

DEFINITION: **URINARY URGENCY**, with or without urgency incontinence (OAB wet; OAB dry), usually with increased day time frequency and nocturia, if there is no proven infection or other obvious pathology.
DETRUSOR OVERACTIVE (DO): Is the hallmark urodynamic feature

Is a **chronic, dynamic disease**, with long-lasting stable disease courses, remissions and progressions.

PREVALENCE: 12-17% of the adult population. **Increases with age and is slightly more frequent in women.**

There are two possible origins ↗ Decreased capacity to handle the afferent signs in the brain
↘ Abnormally increased afferent signals from the bladder/urethra

DIAGNOSIS

Clinical history and physical examination

Questionnaires (ICIQ-SF, OABQ-SF...) **and bladder diaries** (at least 3 days diary)

Urinalysis (if a UTI is present with LUTS, reassess the patient after treatment)

Urodynamics: is essential in establishing DO, but the diagnosis of OAB is based on symptoms alone

DISEASE MANAGEMENT

FIRST STEP: CONSERVATIVE MANAGEMENT

- Addressing underlying disease/cognitive impairment/review and adjust medication
- Reduce fluid intake, caffeine, smoking cessation, weight loss
- Bladder training and pelvic floor muscle training

SECOND STEP: PHARMACOLOGICAL MANAGEMENT

IR – Immediate-release formulations

ER – Extended-released formulations

MUSCARINIC RECEPTOR ANTAGONISTS

M2 and M3 subtypes are predominant in the detrusor.

Reduce urgency, urgency incontinence and frequency.

- **Propiverine 30/45mg (orally ER)**
(dual mode of action: **anticholinergic** and calcium antagonistic)
- Oxybutynin 5mg (orally IR and ER), 3,9mg (patch)
(dual mode of action: anticholinergic and antispasmodic)
- Fesoterodine 4mg/8mg (orally ER)
- Solifenacin 5mg/10mg (orally IR)
- Tolterodine 4mg/8mg (orally ER)
- Trospium chloride 20mg (orally IR)

Adverse events: dry mouth, constipation, nasopharyngitis, blurred vision, prurito and dizziness. ER have less adverse events.

NO in men with post-void residual volume >150mL, gastric retention and narrow-angle glaucoma

BETA-3 AGONISTS

Reduce urgency, UII and frequency, improve voided volume and nocturia.

- Mirabegron 50mg (orally ER)

Adverse events: hypertension, UTI, headache and nasopharyngitis.

Contraindicated in severe uncontrolled hypertension (systolic > 180mmHg, diastolic >110mmHg).

BLOOD PRESSURE SHOULD BE MONITORED

If an anticholinergic proves ineffective, consider dose escalation, alternative formulation, mirabegron or a combination

THIRD STEP

Posterior tibial nerve stimulation



Bladder wall injection of botulinum toxin A (100U)



Sacral nerve stimulation



FOURTH STEP

Augmentation cystoplasty/urinary diversion

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Created by Urology Cheat Sheet (@CheatUrology)
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