Aging Impacts: Urinary Incontinence

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Introduction

Urinary Incontinence and Geriatric Care Principles

Urinary incontinence (UI), or the uncontrolled release of urine, is an all-too-common ailment of those over 65 years of age. Among elders residing in long-term care facilities, the incidence is as high as 50%. The impact of urinary incontinence is broad and includes loss of dignity with social withdrawal, anxiety, depression, and risk for medical conditions, including dehydration, confusion, falls, injury, and skin breakdown. In frail elders, the etiology of urinary incontinence is most often mixed and includes abnormalities of the urological system and functional limitations. Evaluation can be hindered by cognitive impairment, making use of objective assessment tools imperative, e.g. a Bladder Diary. Management of urinary incontinence within long-term care is most effective when ***patient-centered*** and ***multi-faceted***. Each elder has a unique combination of competing comorbidities, urologic pathology, and cognitive and functional abilities. Care plans need to reflect this. Adding the limitations of available therapeutics and the implications for further stress on the long-term care workforce, urinary incontinence care and management become a critically crucial clinical syndrome deserving deliberate and skilled attention.

Patient-Centered Care Principles

Healthcare delivery in the US continues its pivot from procedure and volume-driven economics to more value-based care, promoting attention to favorable outcomes for patients. Such a focus raises the need for clinicians to be cognizant of the individual's health, cognitive, functional, and socioeconomic status lest they miss an area of stress in need of attention. Within long-term care, this opens the door to provide individualized and dignified care by utilizing thorough assessment and evaluation, followed by creation of a comprehensive and intra-professional management plan. The American Geriatrics Society has created a set of Patient-Centered Care Principles that form a basis for creating a valuable infrastructure for the care of frail elders.

Know ***who I am*** and know ***what is important to me:***

- Complete an individualized, goal-oriented care plan based on the person's preferences
- Conduct ongoing review of the person's goals and care plan
- Ensure completed living will

Know ***I am a valuable member of the care team*** and ***who my care advocate is:***

- Invite me to be a member of the interprofessional care team
- If I need one, identify my Health Care Surrogate and engage them in the care team too

Work ***WITH*** me/my care advocate:

- Active coordination among all healthcare and supportive service providers
- Continual information sharing and integrated communication
- One primary or lead point of contact on the healthcare team
- Education and training for providers and, when appropriate, the person and those important to the person
- Performance measurement and quality improvement using feedback from the person and caregivers

Urinary Incontinence - The Basics

Aging and Urinary Incontinence

Urinary incontinence is the involuntary loss of urine. Though highly prevalent in those over age 65, including 50% of most long-term care residents, UI is NOT an inevitable consequence of aging. Rather it is the combination of age-related anatomic, physiologic, cognitive, and functional changes in the context of patient-specific disease, comorbidities, and medications that impact the normal process of controlled urination. The effects of UI can be devastating to a resident's mental health, personal esteem, and sense of dignity, leading to social withdrawal. Other health impacts are common including increased risks of falls, fractures, and skin breakdown along with overall increased mortality. Fortunately, there is evidence that evaluation and management of UI in long-term care residents can result in improvement 80% of the time.

The success of management of UI requires understanding the multi-factorial nature of the underlying causes of urinary incontinence for any one patient. The aging process plays a large role, but most often there are multiple factors that work together to cause the UI.

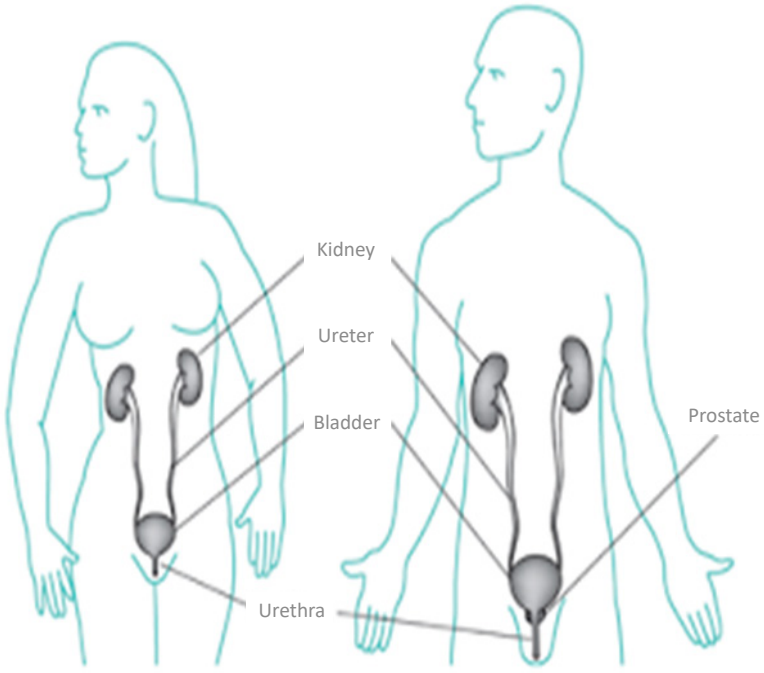
The age-related changes of the urinary tract and the process of controlled urination include changes of the brain, urinary tract, and pelvic floor musculature. The aging of body tissues typically results in a less capable tissue. In the case of the bladder muscle, decreased flexibility leads to reduced bladder capacity and irritability. An aged bladder will be less capable of holding fluid and will be easily irritated.

