persistence and adherence are low after 1 year of therapy <50%
- Use of β3 agonists is associated with greater adherence and persistence compared to antimuscarinic agents
- Studies show an average decrease of 2 incontinence episodes per day
- Patients with more severe OAB will likely see greater improvement
- Patients will likely have to change treatments over time
- Sometimes no treatment is the best treatment, depending on patient profile