MANAGEMENT OF URINARY INCONTINENCE IN WOMEN

Dr Marcus Carey
5 March 2016

Female Urinary Incontinence: GP resources

www.thewomens.org.au
- Clinical Practice Guidelines
- GP management of female urinary
- Urogynaecology fact sheets

HealthPathways Melbourne

CFA: Continence Foundation of Australia

www.drmarcuscarey.com

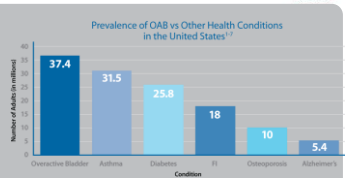
Female Urinary Incontinence

- 10-16% of women have urinary incontinence (35% after age 65)
- Burden of care for incontinence will increase by 110% by 2030
- Stress incontinence is the commonest cause of urinary incontinence followed by urge incontinence
- Urge Incontinence is a distressing symptom
- Accurate clinical assessment
- Conservative treatment often very effective

OAB: Prevalence (US data)

Approximately 37.4 million adults in the United States have symptoms of OAB[1,2]

Epidemiologic surveys suggest that the incidence of OAB rises as the population ages[1]



References: 1. Stewart WF, Van Rooyen JB, Cundiff GW, et al. World J Urol. 2003;20:327-336. 2. United Nations, Department of Economic and Social Affairs, Population Division (2011). World Population Prospects: The 2010 Revision, CD-ROM Edition. 3. Centers for Disease Control and Prevention (CDC). Air Pollution and Respiratory Health Branch. National Center for Environmental Health [asthma prevalence [asthma]. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2010. 4. National Diabetes Information Clearinghouse. National Diabetes Statistics, 2011. Atlanta, GA: U.S. Department of Health and Human Services. 5. Whitehead WE, Borrud L, Goode PS, et al. Gastroenterology. 2009;137:512-517. 6. National Osteoporosis Foundation. What is osteoporosis. www.nof.org/articles/7. Accessed October 25, 2012. 7. Alzheimer's Association. Alzheimer's facts and figures. www.alz.org/alzheimers_disease_facts_and_figures.asp. Accessed August 23, 2012.

Female Urinary Incontinence: Causes

- Urethral sphincter incompetence (stress incontinence)
- Detrusor over-activity (urge incontinence; OAB)
  - idiopathic
  - neurogenic (e.g. MS, spinal trauma)
- Mixed incontinence
- Urethral diverticulum
- Fistula
- Congenital abnormalities (e.g. bladder extrophy, ectopic ureter)

Female Urinary Incontinence: Causes

- Transient incontinence
  - UTI, restricted mobility, constipation, excessive urine output (diuretics, CCF, hypercalcaemia, diabetes insipidus), confusion
- Drugs (e.g. prazosin, diuretics)
- Overflow incontinence
- Urethral instability
- Functional

Urinary Incontinence: Definitions

OAB is the presence of **urinary urgency**, usually accompanied by **frequency** and **nocturia**, with or without **urgency incontinence**, in the absence of UTI or other obvious pathology

Stress Urinary Incontinence is the complaint of involuntary leakage on effort or exertion, or on sneezing or coughing

Urinary Incontinence: assessment

History and examination

- OAB symptoms
  - Urgency=sudden compelling desire to pass urine that is difficult to defer
  - Urge incontinence=involuntary leakage of urine accompanied by urgency
  - Women often describe a sudden desire to void but not making it to the toilet in time; may be trigged by hearing running water, opening the front door etc.
- Stress incontinence

Severity of symptoms

Lifestyle factors: caffeine, alcohol

Urinary Incontinence: assessment

Examination

- Exclude neurological causes
- Vaginal examination: prolapse, stress incontinence, atrophy, diverticulum, vaginosis

Dipstick and/or MSU

Post-void residual urine volume

Bladder diary

- urinary frequency and nocturia

Treatment of Overactive Bladder (OAB)

OAB treatment guidelines

1st Line Treatment

Behavioral therapies (bladder retraining, bladder control strategies, PFE, fluid management)

2nd Line Treatment

Oral anti-muscarinics (Darifenacin, Solifenacin) or
oral β^3-adrenoreceptor agonist (Mirabegron)

Transdermal anti-muscarinics (Oxybutynin)

Combination therapy (e.g. Mirabegron/Solifenacin)

OAB treatment guidelines

3rd Line Treatment (Advanced Therapies)

Intra-detrusor botulinum toxin (Botox)

Peripheral Tibial Nerve Stimulation (PTNS)

Sacral Neuromodulation (SNM)

Additional Treatments

Indwelling catheter, augmentation cystoplasty and urinary diversion

Treatment Algorithm for OAB

EVALUATION
Incontinence, Urgency, Frequency

→ **CONSERVATIVE TREATMENTS**
PFE, fluid/diet changes, Biofeedback, Physical Therapy (8-12 WEEKS)

↓ **MEDICATIONS**
(4-8 WEEKS)

↓ **REFER** FOR ADVANCED THERAPIES

OAB Combination Therapy

Oral β³-adrenoreceptor agonist
Mirabegron 25mg daily

.....with.....