Other aging related effects are mediated via changes in hormones, as is the case for the aging of the urogenital system. Post-menopause changes to estrogen levels impacts the tissue strength in the perineal area and urethra creating increased risk for infection and incontinence.

Medical conditions that can impact UI include conditions that negatively impact the functioning of the urinary tract as well as the central and peripheral nervous system and musculoskeletal conditions.

Maintaining a healthy urinary tract is central to maintaining quality of life. It is important to be proactive about discussing any bladder problems with residents as soon as they occur.

Aging Impacts on the Urinary Tract



Cognition
Decreased awareness time and body signals

Bladder
Decreased Capacity

Urethra
Dryness and atrophy

Rectum
Decreased anal sphincter tone

Pelvic Floor Muscles
Decreased tone

Kidneys
For many people, kidneys slow down but still work sufficiently their whole life

Prostate
Enlargement/Obstruction

Medical Conditions that Impact Urinary Control

Bladder

- o Obesity
- o Constipation
- o Chronic Cough

Neurologic

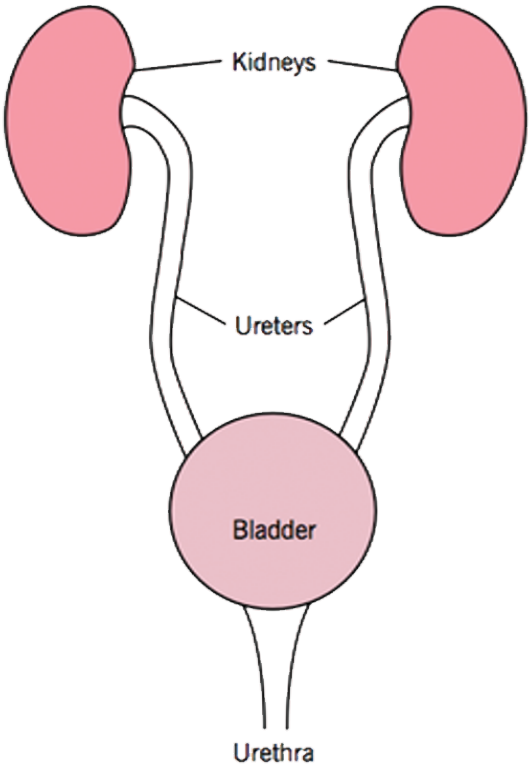
- o Cerbrovascular disease
- o Dementia
- o Multiple Sclerosis
- o Diabetes/Neuropathy
- o Spinal Cord Injury
- o Stroke

