UROPULSE
TRENDS & TREATMENTS

How to better tailor treatments: BPO/BPE individualized treatment

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Pr Cosimo DE NUNZIO emphasized the need to move away from standardized approaches in favor of truly individualized care plans, ones that consider not only clinical data but also patient symptoms, expectations, and personal context.

Click on the video or flash the QR Code to listen to Pr Cosimo DE NUNZIO.

RETHINKING INDIVIDUALIZED TREATMENT IN BPO[1]

Personalizing BPO treatment means going beyond conventional algorithms. It starts with **accurate diagnosis** and **clinical profile stratification,** including progression risk. But true personalization also requires **listening to the patient:** their illness perception, treatment expectations, and lifestyle preferences are as important as prostate volume or symptom scores. Furthermore, the **pharmacological profiles of drugs** and possible **surgical alternatives** must be considered.

A COMPLEX PATHOPHYSIOLOGY AT THE CORE OF CLINICAL REASONING[2,3]

BPH is a **multifactorial** condition:

CLASSIC FACTORS

- Ageing
- Hormonal alterations
- Insulin resistance
- Increased sympathetic nerve activity

+

EMERGING ELEMENTS such as:

- Inflammation
- Metabolic Syndrome

Focus on inflammation

Prostate-associated lymphoid tissue (PALT), triggered by factors like poor diet, infections, or diabetes, can **initiate chronic inflammation.** This leads to continuous **tissue damage** and remodeling, resulting in **epithelial and stromal proliferation** which are key contributors to LUTS and BPH.

ADAPTING MEDICAL THERAPY: BEYOND THE STANDARD ALGORITHM[1]

The **EAU guidelines** provide a treatment algorithm based on **symptom** type and **prostate volume.** However, they are **not sufficient,** as they do not take into account the **characteristics of the drug,** the **inflammatory status** and the **patient's preferences.**
Each drug class has a **distinct pharmacological profile,** acting on prostate size, smooth muscle tone, inflammation, and side effects. All these characteristics need to be taken into account to identify the right medical treatment for every single patient.[4]

DETECTING INFLAMMATION[2,5]

Prostatic inflammation can be suspected through **biopsy** findings, presence of **metabolic syndrome, calcifications,** predominant **storage symptoms,** or certain **biomarkers**. Tools like the **PINS nomogram** use clinical and laboratory data to estimate a probability of prostatic inflammation in BPH patients with over **80%** accuracy.

Leukocytes detected by urine dipstick

Presence of diabetes mellitus

Prostate volume

IPSS storage sub-score

History of urinary tract infections

UNDERSTANDING PATIENT EXPECTATIONS[6]

Patients tend to prefer **low-risk medical options** and are particularly focused on **preserving sexual function.** This should guide therapeutic choices from the very first consultation.

OUTCOME	RESULTS		CERTAINTY OF EVIDENCE
EFFICACY	Expect reduction of voiding symptoms **62-97% prefer rapid symptoms improvement**	Patients are willing to pay to improve symptoms	++
DISEASE STABILIZATION	36-38% prefer a treatment stabilizing the disease 64% may wait 3 months for symptoms improvement		+++
AEs	**Men prefer less risky options** 77-93% prefer treatment with no sexual AEs	Men are willing to pay to avoid sexual AEs	+++
COMPLICATIONS OF BPH	24-27% prefer a treatment that reduces risk of surgery **68-85% prefer reducing risk of surgery than rapid improvement**	Surgery was the least preferred treatment in most of the patients 57-58% are significantly concerned by the risk of AUR.	++

Patients Expectations on Pharmacological Treatment, adapted from Malde S, et al. Eur Urol Focus. 2022.[6]

PERSONALIZING SURGICAL TREATMENT: ALIGNING OUTCOMES WITH PATIENT PRIORITIES [1]

Today's surgical landscape includes traditional procedures and a growing range of **minimally invasive surgical therapies (MIST).** While the EAU algorithm helps guide decisions, it still overlooks crucial aspects: patient's preferences, morbidity, durability and effects on sexual function.

