



# Road Map to a Comprehensive Healthcare-Associated Infection (HAI) Prevention Program



The HAI Road Map provides evidence-based recommendations/standards for Minnesota hospitals in the development of a comprehensive Healthcare-Associated Infection Prevention Program which includes catheter-associated urinary tract infections (CAUTI), central line associated bloodstream infections (CLABSI), ventilator-associated pneumonia (VAP), surgical site infection (SSI) and clostridium difficile infection (CDI). The Road Map and accompanying tool kit were developed as part of the Minnesota HAI Prevention Collaborative which was made possible with funding through the Centers for Disease Control and Prevention (CDC) Epidemiology and Laboratory Capacity Program (ELC) American Reinvestment and Recovery Act (ARRA) and CMS Partner for Patients (P4P) Initiative.

We would like to thank the following individuals for sharing their time, expertise and stories which made the road map and tool kit possible.

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## Definitions

**Health Care Personnel (HCP):** All persons, paid and unpaid, working in an acute care facility who have potential for exposure to patients and/or infectious materials, including body substances, contaminated medical supplies and equipment, contaminated environmental surfaces, or contaminated air. This includes persons not directly involved in patient care (e.g. leadership, clerical, housekeeping, and volunteers) but potentially exposed to infectious agents that can be transmitted to and from HCP and patients. This term includes, but is not limited to, physicians, physician assistants, nurse practitioners, nurses, nursing assistants, therapists, technicians, emergency medical service personnel, dental personnel, pharmacists, laboratory personnel, autopsy personnel, students and trainees, and contractual personnel.

**Prescriber:** Health care personnel who are licensed to prescribe medications, including antimicrobial agents.

# Road Map to a Comprehensive Healthcare Associated Infection (HAI) Prevention Program

	Safe from HAI	Specific Actions(s)	Audit Questions	Yes	No
<b>S</b>	<b>Safety Teams and Organizational Structure</b>	1) Secure endorsements and resources for HAI Prevention Program	1a) The facility's leadership endorses implementation and sustainment of the HAI road map practices. 1b) Senior leadership has clearly communicated overall goals for the program. 1c) Senior leadership regularly reviews progress toward goals and supports adding resources as appropriate. 1d) The facility has a designated senior leadership sponsor for the HAI prevention.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		2) Promote HAI prevention representation/champions throughout the facility	2a) The facility has an interdisciplinary team involved in implementing the HAI prevention program with representation from across the facility.  <b>HAI Prevention champions/team members/liaisons with clear roles and expectations have been designated from:</b> 2b) Physician/provider knowledgeable in infectious diseases 2c) Infection Prevention 2d) Direct Care 2e) Safety/Quality 2f) Pharmacy 2g) Laboratory 2h) Environmental Services 2i) Operating room <span style="float: right;">N/A: <input type="checkbox"/></span> 2j) Other physicians as appropriate for specific HAI focus areas (e.g. surgery, pulmonary medicine, hospitalist)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		3) Identify gaps and develop action plans	<b>The interdisciplinary team:</b> 3a) Reviews the HAI prevention program throughout the year and updates the plan as needed. 3b) Reviews data results at least quarterly and identifies strengths and opportunities. 3c) Develops a plan to prioritize and address improvement opportunities. 3d) Commissions subgroups as needed to address priority issues requiring subject matter experts (e.g., pharmacy, respiratory, environmental services)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

