Conservative Care of Urinary Incontinence
Frankie Bates

**Definition of Urinary Incontinence**
(UI) – Is the complaint of any involuntary loss of urine.

International Continence Society
UI is a Global Problem:

- 400 million people worldwide. (Underestimation due to taboo nature)

- Assuming LUTS prevalence rates remain stable for the next ten years, **2.3 billion** individuals are estimated to experience LUTS by the year **2018**.

- Asia region is estimated to carry the highest burden of LUTS. Estimated **1.2 billion** individuals

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- Epidemiology of Urinary (UI) Committee 1 (International Consultation on Incontinence  ICI 2013)
- BC Women’s Health 2015  Grzybowska ME et al
Prevalence of Incontinence Compared to Other Common Chronic Conditions

Assessment is Vital!

- History (Can be subjective, helps elicit most likely diagnosis)
- Physical Exam (Including pelvic exam)
- U/A
- Post void residual urine volume
- Medication review (RX and over the counter)
- Assess Functional Ability
- Past surgeries (particularly pelvic)
- Rule out neurogenic causes
- Bladder Diary, Pad weigh test, Validated questionnaires (ICIQ) etc.

Assessment Tools

(ICI 5th edition 2013)

References:


5. Nurourol Urodyn 2015
Identify Contributing Factors

- Mobility issues
- Reduced cognitive awareness
- Constipation
- Fluid Intake; Caffeine intake
- Excessive weight: (UI 26% less likely if slim and active)
- Smoking
- Previous Pregnancies, deliveries
- Underlying medical issues/medications
- Recurrent UTI
- Environmental barriers

Das RN; grimmer-Sommers KA; 2012   Liang CC; Wu MP; et al  2013   Vissers D; Neels H et al.  2014
Establish a Working Diagnosis!

- Try to establish a working diagnosis of your patients’ bladder problem and understand what they need.

- Remember! You can only change what the patient wants changed! Listen to the expectations of your patient.

- Respect; Dignity and Humanity.
Conservative Treatments

- “Kegel” Exercises (Pelvic Floor Exercises)
- Biofeedback and Stimulation Therapy
- Posterior Tibial Nerve Stimulation
- Pessaries
- Products
- Clean Intermittent Catheterization
- Behavior modification
- Life style changes
- Education
- (Using Standard clinical pathways ) ICI 2013


Urinary Incontinence in Adults: Clinical Practice Guideline Update. Agency for Health Care Policy and Research ICI 2013
Behavior Modification

- Timed Voiding: Voiding on a schedule based on time between incontinent episodes. (cognitively intact)

- Bladder Retraining: Increasing bladder capacity and awareness.

- Prompted Voiding: Reminding or asking patient if they need to void on a schedule based on their voiding pattern. (cognitively impaired)

- **NOTE**: Requires training, motivation and continued caregiver effort.

Wyman JF et al Int J Clin Pract, August 2009, 63, 8, 1177-1191
Changing Lifestyle Factors

- Ensure a good fluid intake (2 liters / day)
- **Avoid / minimize caffeine / Alcohol intake**
- Review prescription and OTC medications
- Maintain a healthy weight
- Cessation of smoking
- Promote an active life
- Prevent / treat constipation

Bryant CM et al  British Journal of Nursing, 2002, Vol. 11, No 8
Wyman JF et al Int J Clin Pract, August 2009, 63, 8, 1177-1191
Attention to fluid intake (Type, Timing and Amount)

<table>
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<tr>
<th>Day</th>
<th>Type &amp; amount of stool (i.e., large, med., small)</th>
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**Bristol Stool Scale:**
- Type 1: Segmented hard lumps, like bran (hard to pass)
- Type 2: Segmented soft lumps, like tag (soft to pass) but not mushy
- Type 3: Like stools but with some soft lumps, mushy stool
- Type 4: Soft, lumpy, but not mushy
- Type 5: Soft, mushy, not formed
- Type 6: Liquid stool, no shape
- Type 7: No stool passed, emptying of bowel

**TWO WEEK BOWEL CHART**

Please fill in the chart every day using the numbers from the Bristol Stool Scale chart for the type of stool (bowel movements). If no stool is passed then just leave the chart empty for that day.
Changing Lifestyle Factors

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Bryant CM et al  British Journal of Nursing, 2002, Vol. 11, No 8
Wyman JF et al Int J Clin Pract, August 2009, 63, 8, 1177-1191
Factors Contributing to Constipation.

