Canadian Urological Association
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Association des Urologues du Canada
La voix de l'urologie au Canada

OVERACTIVE BLADDER

Speaker

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Speaker Disclosures | Dean Elterman

- Advisory Boards:
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Potential for conflict(s) of interest:

- Members of the SPC committee (Alan Bell, Peter Lin, and Arthur Kushner) received honorarium from the Canadian Urological Association.
- Dean Elterman received honorarium from the Canadian Urological Association.

Mitigating Potential Bias

The scientific planning committee of this program have complete control over the content of this program.

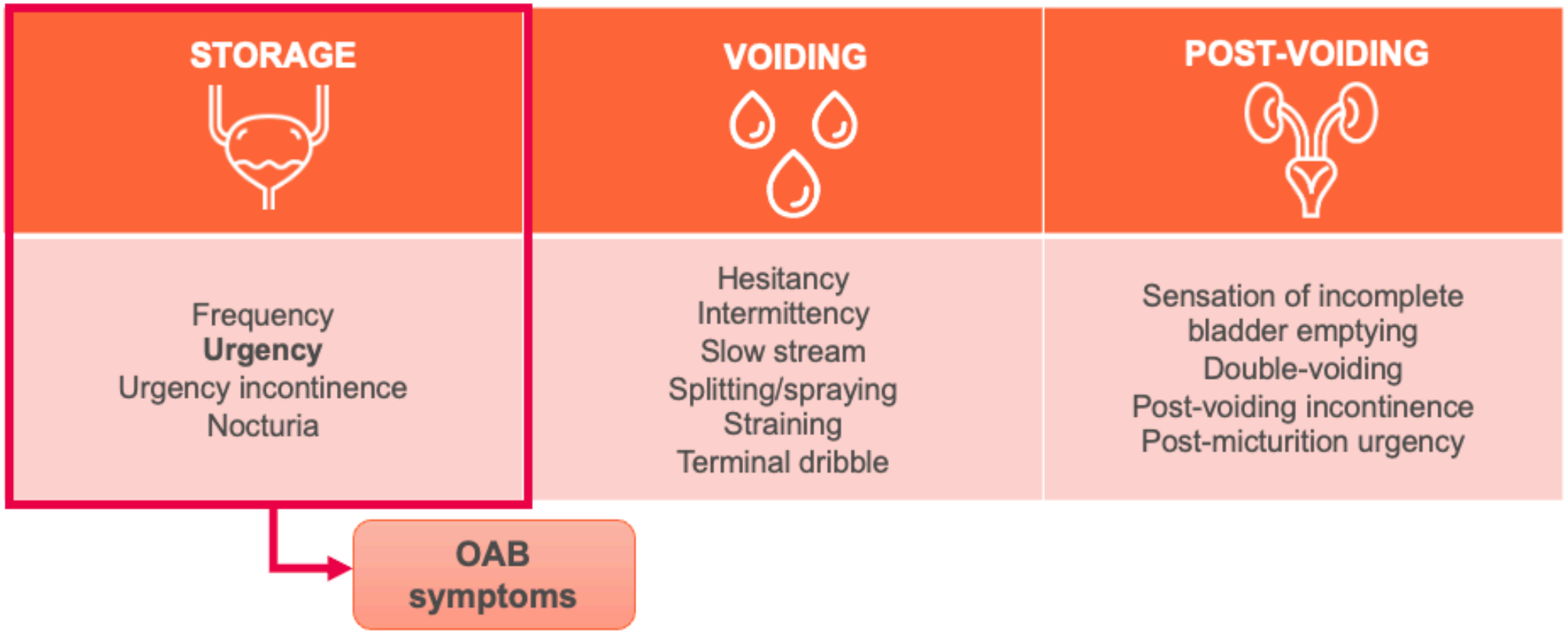
There has been no influence from the sponsors on the content.

Objectives:

Upon completion of this program, participants will be able to:

- Discuss definitions and prevalence of OAB
- Assess management of OAB
  - First-line lifestyle
  - Second-line pharmacotherapy
  - Third-line (SNM & Botox)
- Analyze OAB in special populations
  - Elderly
  - Men
  - Depression

The OAB symptom complex: Lower urinary tract symptoms



OAB, overactive bladder.

D'Ancona C, *et al*. *Neurourol Urodyn*. 2019;38(2):433–477.

OAB Symptoms

Any one of these symptoms may indicate OAB:

Urgency

A sudden, compelling desire to pass urine that is difficult to defer

Urinary Incontinence

Involuntary urine leakage accompanied or preceded by urgency, also know as urge urinary incontinence (UUI)

Frequency

Voiding ≥8 times per 24 hours

Nocturia

One or more voids per night that disrupts sleep

Are your patients comfortable discussing their bothersome urinary symptoms?

OAB: The Silent Condition

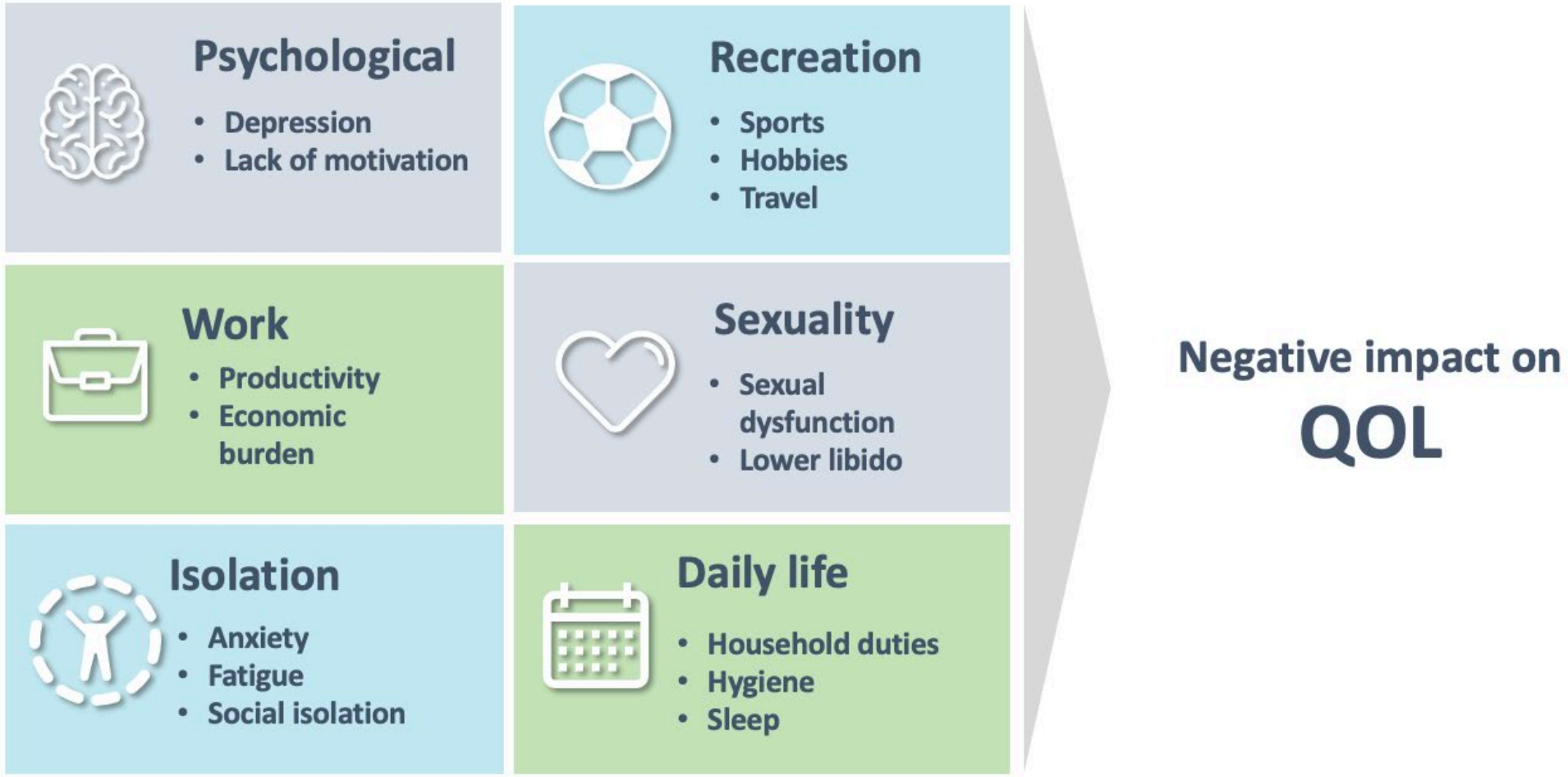
"Many people with OAB do not seek medical attention and opt to suffer in silence, possibly without realizing that treatments are available"

– CUA OAB Guidelines

CUA, Canadian Urological Association

1. Corcos J, et al. *Can Urol Assoc J.* 2017;11(5):E142-E173.

OAB impacts many aspects of life



QOL, quality of life.

1. Corcos J, et al. *Can Urol Assoc J.* 2017;11(5):E142-E173.

Who is affected by OAB?

- Nearly **1 in 4** people over **60 years old** experience OAB symptoms[1]

- **51%** of men and **56%** of women between 40 and 59 years of age experienced **storage symptoms**[1]

- **Urge urinary incontinence (UUI)** and **OAB** are the most common causes of incontinence in the elderly

- Possibly a marker of **frailty**
- Linked with **cognitive impairment**

1. Corcos J, et al. Can Urol Assoc J. 2017;11(5):E142-E173.

Medical history and assessments

- Recognize urinary symptoms
- Assess how many symptoms are consistent with OAB, their severity, and impact on patient QOL
- Conduct a physical examination
- Identify comorbidities (e.g., diabetes, dementia, depression, prostate/bladder cancer, BPH)
- List current medications
- Perform quantitative tests, like urinalysis
- Assess for other conditions which may cause urological symptoms

- Consider asking patients to:
  - Keep a voiding diary to document urinary frequency, incontinence episodes, and fluid intake
  - Complete questionnaires to assess the impact of symptoms on QOL/daily life and establish a baseline

CONSIDER ASKING

What bothers you?

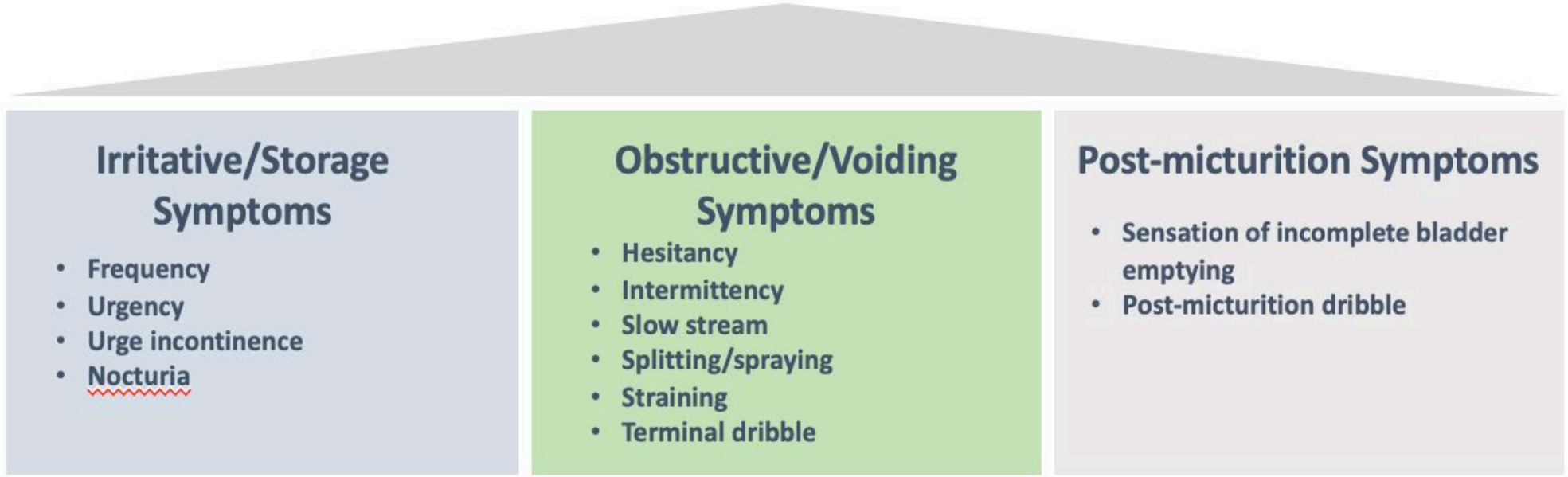
- An uncomfortable urge to urinate
- A sudden urge to urinate
- Accidental loss of small amounts of urine
- Nighttime urination

BPH, benign prostate hyperplasia; QOL, quality of life

1. Corcos J, et al. *Can Urol Assoc J.* 2017;11(5):E142-E173.

Male LUTS storage and voiding symptoms

Male lower urinary tract symptoms (LUTS) describes a cluster of chronic urinary disorders that are divided into three distinct subtypes:



DID YOU KNOW?

24% of men over 40 have a combination of storage, voiding, and post-micturition symptoms[4]

1. De Nunzio C, et al. *Drugs Today (Barc)*. 2016;52(9):501-517. 2. Nickel JC, et al. *Can Urol Assoc J*. 2010;4(5):310-316. 3. The management of lower urinary tract symptoms in men. National Clinical Guideline Centre. 2010. 4. Sexton CC. et al. *BJU International* 2009;103(Suppl 3):12-23.

