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Geriatric Syndrome

Urinary Incontinence

Learning Objectives

Urinary Incontinence

At the conclusion of the module addressing incontinence in older adults, the learner should:

KNOW

- The presentation and symptoms of the most common types of urinary incontinence
- Behavioral and medication treatment strategies for urinary incontinence

DO

- Identify and use screening and assessment tools to aid in the recognition and management of urinary incontinence
- Recognize risk factors leading to urinary incontinence
- Optimize a treatment plan for an individual with urinary incontinence

Case
Mrs. Naehr

- Anh Naehr, is an 82-year-old widow residing in an independent living retirement community. Her daughter, the oldest of her three children, is involved with her care and checks in on her mom every day.
- Mrs. Naehr and her daughter approach the counter today to speak with their pharmacist. The daughter has the OTC product, **Oxytrol for Women®** (oxybutynin) and a package of high absorbency sanitary napkins in her hands. She reports that her mom has started having “urine accidents” daily (when she sneezes and when she cannot make it to the bathroom following the sudden urge to urinate). She askes if the medication and the sanitary napkins are the best solutions to her mom’s problem.

- Mrs. Naehr’s medical history includes HTN, osteopenia, allergic rhinitis and cognitive impairment (likely due to Alzheimer Disease); all conditions are stable on the following medications:
    - Lisinopril (Prinivil) 20 mg daily, CaCO3/Vitamin D3 twice daily, Cetirizine (Zyrtec) 10 mg daily, Donepezil (Aricept) 5 mg daily, acetaminophen 325 mg as needed for minor pains.
- The pharmacist does not have access to any assessments or laboratory data.

- As Mrs. Naehr’s daughter finishes her question, the pharmacist is called away to the phone and in the effort to not delay the encounter, the pharmacy clerk checks out Mrs. Naehr and her daughter and they leave the pharmacy with the medication and the sanitary napkins.

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Definitions

Geriatric Syndrome

- A multifactorial condition prevalent in older adults that develops when an individual experiences accumulated impairments in multiple systems that compromise their compensatory abilities.

Overarching Topics	Geriatric Syndromes		
Age-Friendly Care	Chronic Pain	Falls	Polypharmacy
Ageism	Cognitive Impairment	Frailty	Pressure Injury
	Delirium	Incontinence	Sleep Disturbance
	Depression	Malnutrition	

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Definitions

Screening

- Screening tools are tests or measures to evaluate for diseases and health conditions before symptoms appear.
- Screenings allow for earlier management and referral to appropriate providers.
- An age-friendly provider conducts screenings for conditions that are prevalent in older adults.

Definitions

Assessment

- Assessment tools are tests and measures used to evaluate the patient's presenting problem, confirm a diagnosis, determine its severity, and aid in identifying specific treatment options.

- An age-friendly provider uses appropriate assessments, makes referrals, and communicates with the patient's care providers.

Definitions

Treatment

- An age-friendly care provider considers the 4Ms when making treatment recommendations so that **what matters** to the patient is always part of the plan of care.

- An age-friendly provider communicates with the patient, family, and interdisciplinary team.

Definitions

Incontinence

- Inability to control the flow of urine from the bladder (urinary incontinence) or the escape of stool from the rectum (fecal incontinence).

Urinary Incontinence

- Inability to control the flow of urine. Types of urinary incontinence include stress, urge, overflow, and functional incontinence.

Fecal Incontinence

- Also known as bowel incontinence; the inability to control bowel movements, causing stool (feces) to leak unexpectedly from the rectum. It can range from an occasional leakage of stool while passing gas to a complete loss of bowel control.

