PIPADOR REVISION

MRCOG Part 1 Revision Notes

Detrusor Over-activity

CLINICAL MANAGEMENT • LECTURE 496

VISUAL EXAMINATION REVISION NOTES

2026 Edition

496

MRCOG PART 1 REVISION NOTES | CLINICAL MANAGEMENT

Detrusor Over-activity

Overactive bladder and detrusor overactivity — definitions, assessment and management (NICE NG123)

Urgency	Bladder training	Mirabegron	Botox
Key symptom	≥ 6 weeks	β_3-agonist	Must accept ISC

■ KEY FACTS: Learning objectives

- Define overactive bladder (OAB), urgency incontinence and detrusor overactivity (DO).
- Describe assessment and conservative/pharmacological management (NICE NG123).
- Describe invasive treatments for refractory OAB and the role of urodynamics.

496.1 Key definitions

Term	Definition
Urgency	Sudden compelling desire to pass urine which is difficult to defer
Overactive bladder (OAB)	Urgency, usually with frequency and nocturia, with or without urgency incontinence, without UTI or other pathology
Urgency urinary incontinence (UUI)	Involuntary leakage accompanied or immediately preceded by urgency
Detrusor overactivity (DO)	Urodynamic observation of involuntary detrusor contractions during filling
Nocturia	Waking at night to void
Anticholinergic burden	Cumulative effect of drugs with antimuscarinic activity — linked to cognitive decline and falls in older people

■ IN PLAIN ENGLISH: Overactive bladder

In OAB the bladder muscle **contracts when it should be relaxing**. Most women improve with **bladder training**; medicines relax the bladder, and refractory cases can be treated with **botulinum toxin** or nerve stimulation.

496.2 Assessment

- History, bladder diary (frequency > 8/day, small volumes), fluid/caffeine intake, medications (diuretics), neurological symptoms, bowel function.
- Urinalysis ± culture (exclude UTI)
  - PVR (incomplete emptying)
  - Haematuria → urology (exclude bladder cancer — 2WW if ≥ 45 with unexplained visible haematuria, or recurrent/persistent UTI with haematuria in older women)
  - Glucose (diabetes).
- Examination for prolapse, atrophy, pelvic masses; neurological exam if indicated.