Kidney

- o Dehydration
- o Hypertension
- o Diabetes

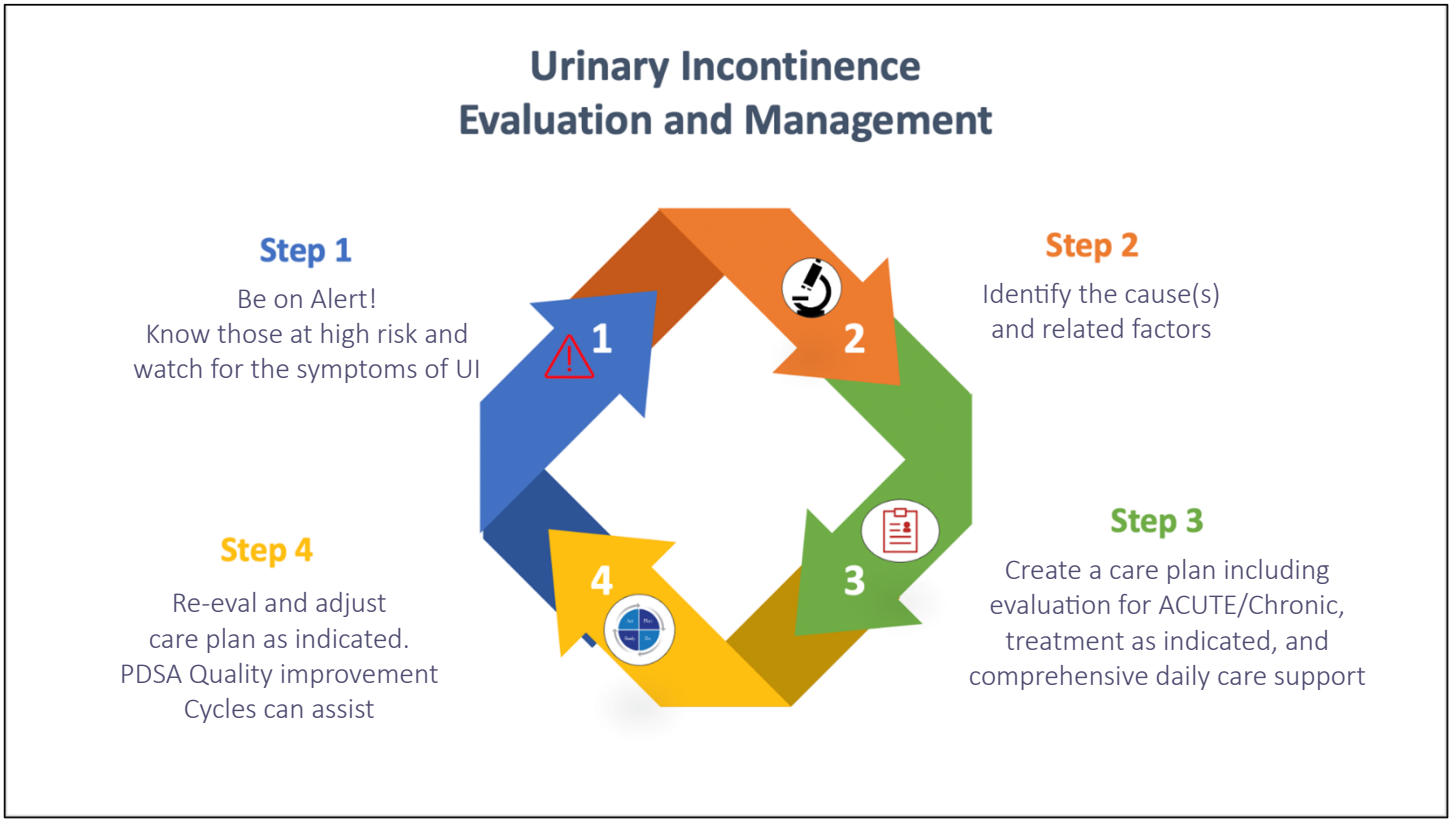
Musculoskeletal Conditions

- o Osteoarthritis
- o Unsteady Gait



Caring for Patients with Urinary Incontinence

Key to effective management of urinary incontinence is a continuous 4 step process:



Step 1 – Be on Alert! Know those at high risk and watch for the symptoms of UI

- ☐ **Functional Impairment**
  - ☐ Unsteady Gait/ Fear of falling
  - ☐ Poor manual dexterity
  - ☐ Environmental barriers to toilet access
  - ☐ Slow gait speed
- ☐ **Medications**
  - ☐ Diuretics
  - ☐ Sedatives
- ☐ **Neurologic Damage to the**
  - ☐ Brain - Dementia, Stroke
  - ☐ Spinal Cord - Injury, Multiple Sclerosis
- ☐ **Obesity**
- ☐ **Diabetes**
- ☐ **Short term use of an indwelling catheter during acute illness**

Step 2 – Identify the causes and related factors

There are 4 main ways the urinary system can fail:

1. Functional Impairment

- Urinary incontinence happens because of something other than the urinary tract. For example:
  - Being unable to move quickly and get to the bathroom in time
  - Being unable to unzip or unbutton
  - Not remembering where the bathroom is and getting there "too

2. Overactive (when combined w/ Stress = Mixed UI)

- The bladder is irritated and "overreacts"; could be by medication, caffeine, and/or infection