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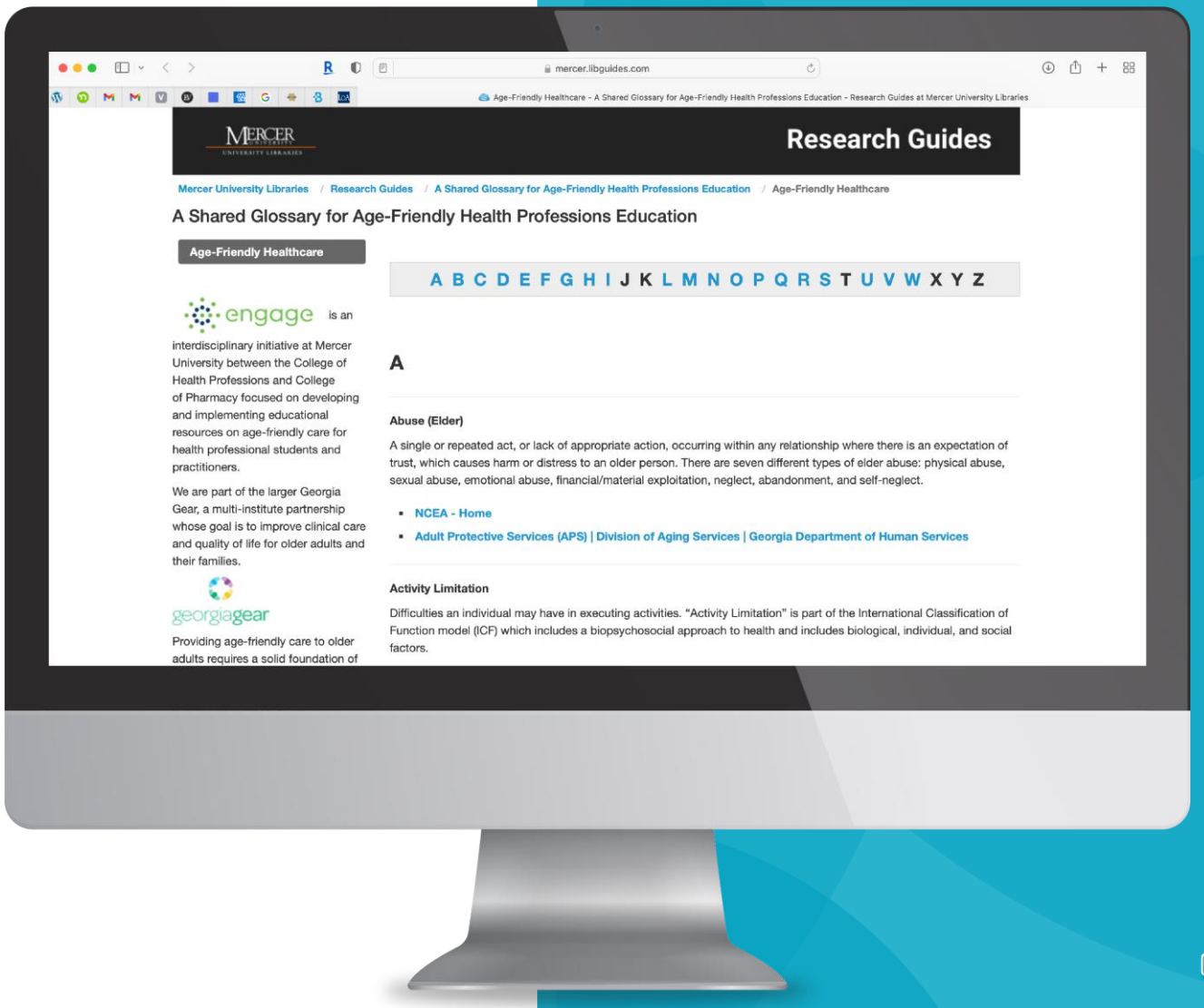
Know and Use the Shared Language…

we are all connected

GLOSSARY



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Statistics

UI Statistics [1,2]

- UI crosses all racial, ethnic, and geographic boundaries and affects about 13 million American older adults
  - UI may be underreported in nonwhite populations
- UI affects all age groups with peak incidence in women (about 50%) around the age of menopause and a steadily increasing prevalence after age 65. Yearly screening is recommended for women
- UI is reported in about 45% of older adult men
- UI is associated with reduced levels of social and personal activities, increased psychological stress, and overall decreased quality of life

