Surveillance, Prevention, and Control of Infection

Note: *These standards and elements of performance become effective January 1, 2005.*

Overview

Prevention of health care-associated infections (HAIs) represents one of the major safety initiatives an organization can undertake, making the effective evaluation and possible redesign of existing infection prevention and control programs (hereafter referred to as the "IC program") a priority. The Centers for Disease Control and Prevention (CDC; 2000)[1] estimates that each year, approximately 2 million patients admitted to acute care hospitals in the United States acquire infections that were not related to the condition for which they were hospitalized. These infections result in approximately 90,000 deaths and add between $4.5 to $5.7 billion per year to patient care costs (CDC, 1992).[2] While the precise causes of HAIs are difficult to identify, it has been estimated that approximately one third of HAIs could be prevented using current recommendations.[3],[4]

Effective infection prevention and control requires an integrated, responsive process involving collaboration by many programs, services, and settings throughout the hospital to develop, implement, and evaluate the IC program. The design and scope of the IC program are based on the risk that the hospital faces related to the acquisition and transmission of infectious disease.

The goal of an effective IC program is to reduce the risk of acquisition and transmission of HAIs. Hospitals must do the following to achieve this goal:

1. The hospital incorporates its infection control program as a major component of its safety and performance improvement programs.
2. The hospital performs an ongoing assessment to identify its risks for the acquisition and transmission of infectious agents.

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[1] Monitoring hospital-acquired infections to promote patient safety—United States, 1990-1999. *MMWR Morb Mortal Wkly Rep* 49:149-153, Mar. 10, 2000.
[2] Public Health focus: surveillance, prevention and control of nosocomial infections. *MMWR Morb Mortal Wkly Rep* 41:783-787, Oct. 23, 1992.
[3] Harbarth S., Sax H., Gastmeier P.: The preventable proportion of nosocomial infections: an overview of published reports. *J Hosp Infect* 54:258–256, Aug. 2003.
[4] Haley R.W., et al.: The efficacy of infection surveillance and control programs in preventing nosocomial infections in US hospitals. *Am J Epidemiol* 121:182-205, Feb. 1985.

3. The hospital uses an epidemiological approach that consists of surveillance, data collection, and trend identification.
4. The hospital effectively implements infection prevention and control processes.
5. The hospital educates and collaborates with organizationwide leaders to effectively participate in the design and implementation of the IC program.
6. The hospital integrates its efforts with health care and community leaders to the extent practicable, recognizing that infection prevention and control is a communitywide effort.
7. To remain a viable community resource, the hospital must plan for responding to infections that potentially overwhelm its resources.

A program with aims of such broad scope and depth requires the direct involvement of hospital leaders. Only with the ongoing attention and direction of hospital leadership can the appropriate scope of the IC program be determined and adequately resourced.

The standards in this chapter, which focus on development and implementation of plans to prevent and control infections, are supported by standards in other chapters, such as Management of the Environment of Care, Management of Human Resources, Improving Organization Performance, and Leadership, to produce a comprehensive approach to IC.

The Infection Control Program and Its Components

IC.1.10 The risk of development of a health care-associated infection (HAI) is minimized through an organizationwide infection control program.

IC.2.10 The infection control program identifies risks for the acquisition and transmission of infectious agents on an ongoing basis.

IC.3.10 Based on risks, the hospital establishes priorities and sets goals for preventing the development of health care-associated infections within the hospital.

IC.4.10 Once the hospital has prioritized its goals, strategies must be implemented to achieve the goals.

IC.5.10 The infection control program evaluates the effectiveness of the infection control interventions and, as necessary, redesigns the infection control interventions.

IC.6.10 Note: *This standard is currently in field review. Please refer to* Joint Commission Perspectives® *for more information about this standard.*

Structure and Resources for the IC Program

IC.7.10 The infection control program is managed effectively.

IC.8.10 Representatives from relevant components/functions within the hospital collaborate to implement the infection control program.

IC.9.10 Hospital leaders allocate adequate resources for the infection control program.

The IC Program And Its Components

Standard IC.1.10

The risk of development of a health care-associated infection (HAI) is minimized through an organizationwide infection control program.

Rationale

The risk of HAIs exists throughout the hospital. An effective IC program that can systematically identify risks and respond appropriately must involve all relevant programs and settings within the hospital.

