Aims of course/workshop

The aim of this workshop is to examine the delivery of evidence based continence care in speciality clinics and services, both nurse led and interdisciplinary, to improve management and quality of life for individuals living with lower urinary tract and pelvic floor symptoms and incontinence. Please note that this workshop will be translated from English to French to those that require it.

Learning Objectives

1. Describe delivery of evidence based continence care in specialty clinics and services, both nurse led and interdisciplinary

2. Identify conservative and pharmacological strategies to improve continence management and quality of life

3. Discuss use of educational and self management strategies in the continence clinic
UI is a Global Problem:
- 400 million people worldwide
- Assuming LUTS prevalence rates remain stable for the next ten years, \textbf{2.3 billion} individuals are estimated to experience LUTS by the year \textbf{2018}.
- Asia region is estimated to carry the highest burden of LUTS. Estimated 1.2 billion individuals

Assessment is Vital!
- History (Can be subjective)
- 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, Questionnaires (ICIQ) etc.

Assessment Tools
(ICI 5th edition 2013)

Identify Contributing Factors
- Mobility issues
- Reduced cognitive awareness
- Constipation
- Fluid Intake; Caffeine intake
- Excessive weight
- Smoking
- Previous Pregnancies, deliveries
- Underlying medical issues/medications
- Recurrent UTI
- Environmental barriers
Establish a working Diagnosis!

- Try to establish a working diagnosis of patients’ bladder problem and understand what they need.
- Remember! You can only change what the patient wants changed!

Conservative Treatments

- Kegel Exercises (Pelvic floor exercises)
- Biofeedback and stimulation Therapy
- Posterior Tibial Nerve Stimulation
- Pessaries
- Products
- Clean Intermittent Catheterization
- Behavior modification
- Lifestyle changes
- Education


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
- Prevent/treat constipation

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

Factors Contributing to Constipation

- 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 (Flax Seed)
- Track BMs x 1 -2 weeks
- Consistency
- Frequency

Wyman JF et al Int J Clin Pract, August 2009, 63, 8, 1177-1191
Attention to fluid intake (Type, Timing and Amount)

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

Requirements of PFME

- Specificity
- Overload
- Progression
- Maintenance
- Clinical trials shown PFME better than no Tx (54% vs 84%)
- High load intensity training more effective
- Biofeedback no more effective than PFME alone
- Stimulation Tx does improve PF strength and tone

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

Biofeedback and Stimulation Therapy


Posterior Tibial Nerve Stimulation

- Treat: frequency, urgency, nocturia (OAB), IC
- Tibial nerve - cephalad to the medial malleolus (approximately 3 finger breadths) (SP6)
- Initial 8 week assessment / Tx weekly treatments at home
- Possible other uses - fecal incontinence

A Transcutaneous Electrical Nerve Stimulator is an electronic device that produces electrical signals used to stimulate nerves through unbroken skin. The name was coined by Dr. Charles Burton. The unit is usually connected to the skin using two or more electrodes. A typical battery-operated TENS unit consists of a pulse generator, small transformer, frequency and intensity controls, and a number of electrodes.
Posterior Tibial Nerve Stimulation

References:

- Gaziev G, Topazio L et al. BJU Int 2013
- Schreiner L, dos Santos TG, et al. Int Urogynecol J Pelvic Floor Dysfunct 2010
- Gobbi C, Digosu G. Mult Scler 2011

Ensure Your Patient knows they are not alone!

Discussion/ Questions?
Patient Education & Self-Management – Keeping With the Times

Grace Neustaedter RN MN NCA
CNS Pelvic Floor Clinic, Calgary, Alberta
ICS Nurse’s Workshop, September 2015

Objectives
1. Explore patient engagement, patient centered care and chronic health management strategies and how they improved outcomes
2. Contemplate the use of current technology to assist in teaching and supporting patients
3. Participants will be prompted to consider the use of innovative technology in their settings

“Patient Engagement”

• One of the 7 values of Alberta Health Services (AHS): “Collaborating with patients and their families, health-care providers, research and education institutions, government and the community” (Facilitating people to take responsibility for their own health...)

Leading with Values, AHS

What matters to patients?
Respect me	Listen to me	Involve me	Don’t confuse me

3 Important Patient questions:
1. What is my condition?
2. What do I need to know?
3. Why is it important for me to do this?