<b>A</b>	<b>Access to Information</b>	1) Track progress on process and outcome measures	<p><b>Data Collection</b>  <b>A process is in place to collect HAI prevention bundle/process data for the following as applicable:</b></p> <p>1a) Hand hygiene compliance <input type="checkbox"/></p> <p>1b) VAP <span style="float: right;">N/A: <input type="checkbox"/></span> <input type="checkbox"/></p> <p>1c) SSI <span style="float: right;">N/A: <input type="checkbox"/></span> <input type="checkbox"/></p> <p>1d) CAUTI <input type="checkbox"/></p> <p>1e) CDI <input type="checkbox"/></p> <p>1f) CLABSI <input type="checkbox"/></p> <p>1g) MDRO <input type="checkbox"/></p> <p>1h) Environmental cleaning – General <input type="checkbox"/></p> <p>1i) Environmental cleaning – OR <span style="float: right;">N/A: <input type="checkbox"/></span> <input type="checkbox"/></p> <p><b>A process is in place to collect HAI outcome measures using NHSN definitions for the following as applicable:</b></p> <p>1j) CAUTI rate <input type="checkbox"/></p> <p>1k) CLABSI rate <input type="checkbox"/></p> <p>1l) VAP rate <span style="float: right;">N/A: <input type="checkbox"/></span> <input type="checkbox"/></p> <p>1m) SSI rate <span style="float: right;">N/A: <input type="checkbox"/></span> <input type="checkbox"/></p> <p>1n) CDI rate <input type="checkbox"/></p> <p>1o) MDRO rates <input type="checkbox"/></p> <p>1p) Outcome data is tracked on a regular basis for other surgical areas as identified as high-risk for infections by the hospital. <input type="checkbox"/></p> <p>1q) Standard criteria exist for conducting observational and chart audits. <input type="checkbox"/></p> <p>1r) A process is in place to conduct inter-rater reliability of both the process and outcome data through chart audits. <input type="checkbox"/></p> <p>1s) A process is in place to conduct inter-rater reliability of both the process and outcome data through observational audits. <input type="checkbox"/></p> <p>1t) The facility's documentation system (electronic or paper) is designed to capture sufficient detail about HAI events that do occur to allow for adequate event analysis. <input type="checkbox"/></p>	<input type="checkbox"/>	<input type="checkbox"/>
		2) Review and analyze data for improvement opportunities	<p><b>Data Analysis</b></p> <p>2a) A process is in place to routinely review and analyze data for process improvement opportunities/defects. <input type="checkbox"/></p> <p>2b) A process is in place to track progress against established targets e.g., run charts, control charts, dashboards, scorecards. <input type="checkbox"/></p> <p>2c) A process is in place to prioritize and act upon identified issues. <input type="checkbox"/></p>	<input type="checkbox"/>	<input type="checkbox"/>
		3) Data is shared on a regular basis to promote system-wide learning and transparency	<p><b>HAI data and learnings are shared on a regular basis:</b></p> <p>3a) Within units <input type="checkbox"/></p> <p>3b) Across units <input type="checkbox"/></p> <p>3c) Across departments <input type="checkbox"/></p> <p>3d) With leadership <input type="checkbox"/></p> <p>3e) With medical staff <input type="checkbox"/></p> <p>3f) With the board(s) <input type="checkbox"/></p> <p>3g) HAI events are routinely shared through stories as well as through data e.g., include in daily briefings, unit staff meetings, safety committees newsletters. <input type="checkbox"/></p>	<input type="checkbox"/>	<input type="checkbox"/>
<b>F</b>	<b>Facility Expectations</b>	1) Leadership establishes and communicates clear expectations	<p>1a) Direct patient care staff, e.g., nursing, physicians, therapies is informed of expectations and performance standards regarding their role in HAI prevention. <input type="checkbox"/></p> <p>1b) Support staff, e.g., environmental services, supply chain, facilities/operations, is informed of expectations and performance standards regarding their role in HAI prevention. <input type="checkbox"/></p> <p>1c) The facility has a well defined process to support a culture that encourages HCP, prescribers to speak up and "stop the line" to inform each other of non-compliance with HAI prevention expectations. <input type="checkbox"/></p> <p>1d) The "stop the line" process clearly outlines: <input type="checkbox"/></p> <ul style="list-style-type: none"> <li>• When to stop the line</li> <li>• How to stop the line (verbal/non-verbal cue)</li> <li>• The chain of command to follow if not supported in stopping the line</li> <li>• Clear communication to staff from managers and leadership that staff will be supported if they speak up</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>