3. Stress (when combined w/ Overactive = Mixed UI)

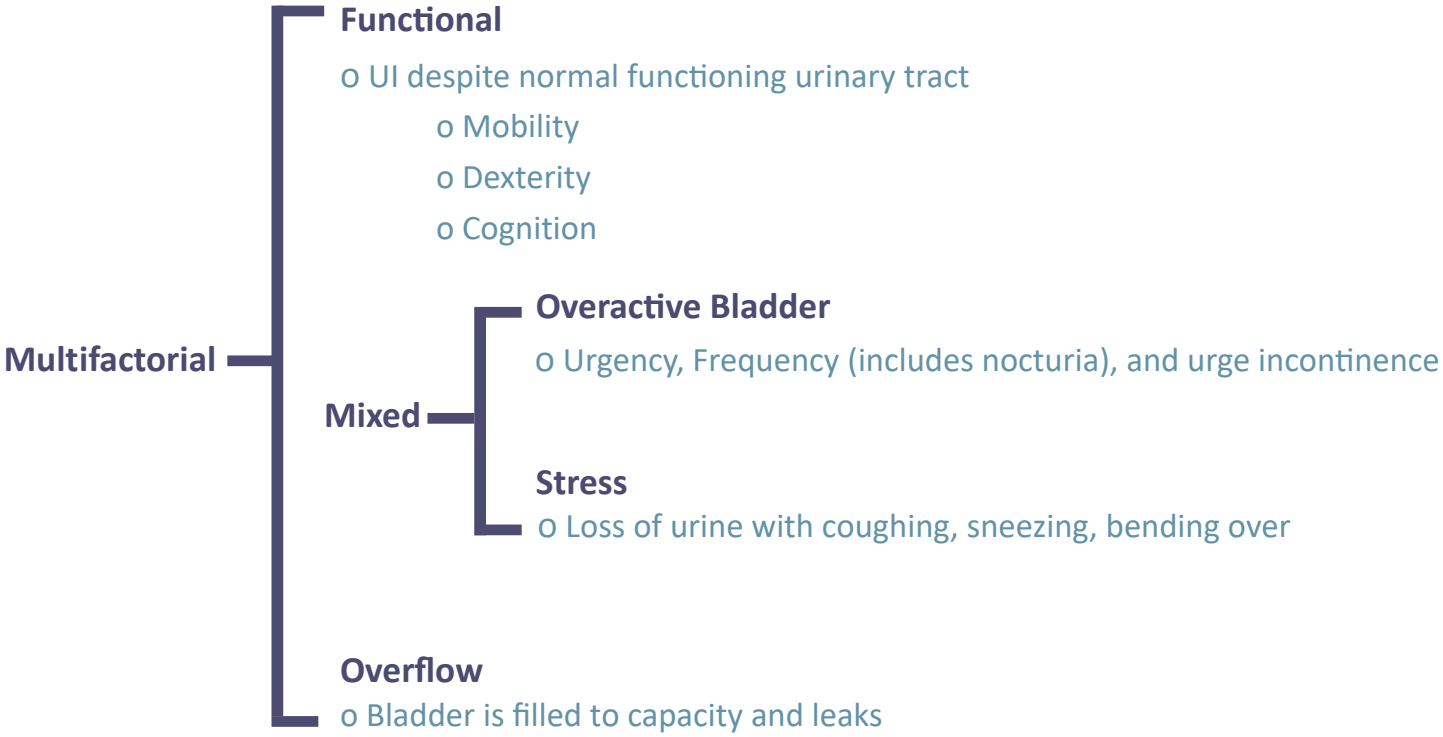
- The bladder is irritated and "overreacts"; could be by medication, caffeine, and/or infection loss of urine when the pressure on the bladder is too high and exceeds the "ability to hold it"; can happen after sneezing, coughing, pushing up off a chair

4. Overflow

- Loss of urine when the bladder is filled to capacity, doesn't empty correctly, and urine is still being made

Keep in mind it is MOST LIKELY there will be more than one contributing cause. This is what is referred to as "multi-factorial"

Types of Urinary Incontinence



Step 3 – Create care plan including evaluation for ACUTE/Chronic, treatment as indicated, and comprehensive daily care support.

When a patient is observed to have one of the common symptoms associated with abnormality of the urinary tract, a key question is whether it is an ACUTE or CHRONIC symptom. For older adults, change from their baseline can be an indicator of disease no matter the objective "norm." For example, a resident who typically voids 4-5 times per day and now is voiding 7-8 times per day (which is otherwise considered "the norm" for many elders) may have frequency as a symptom of an infection.