Statistics

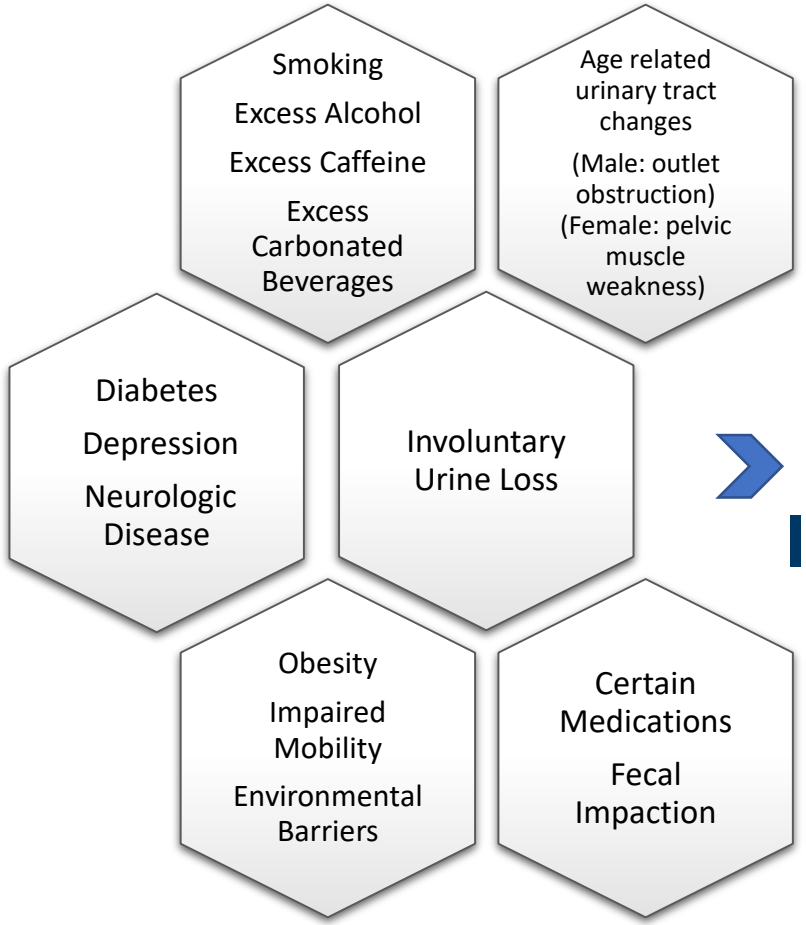
UI Statistics [1,2]

- Many variables contribute to the prevalence depending on type of UI and setting :
  - 10% - 30% of community dwelling older adults;
  - 30% - 35% of hospitalized older adults;
  - 50% - 85% of residents of nursing homes.

- The direct cost of UI include the costs for diagnoses, treatment, and routine care.
  - In 2020, the direct cost of treating overactive bladder (OAB) UI was estimated at over $82.6 billion.

- Due to caregiver burnout, UI is often a contributor to the decision to place an older adult in a skilled nursing facility for care.

Risk Factors



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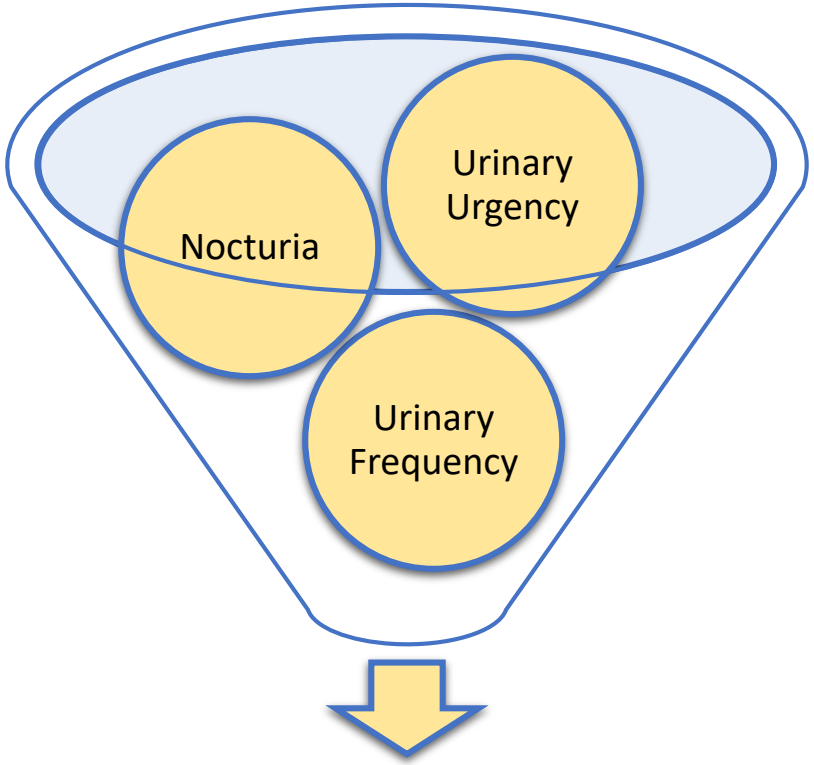
Symptoms