		2) Provide education for Health Care Personnel (HCP) and Prescribers	<p><b>Expectations and supporting HAI prevention education, including specific roles in preventing transmission of infections for identified patients, have been incorporated into new employee orientation for:</b></p> <p>2a) HCP and prescribers</p> <p><b>Expectations and supporting HAI prevention education have been incorporated into employee orientation for personnel employed by outside agencies and contracted personnel.</b></p> <p>2b) Ongoing HAI prevention education is provided for HCP, prescribers annually.</p> <p>2c) Expectations and supporting HAI prevention education have been incorporated into new physician orientation.</p>	<input type="checkbox"/>	<input type="checkbox"/>
		3) Establish a structured communication process	<p>3a) The facility has structured communication tools, e.g., Situation, Background, Assessment, Recommendation (SBAR), isolation signage for communication at all levels of the organization.</p> <p><b>A structured hand-off process is in place throughout the organization with specific elements outlined that must be included for hand-offs:</b></p> <p>3b) During shift change</p> <p>3c) Between departments/units</p> <p>3d) To other facilities</p>	<input type="checkbox"/>	<input type="checkbox"/>
		4) Disclose unanticipated events	<p><b>A process is in place to promptly inform patients/families when an unanticipated event occurs that has potential to contribute to an HAI to include :</b></p> <p>4a) Direction on who should discuss the unanticipated, e.g. inappropriate reprocessing of endoscopes, unsafe injection practices event with the patient/family and how that discussion should occur.</p> <p>4b) Individuals designated to provide disclosure to patients receiving training on effective disclosure strategies.</p> <p>4c) A process for disclosing to and updating, patient/family as the event is reviewed and analyzed.</p> <p>4d) A designated person is available to provide support and provide just- in-time training to staff members who are about to disclose an unanticipated events to a patient/family.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<b>E</b>	<b>Engagement of Patient and Families</b>	1) Educate and empower patient/families	<p>1a) A process is in place to assess and address any barriers to patient/ family ability to understand their role in HAI prevention (e.g., cultural, language, hearing impairment and health literacy).</p> <p>1b) Patients/families are educated on their role in preventing infections and prevention measures they can expect to see from HCP, prescribers caring for them in the hospital e.g., hand washing.</p> <p>1c) A process is in place to assess patient /families' level of understanding of the education provided e.g., teach back.</p> <p>1d) The facility has a process in place to encourage patients and families to speak up if they have concerns about HCP, prescribers practices or other issues that may increase infection risk.</p> <p>1e) A process is in place to report back to patients/families that have shared a concern.</p>	<input type="checkbox"/>	<input type="checkbox"/>

# Building Blocks for HAI Prevention

## Hand Hygiene

	Safe from HAI	Specific Actions(s)	Audit Questions	Yes	No
	<b>Hand Hygiene Practice</b>	1) Reinforce and sustain hand washing practices	<p><b>The facility has instituted an infrastructure, based on CDC or WHO guidelines, to reinforce and sustain hand hygiene practices using the following strategies, at minimum:</b></p> <p>1a) Set clear expectations for hand hygiene practices to all health care personnel (HCP) and prescribers.</p> <p>1b) Provide visible reminders of hand hygiene expectations, e.g., computer screen savers, posters.</p> <p>1c) Provide on-going coaching and just-in-time training to reinforce effective hand hygiene expectations.</p> <p>1d) Provide real time performance feedback to HCP, prescribers.</p> <p>1e) Tailor education in proper hand hygiene for specific disciplines.</p> <p>1f) Make soap/waterless hand sanitizer readily available to HCP, prescribers, patients and visitors.</p> <p>1g) Structure the hand washing environment to support hand hygiene, e.g., dedicated space to place items while washing hands.</p> <p>1h) Limit the need to frequently enter or exit patient room, e.g., bedside computer, portable phone, adequate supplies in room.</p> <p>1i) Identify new technologies to make it easy for HCP, prescribers to remember to wash hands, e.g., radio frequency identification, automatic reminders, warning systems.</p> <p>1j) The “Just Culture” model is applied when HCP, prescribers are observed not following facility expectations for appropriate hand hygiene.</p> <p>1k) Celebrate improvements in hand hygiene practices.</p>	<input type="checkbox"/>	<input type="checkbox"/>
		2) Provide staff hand hygiene education	2a) A process is in place to provide hand hygiene education for all HCP, prescribers at orientation and on an on-going basis.	<input type="checkbox"/>	<input type="checkbox"/>
		3) Provide ongoing training and education to patients, families, and visitors	3a) A process is in place to provide on-going education to patients, families and visitors on the importance of proper hand hygiene, e.g., signage, fact sheets, easily accessible hand sanitizer dispensers for patients/families.	<input type="checkbox"/>	<input type="checkbox"/>
		4) Set clear expectations for hand hygiene for all health care workers	<p><b>The facility has clear expectations that all HCP, prescribers wash hands with soap and water or an alcohol-based hand rub:</b></p> <p>4a) If hands are not visibly soiled.</p> <p>4b) Before having direct contact with patients.</p> <p>4c) After removing gloves.</p> <p><b>The facility has clear expectations that all s HCP, prescribers wash hands with soap and water:</b></p> <p>4d) When hands are visibly dirty or contaminated.</p> <p>4e) Before eating or handling food.</p> <p>4f) After using a restroom.</p> <p>4g) The facility’s hand hygiene and surgical hand scrub products are FDA- approved.</p> <p>4h) The facility follows AORN, CDC, and/or WHO guidelines as well as manufacturer’s directions when using hand hygiene and surgical hand scrub products.</p> <p><b>In any setting where sterile technique is used, the facility has clear expectations for hand hygiene practices as outlined by AORN guidelines including:</b></p> <p>4i) Fingernails are short, clean, and without chipped nail polish.</p> <p>4j) Artificial nails (any enhancement or resin bonding product including gel, are not worn.</p> <p>4k) Rings, watches, and bracelets are removed prior to hand hygiene.</p> <p>4l) Cuticles, hands and exposed skin are free of cuts, abrasions, open lesions, and new tattoos.</p> <p>4m) A surgical hand scrub is performed by health care personnel before donning sterile gloves for surgical or other invasive procedures.</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