ACUTE or NEW symptoms are more often REVERSIBLE and should prompt a thorough evaluation. Avoid the temptation to write it off as due to "aging." Urinary incontinence is NOT caused by aging. Nor is a specific, acute change in a resident's status likely to be related to the slow and steady aging process.

Use the mnemonic DRIP to help you review the possible causes of REVERSIBLE Urinary Incontinence.

	Condition	Identification/Mechanism
D	**D**elirium	Mental status changes, confusion
	Drug Side Effects	
	Diuretics	Increases urine volume – includes caffeine
	Anticholinergics	Urinary retention – TCA's, psychotropics, antihistamines, Parkinson's
	Sedatives	Decrease alertness – alcohol , hypnotics, narcotics
	Alpha-adrenergic agents	Increase sphincter tone – retention
	Alpha-adrenergic blockers	Decrease sphincter tone
	Calcium channel blockers	Urinary retention
R	**R**etention of feces	Hx, rectal examination
	Restricted mobility	Gait evaluation
I	**I**nfection, Urinary	U/A, Culture
	Inflammation	Genital examination
P	**P**olyuria	Hyperglycemia, hypercalcemia, peripheral edema (nocturnal)
	Psychogenic	Alcohol, depression

Chronic symptoms may be more challenging to evaluate, in part because they are likely related to more than one specific cause or type of UI. An excellent way to approach understanding a resident's UI is to start with a 3-7 day Bladder Diary. This collection of data about the UI symptoms usually allows the identification of the underlying reason for the incontinence.

Bladder Diary

In **column 1**, please write down the **amount of fluid that was consumed**. This also includes any liquid meals such as soup.
In **column 2**, fill in the number of times urination in the toilet occurred.
In **column 3**, write down if there was **a strong urge to go**.
In **column 4**, identify any involuntary urination that occurred by the **amount of leakage**.
In **column 5**, write down **what was happening** at the time of the incident.
In **column 6**, please write what kind of product, if any, was changed (Pad, Pull-Up, Brief, etc.).

Name: _____ **Date:** _____

	Column 1		**Column 2**	**Column 3**	**Column 4**	**Column 5**	**Column 6**
Time	**Fluid Intake**		**Urination in Toilet**	**Was There a Strong Urge?**	**Involuntary Urination**	**What Was Happening**	**Wet Product Changed**
	Amount	Substance	How Many Times	Yes/No	Small/ Medium/ Large	Sneezing, laughing, getting up off a chair, etc.	What type of product
Example	6 oz	Coffee	2	No	Small	Laughing	Pad
6-7 a.m.							
7-8 a.m.							
8-9 a.m.							
9-10 a.m.							
10-11 a.m.							
11-12 noon							
12-1 p.m.							
1-2 p.m							
2-3 p.m							
3-4 p.m.							
4-5 p.m.							
5-6 p.m.							
6-7 p.m.							
7-8 p.m.							
8-9 p.m.							
9-10 p.m.							
10-11 p.m.							
11-12 p.m.							
12-1 a.m.							
12-2 a.m.							
2-3 a.m.							
3-4 a.m.							
4-5 a.m.							
5-6 a.m.							

The information from a Bladder Diary allows clarification of urinary frequency, some degree of volumes, circumstances of voiding, and impactful functional issues. Often this can set the stage for key management strategies that can reduce the episodes of UI. In addition, the Bladder Diary information will help the medical team direct the diagnostic evaluation appropriately. Most patients will need a physical exam followed by urinalysis and some type of functional assessment of the bladder e.g. post-void residual or urodynamics. These "bladder stress tests" clarify the functional capacity of the bladder as well as its responsiveness to filling and emptying. Such information then informs the management options daily care plan.

In this paper, we will focus on the non-pharmacologic strategies that are typically required for most patients with chronic UI. This is where the multi-disciplinary care teams of most long-term care communities can make real progress in reducing UI through coordinated and comprehensive care plans. While eliminating chronic UI completely is often not possible, research suggests some improvement can be made for 80% of residents.

Here are initial strategies to consider.

For older adults with chronic UI, create a patient-specific care plan in 3 Steps:

Step 1: Identify the patient's specific factors leading to UI and create plans to address these factors first. The Bladder Diary can be a valuable tool to start with.

