Information Snapshot – **Dr Deepa Gopinath**

Managing urinary incontinence in the frail elderly individuals

Though 'elderly' refers to those over the age of 65 years, they can range from active, working, healthy individuals, to bedbound, chronically ill, functionally and cognitively impaired people. The prevalence of urinary incontinence (UI) is between 8-30% in this group, however this risk is two times more in the frail elderly. Associated dementia further increases the disease burden and consideration for institutionalization. As many as 36.7% of short-stay nursing home residents and 70.3% of long-stay residents have UI. Management presents unique challenges in the frail elderly due to the multiple factors that need consideration and paucity of medical evidence in improving quality of life.

The aetiology of UI is multifactorial and often have a compounding effect due to interactions of various risk factors (Fig 1). Age related physical and neurological changes interact with comorbidities, polypharmacy and functional as well as cognitive impairment triggering urinary incontinence. The effect can be bidirectional.

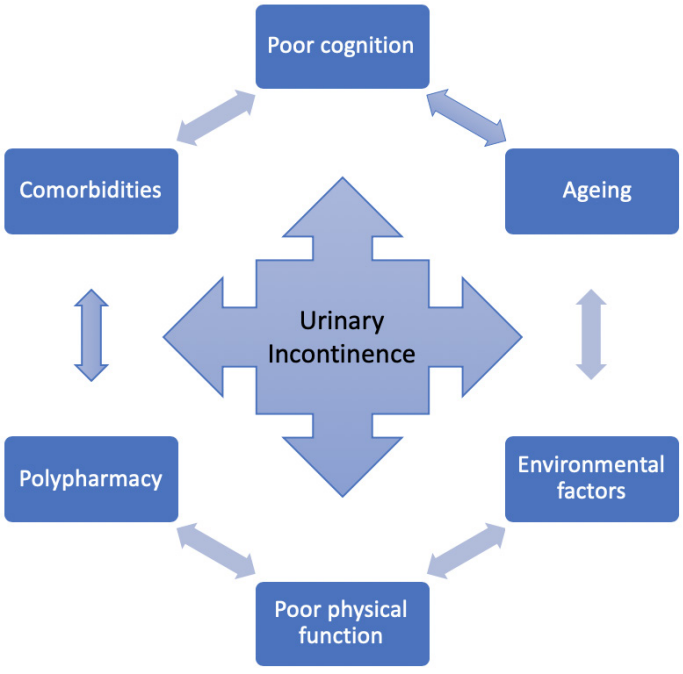

Fig 1 Interaction of various risk factors in causation of UI

Assessment of UI

- Active case finding and screening is recommended as 50% do not spontaneously report their symptoms.
- Identify treatable, potentially reversible conditions that could cause or contribute to UI (DIPPERS mnemonic- Delirium, Infection, Pharmaceutical, Psychological, Excess urine output, Reduced mobility, Stool impaction).
- Avoid overtreatment of asymptomatic bacteriuria.
- Assess frailty, cognitive impairment and mobility.
- Cough stress test can diagnose SUI with moderate accuracy.
- Routine assessment of post void residual not necessary in the absence of voiding symptoms.
- Urodynamic assessment is unlikely to change management except for those suitable for surgical management.
- The international consultation on incontinence (ICI) has summarised the assessment of incontinence in frail elderly into an algorithm (Fig 2).