496.3 Management (NICE NG123)

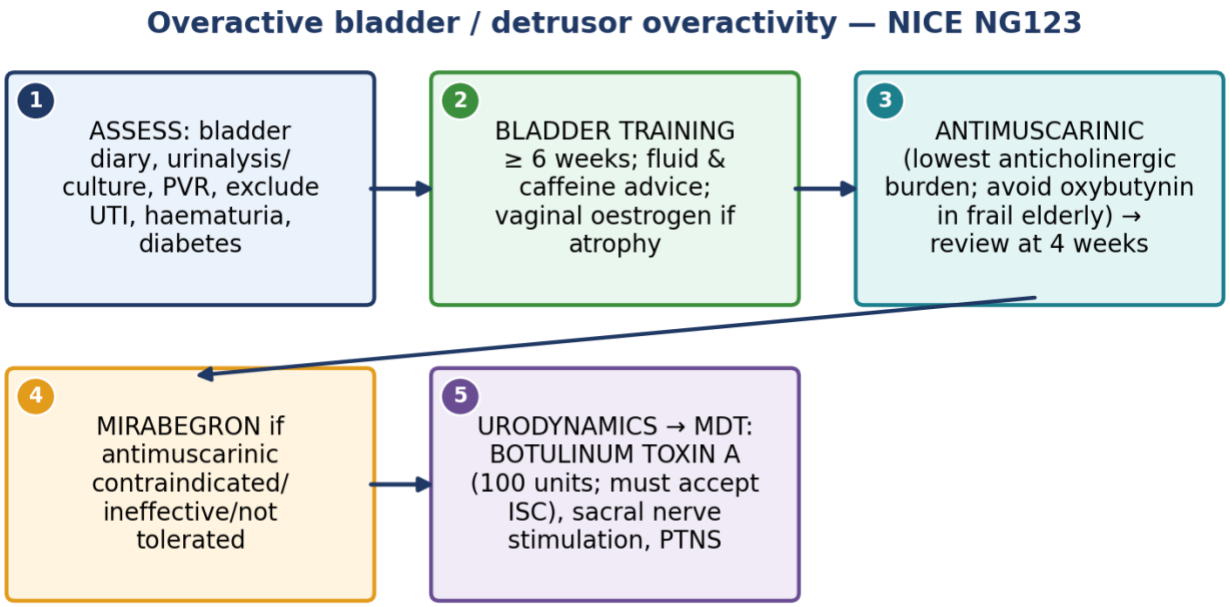


Figure 496.1 — OAB pathway

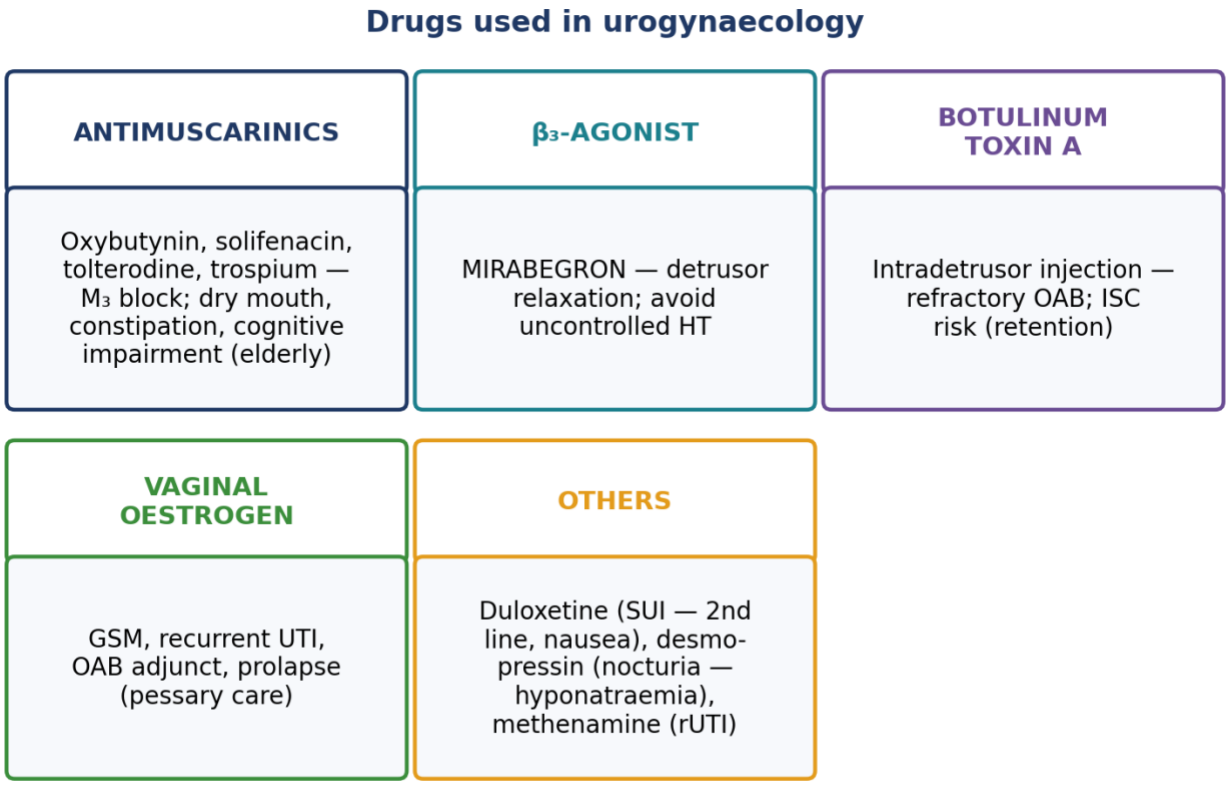


Figure 496.2 — Drugs used in urogynaecology

Step	Details
Lifestyle	Reduce caffeine, avoid excessive/insufficient fluids, weight loss, treat constipation
Bladder training	At least 6 weeks — scheduled voiding with gradually increasing intervals
Antimuscarinics	• Choose the drug with the lowest acquisition cost/anticholinergic burden • Avoid oxybutynin (immediate release) in frail older women

Step	Details
	• Side effects — dry mouth, constipation, blurred vision, cognitive effects • Contraindicated in uncontrolled angle-closure glaucoma, myasthenia • Review at 4 weeks
Mirabegron	β_3-agonist — if antimuscarinics contraindicated, ineffective or not tolerated (check BP)
Vaginal oestrogen	Postmenopausal women with vaginal atrophy
Desmopressin	Nocturia (caution > 65, hyponatraemia)
Invasive (after urodynamics and MDT)	Botulinum toxin A 100 units intradetrusor (must be able/willing to self-catheterise; repeat injections), percutaneous sacral nerve stimulation, percutaneous tibial nerve stimulation (if botox declined), augmentation cystoplasty/urinary diversion (rarely)

■ **COMMON PITFALLS**

Missing UTI, bladder cancer or retention as causes.

Prescribing oxybutynin to frail older women.

Offering botox without checking ability to self-catheterise.

496.4 Must-know summary

■ **EXAM TIP**

- OAB = urgency ± frequency, nocturia, UUI; DO = urodynamic involuntary detrusor contractions.
- Exclude UTI, haematuria/cancer, retention, diabetes.
- Bladder training ≥ 6 weeks → antimuscarinic (low anticholinergic burden) → mirabegron; vaginal oestrogen.
- Refractory: urodynamics → botulinum toxin A (ISC risk), sacral/tibial nerve stimulation.

■ **MNEMONIC / MEMORY AID**

OAB ladder — 'Train, Tablet (antimuscarinic), Beta-3, Botox'.