All patients should implement first-line therapies

Behavioural Therapies

- Bladder training
- Pelvic floor muscle training
- Pelvic floor physiotherapy
- Timed voiding
- Biofeedback

Lifestyle Changes

- Moderate fluid intake
- Dietary modifications
- Weight control

Patient Education

- Set realistic treatment expectations
- Provide information and resources

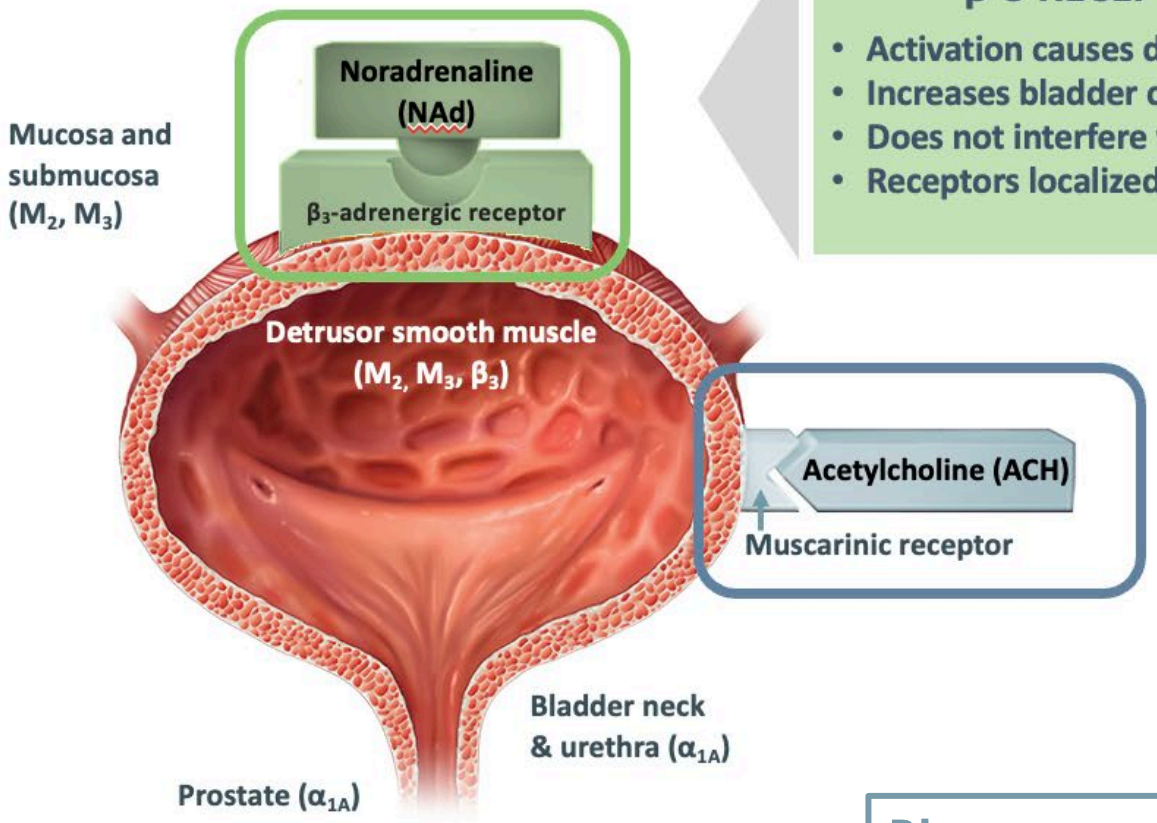
Other

- Consider toileting assistance for elderly patients

First-line treatment can be **combined with other OAB treatments** and should be a part of any treatment plan

1. Corcos J, et al. Can Urol Assoc J. 2017;11(5):E142-E173.

Second-line therapies include pharmacological treatments



β-3 RECEPTOR AGONISTS

- Activation causes detrusor muscle relaxation
- Increases bladder capacity
- Does not interfere with the voiding process
- Receptors localized to the bladder

ANTICHOLINERGICS

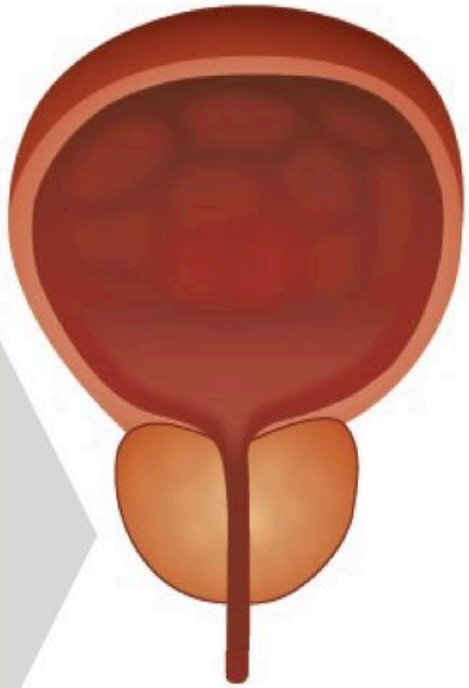
- Inhibits muscarinic receptors
- reduces detrusor muscle contraction
- Receptors located throughout the body

Pharmacological treatment is recommended in combination with behavioural/lifestyle modifications

1. Corcos J, et al. Can Urol Assoc J. 2017;11(5):E142-E173.

Lower urinary tract pharmacotherapy

For patients with persistent storage and voiding symptoms, consider **combination treatment**



Obstructive/voiding symptom treatments generally target the prostate

- Alpha$_1$-adrenoceptor antagonists
  - Available formulations: alfuzosin, doxazosin, silodosin, tamsulosin, terazosin
- 5 alpha-reductase inhibitors
  - Available formulations: dutasteride, finasteride

Irritative/storage symptom treatments generally target the bladder

- Anticholinergics
  - Available formulations: darifenacin, fesoterodine, oxybutynin, solifenacin, tolterodine, trospium chloride, propiverine
- Beta-3 receptor agonist
  - Available formulations: mirabegron

Additional pharmacologic options

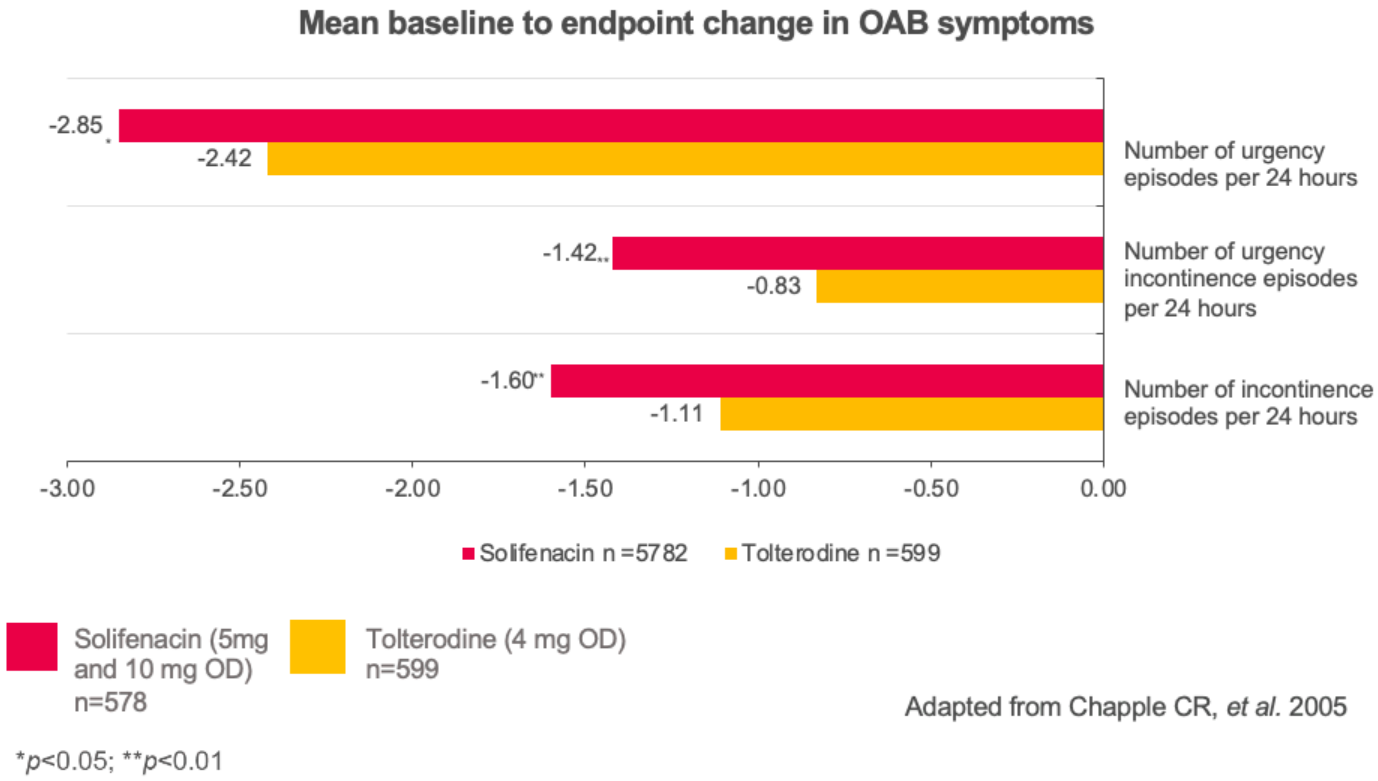
- Phosphodiesterase 5 inhibitors
  - Available formulations: tadalafil

1. Nickel JC, et al. *Can Urol Assoc J*. 2018 Oct;12(10):303-312. 2. Gravas S, et al. Management of Non-neurogenic Male LUTS. European Association of Urology. 2018. ISBN 978-94-92671-01-1.

AChs Have Been Shown To Be Effective At Reducing The Hallmark Symptoms Of OAB

Both solifenacin and tolterodine treatments reduced the number of:

1. Urgency episodes
2. Urgency incontinence episodes
3. Incontinence episodes



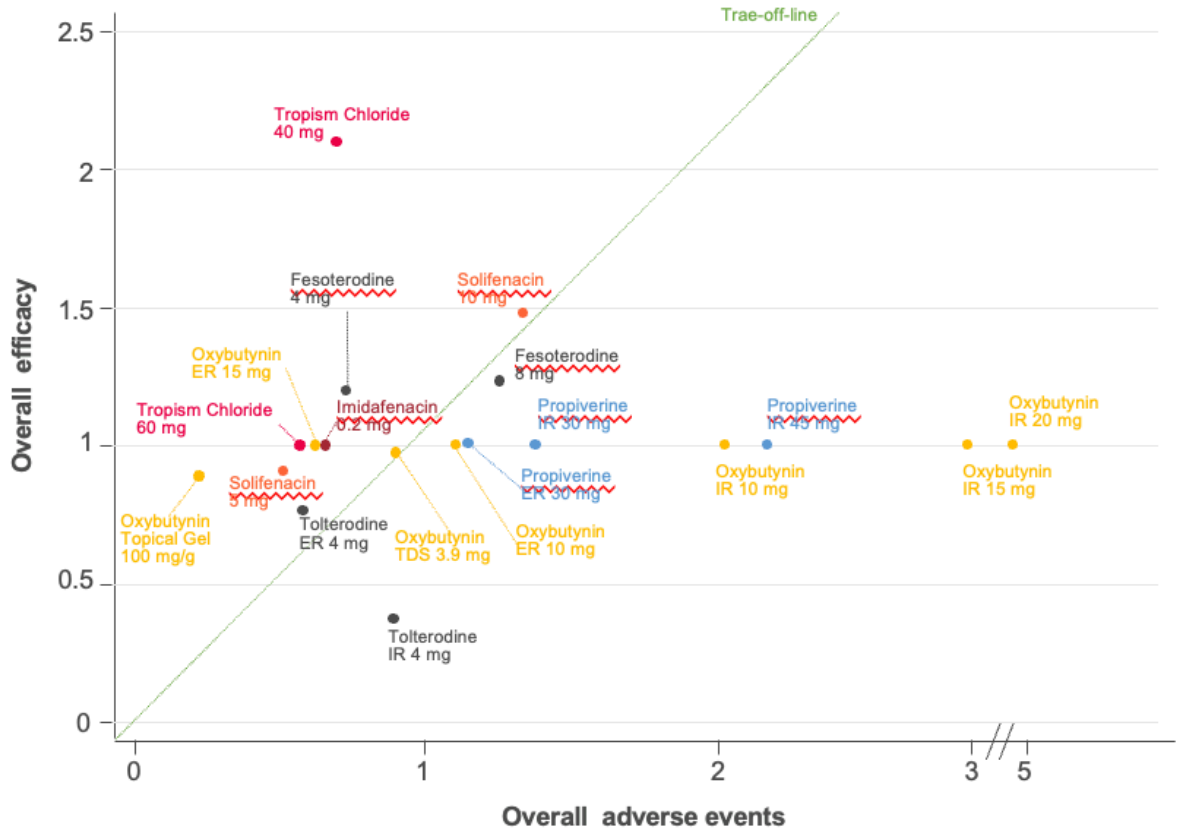
Adapted from Chapple CR, *et al.* 2005

1. Chapple CR, *et al. Eur Urol.* 2005;48(3):464–470; 2. VESICARE Summary of Product Characteristics.

Finding A Balance Between The Efficacy And Safety Of AChs Can Be Challenging

For patients to achieve optimal outcomes, it is important to find a balance that allows effective treatment of symptoms whilst maintaining high persistence by reducing adverse events