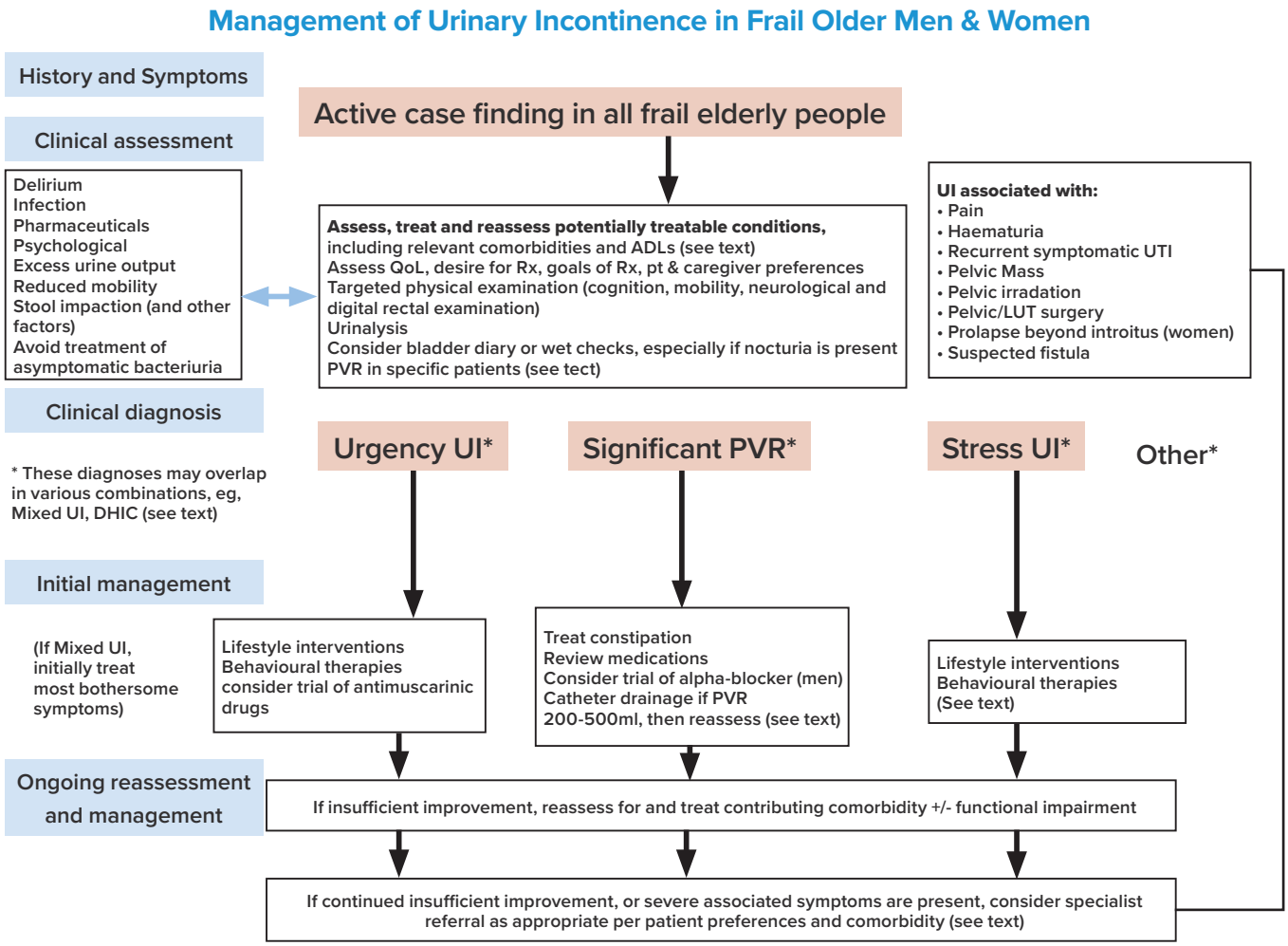

Fig 2 Algorithm of management of urinary incontinence in the frail elderly

General management

- Frailty should be the main consideration, not age.
- Therapy should be patient centred, tailored to the unique patient's abilities and disabilities, multicomponent and inter disciplinary.
- Assess patient motivation and goals.
- Carer/ nursing staff may need additional training.
- Assess organisational set up for feasibility of treatment (staffing, resources).
- Review comorbidities and optimise management (DM, CCF, OSA)
- Identify effects due to polypharmacy. Review medications that could affect bladder function or cognition and consider alternatives (e.g.: diuretics, ACE-I, opioids etc).

Stress UI (SUI)

- Consider supervised pelvic floor physiotherapy. This achieves good outcomes with less adverse effects. Limited outcome data in this age group and physical and cognitive deterioration maybe a limiting factor.
- Urodynamic studies to be considered prior to surgery
- Urethral bulking appears to be minimally invasive and as effective as in younger women.
- Perioperative risks should be evaluated though morbidity and mortality of anti UI procedures are low and related to comorbidities.
- Management strategies for possible post- operative delirium, cognitive effects due to opioid analgesia and functional impairment in hospital setting should be considered.

