

# Patient Safety Goals

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**Has your ultrasound department established  
infection control guidelines?**

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HAI account for **1.7million infections**  
and nearly **100,000 associated deaths**  
in U.S. hospitals according to the Centers for Disease Control<sup>1</sup>

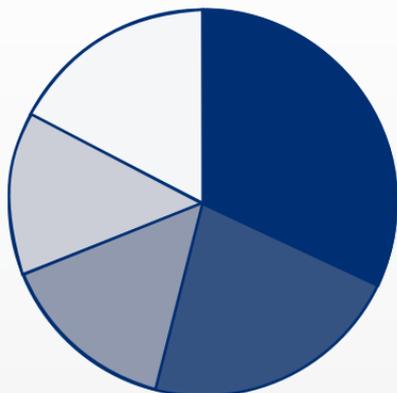
## Infection Control in the Ultrasound Department

When establishing annual infection prevention plans and goals for patient safety, there are expectations that apply to all healthcare settings.

The CDC's *Guide to Infection Prevention for Outpatient Settings* states that “all healthcare settings, regardless of the level of care provided, must make infection prevention a priority and must be equipped to observe Standard Precautions.” The minimum infection prevention practices that apply to all patient care include hand hygiene, personal protective equipment, safe injection practices, safe handling of potentially contaminated equipment or surfaces in the patient care environment and respiratory hygiene/cough etiquette. In addition, infection prevention programs must extend beyond Occupational Safety and Health Administration bloodborne pathogen training to address patient protection.<sup>2</sup>

Reusable medical devices, such as transducers, pose a threat of indirect contact transmission of pathogenic microorganisms to patients if proper disinfection or sterilization is not achieved.<sup>3</sup>

## HAI Type and Prevalence<sup>4</sup>



- Urinary tract infections 32%
- Surgical site infections 22%
- Pneumonia 15%
- Bloodstream infections 14%
- Other

Healthcare-associated infections (HAIs) cause longer hospital stays, higher morbidity risk, and more intensive – and therefore more expensive – care. In 2009 alone, HAIs were responsible for \$40 billion in extra costs at U.S. hospitals.<sup>5</sup>

Although central line-associated bloodstream infections, catheter-associated urinary tract infections and ventilator-associated pneumonia account for about two-thirds of all HAIs, more common infections such as norovirus are also of serious concern in medical facilities.<sup>6</sup>

### Preventing infection isn't just the right thing to do. It's the cost-effective thing to do.

Medicare no longer reimburses hospitals for HAI treatment expenses, and Medicaid is withholding matching funds from medical facilities that don't meet the Medicare standards for controlling HAIs. Private insurers also are tying payments to HAI rates.

By the fall of 2014, a hospital with \$50 million in annual Medicare inpatient revenue could have as much as \$6.6 million of Medicare reimbursement at risk.<sup>5</sup>

# 2014 Hospital National Patient Safety Goals

“Evidence indicates that, with focused efforts, these once formidable infections can be greatly reduced in number, leading to a new normal for healthcare-associated infections as rare, unacceptable events.”

-Thomas R. Frieden, MD, MPH<sup>7</sup>

“The Joint Commission’s National Patient Safety Goals (NPSG) include:

- Improve the accuracy of patient identification.
- Improve the effectiveness of communication among caregivers.
- Improve the safety of using medications.
- Reduce the harm associated with clinical alarm systems.
- Reduce the risk of health care-associated infections.
  - Use hand hygiene guidelines from the Centers for Disease Control and Prevention (CDC) or the World Health Organization (WHO).
  - Use proven guidelines to prevent infections that are difficult to treat.
  - Use proven guidelines to prevent infection of the blood from central lines.
  - Use proven guidelines to prevent infection after surgery.
  - Use proven guidelines to prevent infections of the urinary tract that are caused by catheters.
- The hospital identifies safety risks inherent in its patient population.”<sup>8</sup>

## “Use proven guidelines to prevent infections that are difficult to treat”<sup>8</sup>

“Implement evidence-based practices to prevent health care-associated infections due to multidrug-resistant organisms in acute care hospitals. This requirement applies to, but is not limited to, epidemiologically important organisms such as methicillin-resistant staphylococcus aureus (MRSA), clostridium difficile (CDI), vancomycin-resistant enterococci (VRE) and multidrug-resistant gram-negative bacteria.

