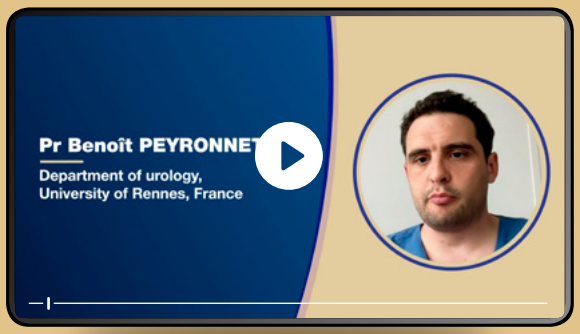
UROPULSE
TRENDS & TREATMENTS

How to better tailor treatments: OAB pathophysiology and phenotyping

Pr Benoit PEYRONNET

Department of urology, University of Rennes, France

Pr Benoit PEYRONNET, advocates for an individualized strategy, based on clinical phenotyping and simple tools, to ensure that each patient receives the right treatment from the outset.



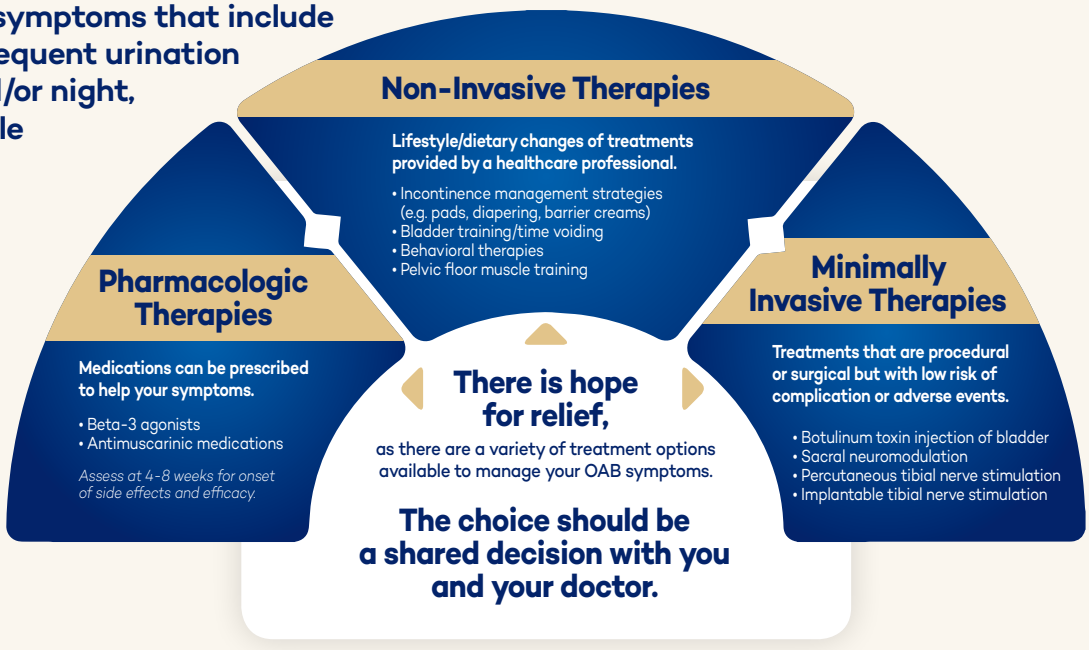
Click on the video or flash the QR Code to listen to Pr Benoit PEYRONNET.

INDIVIDUALIZING OAB MANAGEMENT: FROM ALGORITHMS TO PATIENT PHENOTYPES [1, 2, 3]

The classical stepwise algorithm for OAB management is no longer adequate. Discontinuation rates for legacy treatments are high, not necessarily because the drugs are ineffective, but often because they are **prescribed to the wrong patients**. Moving toward a personalized, **phenotype-driven approach** allows for **better outcomes** from the first line of therapy, as supported by the recent **"non-step therapy"** concept introduced in the **AUA/SUFU guidelines.**

OAB is a group of symptoms that include urinary urgency, frequent urination during the day and/or night, and for some people urgency urinary incontinence.