Network meta-analyses (21 studies) showing trade-off between efficacy and adverse events at clinically relevant dosages of AMs



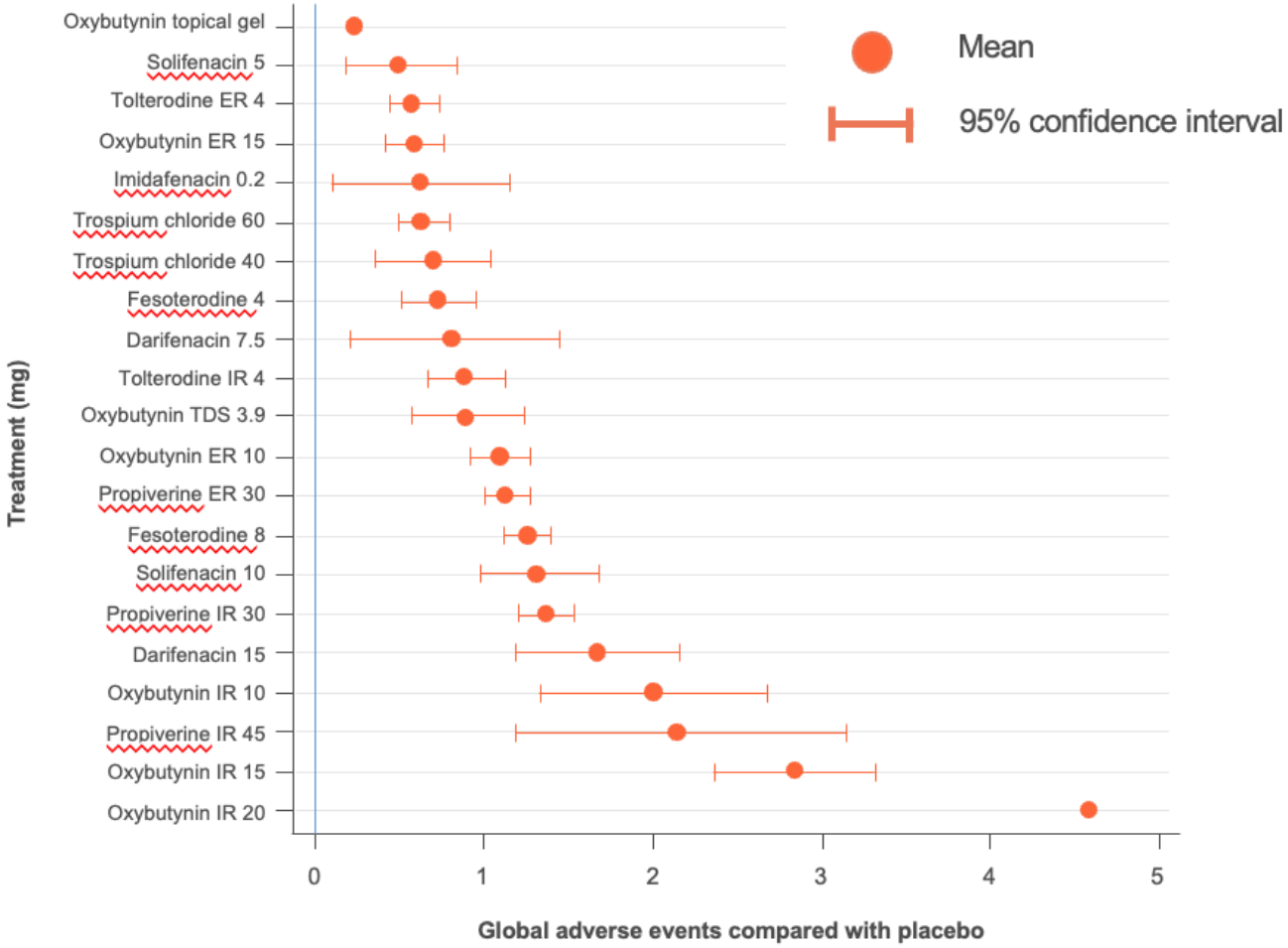
AM, antimuscarinic; ER, extended release; IR, immediate release; TDS, transdermal system.
Buser N, *et al. Eur Urol.* 2012;62(6):1040–1060.

However, AChs Demonstrate A Variable Adverse Event Profile

Adverse event profiles (from 90 trials) of different AM treatments and dosages compared with placebo (reference line through 0)

For each of the seven adverse event categories, the weighted adverse events per patient in each of the trials given a specific treatment and dosage were determined

The total score (x-axis) was calculated by adding up estimates of the seven adverse event categories



AM, antimuscarinic; ER, extended release; IR, immediate release; TDS, transdermal system.
Buser N, *et al. Eur Urol.* 2012;62(6):1040–1060.

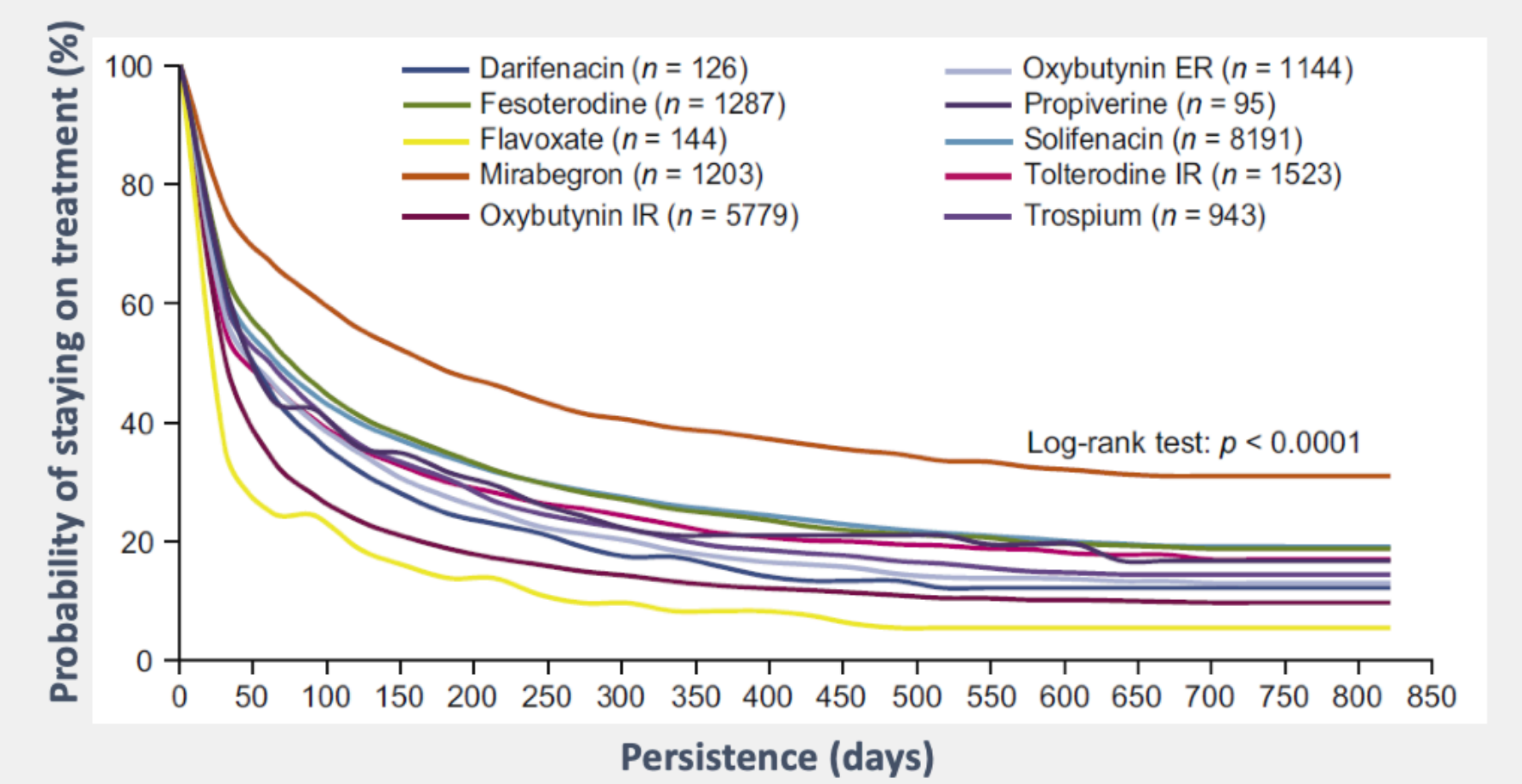
Considerations when selecting pharmacotherapy

	DRUG	EFFICACY	SELECTIVITY	ADVERSE EVENTS	ADHERENCE
OXYBUTYNIN	Oxybutynin (IR, TDS, ER)	Well documented efficacy		Patients commonly experience AEs • Dry mouth • Constipation • Dyspepsia	Limited long-term persistence and adherence
CONTEMPORARY ANTICHOLINERGICS	Tolterodine (IR, ER) Darifenacin Solifenacin Trospium Fesoterodine Propiverine	Similar in efficacy to oxybutynin		Similar AE profile to oxybutynin but more mild • Dry mouth • Constipation • Dyspepsia	Moderate improvements in therapy persistence compared to oxybutynin
β-3 RECEPTOR AGONISTS	Mirabegron	Comparative efficacy to anticholinergics		No anticholinergic side effects • AE rates similar to placebo • Most common AEs are hypertension, nasopharyngitis, UTI, and headache	High rates of treatment persistence compared to anticholinergics

AE, adverse event; ER, extended release; IR, immediate release; RA, receptor agonist; TDS, transdermal patch; UTI, urinary tract infection

1. Corcos J, et al. *Can Urol Assoc J.* 2017;11(5):E142-E173. 2. Meek PD, et al. *Dig Dis Sci.* 2011;56(1):7-18. 3. Chapple CR et al. *Eur Urol*. 2013;63(2):296-305. 4. Khullar V et al. *Eur Urol.* 2013;63:283–295. 5. Tyagi P et al. (2011) *Expert Opin Drug Saf*. 10(2):287-294. 6. Astellas Pharma Canada, Inc. Mirabegron Product Monograph, 2016.

Treatment persistence in the real world



Newer molecules demonstrated increased treatment persistence

1. Chapple CR et al. *Eur Urol*. 2017;72(3):389-399.

Pharmacological treatment: CUA guideline recommended next steps

An anticholinergic or a beta-3 receptor agonist (Grade A recommendation)

- Start with the lowest recommended dose (Grade B recommendation)

Try increasing the dose (Grade B recommendation)

- Optimize for the best clinical out while routinely monitoring for AEs

Try a different medication (Expert Opinion)

- If the initial treatment is intolerable and/or ineffective, consider an alternative medication with a different MOA

Try a combination treatment (Grade C recommendation)

- If monotherapy alone is insufficient, consider a combination treatment of an anticholinergic and mirabegron

AE, adverse event; MOA, mechanism of action

1. Corcos J, et al. *Can Urol Assoc J*. 2017;11(5):E142-E173.

Consider scheduling follow-up after 8–12 weeks

Patient follow-up should be routinely offered and individualized

- **8–12 weeks** of therapy is necessary to evaluate effects
  - Noticeable symptom improvement may take up to **12 weeks**
- Side effects may appear earlier with varying severity

DURING FOLLOW-UP

- ✓ **Did you try the treatments we discussed?**
- ✓ **Do you think they helped your symptoms?**
- ✓ **Did you experience any side effects?**
- ✓ **Are you satisfied with your treatment?**

If management is deemed ineffective or intolerable, then alternative treatment options should be presented

1. Corcos J, et al. *Can Urol Assoc J.* 2017;11(5):E142-E173.

When to consider further investigations or referral

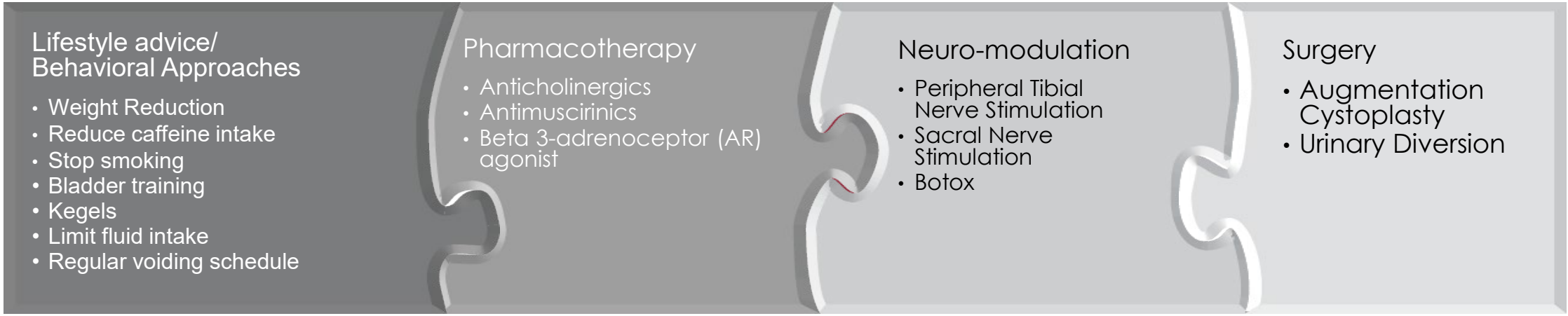
Primary care physicians are often able to identify and manage bladder dysfunction; however, further investigations or referral may be considered for:

- ❑ Hematuria or microhematuria
  - Two consecutive urinalyses with >3 RBC/HPF in absence of infection, exercise, etc.)
- ❑ History of difficult to manage and recurrent UTIs
- ❑ Large post-void residual volume (PVR)
  - PVR >100 – 150 mL
  - Not a mandatory part of primary care evaluation
- ❑ Elevated prostate-specific antigen (PSA)
  - 2 consecutive abnormal PSA readings
- ❑ Abnormal prostate exam results (digital rectal exam)
- ❑ Abnormal imaging
  - i.e., abnormal kidney ultrasound

HPF, high power field; PSA, prostate specific antigen; PVR, post-void residual volume; RBC, red blood cells; UTI, urinary tract infection.