Symptoms Associated with UI [3,4]



Types

Types of UI [3,4]

Stress (SUI)

Urine loss when sneeze or cough:

Low sphincter tone

Urge

(UUI or OAB)

Sudden urge to urinate:

Too much activity in bladder muscle

(**O**veractive **A**ctive **B**ladder)

Overflow

Urine leaks from a bladder that is always full:

Cannot hold any more

Functional

Normal bladder control but barriers to toileting are present:

Cannot access the toilet

Mixed

Combination of any two or more

Screening

Assessment

Treatment

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UI Screening Questions [3]

The age-friendly provider should focus on **urgency** (impulse), **nocturia** (>3 times per night), and **frequency** (>8 times per day) in asking these questions:

- Do you ever leak urine when you have a strong urge on the way to the bathroom? How often?
- How frequently do you empty your bladder during the day?
- How many times do you get up to urinate after going to sleep? Is it the urge to urinate that wakes you?
- How many pads a day do you wear for protection?
- Does this problem inhibit any activity or prevent you from doing things you like to do?

UI Assessment Questions[3,4]

The more detailed assessment of UI includes information from the patient's history:

- What is the history of onset, nature, duration, severity, and bother of urinary tract symptoms?
- What is the medical and surgical history? If applicable, what is the obstetric and gynecologic history?
- What is the thorough medication history, including prescription medications, nonprescription medications, and natural/ herbal products?
- What is the review of systems, including genitourinary and neurologic findings?
- What does the objective data reveal?

  Urinalysis, Chemistries, Urodynamic testing, Cystoscopy, Imaging

Conditions Associated with UI [3,4]

- D-I-A-P-P-E-R-S*

- **D**elirium
- **I**nfection
- **A**trophic Urethritis/Vaginitis
- **P**harmacology
- **P**sychological Disorders
- **E**ndocrine Disorders or **E**xcessive Urine Output
- **R**estricted Mobility
- **S**tool Impaction

***Especially useful in acute onset UI**

Medications Contributing to UI

Medications that cause an Increase in Urine Volume or Frequency	Medications with Anticholinergic Activity:	Medications with Sedating Activity:
• Diuretics • Caffeine • Alcohol • Antihypertensives	• Antihistamines • Medications with the side effect of anticholinergic activity	• Sedative hypnotics • Narcotic analgesics • Medications with the side effect of sedation

Medications Contributing to UI:1

Medication Class	Example Medications	Proposed Mechanism	Signs/Symptoms of UI
Anticholinergics	Amitriptyline (Elavil), Diphenhydramine (Benadryl) Risperidone (Risperdal)	• Decreased detrusor muscle contraction	• Hesitancy • Straining to Void • Overflow UI
Diuretics	Furosemide (Lasix) Hydrochlorothiazide (Esidrix)	• Increased urine volume • Altered mental status	• Polyuria • Frequency • Urgency • Leakage
Sedative Hypnotics	Diazepam (Valium) Lorazepam (Ativan) Triazolam (Halcion)	• Sedation • Obtundation • Altered mental status	• Nocturia • Functional UI
Narcotic Analgesics	Codeine (alone or in combination) Hydrocodone (ZohydroER) Fentanyl (Actiq) Morphine (MS Contin)	• Sedation • Altered mental status • Causes constipation	• Hesitancy • Straining to Void • Overflow UI • Functional UI