Elements of Patient Engagement

“Self-Efficacy”

• Patient engagement is a person’s sustained participation in managing their health in a way that creates the necessary self-efficacy to achieve physical, mental and social well-being.

Ian Worden, 2012 Better Patient Engagement

Self-Efficacy – to believe in your ability to do what is required to manage your health issues – setting goals, remain task oriented, compliance

Patient Engagement – what matters
(Picker Institute Europe 2012)

Relationships & Communication
1. Respect – values, preferences, involvement in decisions
2. Information, communication & education
3. Emotional support and alleviation of anxiety

Healthcare Service/System
1. Coordination & integration of care
2. Physical comfort
3. Involvement
4. Transition & continuity

Worden, I., (2013)
www.betterpatientengagement.com

Words: 1414
**“Patient-and Family-Centered Care”**
Alberta Health Services (AHS)

1. Communication (all aspects) – need to improve communication between patients and providers (via technology)
2. Treating people well
3. Adopting a team-based approach to care
4. Transitions of care

Patient and Family Centered Care: Summary Report - Phase 1, Literature Review and Consultation (May 2014) Alberta Health Services Knowledge Management, 1-29.

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**Patient Centered Care**

- Sees patients and families as integral members of the healthcare team, encourages their active participation in all aspect of care
- Benefits? – ↑satisfaction (patient, family, healthcare provider), ↑quality & safety of healthcare, ↓costs of healthcare
- “nothing about me, without me”

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**Chronic Condition (Disease) Models**

- **Self-management support** versus “treatments” or interventions – a philosophy or approach
- Motivates patients to understand their condition and live successfully with it - persist in therapies & interventions to improve quality of life

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**Examples of models:**

**Stanford (“Long Model”)** (USA – 1990s)
- Reduces sense of isolation, facilitates self-efficacy by courses – (6 wk, group based)
- Empowerment of participants
- Goal setting and problem solving focus
  - [http://patienteducation.standford.edu/programs/cdsmp.html](http://patienteducation.standford.edu/programs/cdsmp.html)

**Flinders Program** (Australia 1990’s)
- More individualized (one-on-one), comprehensive

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**Patient Navigation Models**

Cost-effective approaches for self-management

- **Transforacion Para Salud (TPS)** – facilitates behavior change through trained patient navigators – so they can manage their conditions Esperet, et al (2012)
  - [Transformacion para Salud: Online J Issues Nurs](http://patienteducation.standford.edu/programs/cdsmp.html)

- **MacColl Institute** – (6 elements: health care organization, community resources, self-management support, delivery system design, decision support, clinical information systems)
  - MacColl Chronic Care Model: [www.improvingchroniccare.org](http://www.improvingchroniccare.org)

- **Care Transitions Intervention** – (4 pillars: medication self-management, follow-up with provider, knowledge of “red flags”, patient-centered records)
  - [http://www.caretransitions.org/](http://www.caretransitions.org/)

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**The Pelvic Floor Clinic...then**

- Urogynecology Clinic in Calgary, serving southern Alberta
- PRE-Clinic (1998) - 2 UGs, 1 UD nurse, 1 RN

**Pelvic Floor Clinic** Inception 2002
- 3 UGs, 3 nurses, 1 Physiotherapist
The Pelvic Floor Clinic - NOW
- 15 years constant demand, growth & changes
- 5 UGs, 1 GP
- Nurses: 1 NP, 1 CNS, 8 RNs, 3 LPNs
- 2 Physiotherapists
- Clerical support—7-8

The Pelvic Floor Clinic - Calgary
- Education
- Assessments
- Conservative Therapies
- Pessary Fittings, some follow up
- Medical Treatment
- Surgical Intervention
- UDS/Cystoscopy
- Sacral Nerve Stimulation
- Physiotherapy for Pelvic Floor MSK issues

Educational Workshops
- Purpose & Value:
  - provide women with knowledge & understanding, make own treatment choices
  - patient engagement – patient centered care
- 2000—repeating same info to each patient
- Started with one class/month - optional
- Then — physicians began noticing a difference... patient came equipped, aware...