1. Corcos J, et al. *Can Urol Assoc J.* 2017;11(5):E142-E173.

OAB treatment spectrum



Less Invasive → **More Invasive**

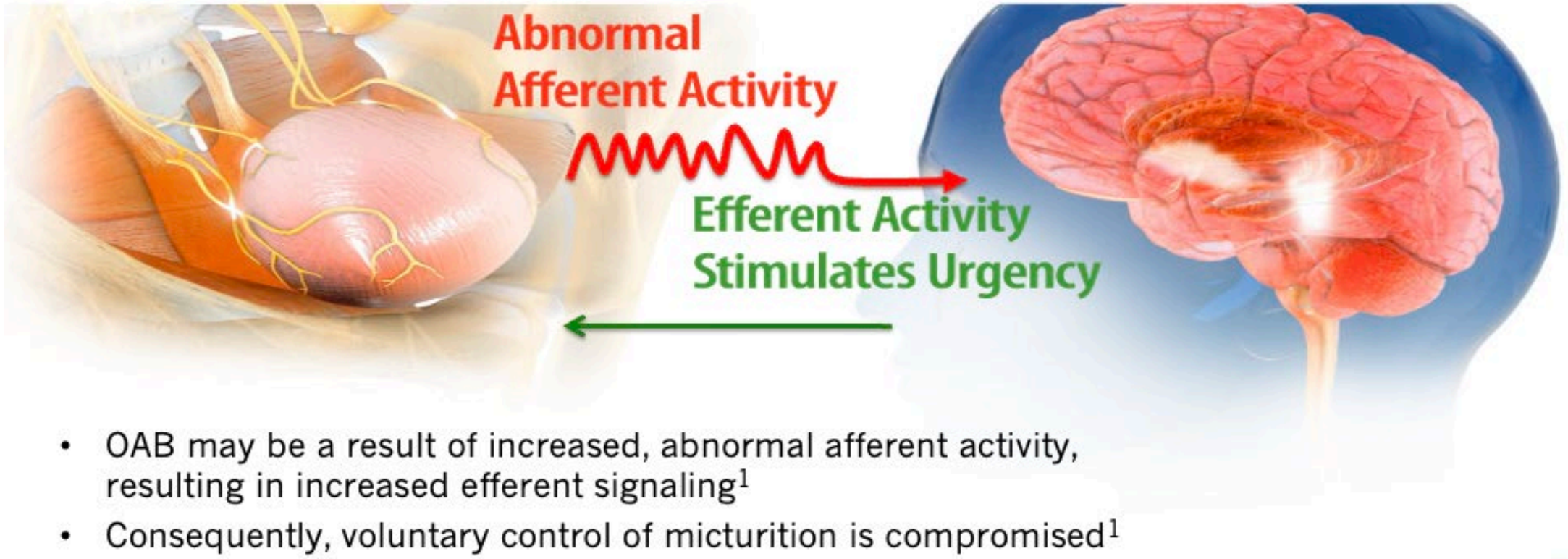
Considerations for third-line therapy

	ONABOTULINUMTOXIN A	PERIPHERAL TIBIAL NERVE STIMULATION	SACRAL NEUROMODULATION
DESCRIPTION	Causes a neuromuscular blockade of vesicular acetylcholine release at somatic and autonomic presynaptic nerve terminals	A peripheral neuromodulation technique, in which the posterior tibial nerve is stimulated above the medial malleolus.	Sacral root S3 is stimulated with an implantable pulse generator
GUIDELINE RECOMMENDATIONS	Long-term therapy for carefully selected patients who have had an inadequate response to or are intolerant of OAB pharmacotherapy	Safe and effective as third-line treatment in a carefully selected population	More invasive and higher-risk than other third-line treatment, but a suitable option for patients with OAB symptoms refractory to preferred treatment options

Following first and second-line treatments consider referral

1. Marcelissen T, et al. *Eur Urol Focus.* pii: S2405-4569(18)30121-4. doi: 10.1016/j.euf.2018.05.004. [Epub ahead of print]. 2. Corcos J, et al. *Can Urol Assoc J.* 2017;11(5):E142-E173.

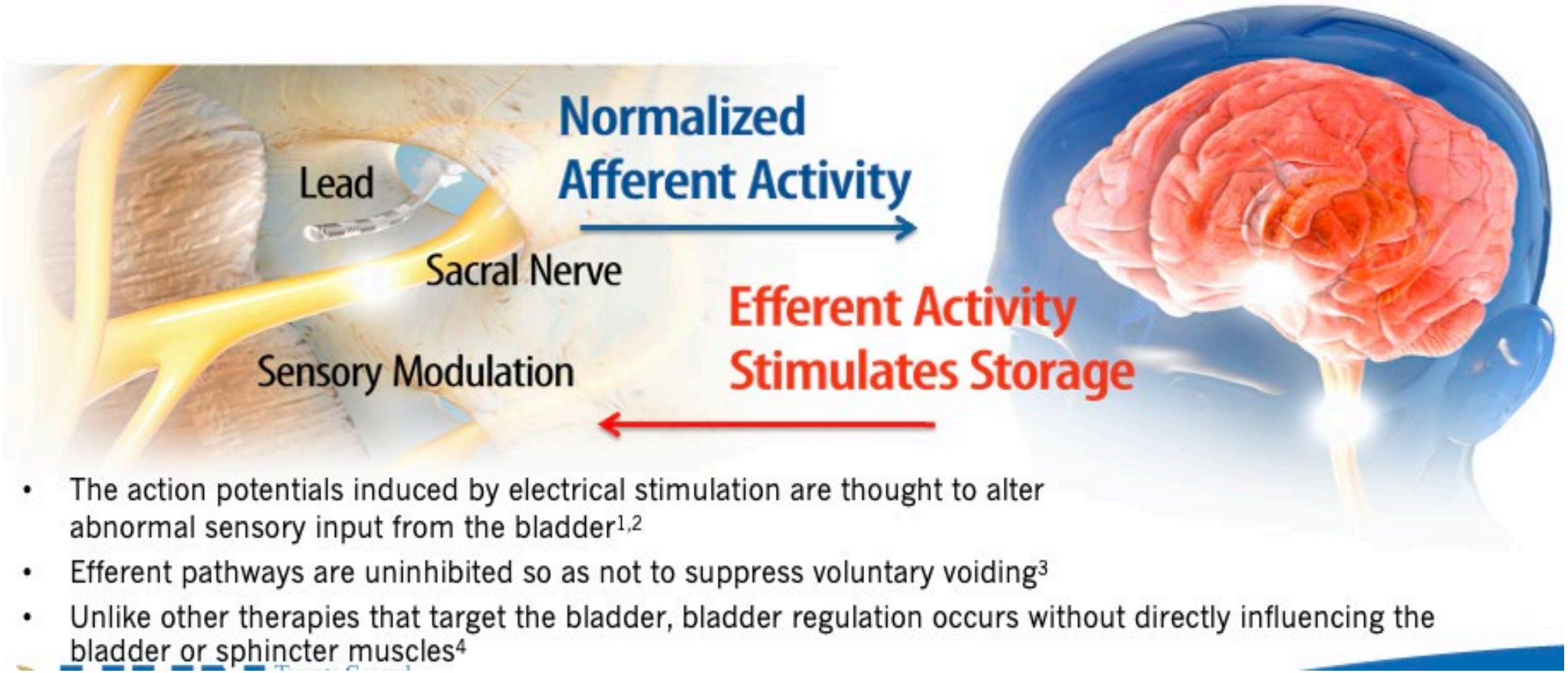
Dysfunction of Afferent Signaling in OAB



- OAB may be a result of increased, abnormal afferent activity, resulting in increased efferent signaling[1]
- Consequently, voluntary control of micturition is compromised[1]

Reference: 1. Leng WW, Morrisroe SN. *Urol Clin N Am.* 2006;33:491-501.

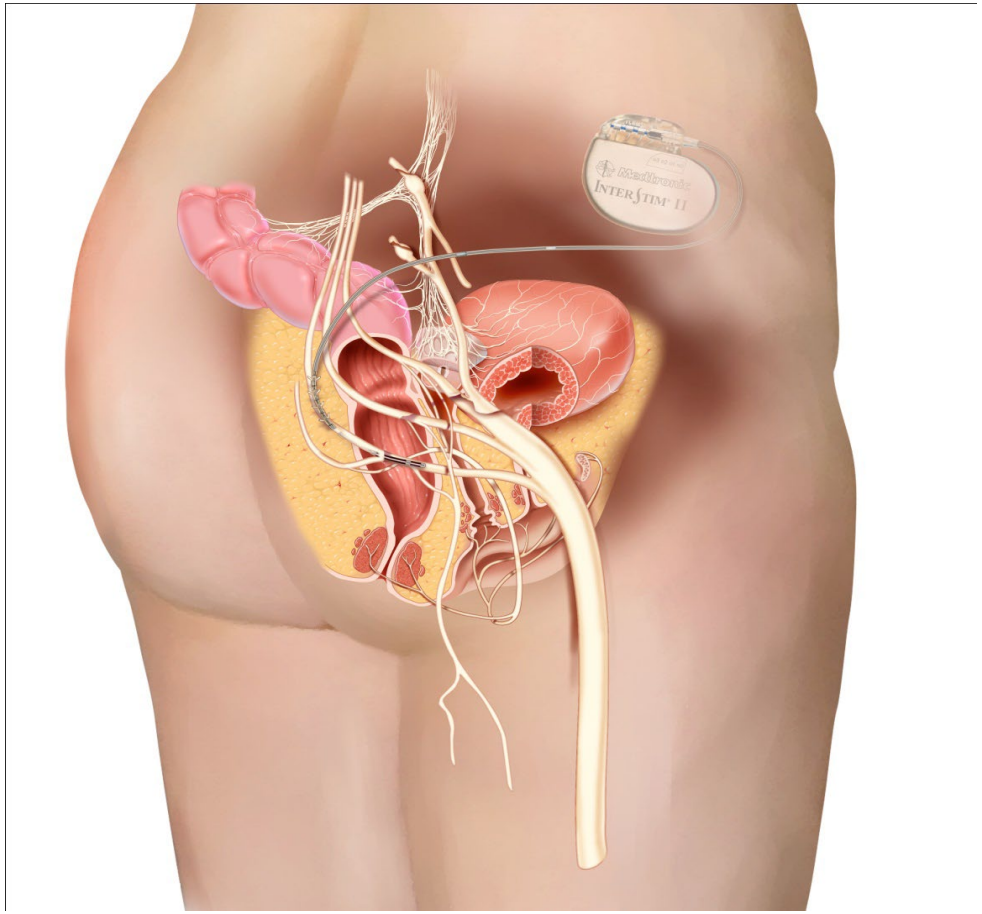
Modulation of Abnormal Afferent Activity within CNS



- The action potentials induced by electrical stimulation are thought to alter abnormal sensory input from the bladder[1,2]
- Efferent pathways are uninhibited so as not to suppress voluntary voiding[3]
- Unlike other therapies that target the bladder, bladder regulation occurs without directly influencing the bladder or sphincter muscles[4]

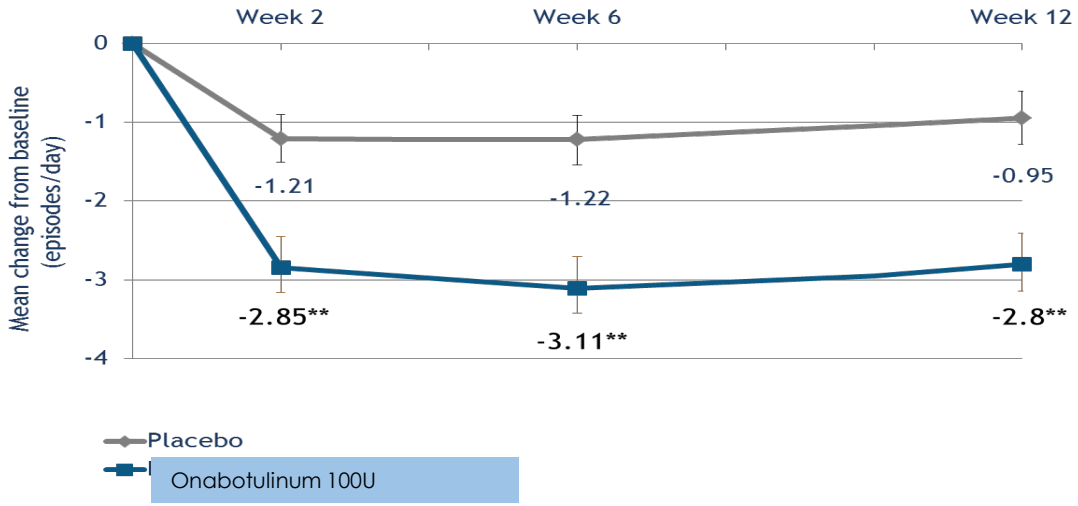
References: 1. Johnson M. *Evidence-Based Practice.* 12th ed. Philadelphia, PA: Elsevier; 2008:259-286.
2. Chancellor MB, Chartier-Kastler EJ. *Neuromodulation.* 2000;3(1):16-26. **3.** Leng WW, Chancellor MB. *Urol Clin N Am.* 2005;32:11-18. **4.** van der Pal F, Heesakkers JPFA, Bemelmans BLH. *Curr Opin Urol*. 2006;16:261-267.