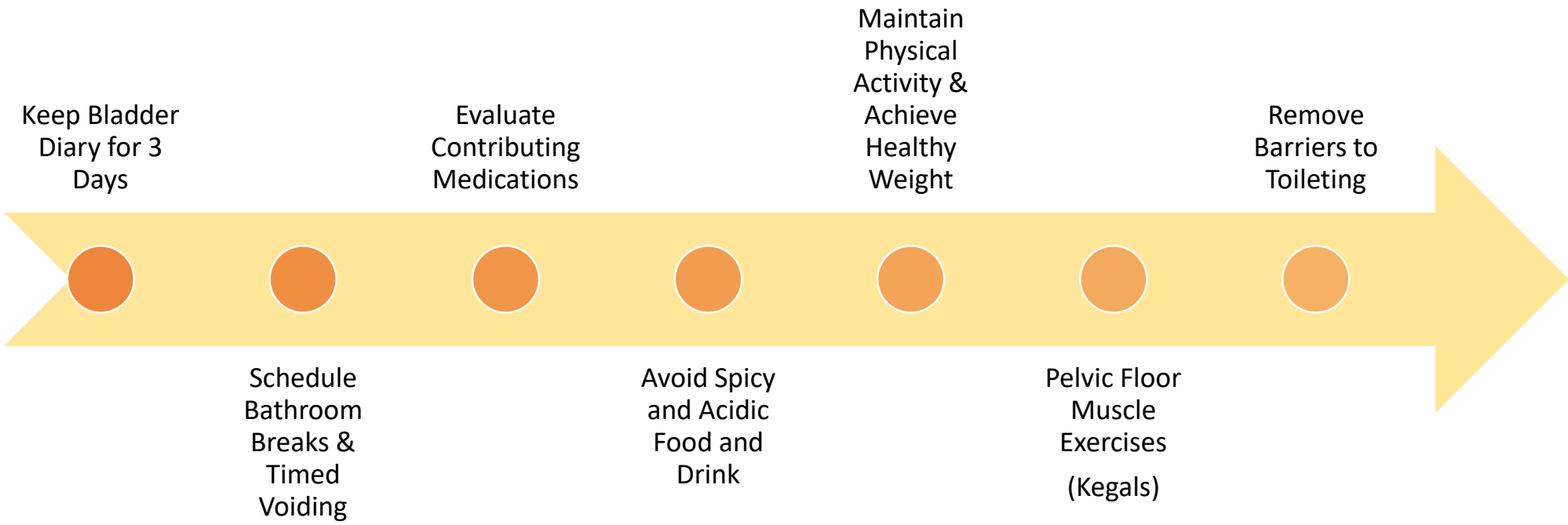
Medications Contributing to UI:2

Medication Class	Example Medications	Proposed Mechanism	Signs/Symptoms of UI
Alpha-adrenergic antagonists Same drug class is used to manage Overflow UI	Prazosin (Minipress) Terazosin (generic) Doxazosin (Cardura)	• Decreased urethral resistance	• Frequency • Urgency • Leakage
Alpha-adrenergic agonists Same drug class is used to manage Stress UI	Pseudoephedrine (Sudafed)	• Increased urethral resistance	• Hesitancy • Post-void Dribbling • Urinary Retention • Overflow UI
Calcium channel antagonists	Nifedipine (Adalat CC, Procardia XL) Verapamil (Calan SR)	• Decreased detrusor muscle contraction • Causes constipation	• Hesitancy • Post-void Dribbling • Straining to Void • Urinary Retention • Overflow UI
Alcohol	Ethyl alcohol	• Increased urine volume • Sedation • Altered mental status	• Frequency • Urgency • Nocturia • Functional UI