		5) Conduct hand hygiene audits	<p>5a) The facility has a method in place to audit compliance with hand hygiene in all departments, e.g., no. of hand hygiene episodes/no. of hand hygiene opportunities, appropriate hand washing technique, when outbreaks of infection occur, artificial nail wearing practices, monitoring the volume of alcohol-based hand rub (or detergent used for hand washing or hand antisepsis) used per 1,000 patient-days.</p> <p>5b) The facility uses trained observers to monitor appropriateness of hand hygiene.</p> <p>5c) The facility has a process to identify hand hygiene system issues and target solutions, e.g., supplies not readily available, faulty/empty hand sanitizer dispenser.</p> <p><b>The facility provides feedback on hand hygiene adherence:</b></p> <p>5d) Within units <input type="checkbox"/> <input type="checkbox"/></p> <p>5e) Across units <input type="checkbox"/> <input type="checkbox"/></p> <p>5f) Across departments <input type="checkbox"/> <input type="checkbox"/></p> <p>5g) With leadership <input type="checkbox"/> <input type="checkbox"/></p> <p>5h) With medical staff <input type="checkbox"/> <input type="checkbox"/></p> <p>5i) With the board(s) <input type="checkbox"/> <input type="checkbox"/></p>	<input type="checkbox"/>	<input type="checkbox"/>
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## Transmission

<b>Standard and Transmission-based Isolation Precautions</b>	1) Establish Standard Precaution practices	<p>1a) The facility has a process in place to apply standard infection prevention practices for all patients, regardless of suspected or confirmed infection status which includes, at a minimum:</p> <ul style="list-style-type: none"> <li>• Hand hygiene</li> <li>• Use of gloves</li> <li>• Gown</li> <li>• Mask</li> <li>• Eye protection or face shield, depending on the anticipated exposure</li> <li>• Safe injection practices</li> <li>• Respiratory Hygiene/Cough Etiquette</li> <li>• Use of masks for insertion of catheters or injection of material into spinal or epidural spaces via lumbar puncture procedures</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
	2) Establish Transmission-based Precaution practices	<p>2a) The facility's infection prevention program addresses the use of transmission-based isolation precautions based on current public health and other evidence-based guidelines which addresses, at a minimum:</p> <ul style="list-style-type: none"> <li>• Contact Precautions</li> <li>• Droplet Precautions</li> <li>• Airborne Precautions</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
	3) Appropriately room patients to reduce exposure	<p><b>The facility's process for patient placement/room selection includes:</b></p> <p>3a) Private/single-patient room preferred for patients requiring isolation precautions when available.</p> <p>3b) If private room availability is limited, cohort patients according to CDC guideline.</p> <p>3c) Patients with discordant status of infection or colonization with other epidemiologically important organisms (e.g., VRE, MRSA) are not cohorted.</p> <p>3d) Airborne isolation infection room (AIIR) according to CDC guideline for patients with infectious agents requiring airborne precautions or a process to transfer patients requiring airborne isolation to another facility.</p>	<input type="checkbox"/>	<input type="checkbox"/>
	4) Communicate precaution status	<p>4a) The facility has a process in place to immediately post Isolation Precautions signage in visible location outside suspected and positive patient rooms.</p> <p>4b) The facility has a process in place to communicate isolation precaution status to receiving departments/facilities when isolation patients are transferred.</p>	<input type="checkbox"/>	<input type="checkbox"/>