Sacral Neuromodulation



Onabotulinum toxinA

- Increase
  - Bladder capacity
  - Volume at first reflex detrusor contraction
  - Compliance
- Decrease detrusor pressures during filling and voiding
- Improvement in urgency – thought to be afferently mediated



~3X reduction from baseline for Onabotulinum comparison to placebo

Image obtained from BOTOX® product monograph. Allergan Inc. Markham, ON, 2013.

Onabotulinum toxinA

- We use liquid medication placed directly into bladder
- Freeze bladder first (lidocaine 30 min)
- Whole procedure takes a few minutes
- Administered via rigid or flexible cystoscope as 20 intradetrusor injections, sparing trigone
- Focus on 94% no-retention rate (vs 6% retention rate)
- Efficacy of 6-9mo (bladder dentist)

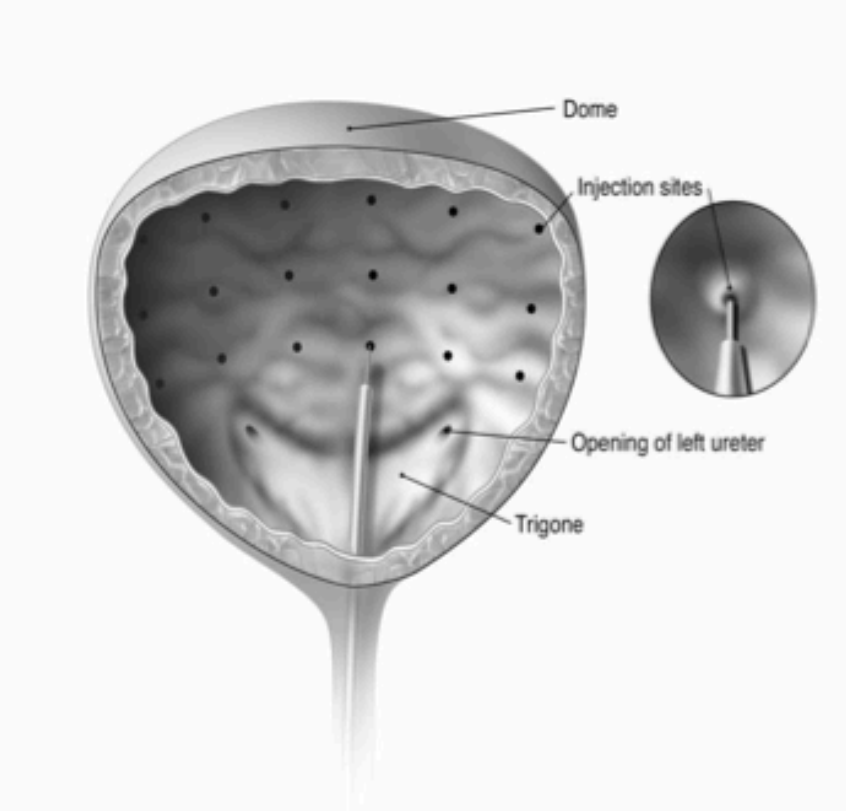


Image obtained from BOTOX® product monograph. Allergan Inc. Markham, ON, 2013.

Special considerations for the frail and elderly

Age-related effects on pharmacology

- Changes in pharmacokinetics, absorption, distribution, metabolism, and clearance
- Reduced drug clearance

Polypharmacy

- The risk of AEs increases exponentially with each additional medication

Anticholinergic burden (ACB)

- The cumulative use of medications with anticholinergic properties may lead to adverse events (including cognitive impairment)

Adverse events

- High risk due to age, comorbidities, and drug metabolism
- Anticholinergics are associated with serious morbidities, such as sedation, heat intolerance, delirium, and falls

Communication

- Patients may be hard of hearing or have difficulty reading small font
- Tailor communication to patients
- Involve caregivers, if necessary

AE, adverse event

1. Corcos J, et al. *Can Urol Assoc J.* 2017;11(5):E142-E173.

Anticholinergic burden (ACB)

What is it?

- Cumulative effect of multiple anticholinergics
- Associated with adverse drug events and negative health outcomes in older adults

What to consider?

- Older adults may forget/omit over-the-counter medications with anticholinergic properties when discussing their medications
- Older patients are more sensitive to peripheral and central anticholinergic effects
- Risks vs. benefits of using anticholinergics in order to minimize potential burden and prevent adverse outcomes

ACB Score

3: Evidence that medication may cause delirium

2: Evidence of clinical anticholinergic effect

1: *in vitro* evidence of cholinergic receptor antagonism

1. Corcos J, et al. Can Urol Assoc J. 2017;11(5):E142-E173. 2. Richardson K et al. *BMJ*. 2018 Apr 25;361:k1315.

Consider Ach burden when prescribing to elderly

- Age-related pharmacokinetic and pharmacodynamic changes increase the risk of adverse effects and interactions[1]
- Older people may be at increased risk of anticholinergic side effects, such as dry mouth, blurred vision, constipation and cognitive dysfunction[2,3]
- Therefore, the EAU 2021 guidelines recommend:

Long-term anticholinergic treatment should be used with caution in elderly women, especially those who are at risk of, or have pre-existing cognitive dysfunction[4]

Anticholinergic burden and associated comorbidities should be assessed in patients being considered for anticholinergic therapy for overactive bladder syndrome[4]

AM, antimuscarinic; EAU, European Association of Urology.

1. Rudolph JL, *et al. Arch Intern Med.* 2008;168(5):508–513; 2. Carnahan RM, *et al. J Clin Pharmacol.* 2006;46(12):1481–1486; 3. Bostock CV, *et al. Expert Rev Clin Pharmacol.* 2010;3(4):441–452;
4. EAU Guidelines on Management of Non-Neurogenic Female Lower Urinary Tract Symptoms (LUTS) 2021. Available at: https://uroweb.org/wp-content/uploads/EAU-Guidelines-on-Non-Neurogenic-Female-LUTS-2021.pdf (Accessed: June 2021).

Anticholinergic burden and dementia

"There have been a number of reports linking anticholinergic medication to cognitive impairment, an increase in incident dementia diagnosis, and a possible increase in mortality"

– CUA OAB Guidelines

A recent study of over 40,000 patients aged 65–99 with a diagnosis of dementia demonstrated:

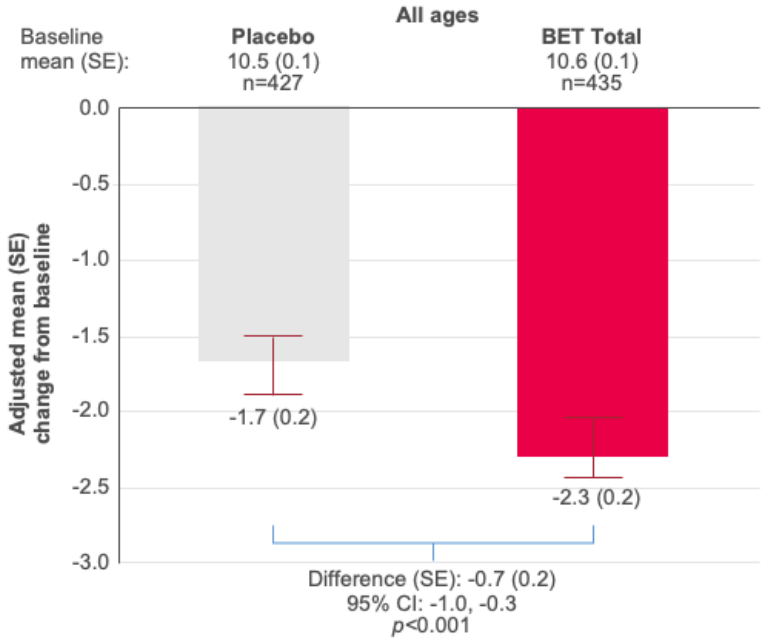
Antidepressant, urological, and antiparkinson drugs, with an ACB score of 3, are **linked to future dementia incidence**, with associations persisting up to 20 years after exposure

1. Corcos J, et al. *Can Urol Assoc J*. 2017;11(5):E142-E173. 2. Richardson K et al. *BMJ*. 2018 Apr 25;361:k1315.

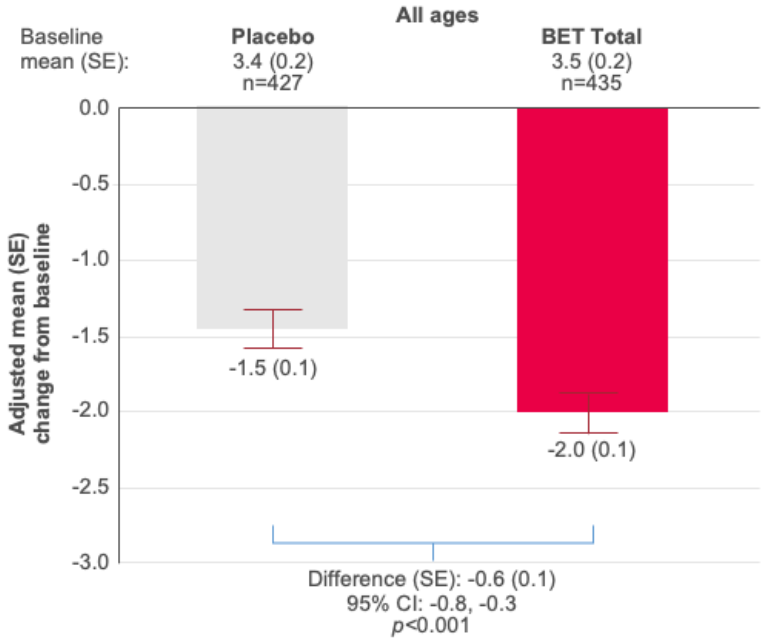
Mirabegron is efficacious in patients >65 years

- PILLAR, a 12-week, randomised, double-blind Phase 4 trial evaluating the efficacy and safety of mirabegron vs placebo in patients aged ≥65 years with wet OAB, saw improvements in co-primary endpoints[1]

Mean change in number of micturitions /24 h



Mean change in number of incontinence episodes /24 h



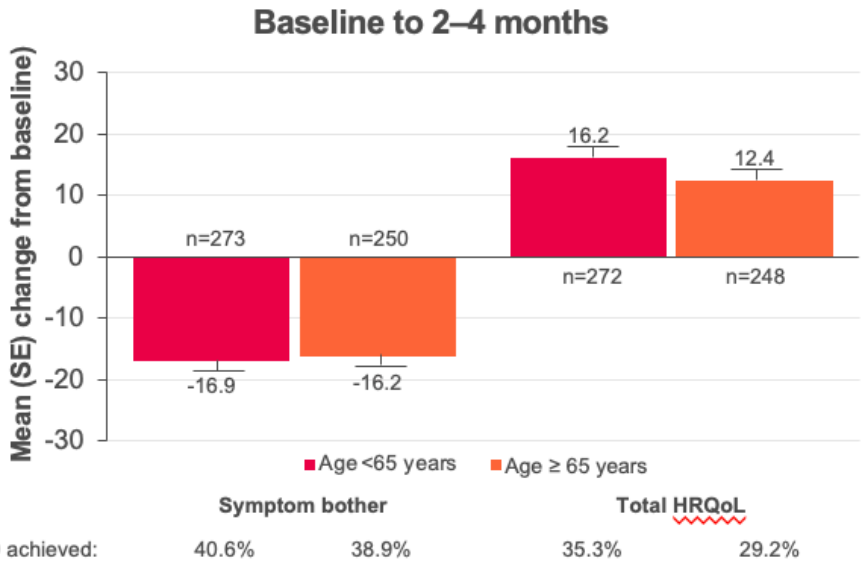
Adapted from Wagg A, *et al.* 2020

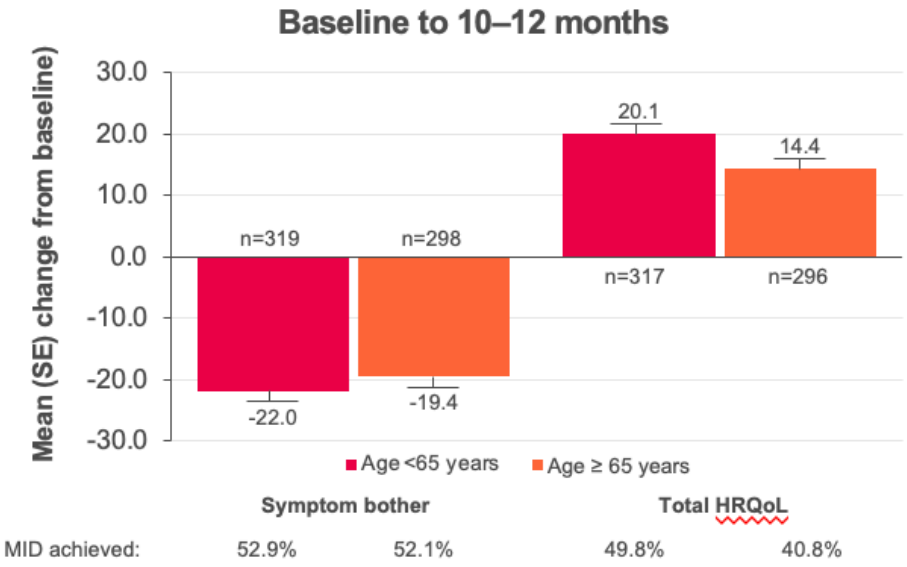
1. Wagg A, *et al. Eur Urol*. 2020;77(2):211–220; 2.

