HCPro

Preventing Urinary Tract Infections
in Long-Term Care

Jennifer Maina, BSN, RN, DON

Diane Hislop, RN, BSN

Preventing Urinary Tract Infections in Long-Term Care

Jennifer Maina, BSN, RN, DON
Diane Hislop, BSN, RN

HCPro

a Simplify **Compliance** brand

HCPro provides information resources for the healthcare industry.

HCPro is not affiliated in any way with The Joint Commission, which owns the JCAHO and Joint Commission trademarks.

Advice given is general. Readers should consult professional counsel for specific legal, ethical, or clinical questions.

Arrangements can be made for quantity discounts. For more information, contact:

Contents

Contents

Contents

About the Authors

Jennifer Maina, BSN, RN, DON, is the director of nursing for a Five-Star facility in Wichita, Kansas. Maina's experience includes over 22 years as a nurse. Serving as MDS/RAI coordinator, infection control officer, and assistant director of nursing, she has extensive experience in both nursing and clinical leadership. Maina has contributed to HCPro's publication *PPS Alert for Long-Term Care*, led a webinar presentation on UTI prevention, and was named a Rising Star in the 2019 McKnight's Women of Distinction program. In addition to being a keynote and guest speaker at conferences and graduation ceremonies, Maina has also presented at a national level at the 2017 and 2018 Leading Age Annual Conference.

Diane Hislop, BSN, RN, is the senior partner and chief operating officer of H2 Healthcare, LLC. Hislop's practice areas are clinical, forensic, and compliance consulting. She has more than 35 years of clinical, executive, and consulting experience, primarily in specialty healthcare and the post-acute segments of the healthcare industry. Hislop is a graduate of Ball State University and is licensed as a registered nurse in Kansas, Illinois, and Wisconsin.

Hislop's client base spans the entire healthcare industry with clients nationally. She routinely provides expert witness and litigation support, primarily to defense counsel, in wrongful death and negligent care cases. Hislop is a nationally recognized subject expert in forensic nursing and clinical compliance and is a frequent contributor to national publications. She is the author of HCPro's *Survey Success for Long Term Care: Reducing Citation Risk,* published in 2017. She is also a frequent national speaker on operational and clinical subjects pertaining to post-acute care and senior housing.

1 Relating Prevention to the Current Healthcare Environment

Learning Objectives

Upon completing this chapter, the reader will be able to:

- Understand the impact of preventable medical errors

- Identify the impact of infection prevention on resident outcomes

- Utilize tools from professional organizations for urinary tract infection (UTI) prevention

- Understand the effect of UTI data on public reporting and regulatory compliance

Preventing UTIs has become a resident safety priority in healthcare today. Clinicians, residents, families, payers, policymakers, and regulatory agencies all have a stake in reducing this type of infection. In the past, UTIs were perceived as relatively benign, but evidence collected over the past decade shows that they affect mortality and morbidity while increasing healthcare costs.

To understand the relevance of UTI prevention has for resident safety programs today, it is important to understand the historical perspective of how these infections became a focus of resident safety efforts.

Impact of Preventable Medical Errors

In 1999, the Institute of Medicine (IOM) released the groundbreaking report *To Err Is Human: Building a Safer Health System*. The report estimated that nearly 98,000 hospitalized residents die every year as a result of preventable medical errors. This is the equivalent to a 747 airliner crashing every day, killing all on board (Kohn, Corrigan, & Donaldson, 2000). Examples of preventable medical errors include the following:

- Adverse drug events

- Inadequate monitoring or delay in treatment

- Inappropriate (not indicated care, e.g., unnecessary antibiotics)

- Restraint-related injuries or death

- Falls

- Pressure injuries

Kohn, Corrigan, & Donaldson (2010) found that most preventable medical errors are caused by gaps in systems and vulnerable processes. This report sparked what would be become an evolution in improving resident safety efforts, propelled by four major recommendations:

1. Place a national focus on improving knowledge of resident safety through research and development of tools to support safety efforts

2. Track trends and gain insight into errors through increased reporting through mandated and voluntary reporting systems

3. Create accountability in care through standardized performance metrics and requirements from regulatory agencies, payers, and other stakeholders

4. Develop healthcare systems that focus on the process of the delivery of care and adoption of a safety culture

Development of a National Action Plan to Reduce Healthcare-Associated Infections

As the national spotlight has increasingly focused on improving resident safety and reducing preventable harm, healthcare-associated infections (HAIs) have also become a priority area for improvement. In 2008, the U.S. Department of Health and Human Services (HHS) convened the Federal Steering Committee for the Prevention of Health Care-Associated Infections. HHS estimated that one in every 20 residents will develop an HAI, resulting in $28 billion–$33 billion in healthcare costs (U.S. Office of Disease Prevention and Health Promotion, 2013). This multiagency committee was tasked with coordinating and synergizing HAI prevention efforts across federal agencies in an attempt to reduce preventable resident harm and related costs. The committee membership was made up of stakeholders from private and public health sectors, including scientists, clinicians, and policymakers.

