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THE WOMEN'S FOUNDATION
Melbourne Australia

MANAGEMENT OF URINARY INCONTINENCE IN WOMEN

Dr Marcus Carey
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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

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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

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OAB: Prevalence (US data)

Approximately 37.4 million adults in the United States have symptoms of OAB^{1,2}

Prevalence of OAB vs Other Health Conditions in the United States¹

| Condition | Number of Adults (in million) |
|----------------------|-------------------------------|
| Obstructive Disorder | 37.4 |
| Asthma | 31.5 |
| Diabetes | 25.8 |
| FI | 18 |
| Osteoporosis | 10 |
| Alzheimer's | 5.4 |

Epidemiologic surveys suggest that the incidence of OAB rises as the population ages¹

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 (2014). World Population Prospects: The 2014 Revision, CD-ROM Edition, 3. Centers for Disease Control and Prevention (CDC), All Prostate 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, Bernal L, Gosink PS, et al. Gastroenterology. 2009;137:515-517. 6. National Osteoporosis Foundation. What is osteoporosis: www.nof.org/about? Accessed October 25, 2012. 7. Alzheimer's Association. Alzheimer's facts and figures. www.alz.org/alzheimers_facts_and_figures.asp. Accessed August 23, 2012.

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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)

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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 triggered 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 β^3 -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)

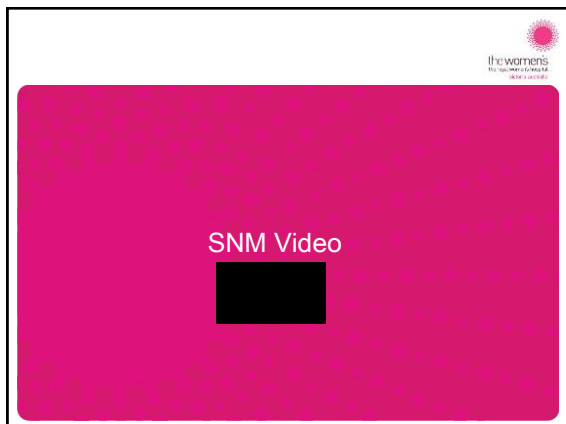


SNM: current indications (urinary)

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

MSAC 1115, 2008
SNM for urinary indications



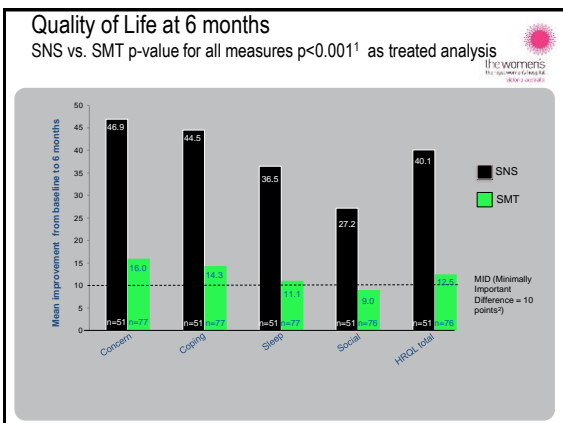
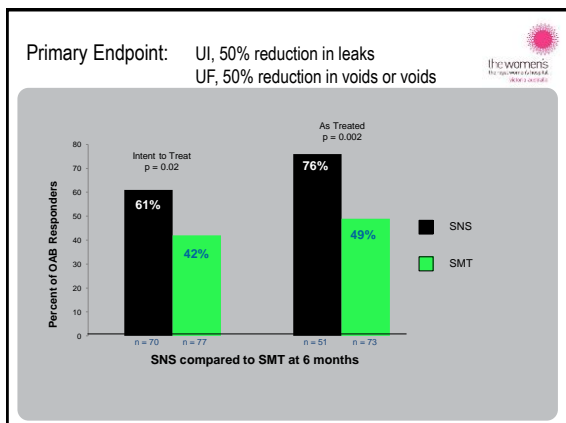


Efficacy of SNM: InSite Study (2014)*

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](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1520-6777/issues). Accessed January 29, 2014



Intra-detrusor Botulinum toxin

The diagram illustrates the anatomical location of the injection into the detrusor muscle of the bladder. Labels include: sphincter of urethra, urethra, bladder, and sphincter.