Mirabegron improves QoL in people >65 years

- A secondary analysis of BELIEVE, a European, prospective, real-world study of 848 patients with OAB, demonstrated improvements in quality of life in patients treated with mirabegron[1]

Improvements in OAB-q subscales from baseline to 2–4 months and 10–12 months in the FAS[1]





Adapted from Foley S, *et al.* 2019

Foley S, *et al. Int J Urol.* 2019;26(9):890–896; 2. BETMIGA Summary of Product Characteristics.

Male lower urinary tract symptoms (LUTS)

45%

prevalence of 'any LUTS' in males*

EPIC study (worldwide)[1]

29%

prevalence of 'any storage LUTS' in males*

EPIC study (worldwide)[1]

8–16%

prevalence of OAB symptoms in males

EPIC study (worldwide)[1]
NOBLE study (USA)[2]
US claims data[3]

- *The LUTS assessed were storage (increased daytime frequency, nocturia of at least two episodes/night, urgency and urinary incontinence); voiding (slow or intermittent stream during micturition, splitting or spraying of the urine stream, straining, hesitation, terminal dribble); and post-micturition (feeling of incomplete emptying, post-micturition dribble).

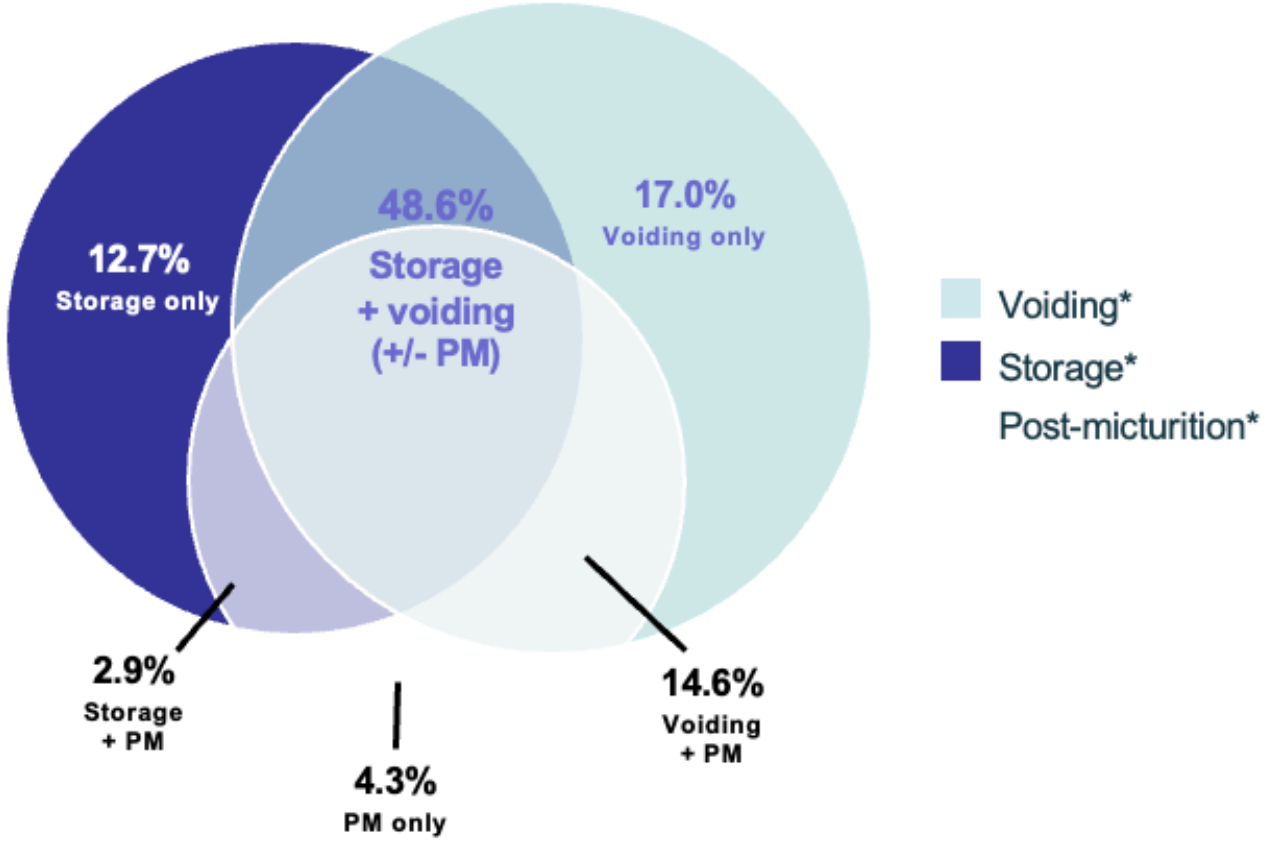
LUTS, lower urinary tract symptoms.

1. Irwin DE, *et al*. *BJU Int*. 2011;108:1132–1139; 2. Stewart WF, *et al. World J Urol*. 2003;20:327–336; 3. Puckrein G, *et al. Clin Med Insights Urol*. 2019;12;1–8.

Men with OAB often present with an overlap of LUTS

~50% of all male patients with LUTS report a **combination of storage and voiding symptoms**

EpiLUTS survey (N=14,139)



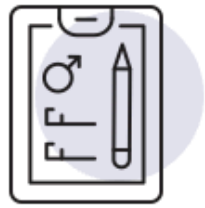
*Adapted from Sexton CC, *et al*. 2009 to exclude patients who reported no LUTS.
EpiLUTS, Epidemiology of LUTS study; LUTS, lower urinary tract symptoms; PM, post-micturition.
Sexton CC, *et al. BJU Int*. 2009;103(Suppl 3):12–23.

The burden of OAB in Men

OAB is **underdiagnosed** in men[1]

Only **~20–25%** of participants in Phase 3 clinical trials for OAB are men[2]

Symptom bother is **significantly higher** among males reporting OAB symptoms (either alone or in combination with other LUTS) than those reporting non-OAB LUTS[3]



Only a **small fraction** of men with OAB are treated[1], especially in those with mixed symptoms

OAB is associated with **substantial economic burden**[1]

OAB causes considerable and progressive deleterious effects on quality of life[1,4]

LUTS, lower urinary tract symptoms.

1. Gomelsky A & Dmochowski RR. *Ther Adv Urol.* 2009;1:209–221; 2. Tubaro A, *et al*. *Ther Adv Urol.* 2017;9:137–154;
3. Irwin D, *et al*. *Eur Urol.* 2009;56:14–20; 4. Coyne KS, *et al. BJU Int*. 2008;101:1388–1395.

Storage symptoms: the more bothersome subtype

Compared with voiding symptoms, men consider **storage symptoms to be more bothersome**, with a **greater impact on QoL**[1,2]

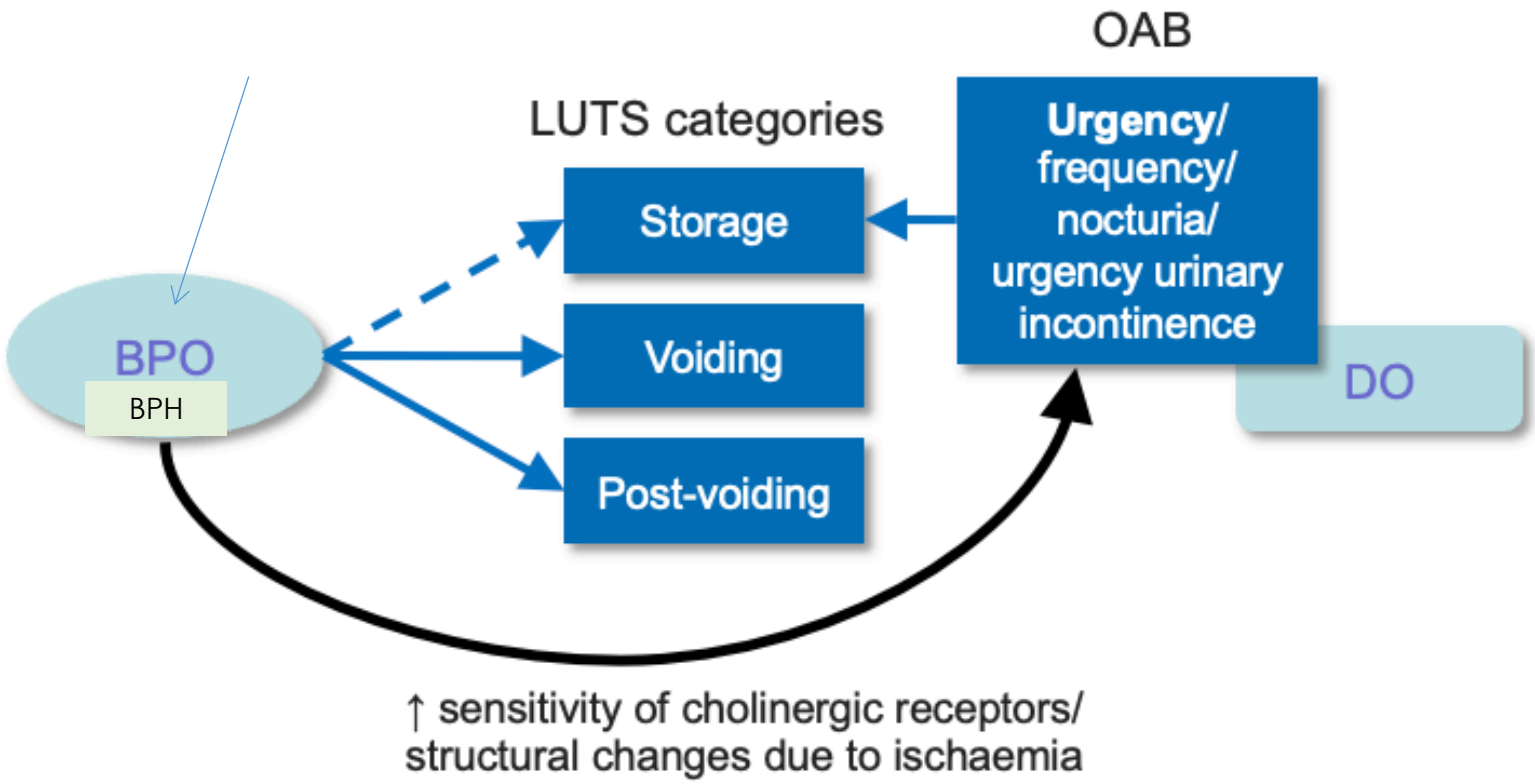
The burden of LUTS on QoL is further compounded with increasing number of overlapping symptoms[3]

Storage symptoms remain the most commonly reported LUTS in men of all ages[4]

LUTS, lower urinary tract symptoms; QoL, quality of life.