The following agencies were among those included on the committee:

- Agency for Healthcare Research and Quality (AHRQ)
- Centers for Disease Control and Prevention (CDC)
- Centers for Medicare & Medicaid Services (CMS)
- Food and Drug Administration
- National Institutes of Health
- U.S. Department of Defense
- U.S. Department of Veterans Affairs
- Office of the National Coordinator for Health Information Technology

In 2009, the steering committee released the *National Action Plan to Prevent Health Care-Associated Infections: Roadmap to Elimination*. This action plan focused on the acute care setting. Leading up to this publication, it has become apparent that action is also needed in the long-term care setting. Members of the elderly population receiving long-term care (LTC) services today requires more complex medical care and are often set back by infections, with UTIs being the leading type. Infections in this population cause high rates of morbidity and mortality, high rates of rehospitalization, and an increase in healthcare expenses. UTIs in LTC facilities are the most common cause of hospitalization for bacterial infections. In April 2013, the steering committee chose to address HAIs in the LTC setting in phase 3 of their national plan.

Building on the recommendations that emerged from the 1999 IOM report, HHS highlighted strategies that urged stakeholders to invest in research to drive improvement outcomes, integrate health information technology into workflow processes, further tie health outcomes to payment structures and regulatory requirements, and develop a comprehensive plan to educate healthcare workers and consumers about HAI risks and prevention strategies (U.S. Office of Disease Prevention and Health Promotion, 2013).

The Impact of UTIs on Resident Outcomes

Although the number of reports and research studies available to accurately measure the burden that UTIs have on LTC facilities is limited, a study done in 2000 estimated that 0.1%–5.2% of HAIs occur per 1,000 resident care days in LTC facilities. Data also indicated that roughly 150,000 hospitalizations each year are related to HAIs and more than 50% of residents admitted to the hospital had sepsis related to a UTI. Per the CDC, these numbers may be an underestimate due to the increase in residents who require complex medical care that LTC facilities are taking now. UTIs are still the number one treated infection in nursing homes. Only 5% of the national nursing home population have catheters, so the majority of these UTIs are not catheter-related (U.S. Office of Disease Prevention and Health Promotion, 2013).

National Quality Improvement Programs

In 2008, AHRQ developed a safety culture survey for LTC facilities that is completed biannually. The 2014 data indicated improvement in LTC, but potential harm to residents is still a risk. AHRQ has determined that more research is needed in LTC to make genuine improvements. The agency has developed training programs on various topics for staff and is continuing the survey. Some areas of potential harm include the following:

- UTIs
- Lower UTI infections
- Influenza and influenzalike illness
- *Clostridium difficile* infection
- Skin, soft tissue, and wound infection

2 Surveillance Models

Learning Objectives

Upon completing this chapter, the reader will be able to:

- Understand the Centers for Disease Control and Prevention's (CDC) surveillance definitions of a urinary tract infection (UTI)

- Understand the history of standardized healthcare-associated infection (HAI) surveillance methods

- Identify three surveillance models used in long-term care (LTC)

Key Terms for UTI Surveillance

When collecting UTI surveillance data, it's important to understand the following key terms as defined by the CDC:

- Indwelling urethral catheter (IUC): A drainage tube that is inserted into the urinary bladder through the urethra, left in place, and connected to a drainage bag (including leg bags). These devices are also called Foley catheters. Condom, or straight in-and-out, catheters are not included, nor are nephrosto-my tubes, ileoconduits, or suprapubic catheters unless a Foley catheter is also present. IUCs that are used for intermittent or continuous irrigation are included in surveillance (CDC, 2018).

- UTIs: A true UTI is defined using standardized criteria per the National Healthcare Safety Network (NHSN). If symptomatic UTI (SUTI), catheter-associated symptomatic UTI (CA-SUTI), or asymptomatic bacteremia UTI (ABUTI) criteria are met, then the infection may be defined as a UTI (CDC, 2018).

- SUTI: A UTI that occurs when the resident shows signs and symptoms of UTI. These symptoms may include acute dysuria, increased urinary frequency, and suprapubic pain or tenderness. An SUTI can appear in residents who do not have an IUC but who have other urinary devices, such as suprapubic, straight, or condom catheters (CDC, 2018).

Proper surveillance is the first step to initiating a program. It gives the facility the ability to track actual infection rates and exposure rates and helps define what effective interventions it should have in place to reduce infection rates.

What surveillance tells us about antibiotic usage

Over the past decade, significant updates have been made to infection prevention guidelines. HAIs, especially UTIs, are a problem not just in the United States, but also globally.

The reality is that healthcare-associated UTIs are the leading cause of infection in LTC facilities. They present a serious threat of increasing morbidity and mortality. Reducing this risk improves overall quality, and one step to improving this risk is using consistent surveillance data to assist in quality improvement plans.

Reducing UTIs also reduces antibiotics being overprescribed, which is another global problem. In the past two decades, the inappropriate and overuse of antibiotics has created antimicrobial-resistant bacteria that are now resistant to treatment.