Oral anti-muscarinic
Solifenacin 5mg daily..*or*..Darifenacin 7.5mg daily

Urinary incontinence: when to refer

Failed conservative treatment
- PFMT and BR little help
- Poor response to medication

Associated problems:
- pain, haematuria, recurrent UTI's
- voiding difficulty
- suspected neuropathic bladder
- symptomatic prolapse
- suspected fistula

Advanced Treatments for Overactive Bladder (OAB)

Sacral Neuromodulation (SNM)

SNM: current indications (urinary)

- Refractory Urgency Incontinence *(approved)*
- Non-obstructive urinary retention *(approved)*
- Painful bladder syndrome *(not approved)*

MSAC 1115, 2008
SNM for urinary indications

SNM Video

[redacted]

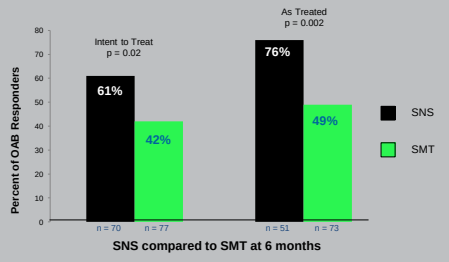
Efficacy of SNM: InSite Study (2014)*

5-year prospective multi-center study at 38 centers

- Patients randomized to SNM or SMT in 1:1 ratio
- Enrollment from 2007 – 2010
- N=147 (SNM=70; SMT=77)
- Primary outcome: 50% reduction in leaks and frequency
- Quality of Life, complications.

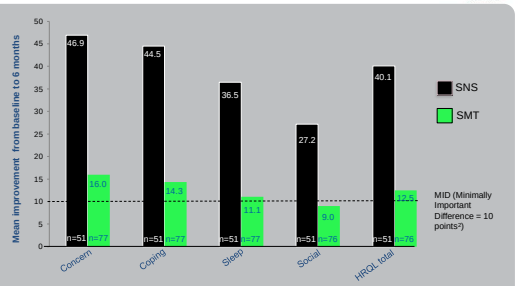
*Siegel S, Noblett K, Mangel J, et al. [published on line ahead of print Jan 10 2014]. *Neurourol Urodyn* 2014. http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1520-6777/issues. Accessed January 29, 2014

Primary Endpoint: UI, 50% reduction in leaks
UF, 50% reduction in voids or voids

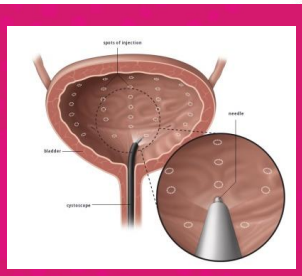


Quality of Life at 6 months

SNS vs. SMT p-value for all measures p<0.001[1] as treated analysis



Intra-detrusor Botulinum toxin



Intra-detrusor Botox: Mechanisms of Action

Motor: Decreases detrusor muscular contractions

Sensory: Reduces urgency, frequency and nocturia

Risk of urinary retention/voiding difficulty: 6%

Intra-detrusor Botox: Indications

Refractory Urgency Incontinence (≥14 leaks per week)

100 IU diluted in 20 ml Saline and injected between urothelial and detrusor muscle layer at 20 sites by an approved provider

Generally 'top-up' treatments each 9 to 12 months

6% will develop post-operative voiding difficulty

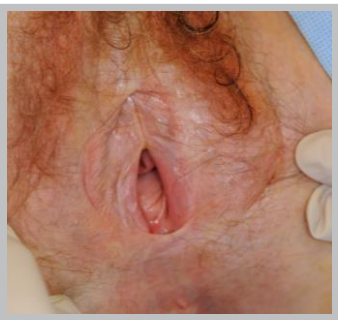
GENITOURINARY SYNDROME OF MENOPAUSE

Genitourinary Syndrome of Menopause (GSM)

