Urinary Incontinence

Dr Tee Juan Ong (TJ)
FRACP
Geriatrician
Royal Melbourne Hospital
Imagine
Prevalence

• Variability in estimates: methodology

• Community dwelling >60yo
  • F: 40-48%  M: 13-30%

• Residential care
  • F: 50-80%  M: 23-72%

• Carers
  • 81% female, 55% aged 40-65
  • 73% spent >40hrs/week caring. Assist with more tasks (feeding, pADL, transfers)
  • Excluded from labour force, financial, social, health, wellbeing, relationships

AIHW – Incontinence in Australia 2013
Prevalence

• 3 critical reasons for relocation
  – Dementia
  – Immobility
  – Incontinence

• Direct costs 2008-9: $1.6 billion
  Indirect and intangible costs 2010: $42.9 billion
  (DAE 2011)
Lower urinary tract symptoms (LUTS)

Incontinence: ANY involuntary leakage

- Urge incontinence
- Stress incontinence
- Overflow incontinence

Functional incontinence
Overactive bladder (OAB)

• Symptoms:
  – frequency, nocturia, urgency, OAB dry, OAB wet

• Pathophysiology:
  • Detrusor overactivity

• Aetiology:
  • Idiopathic, neurogenic, obstruction
Management

- Incontinent (Wet)
  - Dependent Continence (Dry with toileting, assistance, behav. Rx, &/or meds.)
  - Independent Continence (Dry, not dependent on ongoing Rx)
- Contained Incontinence (Urine contained with pads or appliances)
Management of OAB

• Healthy bladder habits
  • Education
  • Fluid modulation
  • Caffeine reduction
  • Timed toileting

• Healthy bowel habits
  • Treat constipation!!!

• Weight loss

• Topical oestrogen

• Pads (+ other equipment)

• Pelvic floor muscle training
Urine storage
Activation of $\beta_3$-adrenoceptors (e.g. by mirabegron) causes detrusor relaxation increasing bladder capacity$^{1-3}$

Bladder voiding
Parasympathetic stimulation is mediated by acetylcholine binding to muscarinic receptors leading to detrusor contraction$^{2-3}$

noradrenaline

$\beta_3$-adrenoceptors

acetylcholine

muscarinic receptors
Management of OAB

• Medications:
  – Anticholinergics:
    • Oxybutynin, Solifenacin, Darifenacin
    • Problems: Dry mouth and constipation (confusion).
    • Cost
  – Beta-3 adrenergic agonist: Mirabegron
    • Hypertension 1mmHg, mild nausea
    • Cost
Management of OAB

• Intractable OAB
  – Intradetrusor Botox
    • Effective. Local effect only.
    • Relatively simple cystoscopically
    • Every 6-12 months
    • Self catheterise 6-8%.
  – Sacral nerve stimulator
    • Effective. Fluoroscopy insertion.
    • Improvement in constipation and pelvic floor pain
    • Relatively expensive.

  – Surgical options for terminal bladder
    • Bladder augmentation, ileal conduits
Government initiatives

- National Continence Program (NCP)
  - National Continence Management Strategy
    - Continence Foundation Australia
    - World Continence Week
    - National Continence Helpline 1800 33 00 66
    - National Public Toilet Map (website, app, planner)
    - Bladder Bowel website www.bladderbowel.gov.au
  - Continence Aids Payment Scheme (CAPS)
  - Statewide Equipment Programme (SWEP)
Micturition: Above the spinal cord

Griffiths 2005, 2007
Dilemma in dementia

• “Anticholinergic load”
• Anti-cholinergics and cholinesterase inhibitors: Pharmacological opposition
Not covered today

- Nocturnal polyuria in the elderly
- Nocturia and falls
- Urinary tract infections
- Bowel dysfunction
Where to from here?

- Prevention
- Education
- Services
- Translational Research
Thank you!

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Continence Service