Best Practice Resources

CDC NHSN urinary tract infections training site

The CDC's NHSN Training website offers training for staff who perform HAI surveillance activities. The programs offered include live, in-person sessions, on-demand modules, case studies, and guidance documents.

www.cdc.gov/nhsn/ltc/uti/index.html

References

Allen-Bridson, K., Pollock, D., & Gould, C. V. (2015). Promoting prevention through meaningful measures: Improving the Centers for Disease Control and Prevention's National Healthcare Safety Network urinary tract infection surveillance definitions. *American Journal of Infection Control*, *43*(10), 1096–1098.

CDC. (2011). Guideline development using GRADE. Retrieved from *www.cdc.gov/vaccines/acip/recs/grade/downloads/guide-dev-grade.pdf*

CDC. (2013). National Healthcare Safety Network (NHSN) report, data summary for 2011, device-associated module. Retrieved from CDC. (2017). CDC surveillance resource center. Retrieved from *www.cdc.gov/surveillancepractice/index.html*

CDC. (2018). Identifying healthcare-associated infections (HAI) for NHSN surveillance. Retrieved from *www.cdc.gov/nhsn/pdfs/pscmanual/2psc_identifyinghais_nhsncurrent.pdf*

– Different catheter management techniques

– Different systems interventions (i.e., quality improvement programs)

3. What are the best practices for preventing CAUTI associated with obstructed urinary catheters

Another important aspect of interpreting the usefulness of an evidence-based guideline is to understand the method by which the evidence is rated and supports the strength of the guideline's recommendations. In the 2009 CDC CAUTI guideline, an evidence rating system adapted from the GRADE (Grading of Recommendations Assessment, Development and Evaluation) approach is used (CDC, 2011). The guidelines state, "It is important to note that Category I recommendations are all considered strong recommendations and should be equally implemented; it is only the quality of the evidence underlying the recommendation that distinguishes between levels A and B. Category IC recommendations are required by state or federal regulation and may have any level of supporting evidence" (Gould et al., 2009).

The CDC's *Guideline for Prevention of Catheter-Associated Urinary Tract Infections (2009)* "Modified HICPAC Categorization Scheme for Recommendations" is outlined below in Table 3.1.

Table 3.1: Modified HICPAC categorization scheme for recommendations

Category IA
A strong recommendation supported by high- to moderate-quality evidence suggesting net clinical benefits or harms
Category IB
A strong recommendation supported by low-quality evidence suggesting net clinical benefits or harms or an accepted practice (e.g., aseptic technique) supported by low- to very-low-quality evidence
Category IC
A strong recommendation required by state or federal regulation
Category II
A weak recommendation supported by any quality evidence suggesting a tradeoff between clinical benefits and harms
No recommendation/unresolved issue
Unresolved issue for which there is low- to very-low-quality evidence with uncertain tradeoffs between benefits and harms

HIPAC = Healthcare Infection Control Practices Advisory Committee.

Source: Gould, C. V., Agarwal, R. K., Kuntz, G., Pegues, D. A., Umscheid, C. A., Centers for Disease Control and Prevention, & Healthcare Infection Control Practices Advisory Committee (U.S.). Guideline for prevention of catheter-associated urinary tract infections (2009). Atlanta, GA: Centers for Disease Control and Prevention.

When reviewing guidelines, CAUTI prevention teams should critically evaluate whether the key questions are addressed through the systematic review. They should also ask, do the guidelines address the issues considered priority items by the CAUTI team? Is the evidence rating system clear, and are the recommendations provided actionable in their care setting? Evidence-based guidelines can be used as references to support policy and protocol development, as resources to develop clinician educational curriculums, and as tools to support clinical decision-making.

Approaches to Implementing CAUTI Prevention Practices

As we discussed in the previous section, there are several CAUTI prevention guidelines available to clinicians and CAUTI prevention teams. Within each of the guidelines, a multitude of recommendations exist, and it can be overwhelming to figure out how best to implement them. There are different approaches teams can use to get organized and implement the best practices in an effective way.

Life cycle of the catheter

Dr. Jennifer Meddings and colleagues (2014) describe using a model that addresses CAUTI prevention practices by applying strategies throughout the "life cycle of the urinary catheter" (Meddings & Saint, 2011). Using this conceptual approach, teams can group interventions into four phases of prevention activities: initial catheterization, maintenance of the IUC, removal of the IUC, and possible reinsertion of the catheter (Meddings et al., 2014). By thinking of the "life cycle," teams can prioritize their efforts around the highest-risk phases, limiting the opportunities for catheter insertion and ensuring prompt removal of unnecessary catheters (Meddings et al., 2014).