Step 2: Follow these general tips to PREVENT

Preventing Urinary Incontinence

Scheduled In/Out

- While awake, drink water and void every 2 hours
- Fiber dietary or supplement daily
- Medications timed e.g. diuretics

Address Mobility Limitations

- Bedside commodes or Urinals
- Raised toilet seats with high contrast color LIME GREEN
- Unobstructed /well-lit path to bathroom
- Clothing: easy up/down, velcro

Step 3: IF need be, ADAPT and find the best products to provide comfort and protection.

Adapting to Chronic UI means doing all of the above AND using the SENI Product Selection Tool to find the best product.

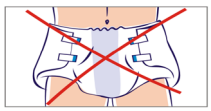
When UI is chronic it is imperative the briefs, pads, and other products used provide full benefit and protection to the resident.

A person-centered approach to continence care will ultimately improve the quality of life for incontinent people and help keep them healthier, happier, and more engaged in daily activities with less worry.

To find the product that is best for your resident, think SENI!

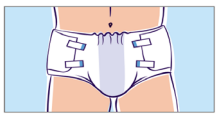
S is for **size**

Waist/hip measurement is very important. Weight will not give sufficient information to determine the right size.



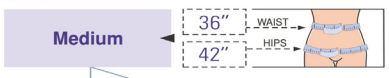
Too Big
Risk of leakages

Too Small
Does not fit



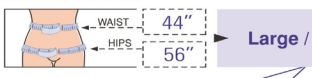
Perfect Fit
Safe and comfortable

If both measurements (waist and hip size) are in one range, pick the size this range indicates. See chart below:



Underwear	
Small	22" – 33"
Medium	31" – 43"
Large	39" – 53"
X – Large	47" – 63"

If measurements are in two different ranges, defer to the larger size. See chart below:



Briefs	
X–Small	16" – 24"
Small	22" – 31"
Medium	30" – 43"
Regular	40" – 50"
Large	45" – 59"
X – Large	55" – 67"

E is for **Essential Features, Evaluate Mobility and Ensure Correct Style**

Essential Features of Premium Quality Products

PREMIUM QUALITY

AIR BREATHABLE — Fully breathable outer layer allows humidity to evaporate to promote a skin-friendly microclimate

Hydrophobic standing side gathers for better protection against leakage

Superabsorbent locks in moisture to prevent skin irritation. Locking urine inside the core also reduces bacterial growth and helps contain odor

EDS Extra Dry System — Soft non-woven layer for quick and effective absorption

Evaluate Person's Mobility

- Pads/Guards
- Underwear
- Shaped Pads

- Briefs
- Shaped Pads

Ensure Correct Style

Pads, Active Underwear, and Shaped Pads Day are ideal for someone with light to moderate incontinence

High Absorbency Underwear, Briefs, and Shaped Pads Night are ideal for someone with heavy/severe incontinence

- Underwear is a better style for dementia patients because they look and feel more like regular undergarments
- Man Fit guards are ideal for post prostate surgery
- Shaped pads are ideal for bariatric patients or those who fall in between sizes

N is for **Night versus Day products**

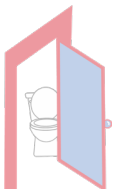
Sleep is valuable! Restorative sleep will help reduce the risk of falls at night and residents will be more alert during the day.

For daily use, choose products that are comfortable, easy to change, and at the right absorbency level.

For overnight, choose products with high absorbency to allow for uninterrupted sleep.

I is for **Improve patient continence whenever possible**

Know the person and see what other factors may influence each person's product assessment.



Avoid blockages to and from the bathroom. Adjust the environment for easy access.

Recommend or perform Kegel exercises to strengthen pelvic floor muscles.

Create a personalized toileting schedule.

Proper product selection will increase a person's overall quality of life!

Learning From Our Residents

The following cases present clinical scenarios common to residents in long-term care. Case discussion will identify key teaching points for evaluation and management of UI.

Resident #1, Mrs. A

Mrs. A is an 84-year-old female, widowed, no children and has severe osteoporosis and osteoarthritis of her hands, knees, and hips leading to her admission to long-term care 5 years ago. She is cognitively strong, ambulates slowly with a walker, and needs ADL setup only. She has been experiencing urinary incontinence for about 3 years and lately has seemed a bit more down and withdrawn.

