



**Colorado Department of Public Health and Environment  
Health Facility Acquired Infections Disclosure Initiative  
Semi-Annual Bulletin: Volume 5, No. 1, October 2012  
Infection Control and Prevention Specialists**

### **Introduction**

Infection control is the discipline concerned with preventing healthcare-associated infections (HAI) and is an essential component of quality healthcare for both patients and healthcare providers. HAI are infections that patients acquire during the course of receiving medical treatment for other conditions. Affecting 1.7 million<sup>1</sup> patients each year and contributing to billions of dollars in unnecessary medical expenditures, HAI are devastating to patients and can be deadly.<sup>2,3</sup> Infection control addresses factors related to the spread of infections within healthcare settings (whether patient-to-patient, patient-to-staff, staff-to-patient, or among-staff), including prevention (via hand hygiene/hand washing, cleaning/disinfection/sterilization, vaccination, and surveillance), monitoring/investigation of demonstrated or suspected spread of infection within a particular healthcare setting (surveillance and outbreak investigation), and management (interruption of outbreaks).<sup>4,5</sup>

### **Infection Preventionists**

Infection Preventionists (IPs) are typically one of several members on a team of professionals who help protect patients and workers from acquiring HAI. It is more common in hospitals than in other healthcare facility types for the IP to be dedicated solely to infection control. Their backgrounds may include medical and/or nursing degrees and/or educations in medical technology (MT), public health (MPH), microbiology, or other health-related fields. They must follow nationally recognized infection control guidelines, such as those set forth by the Centers for Disease Control and Prevention (CDC), Healthcare Infection Control Practices Advisory Committee (HICPAC), Society for Healthcare Epidemiology of America (SHEA), Association of peri-Operative Registered Nurses (AORN), Association for Professionals in Infection Control and Epidemiology (APIC), and other organizations dedicated to infection prevention.

### **Certification**

In Colorado, certification in infection control is required as a condition of licensure for IPs in hospitals with more than 50 beds.<sup>6</sup> For IPs in hospitals with fewer than 50 beds, certification in infection control is not required but is highly encouraged. Eighty-four percent of IP in hospitals with fewer than 50 beds currently are certified in infection control, with the remaining IPs preparing for their certification. The certification exam tests knowledge and application in areas such as identification of infectious disease processes, surveillance and epidemiologic investigation, preventing and controlling the transmission of infectious agents, employee/occupational health, management and communication (leadership), and education and research.<sup>7</sup> Typically, new IPs will be employed for six months to two years before becoming eligible to take the exam. As reported in the CDC's National Healthcare Safety Network (NHSN) facility annual survey, the average number of IPs per hospital in Colorado is 1.25 (range 1-3), and the average number of hours per week IPs devote to infection control surveillance is 19 (range 1-100). This can vary considerably depending on other job duties and responsibilities, the number and types of patients occupying beds in a facility, and other factors.<sup>8</sup>

### **Facility Requirements**

Healthcare facilities have infection control policies unique to the type of facility. Ambulatory surgery centers (ASC) are not required to have certified IPs but must have a licensed healthcare professional qualified through training in infection control and designated to direct the ASC infection control program. Long-term care facilities also must designate an

individual who has training in infection control to coordinate their infection control programs. Outpatient dialysis centers must have a multi-disciplinary infection control committee responsible for the investigation, tracking, and monitoring of infections and for making recommendations for the prevention and control of infection in the clinics. The above programs must develop and implement appropriate infection control policies and procedures, train staff on them, monitor and document infections, track and analyze outbreaks of infection, and implement and document actions to resolve related problems per federal and state regulations.

Staff in each facility should know their IPs and how to contact them for questions or concerns. Patients and families should be made aware that although infections can and do occur, staff are following evidence-based guidelines to help prevent these. HAI information is available from the Colorado Department of Public Health and Environment, (CDPHE) Division of Health Facilities and Emergency Medical Services' website as well as other agencies dedicated to patient safety (see below).

Many Colorado IPs are members of the local chapter of the Association for Professionals in Infection Control and Epidemiology ( APIC), which provides a venue for ongoing infection prevention, education and collaboration. Every local APIC meeting includes presentations from guest experts on relevant topics to help members stay abreast of the latest infection control issues, developments and products on the market.

### **IP Responsibilities**

APIC delineates the following main functions of an IP:

1. Develop proven policies to ensure a safe environment for patients.
2. Ensure compliance with standards and regulations designed to protect both patients and healthcare workers.
3. Lead and participate in healthcare quality improvement efforts directed at HAI prevention.
4. Track and monitor activities to identify HAIs and other infectious agents.
5. Provide credible HAI data to state and federal agencies.
6. Serve as leaders in emergency preparedness for events such as an influenza pandemic or acts of bioterrorism.
7. Educate the public and healthcare workers about infectious diseases and how to limit their spread.
8. Report communicable diseases to the Centers for Medicare and Medicaid Services (CDC).
9. Evaluate products and procedures.
10. Consult on infection risk assessment, prevention, and control strategies (including activities related to occupational health, construction, and disaster planning).
11. Apply epidemiological principles, including activities directed at improving patient outcomes.
12. Provide high quality services in a cost-effective manner.
13. Participate in research projects.