Two-tiered approach

Dr. Sanjay Saint and colleagues (Saint, Greene, & Kowalski, 2015) propose that CAUTI teams struggling to make improvements should consider using a two-tiered approach when implementing strategies to prevent CAUTIs. Tier 1 includes basic evidence-based practices that should be universally applied to all residents with IUCs. These practices would include daily assessment of necessity of the IUC, using catheter alternatives when appropriate, utilizing an aseptic technique for catheter insertion and maintenance activities, and promptly removing the catheter when it is no longer indicated (Saint et al., 2015). Teams are urged to monitor CAUTI rates and catheter use in real time, and if improvements are not made, they then should implement tier 2 strategies. Examples of these strategies include conducting a root-cause analysis of CAUTIs, targeted competency-based training programs, and continued monitoring of CAUTI rates (Saint et al., 2015).

Overview of Evidence-Based Practices for CAUTI Prevention

The following evidence-based CAUTI prevention recommendations are included from the *Strategies to Prevent Catheter-Associated Urinary Tract Infections in Acute Care Hospitals: 2014 Update* and the *Guideline for Prevention of Catheter-ssociated Urinary Tract Infections (2009)* (Lo et al., 2014; Gould et al., 2009). These recommendations focus on interventions that should be included as part of any long-term care CAUTI prevention program. The best practice recommendations should be implemented using strategies that engage both clinicians and multidisciplinary teams in CAUTI prevention.

When implementing these recommendations, CAUTI prevention teams should consider approaches to engage staff in consistently applying them. Because preventing unnecessary urinary catheterization is one of the most important ways to prevent CAUTIs, teams should consider ways to integrate the use of evidence-based criteria for appropriate catheter use into clinicians' workflow. One strategy is to build the list of criteria into the provider order set, requiring ordering employees to select the indication in which the catheter should be placed.

Inserting these catheters is a basic skill that nurses are taught during training. However, many nurses may not have received updated training or had their skills validated for years following their clinical training. To ensure that staff members are competent, facilities should work with clinical educators to design competency-based training programs that address the following components of urinary catheter insertion:

- Setting up a sterile field

- Performing hand hygiene before and after catheter insertion

- Aseptic cleansing of the insertion site

- Inserting the catheter, connecting equipment, and securing the device

Designing a competency-based training program will be discussed in greater detail in Chapter 7.

There are multiple steps that must be completed in order to ensure that the catheter insertion process is performed aseptically. Using a checklist is an easy way to standardize this process for staff, as it can provide guidance as they complete each step. A checklist can also be used as a tool to validate competency of the clinician inserting the catheter. Using a standardized IUC kit can also help streamline the insertion process. Standardized, all-inclusive kits provide clinicians with essential equipment needed for the procedure. A kit that includes a closed system, meaning that the catheter and drainage tubing are connected and presealed, is a good option, since such kits reduce the risk of contamination during catheter insertion.

A summary of these strategies is located in Table 3.2.

Table 3.2: Strategies to prevent CAUTIs during catheter insertion

Recommendation	Strategy for implementation
Use criteria for acceptable indications for urinary catheter use.	Integrate list of acceptable indications into clinician workflow (e.g., build list into provider order sets).
Maintain sterility of supplies and equipment.	Use standardized IUC kits that include a closed system, meaning that the catheter is presealed and attached to the draining tubing and bag.
Promote aseptic insertion.	Use a catheter insertion checklist to standardize the steps in the insertion process.
Maintain competency of staff who insert catheters.	Develop competency-based training programs for staff who insert catheters.

9. Staffing

10. Supervisor expectations and actions promoting resident safety

11. Teamwork

12. Training and skills

Among these composite safety areas, there are several statements that directly address nursing home safety issues and, specifically, nursing home leadership issues. In one section of the survey, staff are asked to rate how they feel about each statement regarding the facility's work culture, on a scale from strongly disagree to strongly agree (Figure 4.1).

Figure 4.1: Questions regarding nursing home–wide culture

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1. Staff in this nursing home treat each other with respect					
2. Staff support one another in this nursing home					
3. We have enough staff to handle the workload					
4. Staff follow standard procedures to care for residents					
5. Staff feel like they are part of a team					
6. Staff use shortcuts to get their work done faster					
7. Staff get the training they need in this nursing					
8. Staff have to hurry because they have too much work to do					
9. When someone gets really busy in this nursing home, other staff help out					
10. Staff are blamed when a resident is harmed					

5	# Building a Urinary Tract Infection Prevention Team

Learning Objectives

Upon completing this chapter, the reader will be able to:

- Indicate how a team-based approach is essential to a successful urinary tract infection (UTI) prevention program.
- Discuss the role that a unit's prevention team members should play.
- Explain how project planning and communication tools can improve team effectiveness and resident safety.

In the complex world of healthcare today, to instill a safety culture that actively engages frontline staff in continuous quality improvement, organizations need to support multidisciplinary teams that work together to identify safety issues, collaborate to solve problems, and develop solutions. As discussed in previous chapters, to effectively implement the evidence-based interventions that reduce infections, a team approach must be used. Effective teamwork, communication, and problem solving are core elements of implementing a program to address healthcare-associated infections.