Her medical history also includes:

- Type 2 diabetes
- Hypertension
- Chronic venous insufficiency and past Deep Vein Thrombosis with cellulitis
- Chronic pain from Osteoarthritis
- Unsteady gait with 3 falls in the past year; 2 in the past 2 months

Medications:

- Metformin 1g po bid
- Amlodipine 10mg po daily
- Furosemide 20mg po bid
- Celecoxib 100mg po bid
- Gabapentin 100mg po tid
- Lorazepam 0.5mg po qhs

UI Symptoms from a 3-day Bladder Diary:

- Frequency - 10x/day, 4x/night
- Leakage with urgency
- Occasional leaking with cough, getting out of chair
- No hesitancy, intermittency or sensation of incomplete emptying
- No dysuria, hematuria or recurrent UTI
- 4-5 absorbent briefs/day, 1-2 absorbent briefs/night

Other Key Information:

- Soft BM q 1-2 days
- Drinks 6 cups of water, 2 cups of tea, 1 cup of coffee/day

What do her symptoms tell us about what kind of UI she has?

1. Functional = osteoarthritis of hands and slow gait speed
2. Overactive = Frequency and Urgency (with poor manual dexterity and slow gait speed)

   AND
3. Stress = leaks getting out of a chair

Key Takeaways Resident #1

1. Depression can be related to chronic conditions including UI.
2. Chronic UI can still be managed with reduction of symptoms in up to 80% of individuals.
3. Multi-factorial UI is most common among long-term care residents.

Mrs. A's Bladder Diary

Name: Mrs. A **Day 1**

Time	Fluid Intake		Urination in Toilet	Was There a Strong Urge?	Involuntary Urination	What Was Happening	Wet Product Changed
	Amount	Substance	# of Times	Yes/No	Small/ Medium/ Large	Sneezing, laughing, getting up off a chair, etc.	What type of product
Wake Up			1		Large		Moderate Brief
6-7 a.m.	4 oz	Coffee					
7-8 a.m.	8 oz	Tea		Yes	Medium	Having Breakfast	
8-9 a.m.							
9-10 a.m.	8 oz	Water			Large		Moderate Brief
10-11 a.m.			1	Yes			
11-12 p.m	8 oz	Soup					
12-1 p.m.	8 oz	Water			Large		Moderate Brief
1-2 p.m							
2-3 p.m	8 oz	Water					
3-4 p.m.							
4-5 p.m.	8 oz	Water			Medium	Watching TV	Moderate Brief
5-6 p.m.							
6-7 p.m.	8 oz	Tea					
7-8 p.m.			1	Yes			
8-9 p.m.	8 oz	Water					Moderate Brief
9-10 p.m.							
10-11 p.m.							
11-12 a.m.				No	Large	Sleeping	Moderate Brief
12-1 a.m.							
12-2 a.m.							
2-3 a.m.				No	Medium	Sleeping	Moderate Brief
3-4 a.m.							
4-5 a.m.							
5-6 a.m.							

= Meal Consumed

Based on the information provided by Mrs. A's bladder diary, some inferences can be drawn. It could be beneficial for Mrs. A to begin using **premium quality incontinence products at higher absorbency rates.** She also wears the same type of product all the time when she could be catering the absorbencies to her incontinence level. For example, if Mrs. A switched to heavy briefs during the day, she could decrease her product usage by 2-3 briefs. If she wore a severe incontinence brief overnight, she could avoid changes and enjoy restful, uninterrupted sleep.

Learning From Our Residents

The following cases present clinical scenarios common to residents in long-term care. Case discussion will identify key teaching points for evaluation and management of UI.

Resident #2, Mr. B

He is partially paralyzed on his right side from a severe stroke. He cannot stand to pivot without help. He has been using absorbent undergarments since his admission to your home three months ago.

You wonder how long he has been incontinent? Was it from the stroke? And has anyone tried to help him use the bathroom or a urinal? The stroke also left him unable to speak so he cannot tell you. But you notice he follows commands really well and appears to have a good understanding of you.

You approach him in his room with a urinal and ask him if he can go in the urinal. He nods "Yes." You gently lower the covers, open the absorbent undergarment and place the urinal between his legs and ask him to urinate and he does.

You report this to his care team and adjust his care plan. You contact PT and OT to do some training with Mr. B to increase his confidence in using the urinal. Using the urinal will reduce the quantity of absorbent undergarments Mr. B has to use.

Key Takeaways Resident #2

1. Don't assume! Ask residents about UI and they will know you care about this difficult and embarrassing issue.
2. Always look for opportunities to improve a resident's dignity.

a. Reducing incontinence and returning some independence is a major boost to quality of life.

3. Urinals CAN work for supine patients!
    a. Work with your PT and/or OT colleagues to work out any physical challenges the resident may have that could impede use of the urinal.
    b. Urinals DO help reduce and prevent skin breakdown
    c. Urinals can reduce the need for staff time cleaning and changing him by reducing the number of incontinent episodes.