Need to differentiate between slow transit constipation and defecation disorders.

- Low fluid intake
- Low dietary fiber intake
- Prolonged use of laxatives
- Ignoring urge to defecate
- Sedentary lifestyle
- Polypharmacy
- Lack of awareness

Attention to Dietary Intake and Bowel Regime:

- Fresh fruits and vegetables
- Whole grains
- High Fiber (25 grams /day for female, 38 grams /day for male) (Ground flax Seed, Chiai seeds, Metamucil)
- Track BMs x 1 -2 weeks
- Consistency
- Frequency

(Use Bristol Stool chart)
Pelvic Floor Exercises

- Ensure Isolation
- Daily Exercise Program
- Do 10 exercises (Three sets) two to three times a day
- Build up to hold for 10 seconds, rest for 10 seconds
- Do both slow twitch and fast twitch exercises
- Appropriate Use or the “Knack” (Squeeze before sneeze)
- Use modified Oxford scale to assess pelvic floor contraction
- Provide supervision and motivation for the patient
- Review and teach abdominal (core) exercises in daily routine (to assist in co-activation of transvesus abdominus as necessary.)

Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women (Review)
2010 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.
Dumoulin C; Jean Hay-Smith
Dumoulin C; Alewijnse D; Bo K; et al 2015.
McClurg D; Frawley H et al 2015
Abrams 2013
4 Principles / Requirements of PFME

- Specificity
- Overload
- Progression
- Maintenance

(To increase cross sectional area of PFM and maximise contraction)

Pelvic Floor Muscle Exercises

- Clinical trials shown PFME better than no Tx.
- High load intensity training more effective
- Biofeedback no more effective than PFME alone
- Stimulation Tx can improve PF strength and tone. (Limited evidence)
Biofeedback and Stimulation

- **Biofeedback**: a technique by which the patient receives visual, auditory or sensory information in relation to a particular body function
- **Stimulation**:
  - Improves proprioception of the Levator Ani group of muscles (pelvic floor).
  - Maximizes contraction, improves circulation & increases mobilization of tissue.
  - Used to treat stress, urge and mixed incontinence

Need more quality grade studies
Biofeedback and Stimulation Therapy


Consensus statement ICS 2011

30% Females and 20 % Male cannot contract PFM at 1st consultation

Adherence versus compliance :
64% adherent initially, 23% longterm
Posterior Tibial Nerve Stimulation

- **Neuromodulation** in the form of [Sacral nerve stimulation](#) or [Percutaneous nerve stimulation](#) or [Transcutaneous nerve stimulation](#) are all proven to be **clinically effective** modalities to treat OAB.

- Treat: frequency, urgency, nocturia (OAB), IC

- Tibial nerve - cephalad to the medial malleolus (approximately 3 finger breadths) (SP6)

- Initial 8 to 12 week assessment / Tx wkly /bi-wkly at home.

- Possible other uses – fecal incontinence, constipation?

  **Creates an inhibitory effect by stimulating large diameter of somatic affarent fibers and therefore inhibits overactive bladder activity.**
Posterior (Percutaneous/Transcutaneous) Tibial Nerve Stimulation

- **References:**

  - Vandoninck V; Van Balken MR. et al. Neurourol 2003
  - Gaziev G, Topazio L et al BMC Urol 2013
  - Schreiner L, dos Santos TG, et al. Int Urogynecol J Pelvic Floor Dysfunct 2010
  - Gobbi C, Digesu G. Mult Scler 2011
Recent developments in technology for the assessment and management of incontinence. HilaryCJ; Slovak M et al 2014

Obscuring Urinary Incontinence. Diapering of the Elderly (Starer; Journal of The American Geriatrics Society 1985)
Pessaries

- Medical grade silicone.
- Stabilise urethra and increase urethral resistance.

Richter HE; Burgio KL; et al Obstet Gyn 2010
Lekan-Rutledge D; Doughty D; Moore KN; et al Urol Nur 2003
Abrams, Cardozo, Khoury, & Wein, ICI 2002
Magali Robert, Schulz JA, J Obstet Gynaecol Can 2013
Ensure Your Patient knows they are not alone!

Discussion/ Questions?