Elements of Performance for IC.1.10

1. An organizationwide IC program is implemented.
2. Individuals and/or positions with the authority to take steps to prevent or control the acquisition and transmission of infectious agents are identified.
3. All applicable organization components and functions are integrated into the IC program.
4. Systems are in place to communicate with licensed independent practitioners (LIPs), staff, students/trainees, volunteers and, as appropriate, visitors and patients about infection prevention and control issues, including their responsibilities in preventing the spread of infection within the hospital.
5. The hospital has systems for reporting identified infections to the following:
   - The appropriate staff within the hospital
   - Federal, state, and local public health authorities in accordance with law and regulation
   - Accrediting bodies (see Sentinel Event Reporting, pages XX-XX, and National Patient Safety Goals, pages XX-XX)
   - The referring or receiving organization when a patient was transferred or referred and the presence of an HAI was not known at the time of referral
6. Systems for investigating outbreaks of infectious diseases are in place.
7. Applicable policies and procedures are in place throughout the hospital.
8. Not applicable

9. The hospital has a written IC plan[5] that includes the following:
    - A description of prioritized risks
    - A statement of the goals of the IC program
    - A description of the hospital's strategies to minimize, reduce, or eliminate the prioritized risks
    - A description of how the strategies will be evaluated

Standard IC.2.10

The infection control program identifies risks for the acquisition and transmission of infectious agents on an ongoing basis.

Rationale

A hospital's risks of infection will vary based on the hospital's geographic location, the community environment, services provided, and the characteristics and behaviors of the population served. As these risks change over time—sometimes rapidly—risk assessment must be an ongoing process.

Elements of Performance for IC.2.10

1. The hospital identifies risks for the transmission and acquisition of infectious agents throughout the hospital based on the following factors:
    - The geographic location and community environment of the hospital , services provided, and the characteristics of the population served
    - The results of the analysis of the hospital's infection prevention and control data
    - The care, treatment, and services provided

2. The risk analysis is formally reviewed at least annually and whenever significant changes occur in any of the above factors.

[5] **Written plan** A succinct, useful document, formulated beforehand, that identifies needs, lists strategies to meet those needs, and sets goals and objectives. The format of the "plan" may include narratives, policies and procedures, protocols, practice

3. Surveillance activities are used to identify infection prevention and control risks pertaining to the following:
   - Patients
   - LIPs**,** staff, volunteers, and student/trainees
   - Visitors, as warranted

Standard IC.3.10

Based on risks, the hospital establishes priorities and sets goals for preventing the development of health care-associated infections within the hospital.

Rationale

The risks of HAIs within a hospital are many, while resources are limited. An effective IC program requires a thoughtful prioritization of the most important risks to be addressed. Priorities and goals related to the identified risks guide the choice and design of strategies for infection prevention and control in a hospital. These priorities and goals provide a framework for evaluating the strategies.

Elements of Performance for IC.3.10

1. Priorities are established and goals related to preventing the acquisition and transmission of potentially infectious agents are developed, based on the risks identified.

These goals include but are not limited to the following:

2. Limiting unprotected exposure to pathogens throughout the hospital
3. Enhancing hand hygiene
4. **Note:** *This element of performance is currently in field review. It will be provided in a future Update as soon as it has been approved. Please refer to* Joint Commission Perspectives *for more information about this standard.*

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guidelines, clinical paths, care maps, or a combination of these.

5. Minimizing the risk of transmission of infections associated with the use of procedures, medical equipment, and medical devices

Standard IC.4.10

Once the hospital has prioritized its goals, strategies must be implemented to achieve the goals.

Rationale

The hospital plans and implements interventions to address the IC issues that it finds important based on prioritized risks and associated surveillance data.

Elements of Performance for IC.4.10

1. Interventions are designed to incorporate relevant guidelines[6] for infection prevention and control activities.

Interventions are implemented which include the following:

2. An organizationwide hand hygiene program that complies with current CDC hand hygiene guidelines (National Patient Safety Goal 7, requirement 7.a)
3. Methods to reduce the risks associated with procedures, medical equipment,[7] and medical devices including the following:
   - Appropriate storage, cleaning, disinfection, sterilization, and/or disposal of supplies and equipment
   - Reuse of equipment designated by the manufacturer as disposable in a manner that is consistent with regulatory and professional standards
   - The appropriate use of personal protective equipment
4. Implementation of applicable precautions as appropriate are based on the following:

[6] Examples of guidelines include those offered by the CDC, Healthcare Infection Control Practices Advisory Committee (HICPAC), and National Quality Forum (NQF).
[7] **Medical equipment** Fixed and portable equipment used for the diagnosis, treatment, monitoring, and direct care of individuals

- The potential for transmission
- The mechanism of transmission
- The care setting
- The emergence and reemergence of pathogens in the community that could affect the hospital