Menopause, Vol. 21, No. 10, 2014

Symptoms	Signs
Genital dryness	Decreased moisture
Decreased lubrication with sexual activity	Decreased elasticity
Discomfort or pain with sexual activity	Labia minora resorption
Post-coital bleeding	Pallor/Erythema
Decreased arousal, orgasm, desire	Loss of vaginal rugae
Irritation/Burning/Itching of vulva or vagina	Tissue fragility/fissures/ petechiae
Dysuria	Urethral eversion or prolapse
Urinary frequency/urgency	Loss of hymenal remnants
	Prominence of urethral meatus
	Introital retraction
	Recurrent urinary tract infections

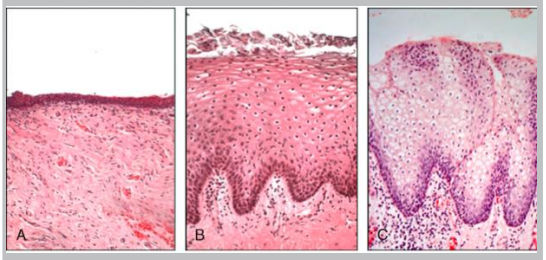
Genitourinary Syndrome of Menopause (GSM)



Genitourinary Syndrome of Menopause (GSM)

Management:

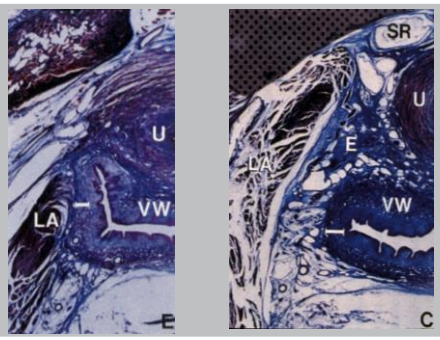
- Topical vaginal oestrogen (Vagifem, Ovestin)
- Lubricants and moisturizers
- Ospemifene (SERM)
- **Pulsed CO_2 Laser (DEKA *MonaLisa Touch*)**
- Surgery



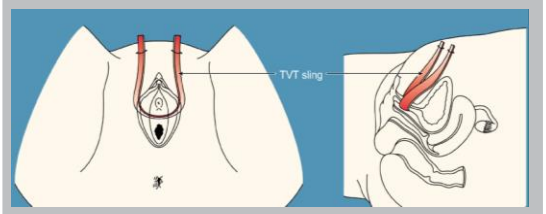
Salvatore et al. Menopause 2015

SURGERY FOR
STRESS URINARY INCONTINENCE

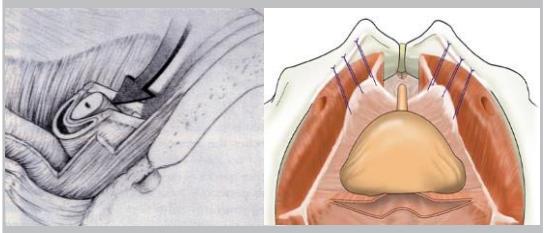
Surgical Anatomy of Stress Incontinence



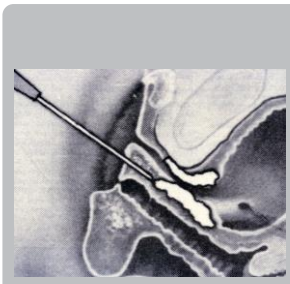
TVT

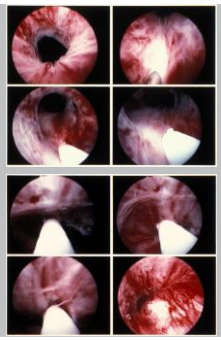


Urethral Hypermobility (Burch Procedure)