		<p>5) Ensure effective use of personal protective equipment (PPE)</p>	<p>5a) Adequate supplies for compliance with Isolation Precautions (e.g., gowns, gloves) are readily accessible outside of the patient room.</p> <p>5b) HCP, prescribers wear PPE according to Standard Precautions and Transmission-based precautions.</p> <p>5c) Gloves are changed immediately if visibly soiled and after touching or handling contaminated surfaces/materials.</p> <p>5d) HCP, prescribers change gown and gloves and perform hand hygiene when moving between cohorted patients.</p> <p>5e) Respiratory protection is worn according to CDC guidelines for patients with infectious agents requiring airborne precautions and for performance of aerosol-generating procedures.</p> <p>5f) PPE is removed before exiting the patient room (exception: N95 respirator is removed after exiting patient room).</p> <p>5g) The CDC Guideline instructions on donning and removal of PPE are followed.</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		<p>6) Follow appropriate precaution for patient transport</p>	<p>6a) The facility provides clear expectations that patient transport or movement for patients with infections, outside of the room is avoided unless medically necessary.</p> <p>6b) When transport is necessary, a process is in place to ensure that infected or colonized areas of the patient's body are contained and covered.</p>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
		<p>7) Establish effective practices for environmental cleaning and disinfection</p>	<p>7a) The facility has processes in place for routine and targeted cleaning and disinfection of environmental surfaces as indicated by level of patient contact and degree of soiling which includes emphasis on high-touch surfaces in the patient care environment.</p> <p>7b) The facility uses EPA-registered disinfectant products that have microbicidal activity against the pathogens most likely to contaminate the patient care environment.</p> <p>7c) The facility has a process in place to use disinfectant products in accordance with manufacturer instructions for use and contact time.</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		<p>8) Establish effective practices for linen and waste management</p>	<p>8a) The facility has a process in place to follow Standard Precautions for the handling of soiled linen and waste materials.</p> <p>8b) The facility has a process in place to dispose of infectious/biohazard waste according to the OSHA Bloodborne Pathogen Standard and state/local regulations.</p>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
		<p>9) Establish effective practices for patient care supply/equipment management</p>	<p>9a) Patient care equipment and instruments are handled according to Standard Precautions.</p> <p>9b) Single-use or dedicated patient care equipment is utilized when possible (e.g. blood pressure cuff).</p> <p>9c) Reusable patient-care equipment is cleaned and disinfected between patients.</p> <p>9d) The amount of supplies stocked in the patient room is limited to what will be needed for care.</p> <p>9e) Responsibility is assigned for regularly checking and restocking supplies.</p> <p>9f) A defined process is in place for handling supplies remaining in the patient room after discharge.</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		<p>10) Communicate clear expectations for patient and visitors</p>	<p>10a) The facility has a process in place to educate patients/families on recommended hand hygiene, respiratory hygiene and transmission-based precautions as well as infectious agent specific information as appropriate.</p> <p>10b) The facility has a process to clearly communicate and enforce requirements for visitors to enter isolation rooms (e.g., hand hygiene, PPE requirement).</p> <p>10c) The facility has established a process to clearly communicate and enforce restrictions for visitors based on potential for their exposure as well as if they have signs/symptoms of infection (e.g., fever, acute respiratory symptoms, gastrointestinal symptoms).</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>



	11) Establish parameters for discontinuation of precautions	11a) The facility has a process in place to discontinue precautions based on CDC recommendations, such as: <ul style="list-style-type: none"> <li>• after signs and symptoms of infection have resolved and patient is no longer contagious</li> <li>• according to pathogen-specific recommendations</li> <li>• if infectious agents that require isolation precautions have been ruled out</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
	Practice effective Hand Hygiene practices	Hand Hygiene (see specific practices under “ Hand Hygiene” section of the roadmap) <ul style="list-style-type: none"> <li>• Follow hand hygiene practices according to CDC or WHO guidelines</li> </ul>		