Additional responsibilities include:

14. Liaison and disease reporting to both state and federal agencies as required by law.<sup>9</sup>
15. Disseminate accurate information through collaboration with Public Affairs and Risk Management programs to inform the public about infection-related issues.<sup>9</sup>
16. Participate in customer satisfaction initiatives.<sup>9</sup>
17. Incorporate infection control and prevention activities that encompass the health and well-being of patients from embryonic gestation through postmortem care. <sup>9</sup>
18. Partner with multiple agencies such as local and state health departments, hospital, ambulatory care, long term care and other associations to provide community outreach support.<sup>9</sup>
19. Help health departments conduct validation studies. <sup>6</sup>

### **IP and Validation Studies**

IPs in many Colorado hospitals assisted in two validation studies conducted by CDPHE's Patient Safety Program. These validation studies focused on central line-associated bloodstream infections (CLABSIs) in 2011 and hernia procedures in 2012. Findings from the CLABSI validation study showed wide variation in surveillance practices and in healthcare staffs' application of surveillance definitions and criteria. Based on these findings, CDPHE staff provided education and guidance to IPs to achieve greater consistency in surveillance and reporting across facilities. With 34 percent of cases found to be "not-reported," it was concluded that ongoing validation of HAI data is necessary. Data analysis from the hernia study is currently underway. Future validation studies will focus on infections related to hip and knee surgeries and outpatient dialysis treatment.

### **IP and Health Facilities-Acquired Infections Advisory Committee**

Colorado IPs also play a pivotal role in implementing Colorado's HAI Disclosure Act. This legislation, which mandates public disclosure of designated HAI, requires the appointment of an HAI advisory committee comprised of several IPS. The committee, the Colorado Health Facility-Acquired Infection Advisory Committee, is voluntary and composed of eleven members who assist with the selection of clinical metrics, data quality assurance, and development and distribution of reports. The law requires the following committee composition: one representative each from a public and private hospital; a representative of a health insurer; a consumer/purchaser of health insurance; a representative of a health consumer organization; four infection control practitioners (one from a stand-alone ambulatory surgery center, all who are board-certified in infection control and epidemiology); a board-certified or board-eligible physician licensed in Colorado who is affiliated with a Colorado hospital or medical school and is an active member of a national organization specializing in healthcare epidemiology or infection control; and a master's- or Ph.D.-level medical statistician or clinical microbiologist.<sup>6</sup> This advisory committee provides invaluable expertise and will continue to play a pivotal role in evaluating the quality and accuracy of reported data, and in determining and evaluating future projects of the Patient Safety Program.

Infection Preventionists dedicate their careers to preventing HAIs. They are a distinguished group of individuals who work to prevent infections and maintain safe environments in their healthcare facilities, thereby enhancing patient care and safety.

### **References:**

<sup>1</sup> Klevens RM, Edwards JR, Richards CL, Horan TC, Gaynes RP, Pollock DA, Cardo DM. Estimating Healthcare-Associated Infections and Deaths in U.S. Hospitals, 2002. *Public Health Rep.* 2007 Mar-Apr; 122(2): 160–166

<sup>2</sup> Scott, R.D. (2009) *The Direct Medical Costs of Healthcare-Associated Infections in U.S. Hospitals and the Benefits of Prevention*. Division of Healthcare Quality Promotion National Center for Preparedness, Detection, and Control of Infectious Diseases, Coordinating Center for Infectious Diseases, Centers for Disease Control and Prevention.

<sup>3</sup>Centers for Disease Control and Epidemiology (CDC). Retrieved March 26, 2012, from <http://www.cdc.gov/HAI/prevent/prevention.html>

<sup>4</sup>Association for Professionals in Infection Control and Epidemiology, Inc. (2009). *APIC text of infection control and epidemiology* (3rd Ed.). Washington, DC: Association for Professionals in Infection Control and Epidemiology, Inc. (APIC).

<sup>5</sup>Association of periOperative Registered Nurses (AORN).

<sup>6</sup>Hospital-Acquired Infections disclosure Act, House Bill 06-1045, Article 3, title 25, Colorado Revised Statutes. <http://www.cdph.state.co.us/hf/PatientSafety/HospitalReportCardInitiative/HB061045.pdf>

<sup>7</sup>Certification Board of Infection Control and Epidemiology, Inc. (CBIC)

<sup>8</sup>National Healthcare Safety Network. <http://www.cdc.gov/nhsn/>

<sup>9</sup>Infection Prevention and Control Department, University of Colorado Hospital, Aurora, CO. 80045

**Websites for HAI Public Information:**

Agency for Healthcare Research and Quality  
[www.ahrq.org](http://www.ahrq.org)

Colorado Department of Public Health and Environment  
[cdphe.hfpatientsafety@state.co.us](mailto:cdphe.hfpatientsafety@state.co.us)  
<http://www.cdphe.state.co.us/hf/PatientSafety/HFAI/index.html>

<http://www.colorado.gov/cs/Satellite/CDPHE-DCEED/CBON/1251632252097>

Centers for Disease Control and Epidemiology  
<http://www.cdc.gov/hai/>  
<http://www.cdc.gov/HAI/infectionTypes.html>  
[http://www.cdc.gov/HAI/prevent/prevention\\_tools.html](http://www.cdc.gov/HAI/prevent/prevention_tools.html)

Colorado Consumer Health Initiative  
<http://www.cohealthinitiative.org/>

Colorado Foundation for Medical Care  
<http://www.cfmc.org/>

Colorado Hospital Association  
<http://www.cha.com/>

Institute for Healthcare Improvement  
[www.ihl.org](http://www.ihl.org)

Medicare Hospital Compare  
[www.hospitalcompare.hhs.gov](http://www.hospitalcompare.hhs.gov)  
[www.medicare.gov](http://www.medicare.gov)

Robert Wood Johnson Foundation  
<http://www.rwjf.org/qualityequality/product.jsp?id=71857>

The Leapfrog Group  
<http://www.leapfroggroup.org/>