The Comprehensive Unit-based Safety Program (CUSP) model is widely recognized as a powerful team-based framework that uses a multipronged approach to improving resident safety. As an early CUSP, the Michigan Keystone intensive care unit (ICU) project demonstrated how using physician and nurse champions to lead unit-based teams improved resident outcomes, and organizations across the state of Michigan were able to both improve unit-based safety culture and reduce rates of central line–associated bloodstream infections (CLABSI) by 66% (Pronovost et al., 2006).

Following the success of the Michigan Keystone ICU project, the Agency for Healthcare Research and Quality (AHRQ) funded the national implementation of the CUSP model through the On the CUSP: Stop CAUTI program. This program once again used the unit-based team approach to improve urinary catheter use through both technical and socioadaptive interventions, reducing catheter-associated UTI (CAUTI) rates from 2.40

to 2.05 infections per 1,000 catheter-days (Saint et al., 2016). Both this and the Michigan Keystone project demonstrated just how powerful a unit-based team can be when guided by leaders who support the use of evidence-based guidelines, dedicated resources, and an organization that supports safety culture.

Effective Healthcare Teams

A healthcare team can be defined as two or more people who work together to achieve a common goal. Team members have specific roles and functions and can be from the same discipline or different disciplines. Regardless of the specific professional training each member has, the team as a whole will develop knowledge, skills, and attitudes that will enhance their collaboration. Effective teams have members that share a common purpose and vision, work together to achieve the team's goals, and engage in regular forms of feedback with one another (AHRQ, 2015).

Effective teams have a strong leadership structure, with the leader role changing depending on the required skills for each situation (World Health Organization, 2011). If a situation arises that requires a nurse's expertise, a nurse may assume the leadership role. Leaders ensure that there are opportunities for the team to communicate frequently, identify opportunities for team-based decision-making, encourage team members to identify safety concerns, and learn from performance outcomes.

To assist healthcare teams in improving their teamwork, leadership, and situation monitoring and communication skills, AHRQ created the TeamSTEPPS program. TeamSTEPPS is an evidence-based team training program that provides a practical approach for implementing techniques, tools, and strategies to enhance teamwork. The CUSP and TeamSTEPPS models complement each other, and UTI prevention teams can use both approaches interchangeably. More information about the AHRQ TeamSTEPPS program is available at *www.ahrq.gov/teamstepps/index.html.*

Different types of healthcare teams

Many different teams exist within a healthcare system, and frequently they all play a role in achieving the organization's safety goals. Although teams may serve various functions and have varying members, some team members and functions may overlap with those of other teams. Through effective communication within and across teams, organizations can create synergy and cohesion as teams move toward the organizational goals for resident safety and UTI prevention. The AHRQ's TeamSTEPPS model includes an illustration (see Figure 5.1) that depicts the multiteam system that exists in healthcare organizations (AHRQ, 2015).

Figure 5.1: Team STEPPS 2.0 multiteam system for resident care

Abbreviations: MTS = multiteam system.
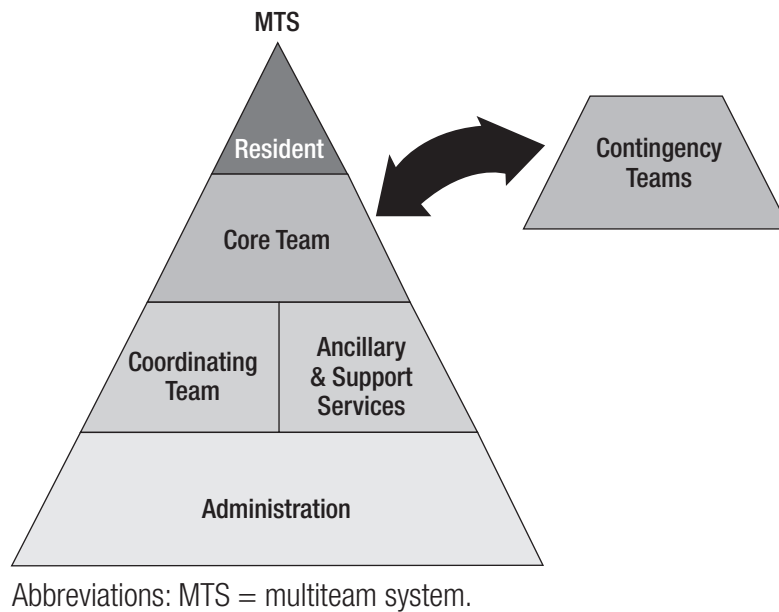
Source: AHRQ, 2015.

At the top of the model is the **resident,** and the teams who follow work with the resident and his or her family to provide the best care possible. The core team is made of the frontline staff members who work at the resident's bedside and manage his or her direct care. This team is multidisciplinary and has many functions, including the implementation of clinical interventions in a complex and fast-paced environment.

The foundation of this system is the **administration team.** This team includes the senior leaders and stakeholders who control allocation of resources, define the mission and vision, and set the expectations for the organization's safety culture.