1. Agarwal A, *et al. Eur Urol*. 2014;65:1211–1217; 2. Coyne KS, *et al*. *BJU Int*. 2009;103(Suppl 3):4–11; 3. Irwin DE, *et al. Eur Urol.* 2009;56:14–20

The relationships between BPH, OAB and male LUTS

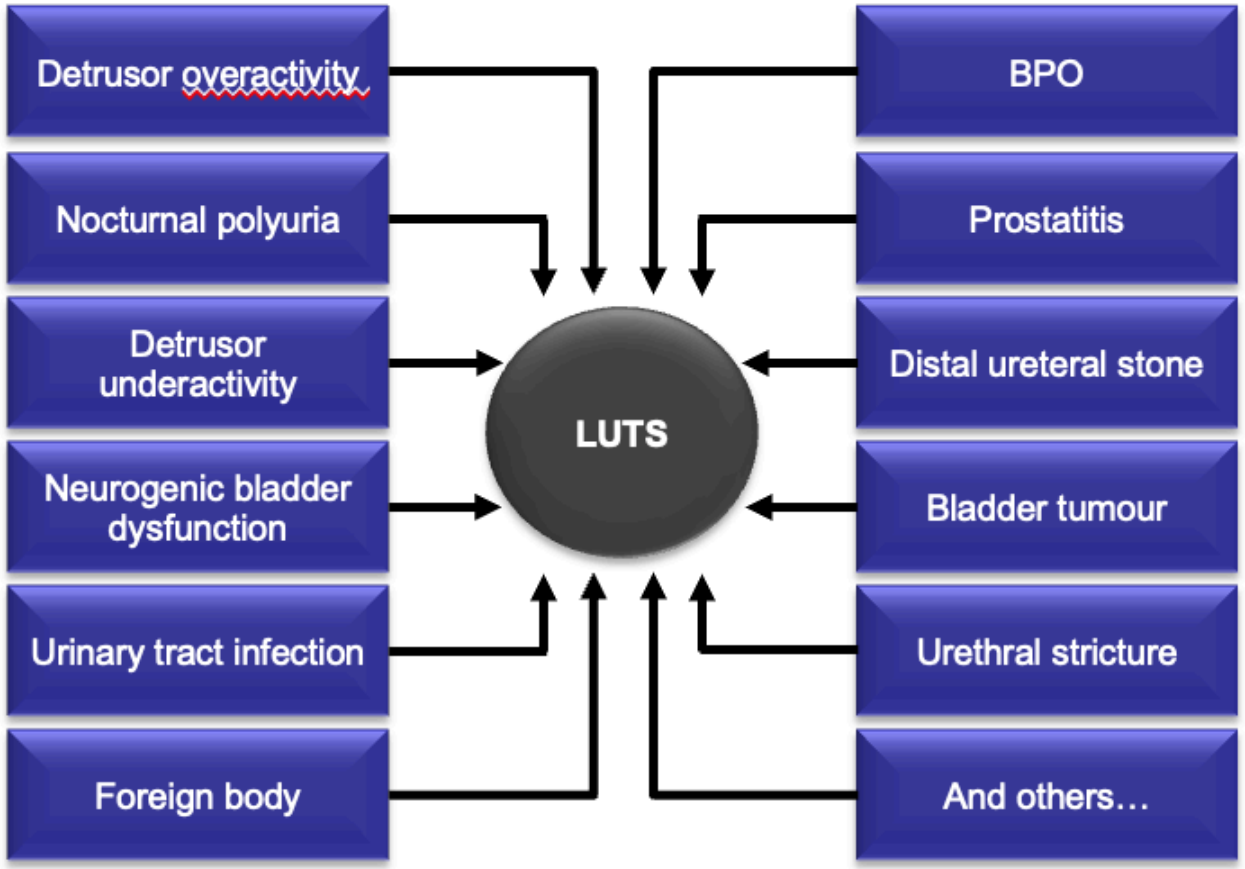


BPH, benign prostatic hyperplasia; BPO, benign prostatic obstruction; DO, detrusor overactivity; LUTS, lower urinary tract symptoms.
Adapted from Athanasopoulos A, *et al. Eur Urol.* 2011;60:94–105.

The complexities of OAB in men: more than one presentation

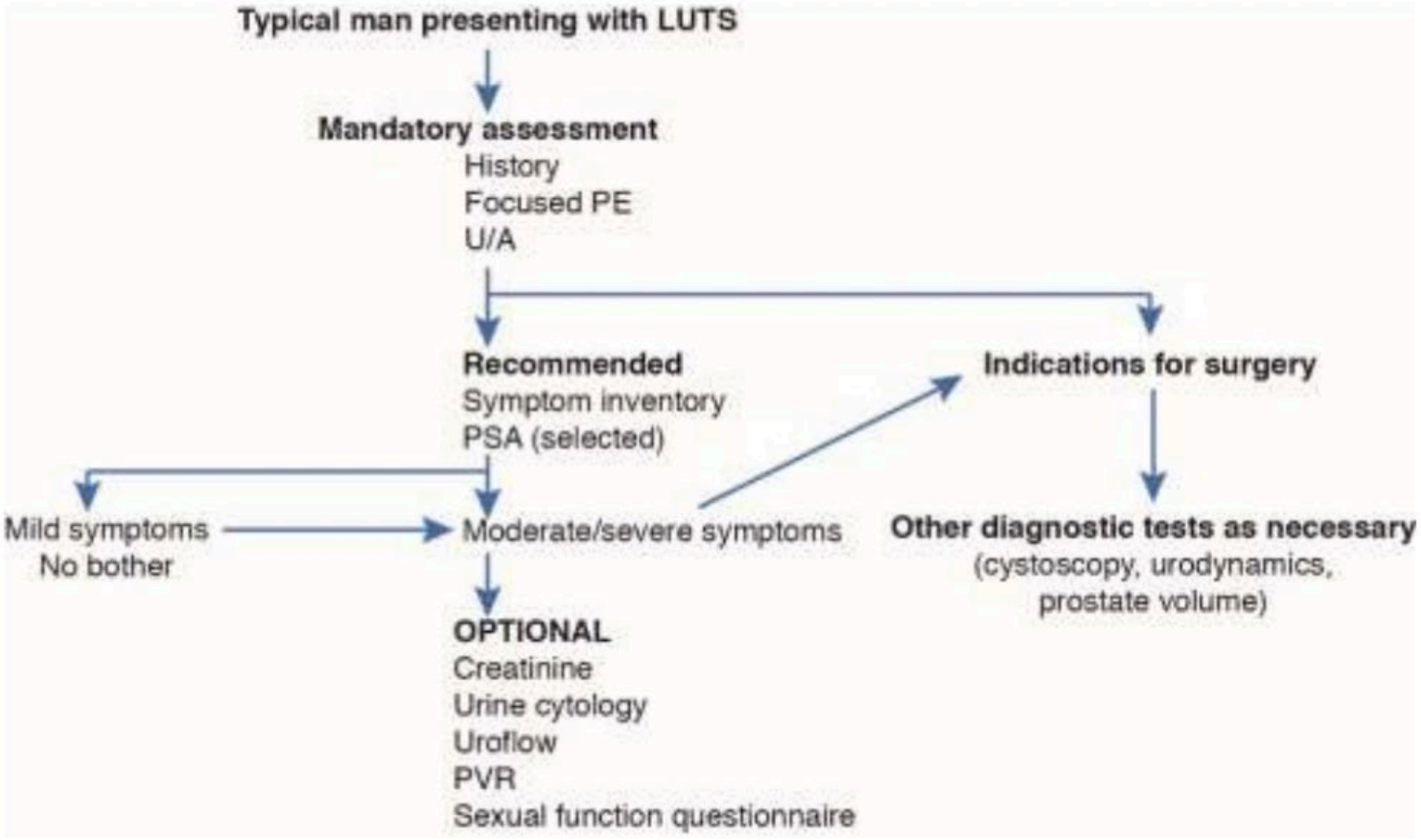
LUTS

- Historically attributed to prostate enlargement
- Aetiology is multifactorial
- >1 of these factors is often present



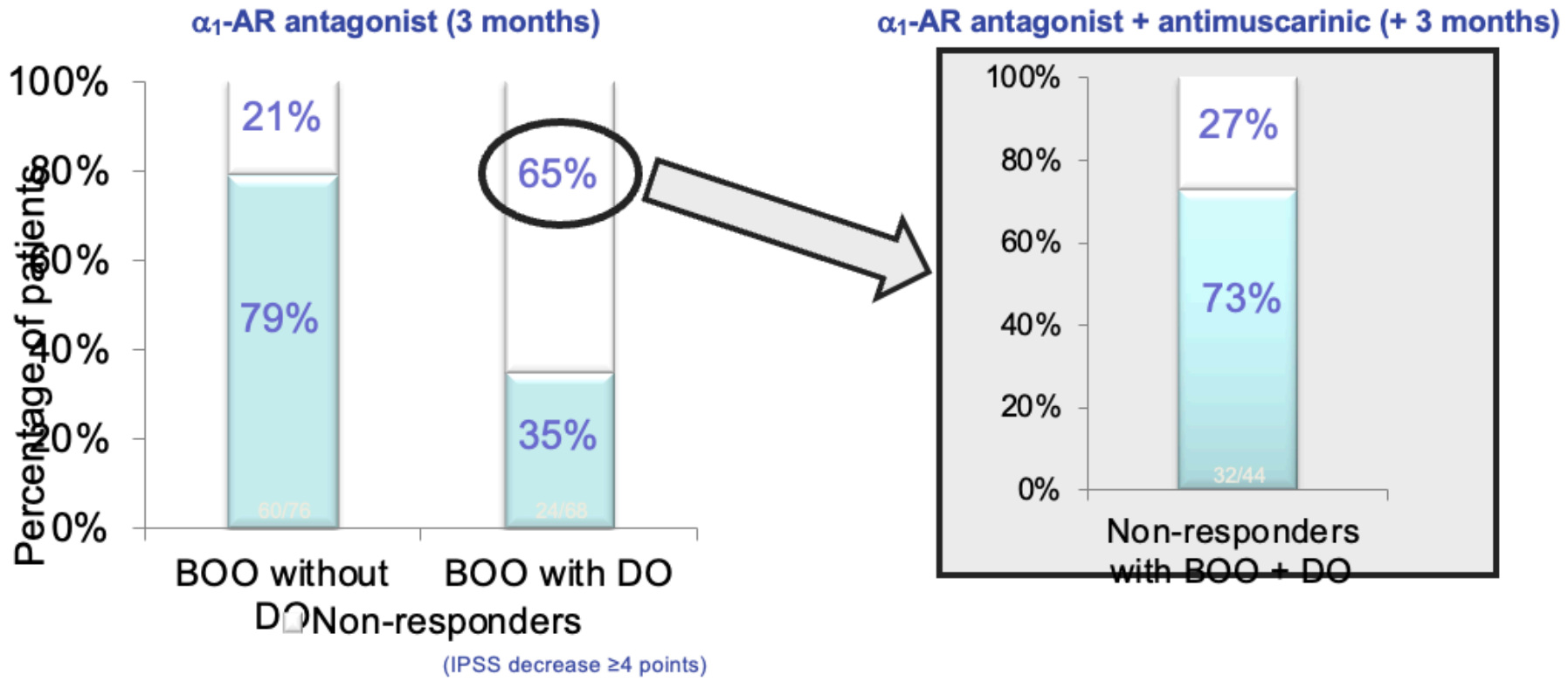
BPO, benign prostatic obstruction;
LUTS, lower urinary tract symptoms.
Oelke M, *et al. Eur Urol.* 2013; 64(1):118–140

Evaluation of Male LUTS – CUA Guidelines



Elterman et al. CUAJ, BPH Guidelines 2022

a1-adrenergic receptor antagonist monotherapy is not sufficient in all men with LUTS

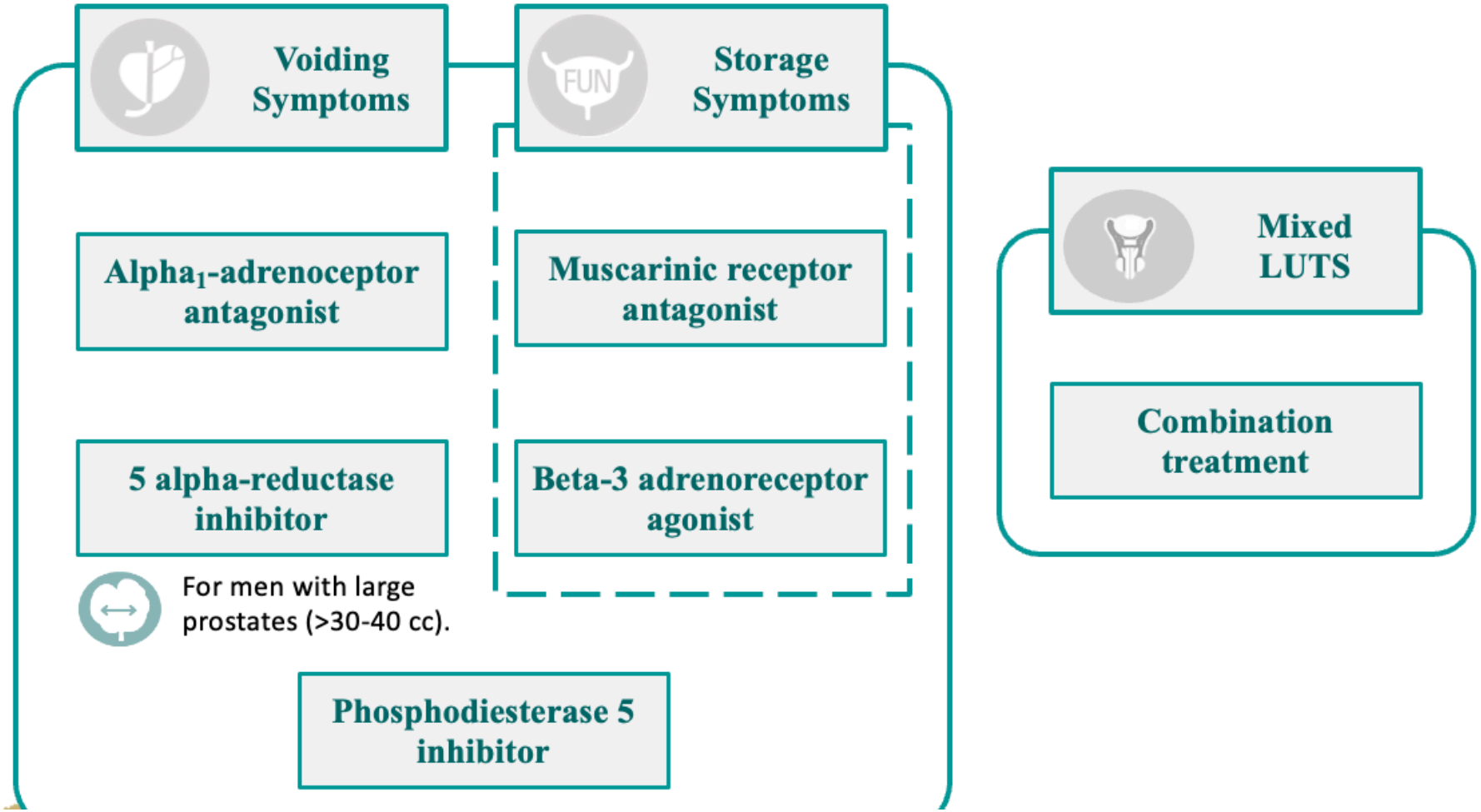


Responders

Non-Responders

AR, adrenergic receptor; BOO, bladder outlet obstruction; DO, detrusor overactivity; IPSS, International Prostate Symptom Score

Treatment recommendations for men



Psychological Impact of OAB

OAB, overactive bladder.

