

Urinary tract infection prevention and detection in SNF, ALF, AFCH:

A practical training for non-clinical staff members

Simply Healthcare Plan LTC or LTSS

Why this matters

- **UTI is the most diagnosed infection in older care-home residents** and drives more than 50% of antibiotic prescriptions (Prieto et al., 2024).
- Residents face **higher hospitalization, uroseptic shock, and death** than community-dwelling peers (Sansone & Bravo, AJIC, 2023).
- **32% to 73% of UTI antibiotic prescriptions in nursing homes are inappropriate**, usually treating asymptomatic bacteriuria or misread nonspecific symptoms (Wang et al., BMC Infectious Diseases, 2024).
- Overtreatment causes **antibiotic resistance, adverse drug events, and C. difficile** infection (Nace et al., JAMA Internal Medicine, 2020).

    - **Key point:** Prevent true infections and avoid over-testing/over-treating colonization.

Key concept: Bacteriuria Is not infection

- **Asymptomatic bacteriuria (ASB)** = bacteria in the urine with no urinary signs or symptoms.
- ASB is present in **up to 50% of nursing home residents** (Lui et al., PLoS One, 2023).
- **IDSA recommends NOT screening for or treating ASB** in older adults in the community or long-term care — treatment gives no survival benefit and causes harm (Nicolle et al., IDSA Guideline, 2019).
- A positive urine culture alone does **not** mean a UTI.
- "Cloudy" or "smelly" urine and a positive dipstick, without symptoms, do not equal infection.

When to suspect a true UTI

- **Localizing (specific) urinary signs and symptoms** should be present:
  - New or worsening **dysuria** (pain/burning with urination)
  - New **frequency, urgency, or urinary incontinence**
  - **Suprapubic pain** or **costovertebral angle (flank) pain/tenderness**
  - **Fever, rigors/chills**, or gross hematuria
- **AMDA consensus:** UTI-related signs/symptoms **must be present** to diagnose UTI; nonspecific symptoms alone do not justify a UTI diagnosis (Ashraf et al., JAMDA, 2020).

When to suspect a true UTI

Catheterized resident's symptoms differ:

- Fever
- Rigors
- New flank pain
- Acute mental status change
- **Without** another cause

The trap of nonspecific symptoms

- **Confusion, falls, altered mental status, decreased appetite, and functional decline are NOT reliable indicators of UTI** when they occur alone (Ashraf et al., 2020; Wang et al., 2024).
- **These symptoms have many causes:**
  Dehydration, medication effects, pain, constipation, and new illness
- **AMDA — The Society for Post-Acute and Long-Term Care Medicine** (formerly known as the American Medical Directors Association) **guidance:**
  Do not order urine testing for isolated nonspecific symptoms —
  evaluate the whole resident first.

Role of non-clinical staff members

- **Support accurate observation and reporting** — describe what changed, when, and any specific urinary symptoms.
- **Reinforce hydration and incontinence care** in care plans and family conversations.
- **Set expectations with residents and families** that a positive urine test without symptoms usually should not be treated.
- **Facilitate communication** between nursing, prescribers, and families using structured applications.
- Care homes' non-clinical staff play a **vital role** in prevention and recognition (Prieto et al., 2024).

Prevention pillar one: Hydration

- **Hydration is a care priority for all residents** and a core prevention strategy (Prieto et al., 2024).
- **Build systems that help residents drink more**: offer preferred fluids, scheduled drink rounds, accessible cups, and hydration prompts.
- **Adequate fluid intake reduces UTI risk in appropriate residents.** Individualize for those with heart or kidney conditions (Huang et al., JAMA Internal Medicine, 2024).

Prevention pillar two: Incontinence and perineal care, hygiene

- **Effective incontinence and perineal care**, plus staff hand hygiene, were core to a bundle that cut UTIs by 79% (Sansone & Bravo, 2023).
- Front-to-back cleansing, timely brief changes, and skin integrity monitoring are key.
- **Hand hygiene and barrier precautions** are foundational infection-prevention practices (Mody et al., JAMA Internal Medicine, 2017).