## Antimicrobial Stewardship Program (ASP)

<b>Antimicrobial Stewardship Program (ASP)</b>	1) An antimicrobial stewardship program (ASP) is in place	1a) A physician who is knowledgeable about antimicrobials and is respected by peers has been appointed to serve as a champion for the ASP.	<input type="checkbox"/>	<input type="checkbox"/>
		1b) The facility has established an ASP Team that includes, at a minimum, the physician champion and a pharmacy champion.	<input type="checkbox"/>	<input type="checkbox"/>
		1c) Senior leadership supports the ASP by providing compensation and/or time for team members to work on the ASP.	<input type="checkbox"/>	<input type="checkbox"/>
		1d) The ASP Team is familiar with the key published ASP literature.	<input type="checkbox"/>	<input type="checkbox"/>
		1e) The pharmacy provides antimicrobial use data to the ASP team.	<input type="checkbox"/>	<input type="checkbox"/>
		1f) The ASP Team (or pharmacy or Pharmacy and Therapeutics Committee) has reviewed and updated the formulary to promote optimal, non-duplicative availability of antimicrobials.	<input type="checkbox"/>	<input type="checkbox"/>
		1g) The facility’s laboratory produces a facility-specific antibiogram or has access to a region-specific antibiogram that is updated annually.	<input type="checkbox"/>	<input type="checkbox"/>
		1h) A baseline assessment of resources and barriers for an ASP has been conducted.	<input type="checkbox"/>	<input type="checkbox"/>
		1i) The ASP Team utilizes antimicrobial use data and microbiology data (e.g., antibiogram) to prioritize ASP strategies.	<input type="checkbox"/>	<input type="checkbox"/>

## Injection Practices

<b>Injection Practices</b>	1) Implement safe injection practices	<b>The facility has established policies/protocols with clear expectations that the practices below are followed:</b>		
		1a) Aseptic technique is used to avoid contamination of sterile injection equipment.	<input type="checkbox"/>	<input type="checkbox"/>
		1b) Used syringes, needles and cannulas are discarded at the point of use in an approved sharps container immediately after use.	<input type="checkbox"/>	<input type="checkbox"/>
		1c) Single-dose vials are used whenever possible and discarded immediately after use on a single patient.	<input type="checkbox"/>	<input type="checkbox"/>
		1d) Medications are not administered from a syringe to multiple patients, even if the needle or cannula on the syringe is changed.	<input type="checkbox"/>	<input type="checkbox"/>
		1e) Needles, cannulae, and syringes are sterile, single-use items and should not be reused for another patient or to access a medication or solution that might be used for a subsequent patient.	<input type="checkbox"/>	<input type="checkbox"/>
		1f) A syringe or needle/cannula is considered contaminated once it has been used to enter or connect to a patient’s intravenous infusion bag or administration set.	<input type="checkbox"/>	<input type="checkbox"/>
		1g) Medication is not prepared in one syringe to transfer to another syringe.	<input type="checkbox"/>	<input type="checkbox"/>
		1h) A sterile syringe and needle/cannula is always used when entering a vial —never one that has been used on another patient.	<input type="checkbox"/>	<input type="checkbox"/>
		1i) Vials are discarded 28 days after opening, unless specified by the manufacturer, or sooner if sterility is questioned or compromised.	<input type="checkbox"/>	<input type="checkbox"/>
		1j) Multi-dose vials are not kept in the immediate patient treatment area and are stored in accordance with the manufacturer’s recommendations.	<input type="checkbox"/>	<input type="checkbox"/>
		1k) A needle, cannula, or spike device is never left inserted into a medication vial rubber stopper because it leaves the vial vulnerable to contamination.	<input type="checkbox"/>	<input type="checkbox"/>
		1l) Fluid infusion and administration sets (i.e., intravenous bags, tubing, and connectors) are used for one patient only and discarded appropriately after use.	<input type="checkbox"/>	<input type="checkbox"/>
		1m) Bags or bottles of intravenous solution are not used as a common source of supply for multiple patients.	<input type="checkbox"/>	<input type="checkbox"/>
		1n) Once IV solution bags have been spiked; administration must begin within 1 hour.	<input type="checkbox"/>	<input type="checkbox"/>
		1o) All opened vials, IV solutions and prepared or opened syringes that were used in an emergency situation are discarded.	<input type="checkbox"/>	<input type="checkbox"/>

# System-wide Environmental Cleaning

**CORE** Prevention Strategies = Strategies that should always be in place.

**ENHANCED** Prevention Strategies = Strategies to be considered in addition to core strategies when:

- a) There is evidence that the core strategies are being implemented and adhered to consistently.
- b) There is evidence of on-going transmission as appropriate.
- c) There is evidence that rates are not decreasing.
- d) There is evidence of change in pathogenesis as appropriate (e.g. increased morbidity/mortality among patients).