Medications Contributing to UI:3

Medication Class	Example Medications	Proposed Mechanism	Signs/Symptoms of UI
Muscle relaxants	Baclofen (generic) Orphenadrine (generic) Tizanidine (Zanaflex)	• Decreased urethral resistance • Causes constipation	• Frequency • Urgency • Polyuria
Nonsteroidal anti-inflammatory agents (NSAIDs)	Ibuprofen (Motrin) Naproxen (Naprosyn)	• Prostaglandin inhibition • Decreased detrusor muscle contraction	• Hesitancy • Post-void Dribbling • Straining to Void • Urinary Retention • Overflow UI
Angiotensin-converting enzyme inhibitors (ACEIs)	Benazepril (Lotensin) Enalapril (Vasotec) Lisinopril (Prinivil, Zestril)	• Cause coughing that can contribute to Stress UI	• Frequency • Urgency • Leakage
Cholinesterase inhibitors	Donepezil (Aricept) Galantamine (Razadyne) Rivastigmine (Exelon)	• Increased detrusor muscle contraction	• Frequency • Urgency • Leakage • Nocturia
Lithium	Lithium (Lithobid)	• Causes polyuria	• Frequency • Urgency • Leakage • Nocturia

Behavioral/Lifestyle Changes for Treatment of UI*



*Implement based on patient's cognitive abilities and caregiver involvement

Treatment

Treatment Options for Urinary Incontinence

Urinary Incontinence Products:

Referral to and counseling by a health care team member for an appropriate incontinence product.

Pelvic Floor Strengthening:

Referral to and evaluation by a physical therapist for prescription for pelvic floor muscle exercise or other exercise. Innovative medical devices are becoming available

Medication Therapy:

Referral to and counseling by a prescriber or pharmacist to identify and discontinue inappropriate medications or initiate new medications depending on the type of UI.

Comparison of Products to Manage UI

Light to Moderate Urine Loss		
Product	**Description**	**Comments**
Pantiliners (Women) or Shields (Men)	Very thin, Discreet, Contoured to fit either female or male anatomy	Available in different absorbency levels
Perineal Pads	Designed with super absorbent materials	Available in several absorbency levels
Guards (Men)	Contoured designed to fit the male anatomy	Designed for moderate urine loss
Moderate to Heavy Urine Loss		
Product	**Description**	**Comments**
Protective Underwear/Adjustable Underwear	Designed for female or male anatomy	Available in several absorbency levels and washable or disposable options
Fitted Briefs	Designed for urine and/or bowel loss	Available in several absorbency levels
Reusable Pants (to hold liners)	Designed to keep pads in place	Unisex; Designed for multiple washes
Disposable Liners	Designed for use with reusable pants	Available in several lengths and absorbency levels
Pads or Bed Protectors	Designed for placement under the perineal area to provide a barrier between the patient and the bed	Change often to prevent infection and/or skin breakdown
External Catheters	Most effective in managing overflow incontinence	Proper training and attention to hygiene is important to prevent infection
Prevent Urine Loss		
Product	**Description**	**Comments**
Bladder Supports (Women)	Designed to stop leaks before they happen	Available as a tampon-like product in three sizes Pessary is an alternative

Implement based on patient's cognitive abilities and caregiver involvement;
Attention to perineal hygiene is important when using any of these products

Medications Used to Manage UI

Urge Incontinence or OAB

- *Oxybutynin (Ditropan)
- *Tolterodine (Detrol)
- *Trospium (Sanctura)
- *Solifenacin (Vesicare)
- *Darifenacin (Enablex)
- *Fesoterodine (Toviaz)
- ^Mirabegron (Myrbetriq)
- +Soy germ & Pumpkin seed extract
- #onabotulinumtoxinA (Botox)

Stress Incontinence

- Estrogens – Local or $Systemic
- $Ephedrine
- Duloxetine (Cymbalta)
- Venlafaxine (Effexor XR)

Overflow Incontinence

- Prazosin (Minipress)
- Terazosin (generic)
- Doxazosin (Cardura)
- +Saw palmetto

*Consider anticholinergic side effect profile prior to prescribing;
^Alternative to anticholinergics;
+Inadequately studied but safe
#Use in anticholinergic failure or intolerance

$Consider side effect profile prior to prescribing

+Inadequately studied but safe

Referral to Clinical and Community Support

- Information for managing UI is available at the website of the National Association on Continence at https://nafc.org

- Available information and resources includes:
  - Connecting with incontinence communities and support groups,
  - Locating centers of excellence,
  - Printable materials for managing continence,
  - Sources of continence supplies.

- The local community pharmacist, health care provider, or hospital discharge planner are valuable resources who can provide information and referrals to help manage incontinence.

Remember Mrs. Naehr?

