

OVERACTIVE BLADDER

DEFINITION: presence of urinary urgency, with or without incontinence, usually accompanied by ↑ frequency and nocturia

AETIOLOGY:

- **Genitourinary syndrome**
 - Vulvovaginal atrophy
 - Vulvovaginal and urinary signs and symptoms related to oestrogen deprivation
- **Overweight and obesity:** only weight loss has been shown to improve Urinary Incontinence (UI)

TYPES OF LOWER TRACT URINARY DYSFUNCTION:

- **SUI (stress):** urethral hypermobility and/or sphincter deficiency
- **Urgency** and/or increased frequency and nocturia, with or without incontinence
- **MIU:** UUI + SUI

DIAGNOSIS: CLINICAL HISTORY, PHYSICAL EXPLORATION, VOIDING DIARY, EXCLUSION OF UTIs

TREATMENT:

CONSERVATIVE TREATMENT	LIFESTYLE CHANGES	BLADDER TRAINING AND PROMOTION OF EMPTYING	PELVIC FLOOR REHABILITATION
	Weight loss Reduced liquid intake, alcohol, caffeine and tobacco consumption Exercise	Fixed voiding schedule Progressively increasing interval Objective: 3-4h	Pelvic Floor Muscle Training (PFMT) Electrostimulation

1 ST LINE PHARMOLOGICAL TREATMENT		ACTION	ADVERSE EFFECTS (common to all)	CONTRAINDICATIONS (common to all)	DOSE
ANTIMUSCARINICS	FESOTERODINE 4 y 8 mg	Competitive Inhibitor of the muscarinic receptors	Neurological: Dizziness Headache Mucous membranes: Dry mouth, eyes, nose, skin Eyes: Blurred vision Accommodative dysfunctions Gastrointestinal: Constipation, Dyspepsia, Vomiting, Abdominal pain	Urinary retention Closed-angle glaucoma Myasthenia gravis Severe liver-kidney failure Ulcerative colitis Megacolon Intestinal obstruction Tachyarrhythmias	4 mg/24h Can be ↑8 mg/24h
	SOLIFENACIN 5 y 10 mg	M3 receptor competitive inhibitor			5 mg/24h
	TOLTERODINE 4 mg	Competitive antagonist and specific muscarinic receptors			4 mg/24h (2mg/24h LF-KF)
	TROSPIUM 20 mg	Competitive inhibitor of the muscarinic receptors Does not cross the blood-brain barrier			1 comp/12h
MIXED-ACTION DRUGS	OXYBUTYNIN 5mg Transdermal 3,9 mg/24 h	Competitive Ach antagonist in the post-ganglionic muscarinic receptor	Eyes: Blurred vision Accommodative dysfunctions Gastrointestinal: Constipation, Dyspepsia, Vomiting, Abdominal pain	Ulcerative colitis Megacolon Intestinal obstruction Tachyarrhythmias	Children 2,5-5 mg/12h Adults: 2,5-5mg/8h Transdermal: 2 times/week
	PROPIVERINE 30mg y 45mg	Inhibition of the flow and modulation of intracellular calcium in the smooth muscle of the bladder. Inhibition of the efferent connection N. pelvic due to antiAch effect			30mg/24h 45mg/24h severe symptoms or little response to 30mg
B3 ADRENOCEPTORS	MIRABEGRON 50mg	Selective β-3 agonists	UTI, vaginosis, tachycardia, arrhythmia	Hypersensitivity Uncontrolled hypertension	50 mg/24h

2 ND LINE TREATMENT	POSTERIOR TIBIAL NERVE STIMULATION (PTNS)	Onabotulinum toxin A (onabotA: BOTOX®)	SACRAL NERVE STIMULATION (neuromodulation)
	Provides electrical impulses to the sacral centre (S2-S4) percutaneously 1 session/week for 12 weeks 30 minutes	Reversible temporary chemical denervation (inhibition of the release of Ach) 100 U Need for reinjections Wait at least 12 w between injections Risk of urinary retention and UTI Discontinuation (30-40%)	Temporarily with an external stimulator. If a good response, pacemaker insertion Efficiency maintained over time (70%). Re-interventions(30%)

3RD LINE SURGICAL TREATMENT:

- **AUGMENTATION/REDUCTION CYSTOPLASTY:** usually using detubularised segment of bowel. Reduce hyperactivity of detrusor
May require catheterization
- **URINARY DIVERSION:** Continent reservoir for patients who can be catheterized. Ileal reservoir (no continent)