Prevention pillar three: Catheter avoidance and care

- **Avoid unnecessary indwelling catheters.**
  Remove them promptly and consider alternatives (Mody et al., 2017).
- **If a catheter is required, ensure:**
  Aseptic insertion, proper maintenance, and closed-system care.
- Catheter reduction and evidence-based care lowered catheter-associated UTIs in a national nursing-home project (Mody et al., 2017).

Prevention pillar four: Recurrent UTI strategies

- **Vaginal estrogen** reduces recurrent UTI in postmenopausal women (Huang et al., 2024).
- **Methenamine Hippurate** is a non-antibiotic option shown to be non-inferior to low-dose antibiotics in trials (Huang et al., 2024; Cantón et al., Clinical Infectious Diseases, 2026).
- **Cranberry products** show no benefit in long-term care residents; D-mannose and probiotics are unproven (Huang et al., 2024).
- Reserve **prophylactic antibiotics** for selected cases given the resistance risk.

Detection: The right sequence

- **Assess the resident clinically first** — verify true urinary symptoms (Hidad et al., 2022).
- **Order urine testing only when specific UTI symptoms are present** — not for isolated nonspecific changes.
- Use urine dipstick/culture appropriately; **a negative dipstick (no leukocyte esterase or nitrite) has ~100% negative predictive value** to help rule out infection (High et al., IDSA LTCF Guideline, 2009).
- **A positive culture confirms nothing without symptoms** (culture threshold commonly >10^5 CFU/mL).

Structured communication tools

- **Decision-support and structured communication tools** enable a whole-team approach and reduce inappropriate testing (Prieto et al., 2024; Mody et al., Multisociety Guidance, 2025).
- Use a standardized change-of-condition/SBAR format when reporting to nurses or on-call care providers.
- **Active monitoring ("watchful waiting")** with hydration and observation is a legitimate care routine for nonspecific symptoms (Prieto et al., 2024).

Antibiotic stewardship works

- A multifaceted nursing-home stewardship program **cut antibiotic use for "unlikely cystitis" by 27%** and overall UTI antibiotics by 17%, with **lower C. difficile rates and no increase in hospitalizations or deaths** (Nace et al., JAMA Internal Medicine, 2020).
- A basic care bundle achieved a **79% reduction in UTIs** and a 62% drop in antibiotic prescriptions (Sansone & Bravo, 2023).
- **Components:** Education, decision tools, symptom-monitoring sheets, and audit/feedback (Nace et al., 2020).

What to do and what to avoid

Do

- Promote hydration and consistent incontinence/perineal care.
- Report specific urinary symptoms and objective changes.
- Support watchful waiting for isolated nonspecific symptoms.
- Reinforce catheter avoidance.

Avoid

- Requesting a urine test for isolated confusion, falls, or "smelly urine“
- Treating asymptomatic bacteriuria
- Assuming a positive culture equals infection

Facility implementation and competency

- **Train staff and conduct annual competency assessments** on when/how signs and symptoms indicate the need for urine collection, and on specimen collection to reduce contamination (Mody et al., Multisociety Guidance, 2025).
- Adopt a **standardized UTI diagnostic algorithm** and decision-support tools (Ashraf et al., 2020; Mody et al., 2025).
- Use **audit and feedback** on urine cultures ordered and antibiotics prescribed.
- Sustain through **leadership engagement and a resident-safety culture** (Prieto et al., 2024; Mody et al., 2017).

Key takeaways

1. **Symptoms first, testing second** — bacteriuria is not an infection.
2. **Nonspecific symptoms alone do not equal a UTI.**
3. **Prevention = hydration, hygiene/incontinence care, and catheter avoidance.**
4. **Stewardship is safe and effective** — less unnecessary treatment, fewer complications.
5. **Every team member, including case managers and social workers, has a role.**

Questions?

Thank you

Simply Healthcare Plans, Inc. is a Managed Care Plan with a Florida Medicaid contract.
FL-SMPLY-CD-SMMC-023584-26-S6503 | November 2026