Learning From Our Residents

The following cases present clinical scenarios common to residents in long-term care. Case discussion will identify key teaching points for evaluation and management of UI.

Resident #3, Mr. C

Mr. C is a 92-year-old man with Alzheimer's Disease. He is in FAST stage 6 but usually awake and active much of the day. He attends all meals. He is ambulatory with a cane. Over the past two days, though he does not have a fever and his vital signs are stable, he has been increasingly agitated and sleeping much more than usual. He missed a dinner and lunch. The last two shifts have reported 1 episode each of urinary incontinence.

What is your best next step?

A. Call MD and report he is agitated and request antibiotic for UTI
B. Turn down the lights and reduce contact with others
C. Call MD and report agitation, vital signs, decreased alertness and oral intake with new onset UI with malodor and decreased urinary output. Then turn down the lights and reduce contact with others while increasing staff checks.

Correct Answer: C

The new onset of a symptom like UI needs to be evaluated. In a patient with dementia new UI that is also associated with agitation can certainly be due to a Urinary Tract Infection (UTI), it is NOT appropriate to assume and evaluate and /or treat empirically UNLESS there are some of the signs or symptoms of UTI such as malodor, frequency, or UI. For Mr. C even without a fever, two episodes of new onset incontinence warrants testing. Older adults may not mount as active an immune response so hyperthermia may be blunted despite the presence of an infection. While choice A is correct, it is not the best next step because it lacks attention to managing the agitation which can pose a threat to the patient's safety. Choice B describes the appropriate steps one can take to reduce agitation, but given the information provided it would be a mistake not to address a possible UTI at the same time. Option C appropriately combines attention to a set of new symptoms and clinical signs with steps to reduce agitation.

Additionally, Mr. C could possibly benefit from the use of absorbent products as a temporary solution to his new onset of symptoms. Premium quality disposable pull-on underwear could be a good solution, as it looks and feels more like regular underwear.

Key Takeaways Resident #3

1. New onset UI in an elderly resident warrants full evaluation.
2. In a resident with Dementia, agitation can = UTI but typically if it is a UTI most often the resident will ALSO have one of the UTI symptoms or signs we learned about e.g. malodor, UI, frequency.
3. The management for acute agitation in dementia should start with a range of behavioural management strategies but don't neglect to look for and follow-up any new physical symptoms or signs.

Pioneer Network believes there's a natural connection between person-centered practices and incontinence care and support. The delivery of person-centered care should be based on knowledge, science and the use of quality products and processes. Best practices are grounded on the beliefs that we need to know each individual, find ways to hear their voice, and individualize our approach. Dealing with a sensitive topic like urinary incontinence requires a deep understanding of how this impacts the individual and should be approached in a way that supports dignity and well-being.

Best wishes,

Penny

Penny Cook, MSW
President & CEO
Pioneer Network

Pioneer Network™

Dear Reader,

Thank you for joining us for "Aging Impacts: Urinary Incontinence." We share a common philosophy: older adults can live happier, healthier lives when their care is person-centered and infused with an understanding of the changes and challenges of aging. We hope you agree!

When person-centered principles related to urinary incontinence care are understood, appreciated, and valued, it becomes clear we CAN make a difference for elders facing this challenging issue. Together, caregivers, nurses, clinicians, and long term care community administrators have an opportunity to systematically improve the quality of life for incontinent older adults.

We appreciate your time and look forward to working together towards improving the lives of elders you care for.

Kindest regards,

Rosemary Laird, MD, MHSA

About Dr. Rosemary Laird, MD, MHSA

Dr. Laird is a board-certified geriatrician who knows that collaboration and communication are critical to managing intricate issues of aging. She graduated from the Georgetown University School of Medicine in Washington, DC, and from the University of Chicago's internal medicine residency program, where she served as chief resident. She completed her advanced fellowship training at the University of Kansas.

About Seni

seni®

Seni brand is a premium line of incontinence products that falls under the Poland based TZMO SA group umbrella. Since 1951, TZMO has been a leading European manufacturer and supplier of sanitary articles, cosmetics, and medical devices to the world market. Seni incontinence products are fully breathable, allowing for a more skin friendly environment. They are super absorbent, have inner leak guards, and are made of soft materials for comfort. Seni products improve the quality of life for incontinent people and allow them to enjoy everyday activities with confidence. For more information regarding Seni products, please visit us at www.seni-usa.com or email marketing@tzmousa.com