Educational Workshops NOW
- In-house (since 2002) 4 per week (2.5 hour each)
- Online (May 2015)
- For: under age 80, all new patients
  ALL new referrals required to attend/view class before first clinical appointment (2008)
- After class, patient selects direction of care – conservative or medical/surgical

Workshop first
- Class 2.5 hours long
- Ongoing positive feedback from patients
- Felt “normalized”, “not alone”, informed
- Nurses rotate to teach – enjoy teaching
- Increase frequency of class to 4/week
- One telehealth/month to rural sites
Dilemma

- Longer waits after workshop
- Patient find it hard to take half day off
- Asked for classes closer to home or evenings/weekends

Vision

- Keep up to current time and use technology to advantage patients and clinic
- Proposal for creating online version of classes accepted
- Started writing scripts in 2013
- Broke into 5 segments – 20 +/- minutes each
- Interdisciplinary involvement

Objectives – Module 1

1. To help you understand how your pelvic floor normally should be working
2. To help you identify what might be happening to cause symptoms that are bothering you
3. To provide information and suggestions that might help you manage your symptoms
4. To help you select the best treatment option for you

Take Home Thoughts

1. Can you understand where the pelvic floor is and how it should be working?
2. Can you better understand the issues you have been referred to our clinic for?
3. Can you identify some associated factors that might apply to your own issues?
Do You Have Prolapse?

YES – how much of a bother?

If NONE – train and protect your pelvic floor muscles
Prevent it from worsening in the future

Do You Have Prolapse?

YES – how much of a bother?

If SOME – is it enough of a bother to want to try a pessary or consider surgery?

Or can you improve it by training and protecting your pelvic floor? You may WAIT & WATCH....

Objectives for Module 5

1. To summarize treatment options for prolapse, bladder and bowel management issues
2. To ensure you understand your role in improving the symptoms you are having
3. To assist you to consider and select your direction for ongoing care, if needed, in the clinic
4. To help you understand what to expect in the clinic
5. To direct you on what YOU MUST DO to ensure a clinic appointment is made for you
Do You Have Prolapse?

**YES** – how much of a bother?

none  some  [a lot]

If **A LOT** – would you like to try a pessary? Surgery?

A pessary – there is no permanent change and may work well. If it doesn’t, you could go on to surgery

If you want surgery, this is a permanent change you can’t undo

You can choose **not** to do anything as well

**NO** - I do not have any symptoms of prolapse

**Consider** – half of all women develop prolapse from things like having babies, gaining weight, straining from constipation, coughing, lifting heavy things and high impact activities

*Practice PREVENTION by being careful with all these things*

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**Take Home Thoughts**

1. What is the pelvic floor issue that is bothering you **the most**?

2. Are you clear on items that you will change in your lifestyle to improve your symptoms?

3. Are you aware of what your options for treatment include?

4. Have you filled in your forms and know where to fax or mail them to?

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**Online Classes**

- Script - consensus
- Legal – okay with content, wording
- Source permission – to use certain pictures, graphics
- Voice over slide and direct filming
- Filming – Need “disclaimer” slides

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**Process**

- Complicated....time consuming
- To put on clinic website – which one? How?
- Added external links
- Option to print some clinic handouts
- Alberta now has my health.alberta website for all clinical content – had to work with them

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**Benefits**

- Do at their convenience, in their own home, at the best time
- They can review – repeat modules any time
- Anyone in community can benefit from viewing – not just our patients
- Created accompanying booklet (funding from Sponsors)
Future

• Coming – Supplementary Modules – additional info on specific topics
• Online Registration and transfer of information from patients
• Interactive? (questions/answers)

Summary

1. Looked at “Patient Engagement”, “Patient Centered Care”, “Chronic Health (Disease) Management” and “Self-Efficacy” to see how these relate to our patients with pelvic floor dysfunction
2. Looked at how the PFC uses technology to enable patients to learn and promote decision making and self-care
3. What can YOU do in YOUR setting to help your patients to achieve optimum results?

Leanna

• 37 years old, professional
• Referred for mixed incontinence
• Normal BMs – no issues
• G3P1
• 2 C coffee, 2 tea, 5 water, 1 alcohol
• No oral meds (Nuva ring)
• Her main concern: bladder is controlling her life, depressing her

Where would you start?

• Education....on....
Where would you start?