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

Genital dryness
Decreased lubrication with sexual activity
Discomfort or pain with sexual activity
Post-coital bleeding
Decreased arousal, orgasm, desire
Irritation/Burning/Itching of vulva or vagina
Dysuria
Urinary frequency/urgency

Signs

Decreased moisture
Decreased elasticity
Labia minora resorption
Pallor/Erythema
Loss of vaginal rugae
Tissue fragility/fissures/petechiae
Urethral eversion or prolapse
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)

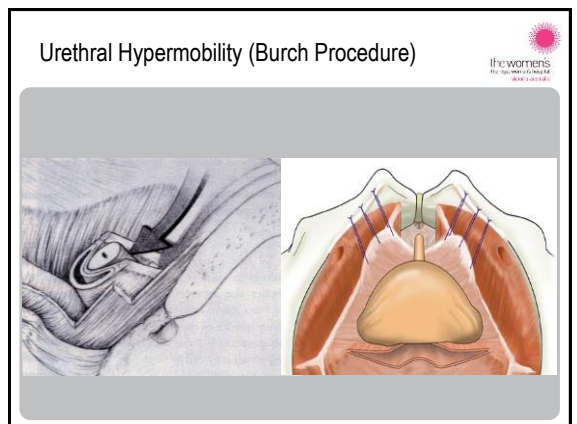
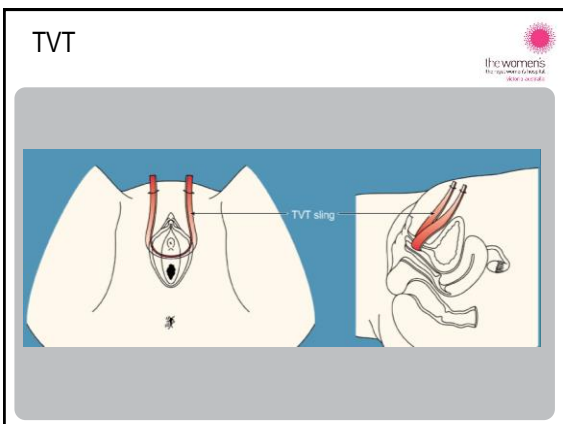
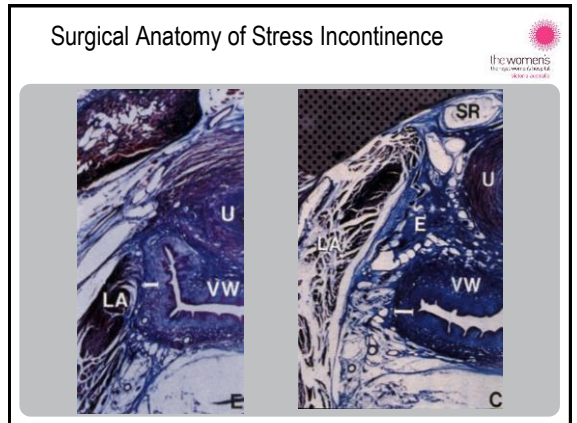
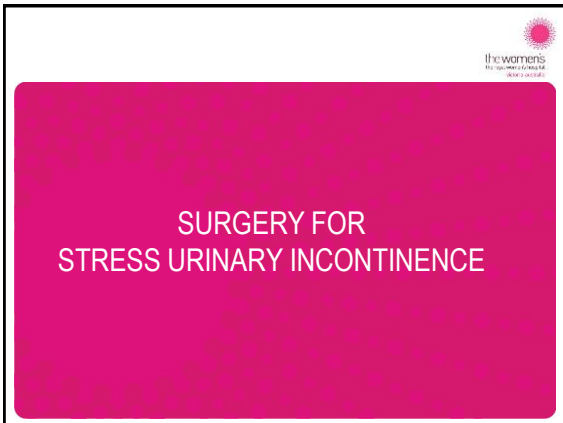
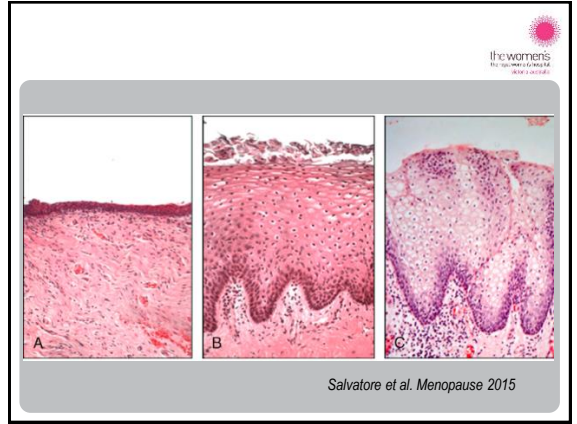
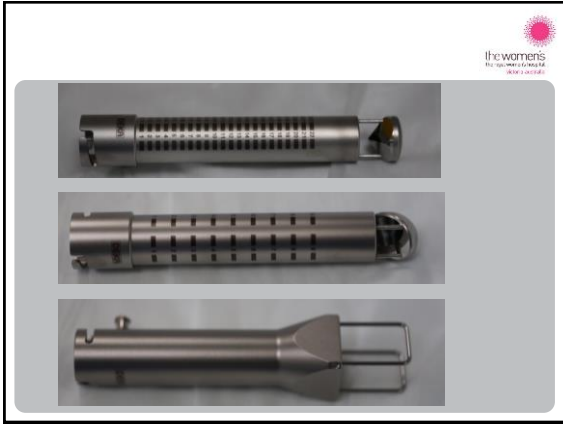
Lubricants and moisturizers