	Safe from HAI	Specific Actions(s)	Audit Questions	Yes	No
	<b>System-wide environmental cleaning and disinfection practices</b>	CORE PREVENTION 1) Patient rooms and patient care equipment are appropriately cleaned and disinfected	<b>The facility has a standardized environmental cleaning and disinfection protocol that includes:</b> 1a) Hospital grade EPA-registered germicide is used for routine disinfection and in accordance with the manufacturers' instructions. 1b) Manufacturer product recommendations are followed for use, including contact time and dilution. 1c) There is a process in place to assess current practices in cleaning/ disinfection before changing products or processes.	<input type="checkbox"/>	<input type="checkbox"/>
		2) Provide cleaning/ disinfection education for nursing/support staff	2a) The facility has a process in place to provide cleaning and disinfection education for nursing and support staff.	<input type="checkbox"/>	<input type="checkbox"/>
		3) Provide education and competency testing for environmental services trainers	<b>The facility has a process in place to require person(s) responsible for environmental services training to:</b> 3a) Receive education on current environmental cleaning/disinfection practices at least annually. 3b) Complete a competency evaluation of cleaning/disinfection practices at least annually.	<input type="checkbox"/>	<input type="checkbox"/>
		4) Provide cleaning/ disinfection training and evaluation for environmental services staff	4a) Training materials are provided in HCP, prescribers native language(or ensure communication of the information through other means). 4b) Environmental services staff training includes return demonstration. 4c) A systematic process is in place to periodically evaluate terminally cleaned rooms. 4d) Processes are in place to address issues identified through evaluations.	<input type="checkbox"/>	<input type="checkbox"/>
		5) Provide competency testing to environmental services staff	5a) Environmental services staff training includes written or verbal competency testing which includes demonstrated understanding of the rationale for cleaning/disinfection components. 5b) Expectations are in place for environmental services staff to pass a competency test prior to assignment to patient care areas. 5c) Expectations are in place for environmental services staff that do not pass the competency test to receive additional training or be assigned to non-patient care areas.	<input type="checkbox"/>	<input type="checkbox"/>
		ENHANCED PREVENTION 6) Establish enhanced cleaning & disinfection practices	6a) The facility has a process to consider technology to monitor for room cleanliness, e.g., ATP, bioluminescence, fluorescent dye/marker, as appropriate. 6b) The facility has a process to consider other technologies for environmental disinfection, e.g., UV light, hydrogen peroxide vapor	<input type="checkbox"/>	<input type="checkbox"/>

## HAI Specific Topics

<b>HAI Specific Practices</b>	1) Implement CAUTI Roadmap Practices	1a) The facility provides care for patients with Foley catheters. 1b) The facility has performed a gap analysis of current policies and practices against the CAUTI recommendations. 1c) An implementation plan has been developed to address relevant gaps. 1d) The plan to address relevant gaps has been implemented to achieve at least 90% of the recommended practices.	<input type="checkbox"/>	<input type="checkbox"/>
	2) Implement CLABSI Roadmap Practices	2a) The facility provides care for patients with central lines. 2b) The facility has performed a gap analysis of current policies and practices against the CLABSI recommendations. 2c) An implementation plan has been developed to address relevant gaps.	<input type="checkbox"/>	<input type="checkbox"/>
	3) Implement SSI Roadmap Practices	3a) The facility has an OR and does surgeries. 3b) The plan to address relevant gaps has been implemented to achieve at least 90% of the recommended practices. 3c) The facility has performed a gap analysis of current policies and practices against the SSI recommendations. 3d) An implementation plan has been developed to address relevant gaps. 3e) The plan to address relevant gaps has been implemented to achieve at least 90% of the recommended practices.	<input type="checkbox"/>	<input type="checkbox"/>
	4) Implement VAP Roadmap Practices	4a) The facility provides care for patients on ventilators. 4b) The facility has performed a gap analysis of current policies and practices against the VAP recommendations. 4c) An implementation plan has been developed to address relevant gaps. 4d) The plan to address relevant gaps has been implemented to achieve at least 90% of the recommended practices.	<input type="checkbox"/>	<input type="checkbox"/>
	5) Implement CDI Roadmap Practices	5a) The facility has a process in place to manage patients with CDI. 5b) The facility has performed a gap analysis of current policies and practices against the CDI recommendations. 5c) An implementation plan has been developed to address relevant gaps. 5d) The plan to address relevant gaps has been implemented to achieve at least 90% of the recommended practices.	<input type="checkbox"/>	<input type="checkbox"/>