Overactive Bladder CCP Patient Pathway, image from SUFUorg.com. [4]



This material is intended for an international audience of healthcare professionals outside UK and ROI.
The content reflects the opinions of the speakers.

PHENOTYPING... HOW TO DO IT ?

Most can be done with **clinical interview** and **physical examination:**

- ✓ Cognitive dysfunction?
- ✓ Anxiety/depression?
- ✓ Bowel dysfunction?
- ✓ Anticholinergic burden?
- ✓ Bladder pain?
- ✓ Metabolic syndrome?
- ✓ Pelvic organ prolapse?
- ✓ Vulvovaginal atrophy?
- ✓ Fecal incontinence?
- ✓ Stress urinary incontinence?
- ✓ Incomplete bladder emptying?
- ✓ Autonomic dysfunction?
- ✓ Nocturnal symptoms/nocturnal polyuria?

UNDERSTANDING WHAT HIDES BEHIND URGENCY [5, 6, 7]

OAB is a purely clinical diagnosis, but the same symptom can mask **multiple underlying causes.** Prolapse-related OAB, underactive bladder, and female bladder outlet obstruction can all present with **urgency.**

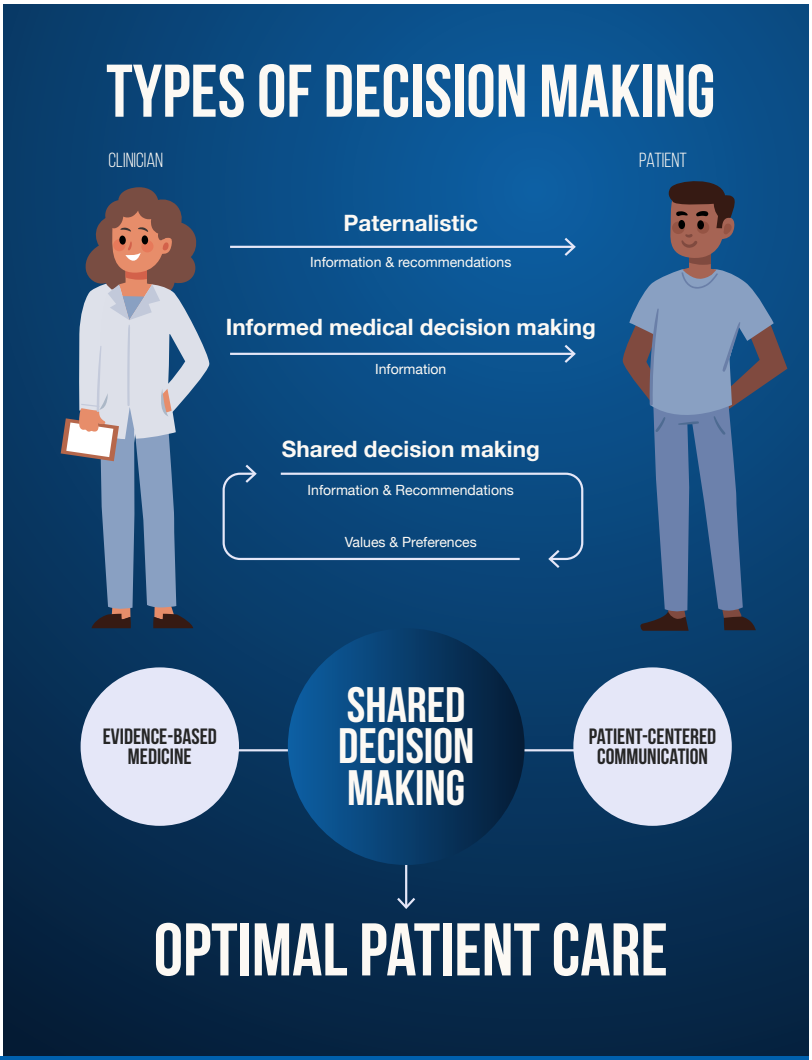
A **proper physical exam** and **history** can help **uncover these hidden conditions,** allowing targeted and often **simpler treatment strategies** to resolve symptoms.