Urethral Bulking Agent





Female Urinary Incontinence

Very common

SUI and OAB commonest conditions

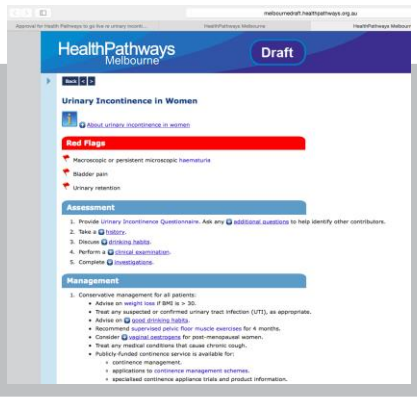
Conservative treatment initially

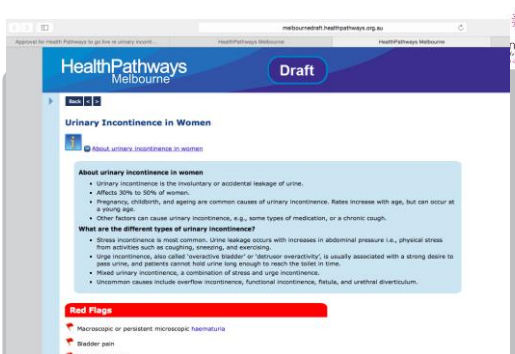
For OAB trial of medication for 6 weeks

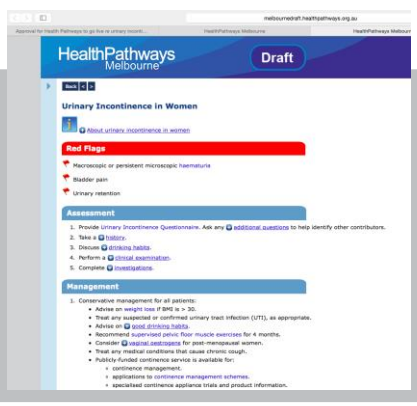
- better compliance with Solifenacin and Darifenacin
- rarely need surgery for OAB

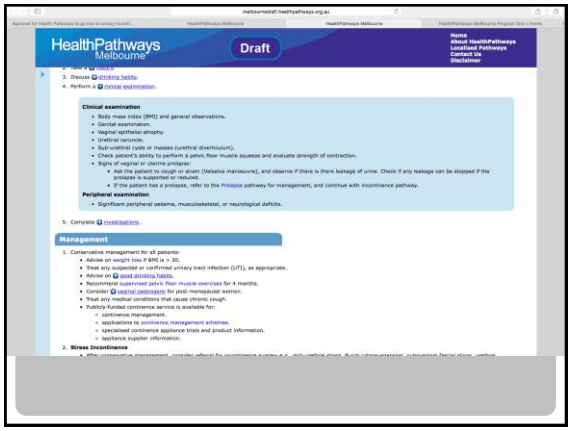
Surgery for SUI usually very effective

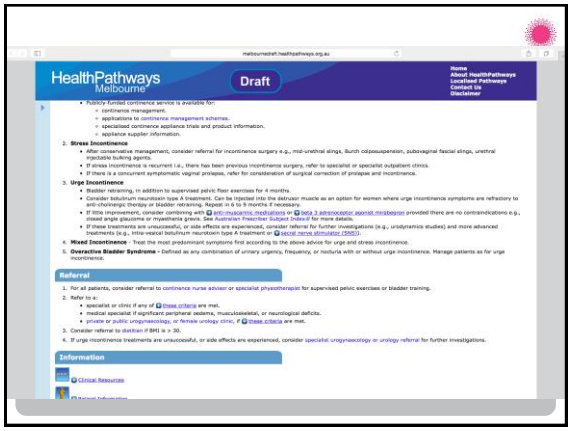
HealthPathways Melbourne

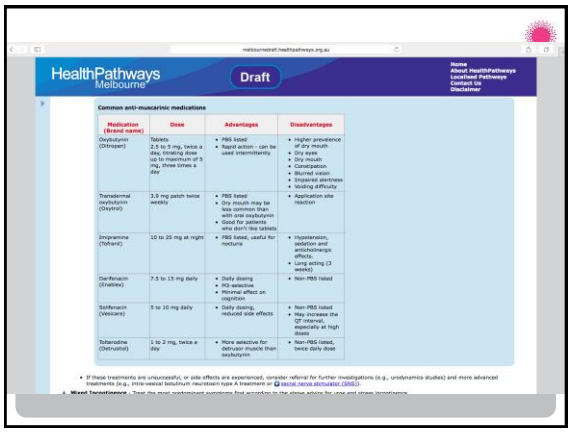


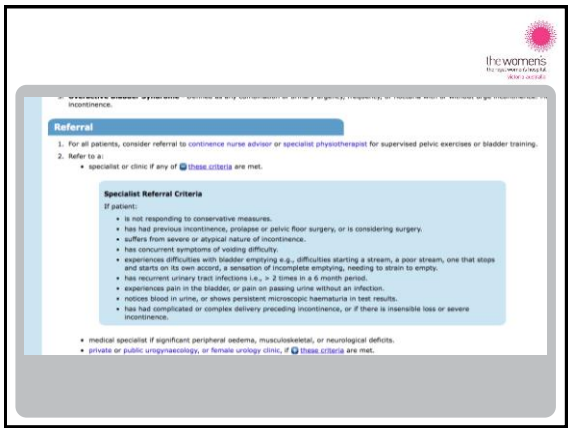





HealthPathways Melbourne
Draft
Clinical examination
Peripheral examination
Management
Stress Incontinence


HealthPathways Melbourne
Draft
Referral
Information


HealthPathways Melbourne
Draft
Common anti-muscarinic medications


Referral
Specialist Referral Criteria