

women with urgency symptoms do not manifest UUI because their urethral sphincter is strong and often able to prevent urine leakage [432].

The role of urodynamics in MUI is unclear but establishing objective degrees of SUI and DO incontinence may help in counselling patients about the most appropriate initial treatment option and are almost universally utilised in women with MUI.

4.3.2.1 Summary of evidence and recommendations for the diagnosis of mixed urinary incontinence

Summary of evidence	LE
Urodynamics can help to evaluate the most predominant cause(s) in patients with MUI.	4
There is no evidence that urodynamics affects outcomes of treatment for MUI.	3

Recommendations	Strength rating
Complete a thorough history and examination as part of the assessment of mixed urinary incontinence (MUI).	Strong
Characterise MUI as either stress-predominant or urgency-predominant where possible.	Weak
Use bladder diaries and urodynamics as part of the multimodal assessment of MUI to help inform the most appropriate management strategy.	Strong

4.3.3 Disease management

4.3.3.1 Conservative management

Managing MUI presents unique challenges due to its typically more severe symptoms and variable treatment responses compared to SUI or UUI [433]. Conservative management strategies are recommended initially, with surgery considered as a last resort option [432].

4.3.3.1.1 Pelvic floor muscle training

Pelvic Floor Muscle Training plays a central role in conservative management for MUI. Research findings indicate that PFMT, often supplemented with audiotapes or other forms of guidance, effectively reduces the frequency of incontinence episodes and improves quality of life for women with MUI [434]. Studies, including RCTs, have consistently shown that PFMT can significantly enhance PFM strength and decrease UI episodes compared to no treatment.

A Cochrane review comparing PFMT with no or sham treatment included 31 RCTs from fourteen countries, but there was only one study including women with MUI and one with UUI and none of them reported data on cure, improvement, or number of episodes of these subgroups [319].

The effect of combining biofeedback with PFMT has already been fully addressed in Section 4.2.4.1.3, and there was no evidence of any additional benefit in a population with predominantly MUI.

4.3.3.1.2 Bladder training

Details on BT programmes are given in Section 4.2.4. The ICI 2017 [324] concluded that PFMT and BT are effective first-line therapies for MUI and UUI. An RCT assigning 108 women with SUI, UUI, or MUI to six weeks of BT combined with PFMT versus BT alone demonstrated superior outcomes in the combined treatment arm in terms of symptom improvement and cure rates, particularly in the MUI subgroup [435].

4.3.3.1.3 Electrical stimulation

Electrical Stimulation has been explored as a treatment option for SUI and stress-predominant MUI. A Cochrane review highlighted that while ES showed promise in subjective cure or improvement of SUI, the evidence quality varied. Some trials were criticised for biases such as baseline differences between groups and industry funding. Electrical stimulation for OAB and SUI is covered in Sections 4.1.4.1.5.4 and 4.2.4.1.5.

Clinicians are advised to exercise caution when interpreting study results and implementing treatment plans, as the efficacy of interventions like PFMT and BT can vary depending on patient characteristics and adherence to therapy protocols. Further research is needed to refine treatment guidelines and better understand the long-term effectiveness of conservative therapies for managing MUI.