Ospemifene (SERM)

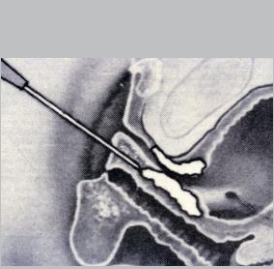
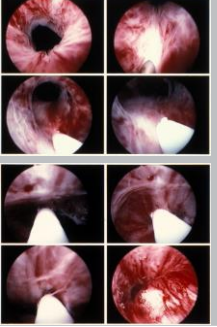
Pulsed CO₂ Laser (DEKA *MonaLisa Touch*)

Surgery





Urethral Bulking Agent


The Women's Health & Wellbeing Institute logo is in the top right corner.

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

The Women's Health & Wellbeing Institute logo is in the top right corner.

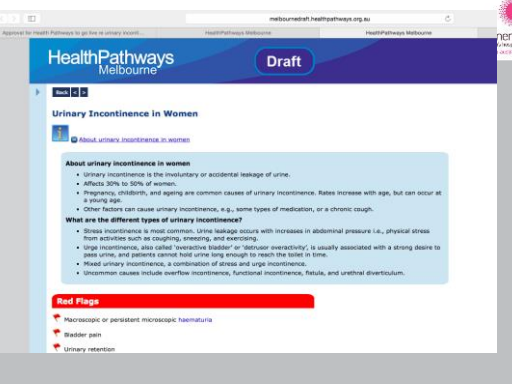
HealthPathways Melbourne




The screenshot shows the homepage of the HealthPathways Melbourne Program Site. It includes a navigation menu, a search bar, and several informational sections such as 'What is HealthPathways?', 'How can I access HealthPathways Melbourne?', and 'Who is involved in HealthPathways Melbourne?'. Logos for PHN Eastern Melbourne, Eastern Health, and St Vincent's Hospital are visible.



This screenshot shows a draft page for 'Urinary Incontinence in Women'. It features a 'Red Flags' section with symptoms like microscopic or persistent microscopic haematuria, bladder pain, and urinary retention. Below this is an 'Assessment' section with a list of steps: 1. Provide Urinary Incontinence Questionnaire, 2. Take a history, 3. Discuss dieting habits, 4. Perform a digital examination, and 5. Complete investigations. The 'Management' section lists conservative management for all patients, including advice on weight loss, pelvic floor exercises, and referral to a continence management service.



This screenshot is similar to the previous one but shows the 'About urinary incontinence in women' section. It defines urinary incontinence as the involuntary or accidental leakage of urine and lists common causes such as pregnancy, childbirth, and ageing. It also lists 'Red Flags' including microscopic or persistent microscopic haematuria, bladder pain, and urinary retention.



This screenshot is identical to the previous one, showing the 'Management' section. It details conservative management for all patients, including advice on weight loss (BMI > 30), pelvic floor exercises, and referral to a continence management service if available. It also mentions the use of specialist continence appliance trials and product information.

HealthPathways Melbourne **Draft**

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1. **Check for red flags**

2. **Obtain a clinical history**

3. **Perform a physical examination**

Clinical examination

- Body mass index (BMI) and general observations.
- Genital examination.
- Rectal digital prostate.
- Urinalysis.
- Sub-urethral cysts or masses (prostatic diverticulum).
- Check patient's ability to perform a pelvic floor muscle squeeze and evaluate strength of contraction.
- Signs of inguinal or hernia protrusion.
- Ask the patient to cough or strain (Valsalva manoeuvre), and observe if there is any leakage of urine. Check if any leakage can be stopped if the patient is supine or reclined.

Perineal examination

- If the patient has a prostate, refer to the Prostate pathway for management, and continue with incontinence pathway.
- Significant perineal oedema, musculoskeletal, or neurological deficits.

4. **Complete a consultation**

Management

- Conservative management for all patients**
 - Advise on weight loss if BMI is >30.
 - Treat any suspected or confirmed urinary tract infection (UTI), as appropriate.
 - Advise on good dietary habits.
 - Recommended supervised pelvic floor muscle exercises for 4 months.
 - Consider referral to continence nurse for non-surgical advice.
 - Treat any medical conditions that cause chronic cough.
 - Publicly funded continence services available for:
 - continence management.
 - referrals to continence management schemes.
 - specialised continence appliance trials and product information.
 - appliance repairs/ replacement.
- Stress Incontinence**
 - After conservative management, consider referral for continence surgery, e.g., mid-urethral sling, Burch colposuspension, subpubic fascial slings, urethral

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