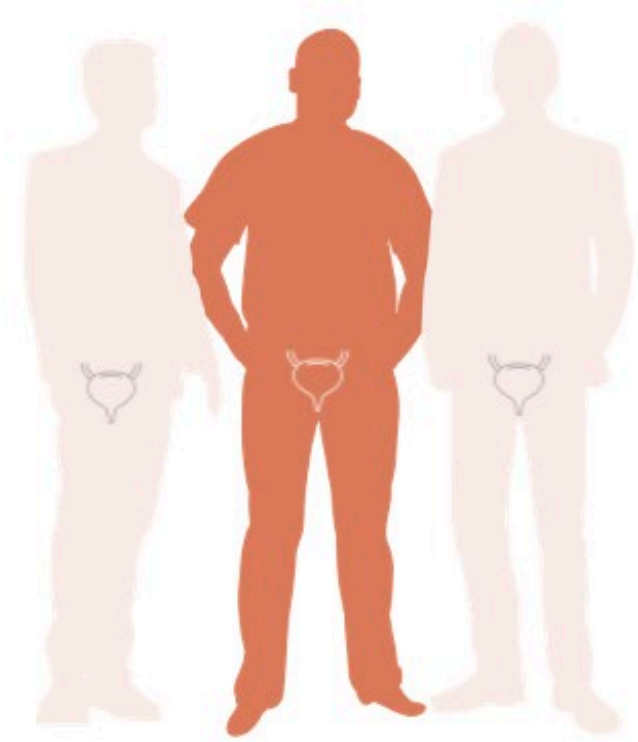
1. Coyne KS, *et al. Neurourol Urodyn.* 2009;28(8):969–975; 2. Rantell A, *et al. Neurourol Urodyn.* 2016;9999:1–7.

Depression affects approximately one third of patients with OAB

Results from a cross-sectional, population-based survey of 11,521 individuals found that

32%

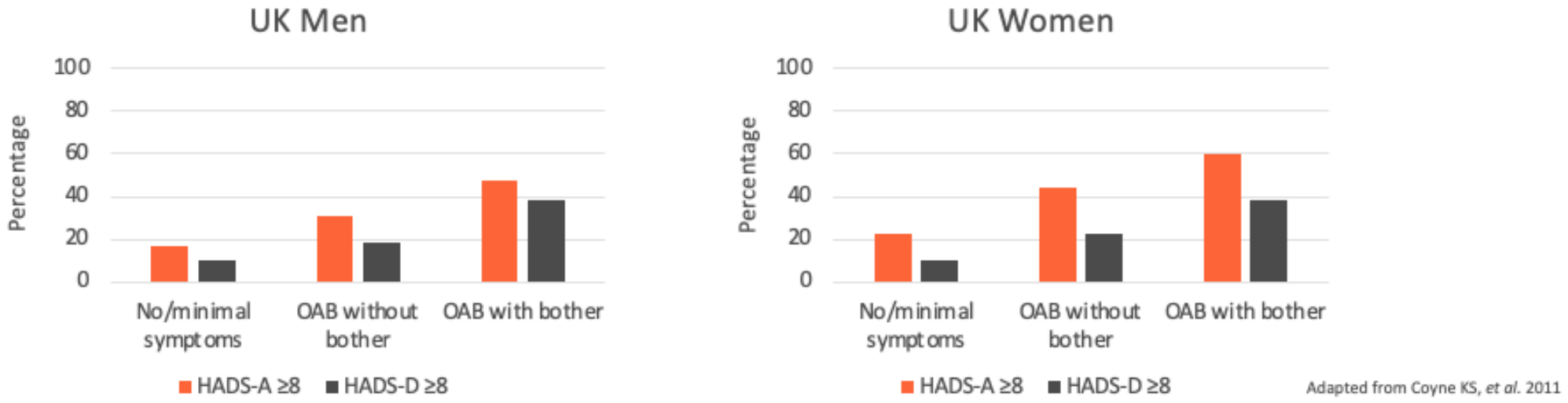
of patients with OAB reported their symptoms made them **feel depressed**



OAB, overactive bladder.
Irwin DE, *et al. BJU Int.* 2006;97(1):96–100.

Bothersome OAB symptoms are associated with depression and anxiety

- EpiLUTS, a cross-sectional, population-representative survey, categorised participants into three subgroups; no/minimal symptoms, OAB without bother, and OAB with bother
- Greater severity of OAB symptoms was strongly predictive of OAB bother in men and women
- Data showed that men and women with bothersome symptoms had higher levels of anxiety and depression compared with those without bother or with no/minimal symptoms

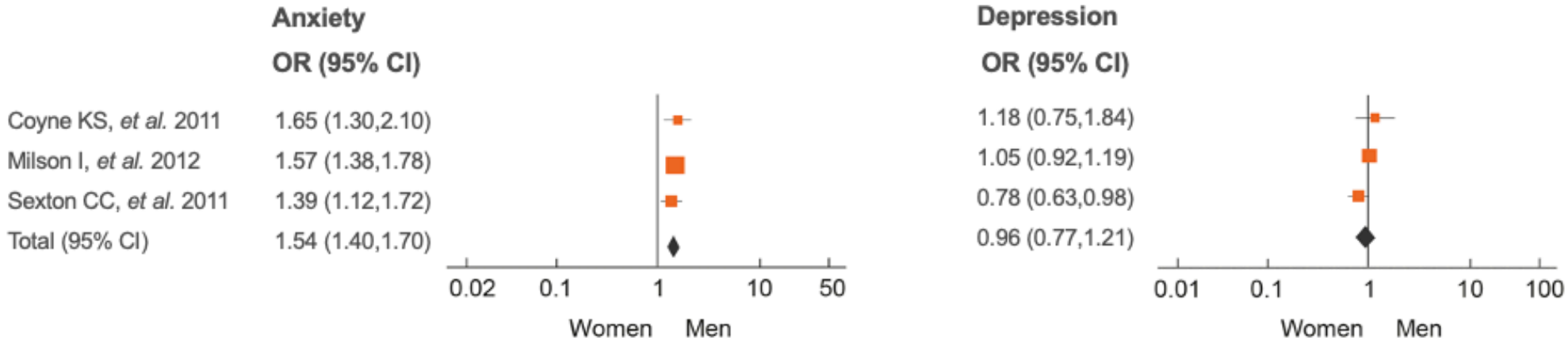


Adapted from Coyne KS, *et al.* 2011

EpiLUTS, the Epidemiology of Lower Urinary Tract Symptoms; HADS-A, Hospital Anxiety and Depression Scale – Anxiety subscale;
HADS-D, Hospital Anxiety and Depression Scale – Depression subscale;
OAB, overactive bladder.
Coyne KS, *et al. BJU Int*. 2011;108(9):1459–1471.

OAB-related anxiety is more likely to occur in men than women

- Meta-analysis of three studies investigated the rates of depression (n=7468) and anxiety (n=8030) according to sex



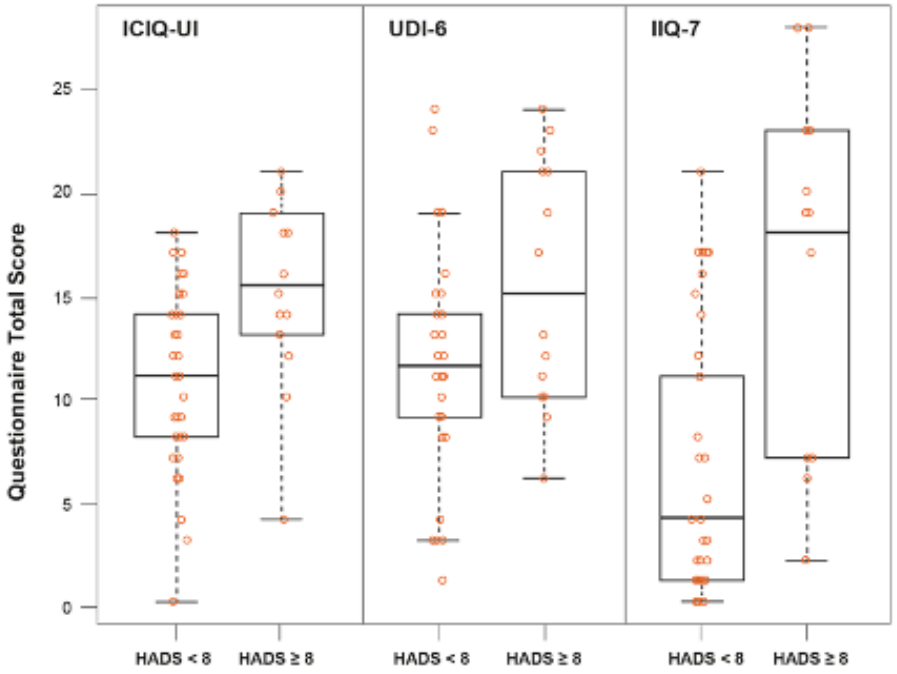
Adapted from Melloti IGR, *et al.* 2017.

Rates of depression were similar between sexes;
however, men were more likely to have anxiety related to OAB than women

CI, confidence interval; OAB, overactive bladder; OR, odds ratio.
Melloti IGR, *et al. Int Neurourol J.* 2017;21(3):204–211.

Patients with OAB and depression reported more severe incontinence symptoms

- Out of the 51 patients with OAB enrolled, 27.5% had clinically defined depression (HADS-D ≥8), with more than 10% reporting moderate to severe depression (HADS-D ≥11)



Patients with OAB and depression (HADS-D ≥8) reported more severe incontinence symptoms (ICIQ-UI), greater bother (UDI-6) and more impact on QoL (IIQ-7) than those without (HADS-D <8)

Adapted from Lai HH, *et al.* 2016.

HADS-D, Hospital Anxiety and Depression Scale – Depression subscale; ICIQ-UI, International Consultation on Incontinence – Urinary Incontinence short form; IIQ-7, Incontinence Impact Questionnaire short form;
OAB, overactive bladder; QoL, quality of life; UDI-6, Urogenital Distress Inventory short form.
Lai HH, *et al. BMC Urology*. 2016;16(1):60.

Poor mental health can impact the management of patients with OAB

- Both depression and anxiety have been found to have a negative effect on the perception, development and prolongation of LUTS[1]

Many patients prolong seeking treatment due to embarrassment, which can cause a delay in the initiation of management therapies[2]

Poor mental health can also lead to poor compliance to both conservative and pharmacological treatments, as depressed patients lack self-motivation[3]

This can provide challenges and poorer outcomes in managing patients with OAB[3]

LUTS, lower urinary tract symptoms; OAB, overactive bladder.

1. Golabek T, *et al. Psychiatr Pol.* 2016;50(2):417–430; 2. Nicolson P, *et al. Br J Health Psychol.* 2008;13(Pt 2):343–359; 3. Lai HH, *et al. BMC Urology.* 2016;16(1):60.

Patients with OAB often adopt adaptive behaviours to try to cope with symptoms[1]

Reducing fluid intake[1]

Emergency OAB kits
e.g., fresh clothes, pads[1,2]

Constantly planning ahead[2,3]

Wearing incontinence pads[1]

Avoiding sexual intimacy[1]

Limiting travel to places with
known toilet locations[1,2]

OAB, overactive bladder.

1. Abrams P, *et al. Am J Manag Care*. 2000 Jul;6(11 Suppl):S580–90; 2. Nicolson P, *et al. Br J Health Psychol.* 2008;13(Pt 2):343–359; 3. Ricci JA, *et al. Clin Ther.* 2001;23(8):1245–1259.

Managing OAB in your practice

Diagnose

- Recognize symptoms and impact on QOL
- Apply appropriate assessments

Treat

- Initiate behavioural/lifestyle therapy
- Add pharmacotherapy, if required

Educate and Motivate

- Set realistic treatment expectations
- Help patients take ownership of their treatment

Follow-up

- Schedule 8-12 week follow-up to assess compliance, efficacy and side effects
- Modify treatment if necessary

1. Corcos J, et al. *Can Urol Assoc J.* 2017;11(5):E142-E173.

Canadian Urological Association

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Association des Urologues du Canada

La voix de l'urologie au Canada

OVERACTIVE BLADDER

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