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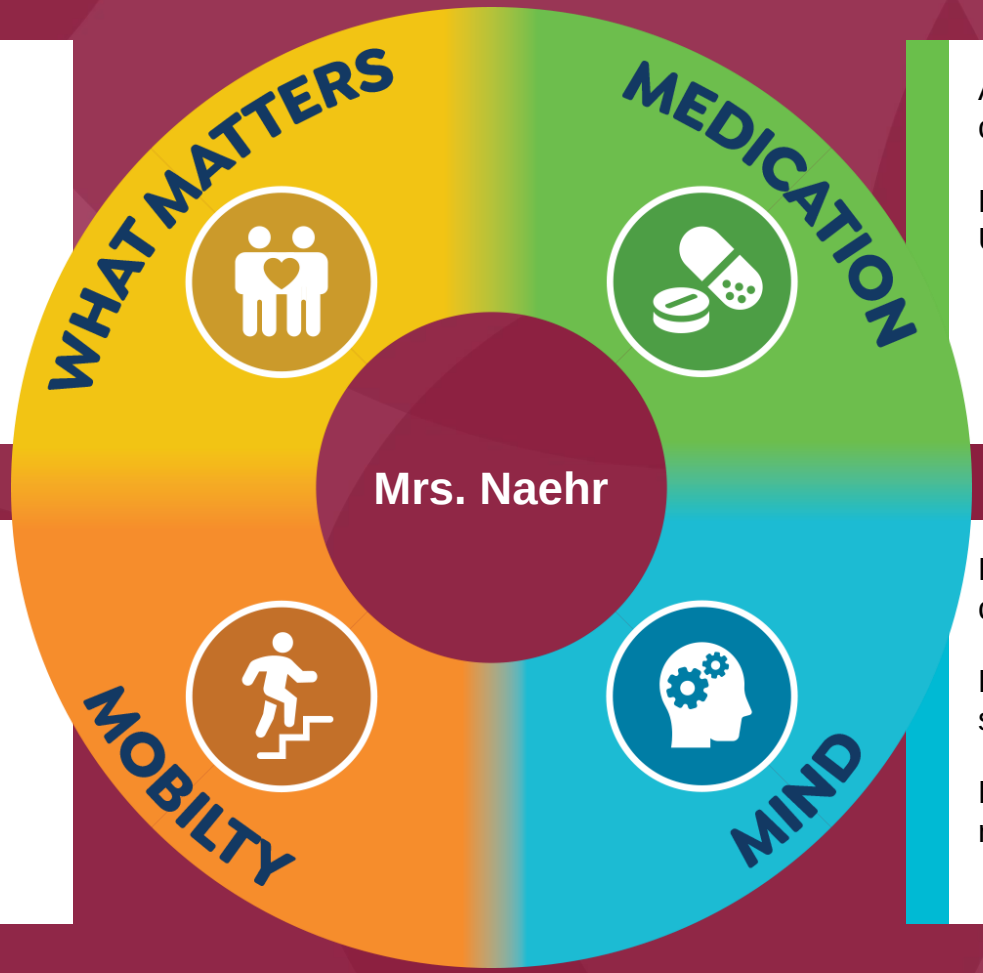
Un-Age-Friendly Care (4Ms)

Suggest limiting activities outside of the residence and with unfamiliar access to bathrooms.

Consider admitting to a skilled nursing facility for care (specific for UI care).

Avoid review of medications that could contribute to UI.

Prescribe anticholinergic medication for UUI in a patient with cognitive dysfunction.



Do not consider or address barriers to toileting.

Wear clothing that is difficult to remove prior to toileting.

Do not consider pelvic floor exercises.

Prescribe medications that manage UI but contribute to cognitive dysfunction.

Do not consider cognitive status in selecting incontinence products.

Do not consider anxiety or depression related to UI.

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Age-Friendly Care (4Ms)

LISTEN & VALIDATE

Consider patient autonomy and level of desired independence.

Consider caregiver availability and input.

Recommend appropriate UI products and assure correct use.