5. Screening for exposure and/or immunity to infectious diseases that LIPs, staff, student/trainees, and volunteers may come in contact with in their work is available as warranted
6. Referral for assessment, potential testing, immunization and/or prophylaxis/treatment, and counseling as appropriate of LIPs, staff, students/trainees, and volunteers who are identified as potentially having an infectious disease or risk of infectious disease that may put the population they serve at risk
7. Referral for assessment, potential testing, immunization and/or prophylaxis/treatment, and counseling as appropriate of patients, students/trainees, and volunteers who have been exposed to infectious disease(s) at the hospital and LIPs or staff who are occupationally exposed
8. Reduction of risks associated with animals brought into the hospital

Standard IC.5.10

The infection control program evaluates the effectiveness of the infection control interventions and, as necessary, redesigns the infection control interventions.

Rationale

The evaluation of the effectiveness of interventions helps to identify which activities of the IC program are effective and which activities need to be changed to improve outcomes.

Elements of Performance for IC.5.10

1. The hospital formally evaluates and revises the goals and program (or portions of the program) at least annually and whenever risks are significantly changed.
2. The evaluation addresses changes in the scope of the IC program (for example, resulting from the introduction of new services or new sites of care).
3. The evaluation addresses changes in the results of the IC program risk analysis.
4. The evaluation addresses emerging and reemerging problems in the health care community that potentially affect the hospital (for example, highly infectious agents).
5. The evaluation addresses the assessment of the success or failure of interventions for preventing and controlling infection.
6. The evaluation addresses responses to concerns raised by leadership and others within the hospital.
7. The evaluation addresses the evolution of relevant infection prevention and control guidelines that are based on evidence or, in the absence of evidence, expert consensus.

Standard IC.6.10 Note: *This standard is currently in field review. Please refer to* Joint Commission Perspectives® *for more information about this standard.*

Structure and Resources for the IC Program

Standard IC.7.10

The infection control program is managed effectively.

Rationale

The IC program requires management by an individual (or individuals) with knowledge that is appropriate to the risks identified by the hospital , as well as knowledge of the analysis of infection risks, principles of infection prevention and control, and data analysis. This individual may be employed by the hospital or the hospital may contract with this individual. The number of individuals and their qualifications are based on the hospital's size, complexity, and needs.

Elements of Performance for IC.7.10

1. The hospital assigns responsibility for managing IC program activities to one or more individuals whose number, competency, and skill mix are determined by the goals and objectives of the IC activities.
2. Qualifications of the individual(s) responsible for managing the IC program are determined by the risks entailed in the services provided, the hospital's patient population(s), and the complexity of the activities that will be carried out.

Note: *Qualifications may be met through ongoing education, training, experience, and/or certification (such as that offered by the Certification Board for Infection Control (CBIC) in the prevention and control of infections.)*

3. This individual(s) coordinates all infection prevention and control within the hospital.
4. This individual(s) facilitates ongoing monitoring of the effectiveness of prevention and/or control activities and interventions.

Standard IC.8.10

Representatives from relevant components/functions within the hospital collaborate to implement the infection control program.

Rationale

The successful creation of an organizationwide IC program requires collaboration with all relevant components/functions. This collaboration is vital to the successful gathering and interpretation of data, design of interventions, and effective implementation of interventions. Managers within the hospital who have the power to implement plans and make decisions about interventions related to infection prevention and control participate in the IC program. While a formal committee consisting of leadership and other components is not required as evidence of this collaboration, the hospital may want to consider this option.

Elements of Performance for IC.8.10

1. Hospital leaders including medical staff, LIPs, and other direct and indirect patient care staff (including, when applicable, pharmacy, laboratory, administration, central supply/sterilization services, housekeeping, building maintenance/engineering, and food

services) collaborate on an ongoing basis with the qualified individual(s) managing the IC program.

2. These representatives participate in the following:
   - Development of strategies for each component's/function's role in the IC program
   - Assessment of the adequacy of the human, information, physical, and financial resources allocated to support infection prevention and control activities
   - Assessment of the overall failure or success of key processes for preventing and controlling infection
   - The review and revision of the IC program as warranted to improve outcomes

Standard IC.9.10

Hospital leaders allocate adequate resources for the infection control program.

Rationale

Adequate resources are needed to effectively plan and successfully implement a program of this scope.

Elements of Performance for IC.9.10

1. Leaders review on an ongoing basis (but no less frequently than annually) the effectiveness of the hospital's infection prevention and control activities and report their findings to the integrated patient safety program.
2. Adequate systems to access information are provided to support infection prevention and control activities.
3. When applicable, adequate laboratory support is provided to support infection prevention and control activities.
4. Adequate equipment and supplies are provided to support infection prevention and control activities.