Patients continue to acquire healthcare-associated infections at an alarming rate. Risks and patient populations, however, differ between hospitals. Therefore, prevention and control strategies must be tailored to the specific needs of each hospital based on its risk assessment. The elements of performance for this requirement are designed to help reduce or prevent health care-associated infections from epidemiologically important multidrug resistant organisms (MDROs).

Hand hygiene, contact precautions, as well as cleaning and disinfecting patient care equipment and the patient's environment are essential strategies for preventing the spread of healthcare-associated infections.”<sup>8</sup>

Two of the most common HAI are Clostridium difficile (C. diff) and methicillin-resistant staphylococcus aureus (MRSA). “C. diff infection is linked to 14,000 American deaths each year, and most cases are connected with receiving medical care.” In addition, a stronger germ strain contributed to a 400 percent increase in C. diff infections between 2000 and 2007.<sup>9</sup>

## **“Use proven guidelines to prevent infection of the blood from central lines”<sup>8</sup>**

“Implement evidence-based practices to prevent central line-associated bloodstream infections.

These practices include use of a standardized supply cart or kit that contains all necessary components for the insertion of central venous catheters and the use of a standardized protocol for sterile barrier precautions during central venous catheter insertion.”<sup>8</sup>

“Patient safety practices were defined as those that reduce the risk of adverse events related to exposure to medical care across a range of diagnoses or conditions.” Best practices include “use of maximum sterile barriers while placing central intravenous catheters to prevent infections” and “use of real-time ultrasound guidance during central line insertion to prevent complications.”<sup>10</sup>



# Guidelines for Disinfection and Sterilization in Healthcare Facilities<sup>11</sup>

Spaulding Classification	Critical	Semi-critical	Non-critical
Device Use	Device enters sterile tissue or vascular system	Device contacts mucous membranes or non-intact skin	Device contacts intact skin, does not penetrate
Disinfection or Sterilization Level	Sterilization	High-level disinfection using chemical disinfectants	Low- or mid-level disinfection
Common Disinfecting or Sterilizing Processes	<ul style="list-style-type: none"> <li>• Autoclave when possible</li> <li>• Cold-soak sterilants</li> <li>• Steris</li> <li>• Sterrad®</li> </ul>	<ul style="list-style-type: none"> <li>• Ortho-Phthalaldehyde</li> <li>• Glutaraldehyde</li> <li>• Hydrogen Peroxide</li> <li>• Peracetic Acid</li> </ul>	<ul style="list-style-type: none"> <li>• Quaternary ammonium</li> <li>• Germicidal wipes</li> </ul>
Probe Examples	Includes probes contacting the: <ul style="list-style-type: none"> <li>• Vascular system</li> <li>• Puncture procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Transvaginal</li> <li>• Transrectal</li> <li>• TEE</li> </ul>	<ul style="list-style-type: none"> <li>• Surface exams without puncture</li> </ul>
Recommended Products	<ul style="list-style-type: none"> <li>• Sterile probe cover</li> <li>• Sterile patient drape</li> <li>• Sterile gel</li> <li>• Sterile needle guide</li> <li>• Sterile system drape</li> </ul>	<ul style="list-style-type: none"> <li>• Sterile probe cover*</li> <li>• Sterile endocavity guide</li> <li>• Sterile gel packet*</li> <li>• Temperature-monitored high-level disinfectant</li> <li>• Fume-free soaking system</li> </ul>	<ul style="list-style-type: none"> <li>• Disinfection wipes</li> <li>• Non-sterile probe covers</li> <li>• Single-use gel packet</li> </ul>

\* Assumes puncture procedure is being performed.

“It is critical that health care workers follow standardized practices to minimize infection risks related to medical equipment, devices, and supplies.”<sup>12</sup>

- Joint Commission

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