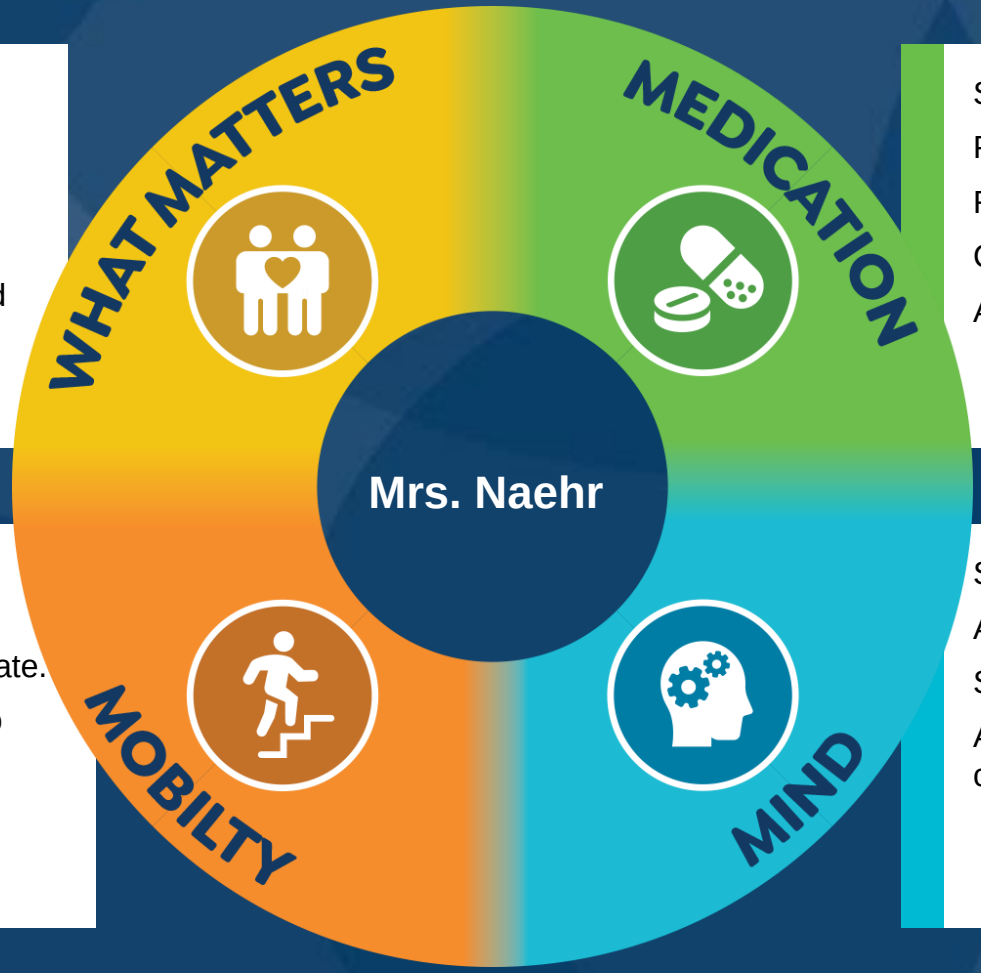
Recommend/assure appropriate perineal skin care.

SCREEN & REFER

Assess toileting access and prescribe DME (portable/raised toilets) as appropriate.

Assure clothing allows for easy access to toileting.

Prescribe pelvic floor exercises for management of SUI.



SCREEN & REFER

Prescribe mirabegron for management of UUI.

Recommend appropriate UI products.

Consider topical estrogen therapy.

Avoid medications that contribute to UI.

SCREEN & REFER

Address cognitive function.

Screen for depression and anxiety.

Avoid medications that negatively affect cognitive function.

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Clinical Pearls

Evaluating Urinary Incontinence

- When evaluating UI, always rule out any medication causes.
- Determining a specific type of UI will allow for more appropriate management.

Managing Urinary Incontinence

- First line-treatment for most types of UI involves nonpharmacologic options which include pelvic floor exercises and UI products as appropriate. In most cases, these options should be continued when medication therapy is initiated.
- Consideration of the older adult's cognitive status and availability of caregiver input is important.

About Engage

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ENGAGING FOR BETTER HEALTH

Engage is part of Georgia Gear, a multi-institute partnership whose goal is to improve clinical care and quality of life for older adults and their families.

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