Overactive bladder (OAB) +/- Urge UI

- Lifestyle management – weight loss/ dietician review in obesity-may not be practical or achievable. However, consider if this is warranted.
- Fluid management – restrict fluid intake to 1.5-2L or individualised as per cardiac or renal function. Cut down bladder irritants (caffeine, alcohol etc). Completion of bladder diary should be considered where feasible though accuracy may be limited by cognitive status and availability of carer.
- Behavioural therapy – This includes timed voiding, prompted voiding, alone or in combination with pelvic floor physiotherapy. Maybe limited by physical and cognitive impairment.

  Prompted voiding is effective in short term treatment in day-time UI. However, do not consider this if assistance of more than one person for transfer or does not achieve 20% reduction in wet checks or successful toileting in a 3-day trial period.
- No proven interventions available that reduce night-time UI or UI in hospitalised frail elderly.
- Pharmacotherapy
- Only to be considered following a comprehensive evaluation of remediable causative factors and an evaluation for and trial of appropriate behavioural therapy and lifestyle interventions.
- Selective treatment should be considered and offered on an individual basis after considering risks and benefits.
- Not for individuals who makes no attempt to toilet when aided, become agitated with toileting or are so functionally and cognitively impaired with no meaningful benefit. They should be managed with containment products of adequate absorbency and pad checks.

- Older adults are more at risk for anticholinergic side effects due to increased permeability of blood brain barrier, decreased drug metabolism and age-related deficit in central cholinergic transmission which can affect cognition.
- Available medications include anticholinergics and Beta3 agonist-Mirabegron.
- Consider anticholinergics risks- worsening of dry mouth, constipation, poor compliance due to side effects, increased risk of falls and fractures as well as dementia which is related to the total anticholinergic load.
- Assess the total anticholinergic burden and consider alternatives to minimise side effects. www.acbcalc.com
- Concomitant use of Acetyl choline esterase inhibitors and anticholinergics should be generally avoided but can be considered if bothersome urinary symptoms with careful watch on worsening cognition.
- Anticholinergics are preferably avoided in those with pre-existing dementia or are at high risk for dementia (11-30% greater risk).
- Avoid immediate release oxybutynin due to worsening of cognitive adverse effects.
- Insufficient evidence to determine efficacy, tolerability and safety in the frail elderly for transdermal Oxybutynin, Darifenacin, oral and topical oestrogen.
- Mirabegron (25-50mg) and Solifenacin (5mg) does not appear to affect cognition in elderly, but there is no data for frail elderly. Mirabegron has better persistence (32-38%) over antimuscarinics (12-25%).

Nocturia

- Prevent and treat oedema by considering late afternoon diuretic, thromboembolic (TED) stockings, salt restriction. Treat cardiac failure if present.
- ACE-I to be changed to ARB if this is due to nocturnal cough induced SUI.
- Consider CPAP if obstructed sleep apnoea.
- If nocturia due to insomnia alone, a very short acting sedative hypnotic may be considered.
- Desmopressin not to be used in frail elderly.
- Antimuscarinics can be considered if related to OAB on individual basis.

In summary, given the paucity of evidence, careful considerations are required in managing UI and LUTS in the frail elderly, weighing up potential benefits and risks as well as treatment goals of patients and their carers.

Reference:

1. Wagg, A., Gibson, W., Ostaszkiewicz, J et al. (2015), Urinary incontinence in frail elderly persons: Report from the 5th International Consultation on Incontinence. Neurourol. Urodynam., 34: 398-406. doi:10.1002/nau.22602

About Dr Deepa Gopinath

Deepa is an Australian and UK accredited subspecialist urogynaecologist who specializes in pelvic floor issues in women. You can find more about her practice at www.cairnsurogyn.com.au

MR0018554 CDS Managing urinary incontinence in the frail elderly women A4 0220

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