• Education....on....
• Contributing Factors:
  - vaginal delivery, long stage 2,
  - Heavy lifting – she lifts heavy crates
  - Bladder irritants (coffee, wine)
  - PFMT
  - ?weight reduction

Leanna

• Attended workshop; 6 weeks later appointment
• Cut down on caffeine, total fluid volume, wine
• Altered work – no more heavy lifting
• Double voiding, urge suppression
• PFMT
• Consider bladder retraining, vaginal estrogen, ?
• Vag exam – no prolapse; urine - normal
• Noticed improvement
• Reinforced, encouraged, supported

Beth

48 years old, irreg periods
Wears pads – causing yeast?
P2G2 – vacuum, tear
Last baby 12 years ago
Drinks 20 cups water + 5 tea
Extra weight
No other health concerns
Main concern – constant leak of urine

Contributing Factors

• Contributing factors?
  - extra weight
  - perimenopause
  - weak pelvic floor muscles
  - huge fluid intake
  - Pregnancy, difficult delivery (vacuum), large baby
  - large fluid intake, irritants

Contributing Factors = Education

• Contributing factors?
  - wearing menstrual (not incontinence) pads
  - plays tennis, runs a bit
  - weak pelvic floor
  - anterior prolapse
  -
Attended Workshop

• Felt normalized!
• Realized – huge intake, extra weight, activities, weak muscles, age related changes
• Came for clinic visit
• Started on vaginal estrogen
• Sent for physio
• Considering pessary
• Weight loss program working
• Decreased intake
Pharmacological management of urinary incontinence and lower urinary tract symptoms

Learning objectives

- Describe the role of the Nurse Practitioner in pharmacological management of incontinence and other LUTS symptoms
- Review prescribing and monitoring of medications for LUTS
- Describe independent and collaborative practice in a continence service

What is a Nurse Practitioner?

One of the advanced practice roles in nursing

Educational preparation, titles, legislation (including prescribing authority) and scope varies

- Nurse Practitioner (NP) (US, English Canada, Thailand)
- Infirmière praticienne spécialisée (Quebec Canada)
- Advanced Nurse Practitioner (ANP) UK and Ireland

Further information on advanced practice in countries around the world can be found on the ICN Nurse Practitioner/Advanced Practice Nursing Network website
http://international.aanp.org/

Canadian Perspective

An NP is defined as a registered nurse with additional educational preparation and experience who possesses and demonstrates the competencies to autonomously diagnose, order and interpret diagnostic tests, prescribe pharmaceuticals and perform specific procedures within the legislated scope of practice.


Our clinic

Physician/NP model

Outpatient and inpatient consultation

Initially a geriatric continence clinic, evolved to adult to meet demands for service in our region

Primary patient populations: older adults, people living with neurological disease (dementia, MS, Parkinsons)

What does the NP role bring to the continence clinic?

Specialist nurse continence advisor and advanced practice combination

Use of conservative strategies with the addition of
- Diagnosis
- Investigations: Lab and DX
- Pharmacological strategies
- Referral to other health care professionals and specialist physicians
Common pharmacological interventions in the continence clinic

**Urgency/Urgency Incontinence**
- Antimuscarinics
- Beta-3 Agonist
- Vaginal estrogen

**Stress Incontinence**
- Vaginal estrogen
- Serotonin-norepinephrine reuptake inhibitors
- 5-alpha reductase inhibitors

**Outlet obstruction with overflow incontinence**
- Alpha adrenergic antagonists
- 5 alpha reductase inhibitors
- Desmopressin/DDAVP

Pharmacological interventions

Many pharmacological interventions for LUTS are based on neuroreceptor theory and affect the autonomous nervous system.

The prescriber must take a history, including current medications, conduct a physical exam and review any available lab and DI data as background to formulating a differential diagnosis and recommending treatments.

Autonomic Nervous System

**Sympathetic nervous system**
- "Fight or flight"
- Primarily adrenergic
- Bladder filling: detrusor relaxation, sphincter contraction

**Parasympathetic nervous system**
- "Rest and repose"
- Primarily cholinergic
- Bladder emptying: detrusor contraction, sphincter relaxation

Urgency and Urgency Incontinence

Bladder specific antimuscarinics (anticholinergic)
- Tertiary amines: oxybutynin, tolterodine, solifenacin, fesoterodine, darifenacin
- Quaternary amines: trospium

Beta-3 adrenergic agonists
- Mirabegron

Vaginal Estrogen

What’s the evidence?

**Bladder specific antimuscarinics**
- Antimuscarinics are effective in treating urgency, UI
- Newer agents more targeted to M3 receptors abundant on bladder wall and in the detrusor
- Oxybutynin higher adverse effects (less targeted) – tolerated poorly in older adults
- Immediate release oxybutynin associated with cognitive adverse effects in older people with dementia
- May also adversely affect cognition in those with mild cognitive impairment as well as those with normal cognition

What’s the evidence?