The **coordinating team** is responsible for the day-to-day operations of the organization, can identify where resources should be allocated, helps improve throughput, and provides support to the core team when needed. The coordinating team is frequently made up of charge nurses and department leaders.

The **ancillary and support services teams** are composed of individuals who provide important support functions to the core team, including radiology, laboratory, and environmental services and materials management. Their roles are critically important to the overall function of the core team.

Finally, there is the **contingency team.** This team comes together for time-limited situations to serve a very specific function. They usually respond to emergent patient situations, such as a cardiac arrest or severe sepsis alert. The team is made up of healthcare workers who are trained to respond quickly and with limited preparation to very specific situations (AHRQ, 2015).

7 Competency-Based Training for UTI Prevention

Learning Objectives

Upon completing this chapter, the reader will be able to:

- Describe the regulatory requirements for competency validation in long-term care.
- Implement components of the Centers for Disease Control and Prevention's (CDC) Infection Control Assessment and Response (ICAR) program to determine staff competency in treating and preventing urinary tract infections (UTI).
- Summarize techniques to assess staff competency.

The Centers for Medicare & Medicaid Services (CMS) defines competency as a measurable pattern of knowledge, skills, abilities, behaviors, and other characteristics that an individual needs to perform work roles or occupational functions successfully. Nursing staff competency may be identified through the facility assessment, resident-specific assessments, and residents' plans of care.

Evidence-based practice involves supporting your actions with research and data, and basing competencies on evidence is becoming the standard in competency validation. Researchers have identified best practices for resident care based on evidence, so staff members' competence should be assessed based on their provision of evidence-based care. By instituting evidence-based practice in your competency assessment, you ensure that the methods by which you are validating your staff members' skills are established and grounded in research. Competency is an issue that affects nursing personnel in all practice settings. Increased scrutiny from CMS and other healthcare regulatory agencies, as well as the public, necessitates comprehensive evaluation of staff competency. The public demands that nurses demonstrate their competence.

Treating and preventing UTIs is considered a resident-based competency. Resident-based competencies show the appropriate rationale interventions, treatments, methods, and modalities were implemented to improve residents' quality of life and care based on their specific characteristics and needs. A staff member who demonstrates competence in treating and preventing UTIs understands the causes and complications associated with UTIs, including sepsis. He or she follows evidence-based practice guidelines with a person-centered approach that focuses on the prevention, early detection, and appropriate treatment of UTIs.

Competency Ties Into Compliance: New F-Tags

As part of phase 2 of CMS' *Conditions of Participation* (*CoP*), facilities must have completed a facility assessment and used it in the determination of the sufficient number and competencies for nursing staff by November 28, 2017. Facilities who fail to show compliance during surveys after the deadline may be subject to deficiencies including but not limited to the following.

F726 Competent Nursing Staff and F838 Facility Assessment

One of the goals for revising the *CoPs* was to ensure that skilled nursing facility (SNF) regulations aligned with modern clinical practice while allowing flexibility in the delivery of healthcare to meet the needs of diverse SNF populations. A facility-assessment and competency-based approach was taken by regulators, requiring facilities to assess their unique facility capabilities and the needs of their resident populations and then use that information to appropriately staff their facilities. Registered nurses, licensed practical nurses, and certified nursing assistant (CNA) staffing ratios must be based on resident acuity, and nursing staff must be competent to meet the needs of residents in each facility.

F726 Competent Nursing Staff

Previous requirements for nursing services located at § 483.30 in the *Code of Federal Regulations* were relocated to § 483.35 Nursing Services and updated to include a new competency requirement for determining the sufficiency of nursing staff, based on a facility assessment, which includes but is not limited to the number of residents, resident acuity, range of diagnoses, and content of individual care plans.

F838 Facility Assessment

Under § 483.70 Administration, facilities are now required to conduct, document, and annually review a facility-wide assessment to determine what resources are necessary to care for its residents competently during both day-to-day operations and emergencies. Facilities are required to address in their assessment their resident population (i.e., number of residents, overall types of care and staff competencies required by the residents, and cultural aspects), resources (i.e., equipment and overall personnel), and a facility-based and community-based risk assessment.

Staff Competencies Related to Infection Control

A successful in-service program begins with policies and procedures. Once those are firmly in place, plan the content of your in-service education on defining the infection process and ways to contain and control the spread of infection. Figure 7.1 provides a policy template.

Figure 7.1: Sample infection control policy

This sample infection control policy is meant for purely illustrative purposes. Although it provides a very important structural and procedural example, in reality, one must remember that each infection control policy needs to be tailored to the unique healthcare establishment, the clientele served, and the resources available.

Purposes

- Describe the scope and requirements of the infection control program.
- Establish a clear sequence of events in the surveillance, identification, reporting, prevention, and control of infection to ensure appropriate services and timely action.
- Ensure compliance with local, state, and federal laws and requirements.
- Ensure that documentation in clinical records, incident reports, and staff health records is accurate and demonstrates appropriate services and action.
- Establish guidelines for staff interaction with patients, families, caregivers, and coworkers that promote appropriate surveillance, prevention, and control of infection.
- Ensure adequate data collection, analysis, assessment, and interpretation of infection findings.
- [Add organization-specific purposes.]