Over 60% of OAB patients with a cystocele will improve or even be cured with a pessary or surgery.

POST-VOID RESIDUAL (PVR) MATTERS [8]

A high PVR dramatically changes treatment decisions

Before prescribing any OAB medication, especially antimuscarinics and botulinum toxin, checking post-void residual is essential. This simple **ultrasound measurement** can reveal **incomplete bladder** emptying, which would contraindicate certain treatments and favor alternatives such as neuromodulation, beta-3 agonists, or catheterization.



Shared decision-making as the optimal provision of high quality care.

TOWARD TRULY PATIENT-CENTERED CARE

Individualization also means involving the patient in every therapeutic decision. Shared decision-making ensures that treatments align not only with clinical findings but also with **patient preferences and expectations**. A careful **clinical interview** and **physical exam** are already major steps toward effective phenotyping and better outcomes.

CO-EXISTING CONDITIONS TO KEEP IN MIND [3, 9, 10, 11]

Several overlapping conditions can influence **OAB symptoms** and treatment safety:

1 **Vaginal atrophy,** particularly in postmenopausal women, often contributes to urgency and responds well to local estrogen therapy.

2 **Anticholinergic burden** is a growing concern. Many medications contribute cumulatively, increasing the risk of cognitive impairment especially in older, polymedicated patients.

3 **Constipation** and other gastrointestinal dysfunctions are common in OAB patients due to shared autonomic pathways; also some OAB treatments may worsen bowel symptoms.

OAB PHENOTYPING

Careful clinical interview and physical examination are powerful tools to elucidate the pathophysiological mechanisms underlying OAB symptoms, allowing for more accurate and personalized treatment decisions. Clinicians must also be vigilant about contraindications to certain therapies to avoid adverse outcomes. Placing the patient at the center through shared decision making is essential. The traditional one-size-fits-all, stepwise approach is no longer acceptable and should be replaced by an individualized, needs-based strategy.

HQ--07-25-2500050 / Designed by Med it up

OAB: *Overactive bladder.* ***CCP:*** *Clinical Care Pathway.*

1. Chapple CR, et al. Persistence and Adherence with Mirabegron versus Antimuscarinic Agents in Patients with Overactive Bladder: A Retrospective Observational Study in UK Clinical Practice. Eur Urol. 2017 Sep;72(3):389-399. **2. Peyronnet B, et al.** A Comprehensive Review of Overactive Bladder Pathophysiology: On the Way to Tailored Treatment. Eur Urol. 2019 Jun;75(6):988-1000. **3. Cameron AP, et al.** The AUA/SUFU guideline on the diagnosis and treatment of idiopathic overactive bladder. J Urol. Published online April 23, 2024. **4. SUFUorg.com.** Overactive Bladder CCP Patient Pathway, https://sufuorg.com/images/oab/oab-ccp-patient-pathway-color.aspx. Internet page consulted on 3rd June 2025. **5. de Boer TA, et al.** Pelvic organ prolapse and overactive bladder. Neurourol Urodyn. 2010;29(1):30-9. **6. Chapple CR, et al.** The underactive bladder: a new clinical concept? Eur Urol. 2015 Sep;68(3):351-3. **7. Malde S, et al.** Female bladder outlet obstruction: Common symptoms masking an uncommon cause. Low Urin Tract Symptoms. 2019 Jan;11(1):72-77. **8. Hennessey DB, et al.** Sacral neuromodulation for detrusor hyperactivity with impaired contractility. Neurourol Urodyn. 2017 Nov;36(8):2117-2122. **9. EAU Guidelines.** Edn. presented at the EAU Annual Congress, Madrid 2025. ISBN 978-94-92671-29-5. **10. Richardson K, et al.** Anticholinergic drugs and risk of dementia: case-control study. BMJ. 2018 Apr 25;361:k1315. **11. Malykhina AP.** Neural mechanisms of pelvic organ cross-sensitization. Neuroscience. 2007 Nov 9;149(3):660-72.

LABORATOIRES
Pierre Fabre
Pharmaceutical Care