**Beta 3 agonists**
- New agents, target Beta 3 receptors in the bladder, thought to relax the bladder but avoid the anticholinergic side effects
- May increase hypertension, nasopharyngitis
- Monitor BP, not for those with severe uncontrolled hypertension
- Limited trials to date in frail older adults have been published

Andersson et al 2013. Pharmacological treatment of urinary incontinence. 5th International Consultation on Incontinence

Wagg et al 2013. Incontinence in the elderly. 5th International Consultation on Incontinence

**Anticholinergic Side Effects**

<table>
<thead>
<tr>
<th>Action</th>
<th>Ach SE</th>
</tr>
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<tbody>
<tr>
<td>Inhibition of salivation</td>
<td>Dry (dry mouth, urinary retention, constipation)</td>
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<tr>
<td>Distribution into the CNS causing dryness, amnesia and sometimes the opposite – excitement, agitation and hallucinations</td>
<td>Mad (confusion)</td>
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**Stress Incontinence**

**Mixed action agents**
- Duloxetine (Cymbalta) – serotonin-norepinephrine reuptake inhibitor (inhibits micturition reflex centrally)
- Estrogen (vaginal) for atrophic vaginitis
  - Estradiol-17B vag tab (Vagifem)
  - Estradiol-15B (Estring) – Conjugated estrogens vaginal cream (Premarin cream)
  - Oestriol cream

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Cody et al 2012. Cochrane Database of Systematic Reviews. DOI: 10.1002/14651858.CD001405.pub3


Wagg et al 2013. Incontinence in the elderly. 5th International Consultation on Incontinence

**Outlet Obstruction (Overflow)**

**Benign prostatic hyperplasia (BPH)**
- Alpha adrenergic antagonists (Alpha blockers)
  - tamsulosin, terazosin

- 5 – alpha reductase inhibitor
  - finasteride, dutasteride

**Combination agents**
- Alpha blocker/5 – alpha reductase inhibitor
- Alpha blocker/antimuscarinic (obstruction with OAB)

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What’s the evidence?

Alpha adrenergic antagonists (Alpha blockers) are first line in BPH
- decrease smooth muscle tone in prostate and bladder neck
- Risk of postural hypotension with adrenergic receptors in the cardiovascular system being blocked
- For tamsulosin this is reported during the first 8 weeks of therapy initiation or restart
- if efficacy limited, can add in a 5 – alpha reductase inhibitor (reduces prostate volume)
- Usually decrease the PSA, but any increase in PSA requires investigation as there is an association with risk for high grade prostate cancer
- For men with bladder outlet obstruction and urgency/overactive bladder, can add in an antimuscarinic
- Monitor post void residual

Nocturnal polyuria

Defined as more than 20-30% of urine output in 24 hours at night
- >30% in older adults
- Nocturnal polyuria can be due to peripheral edema, calcium channel blockers, diuretics, sleep apnea and (possibly) loss of diurnal rhythm of AVP

Treatment - Conservative measures first!

Desmopressin
- Analogue of the endogenous hormone vasopressin (antidiuretic hormone)
- Vasopressin contracts vascular smooth muscle and stimulates renal water reabsorption
- Desmopressin can cause hyponatremia from water resorption
- Older adults with low baseline serum sodium (Na) at higher risk
- Not recommended for frail older adult
- Late afternoon loop diuretic an alternative in peripheral edema/CHF

Case 1

86 year old female with mixed urinary incontinence, urgency dominant
PMHx: hypertension, hypothyroidism, osteoarthritis, Parkinson’s disease
Medications: hydrochlorothiazide, ramipril, levothyroxine, acetaminophen, levodopa/carbadopa
Conservative treatments: fluid management, PFME, bladder retraining
Is there any other information you would like to know about this patient?
What medications would you order and why?
Is there anything else you might adjust?

Case 2

78 year old male, very bothersome nocturia (5-7 episodes nightly), moderate voiding symptoms, mild urgency
PMHx – depression, alcohol substance abuse, hypertension, atrial fibrillation, previous myocardial infarction, B12 deficiency anemia, falls associated with postural hypotension
Medications: nortriptyline, quetiapine, amlodipine, candesartan, warfarin, Vitamin B12
Other: Peripheral edema – referral to OT for pressure gradient hose
What do you need to assess?
What pharmacological treatments would you consider? Other changes?

Questions? Comments?

Kathleen.Hunter@ualberta.ca