Definitions

The infection control program is the healthcare facility's program, including policies and procedures, for surveillance, prevention, and control of infection for staff, patients, families, and caregivers. (Add organization-specific definitions.)

Policy

A. _____ (name of facility or organization) has defined and implemented an infection control program to reduce the risks of infection in residents, families, visitors, and healthcare staff.

1. _____ (name of facility or organization) bases the program on the following:
   - Significant infection control issues of the specific patient/resident populations served, including universal (standard) precautions for all patients, caregivers, and staff
   - Current scientific methods for surveillance and prevention
   - Epidemiological issues relevant to both residents and staff
   - Current standards of practice (identify)
   - Current clinical references (identify); (add others)

2. _____ (name of facility or organization) coordinates policy-making and planning among all essential components and individuals.

Table 7.3: Examples of assessment methods for different skill types with a catheter

Skill type	Skill type
Knowledge-based	Performance-based
Example of UTI prevention–related skills	**Examples of UTI prevention–related skills**
Describe the appropriate and inappropriate indications for urinary catheter insertion	Implement the nurse-driven urinary catheter removal protocol based on defined criteria for catheter use
Define the steps to setting up a sterile field as part of catheter insertion	Properly insert an IUC using sterile technique
Explain the correct way to aseptically collect a urine specimen from IUC	Demonstrate how to aseptically collect a urine specimen from IUC
Methods of assessment	**Methods of assessment**
Multiple-choice test	Direct observation of resident care
Verbal teach-back	Simulated skills lab observation

One final critical component of competency assessment is providing feedback to the learner. This can be provided during the assessment process or reviewed by the learner after the assessment. Either way, the evaluation process should allow for an opportunity for the learner to review the feedback and ask questions. This dialogue is important for the learner to understand any potential opportunities for ongoing improvement.

Using a competency checklist is a useful way to both document competency assessment and provide feedback to the learner. See Figure 7.6 for a sample urinary catheter competency checklist.

Figure 7.6: Sample urinary catheter competency checklist

Core competency	Method of assessment	Competent (Y or N)	Needs further training (Y or N)	Comments and feedback for improvement
Preparation for Foley catheter insertion				
Check medical record for order for IUC	**Direct observation**			
Confirm that residents meets criteria for IUC	**Direct observation**			
Assemble supplies	**Direct observation**			
Select appropriate catheter type and size	**Direct observation**			

Figure 10.1 provides an example of a handout to share with residents and families explaining their role in bed-side change-of-shift huddles.

Figure 10.1: Resident instructions for bedside shift report

What is nurse bedside shift report?

Nurse shift changes occur when nurses who are going off duty share information about your care with nurses coming on duty. At [insert facility name], we want you to be involved in shift changes to make sure that you get high-quality care.

Nurse bedside shift report is when the nurses going off and coming on duty meet by your bedside to talk about your care. This gives you a chance to meet the nurse taking over your care, ask questions, and share important information with your nurses. Nurse bedside shift report does not replace the conversations you have with your doctor.

You can invite a family member or friend to stay during nurse bedside shift report. We will only talk about your health with others when you say it is okay to do so.

When is nurse bedside shift report?

Nurse bedside shift report happens every day between [7 and 7:30 a.m.] and [7 and 7:30 p.m.]. It usually lasts five minutes.

What should I expect?

During nurse bedside shift report, the nurses going off and coming on duty will do the following:

- Introduce themselves to you and anyone with you. The nurse coming on duty will write his or her name and phone number on the white board in your room.
- Invite you to take part in the nurse bedside shift report. You should decide who else can take part with you.
- Talk with you about your health, including the reason you are in the facility and what is going on with your care. The nurses will look at your medical chart.
- Check the medicines you are taking. The nurses will look at your IVs, injuries, and bandages. They will also follow up on any tests that were done or lab work that was ordered.
- Ask you what could have gone better during the last shift and what you hope to do during the next shift. For example, you may want to get out of bed or just sleep. The nurse will try to help you meet this goal.
- Encourage you to ask questions and share your concerns. If needed, the nurse coming on duty may come back after the bedside shift report to spend more time discussing your concerns.
- What should I do?
- Listen. You are an important part of the healthcare team. We want to make sure you have complete and timely information about your care. Speak up. If you have questions or concerns, nurse bedside shift report is the perfect time to raise them. Ask questions if something is confusing. If the nurses use any words or share any information you don't understand, feel free to ask them to explain it.