The surgical treatment of BPO must be balanced between:

DURABILITY

- Persistent voiding symptoms?
- Re-operation rate
- Patients still on medication after surgery

MORBIDITY

- Operative complications (Clavien?)
- Long-term complications
- Sexual complications

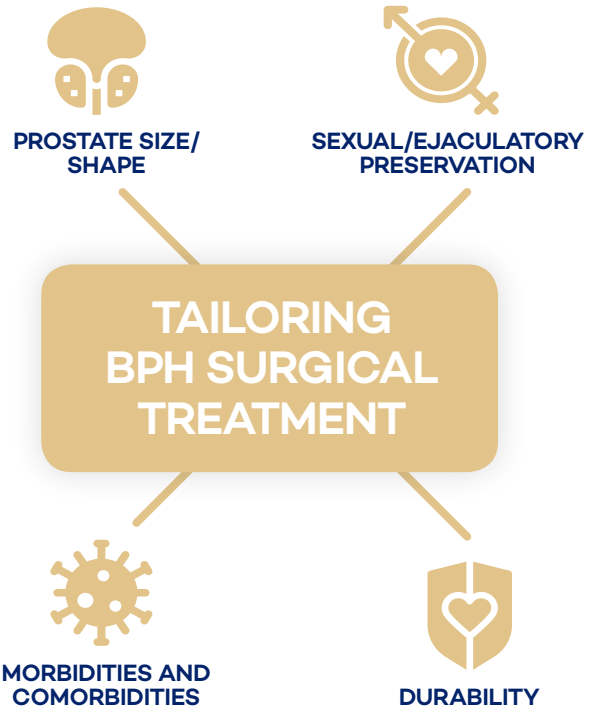
PATIENT'S CONCERNS [6,7]

Patients often seek a "pentafecta": improved **quality of life,** symptoms, flow and **no complications** with a **preserved sexual function.** But it's **not possible.**

"They want to preserve their sexual function, especially if they are sexually active.

VS

SURGEON'S CONCERNS



BPO/BPE INDIVIDUALIZED TREATMENT

Personalized treatment for BPO/BPE is now achievable, but it requires a true paradigm shift: moving from physician-driven decisions to patient-centered care. This means integrating not only clinical findings but also the patient's voice and fostering a collaborative dialogue between the patient, GP, and urologist.

HQ--07-25-2500051 / Designed by Med it up

AE: *Adverse event.* ***AUR:*** *Acute urinary retention.* ***BPE:*** *Benign prostatic enlargement.* ***BPH:*** *Benign prostatic hyperplasia.* ***BPO:*** *Benign prostatic obstruction.* ***GP:*** *General practitioner.* ***IPSS:*** *International Prostate Symptom Score.* ***LUTS:*** *Lower urinary tract symptoms.* ***PINS:*** *Prostatic inflammation nomogram study.*

1. EAU Guidelines. Edn. presented at the EAU Annual Congress Paris April 2024. ISBN 978-94-92671-23-3. **2. Gandaglia G, et al.** The role of chronic prostatic inflammation in the pathogenesis and progression of benign prostatic hyperplasia (BPH). BJU Int. 2013 Aug;112(4):432-41. **3. De Nunzio C, et al.** Inflammation is a target of medical treatment for lower urinary tract symptoms associated with benign prostatic hyperplasia. World J Urol. 2020 Nov;38(11):2771-2779. **4. de La Taille A.** EAU Pierre Fabre Symposium 2021 **5. Gravas S, et al.** Development and validation of a clinical nomogram to predict prostatic inflammation in men with lower urinary tract symptoms. Prostate Cancer Prostatic Dis. 2025 Jun;28(2):405-410. **6. Malde S, et al.** A Systematic Review of the Efficacy and Safety of Outpatient Bladder Tumour Ablation. Eur Urol Focus. 2022 Jan;8(1):141-151. **7. Malde S, et al.** A Systematic Review of Patients' Values, Preferences, and Expectations for the Diagnosis and Treatment of Male Lower Urinary Tract Symptoms. Eur Urol. 2021 Jun;79(6):796-809.

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