13 | How UTIs and Catheters Impact Quality Measures

In today's post-acute environment, reimbursement, referrals, quality ratings, compliance outcomes, and consumer reported data are tied together. The interrelationships are such that no matter how a provider performs, whether it be poorly or exceptionally well, reported data based on performance will impact the facility's ratings and quality measures. For example, in many markets and regions, preferred referral networks are rapidly developing. These networks, whether formed as a result of bundled payment projects, accountable care organizations, or strategic alliances/partnerships, seek to narrow the post-acute universe to only the most efficient and high-quality options (measured by outcome data). As consumers learn how to gauge provider performance via data made available to the public, such as *US News* and *Nursing Home Compare*, they too use information to inform placement decisions.

For a provider, three distinct focal areas are related to quality and delivery of care, all of which have connections to incontinence and urinary tract infections (UTI).

1. The first focal area is **patient outcomes**. Patient/resident outcomes are defined by the following:
    –   Functional improvements

    –   Avoidance of decline

    –   Avoidance of post-admission complications (e.g., infections, falls, etc.)

    –   Discharge to prior location (if applicable)

    –   Avoidance of preventable hospital transfers

    –   Length of stay

2. The second is **cost**. Cost is measured or expressed as the Medicare dollars spent per admission, through discharge. Therefore, more efficient care is a function of the following:
    –   Length of stay

    –   Cost of therapies (drugs, treatments, etc.)

    –   Avoidance of unnecessary costs that arise due to post-admission complications

    –   Service delivery efficiency/staff costs

    –   Ancillary expenses in the form of labs and additional diagnostic spending

3. The third and final focal area is **patient/resident satisfaction and post-discharge success.** These two elements are very complementary, especially in a bundled payment, risk-share environment. The measurement areas are as follows:

    – Patient/resident satisfaction during the inpatient SNF stay

    – Patient/resident satisfaction at and post-discharge

    – Patient/resident satisfaction 30, 60, and 90 days post-discharge including with the post-discharge care if applicable (home health, outpatient)

    – Patient/resident success post-discharge expressed as avoidance of hospital transfers and/or post-discharge complications that can be tied back to the SNF stay

As mentioned previously, issues involving incontinence and UTIs can cross many of the above elements, particularly if the same are associated with negative outcomes or extreme complications such as sepsis. Rarely are residents admitted to a facility as a result of a UTI. Hospital-acquired infections are typically secondary or tertiary diagnoses that are part of the overall clinical reasons for SNF admission. Beginning October 1, 2019, however, there is a new reason to capture these secondary and tertiary diagnoses: the Patient-Driven Payment Model (PDPM). Under PDPM, treatments for hospital-acquired infections properly captured on the admission Minimum Data Set (MDS) can increase the facility's Medicare reimbursement, and potentially dramatically so if an intravenous course of antibiotics is necessary (coded and captured in the PDPM non-therapy ancillary category).

UTI Impact on Quality Measures

When a resident develops a UTI, the impact on a facility's quality measures (determined by the MDS and reported on the SNF Five Star) may be more than just the acquisition of the infection. For example, the direct correlation exists with the long-stay measures (development of a UTI) but looking closer, it is possible that there are other measures that tie in.

Long-stay measures

The following contains a list of long-stay measures current at the time of this book's publication:

- Percent of Residents Experiencing One or More Falls with Major Injury

- Percent of Residents who Self-Report Moderate to Severe Pain

- Percent of High-Risk Residents with Pressure Ulcers

- Percent of Residents Assessed and Appropriately Given the Seasonal Influenza Vaccine

- Percent of Residents Assessed and Appropriately Given the Pneumococcal Vaccine

- Percent of Residents with a Urinary Tract Infection

- Percent of Low-Risk Residents Who Lose Control of Their Bowels or Bladder

- Percent of Residents Who Have/Had a Catheter Inserted and Left in Their Bladder

Preventing Urinary Tract Infections
in Long-Term Care

Jennifer Maina, BSN, RN, DON
Diane Hislop, RN, BSN

Failure to prevent UTIs in a SNF not only impacts quality measures related to the Value-Based Purchasing Program as well as referrals made by Medicare Advantage plans, but under PDPM, expensive UTI treatments such as antibiotics or IV therapy will not be separately reimburseable. **Preventing Urinary Tract Infections in Long-Term Care**, provides a one-stop-shop for addressing the unique challenges of preventing UTIs in today's long-term healthcare environment.

Each chapter in this field guide combines the expertise of two seasoned healthcare professionals to provide evidence-based knowledge and first-hand experience that will help providers identify cause and effect to develop competency-based training and implement an effective UTI prevention program.

About Simplify Compliance

Simplify Compliance, with its three pillars of thought leadership, expertise, and application, provides critical insight, analysis, tools, and training to healthcare organizations nationwide. It empowers healthcare professionals with solution-focused information and intelligence to help their facilities and systems achieve compliance, financial performance, leadership, and organizational excellence. In addition, Simplify Compliance nurtures and provides access to productive C-suite relationships and engaged professional networks, deploys subject matter expertise deep into key functional areas, and enhances the utility of proprietary decision-support knowledge.

800-650-6787

www.hcmarketplace.com

Simplify Compliance
Learn, Comply, Succeed

100 Winners Circle, Suite 300
Brentwood, TN 37027