



APIC Policy Agenda: Using data to prevent Healthcare-Associated Infections

What is infection prevention surveillance?

In the healthcare arena, infection prevention surveillance is a comprehensive method of measuring and analyzing data. Various healthcare quality outcomes, quality processes, and data are analyzed to provide information to members of the healthcare team to assist in preventing infections while improving outcomes and processes. In short, infection prevention surveillance is used to track and monitor systems within healthcare in order to prevent infections and keep patients well.

How are Healthcare Associated Infection (HAI) data used?

Continuous monitoring of HAI rates provides the necessary data used to drive improvement initiatives, assess effectiveness of interventions, inform front line workers, and provide information which may be used for comparisons within and between facilities. Surveillance can also be used to quickly identify outbreaks, determine opportunities for clinical care improvement, and inform research studies and agendas.

Background and current state of HAI surveillance

Most organizations perform an annual risk assessment. The risk assessment allows organizations to target surveillance activities based on the needs of the population they serve as well as external regulatory requirements. A manual review of computerized microbiology reports, coupled with other laboratory and patient care information extracted from a variety of sources, both electronic and non-electronic, has historically been the primary method of finding HAIs.

In many cases, HAI data needs to be entered into electronic surveillance systems manually, a practice that can take hours each day. Time spent on manual data entry takes resources away from other important initiatives intended to improve patient safety and outcomes at the bedside hence automation can alleviate some of this burden hence automation can alleviate some of this burden.

Why standardized data collection is important?

- it is important to know the accurate number and type of infections so comparisons over time are meaningful.
- such information is useful only when it is believable, actionable and reliably used to decrease the number of patient infections by informing prevention efforts.
- it provides a platform for comparing facilities and accurately reporting data to the public.

Complications/difficulties

- The diverse and growing number of federal and state reporting requirements impacts the burden of HAI data collection. As the number of reporting requirements grows, increasing resources will be needed to not only satisfy reporting requirements, but to assure high quality data and critical front-line infection prevention efforts. In addition, facilities spend a great deal of time and money reporting the same information individually to multiple outside organizations which may use these data for quality improvement programs, hospital ratings, government and/or private payment incentives, or federal/state public health initiatives.
- Collection of accurate data is essential. Despite evidence to the contrary, some continue to believe that existing data retrieved from administrative coding and billing systems (claims data) can be used to collect HAI data; however, this concept has been challenged by the concern that the sole use of administrative data cannot precisely, reliably, and accurately determine HAIs. Billing data looks to maximize reimbursement based on provider documentation only. On the other hand, HAI surveillance methods use a particular set of evidenced based definitions utilizing the entire medical record to identify infections.
- We believe effective HAI surveillance requires the use of the full range of clinical data available to identify current or predicted HAIs. Effective and efficient surveillance and reporting require the use of standardized, validated definitions for any given HAI. APIC believes the logical choice for this is the National Healthcare Safety Network (NHSN) HAI definitions developed by the Centers for Disease Control and Prevention (CDC).

Automated (or Electronic) Surveillance technology would:

- Streamline and facilitate efficient review of relevant patient data, promoting rapid identification of infections, sentinel events and detection of outbreaks.
- Expand and better define the scope of infection prevention activities into areas beyond the intensive care units where many facilities currently focus their efforts, especially given more healthcare is being provided in outpatient and community-type settings.
- Reduce infection prevention department time spent on surveillance and clerical tasks and increase time spent with staff who provide care to patients.
- Improve rapid response to public health issues, for example, during outbreak investigations.
- Facilitate regulatory compliance.
- Enhance antibiotic stewardship programs through interfacing directly with pharmacy and laboratory databases, in order to decrease the transmission of multi-drug resistant organisms.
- Contribute to significant reductions in infections and subsequent cost savings through the utilization of electronic tools.

The Association for Professionals in Infection Control and Epidemiology (APIC) supports the following positions:

- The CDC/NHSN standardized definitions should be considered and utilized as the gold standard to identify, analyze, report and compare HAIs.
- The CDC/NHSN comparative database should be used to promote the reduction of and assess progress towards elimination of HAIs.
- The exclusive use of administrative coding and billing systems (claims data) data should not be used as a sole source for HAI identification as it is not a precise measure for identifying healthcare-associated infections. Further, it does not facilitate the real-time implementation of targeted prevention strategies.
- The need for and use of robust electronic surveillance technology systems is integral to swiftly informing infection prevention strategies and their effectiveness.
- Validation of findings from surveillance for HAIs is an essential component of the process that facilitates meaningful comparison of HAI findings in a standardized, unbiased manner.

For additional information:

[The Use of Administrative Data for Identification of Healthcare-Associated Infections in US Hospitals](#)
[The Importance of Surveillance Technologies in the Prevention of Healthcare-Associated Infections](#)

About APIC

APIC's mission is to create a safer world through prevention of infection. The association's more than 15,000 members direct infection prevention programs that save lives and improve the bottom line for hospitals and other healthcare facilities. APIC advances its mission through patient safety, implementation science, competencies and certification, advocacy, and data standardization. Visit APIC online at www.apic.org. Follow APIC on Twitter: www.twitter.com/apic and Facebook: www.facebook.com/APICInfectionPreventionandYou. For information on what patients and families can do, visit APIC's Infection Prevention and You website at www.apic.org/infectionpreventionandyou.

What do infection preventionists do?

Infection preventionists play a significant role in:

- Developing proven policies to ensure a safe environment for patients;
- Ensuring compliance with standards and regulations designed to protect patients and healthcare workers;
- Tracking and monitoring activities to identify and prevent healthcare-associated infections and other infectious agents;
- Leading and participating in healthcare quality improvement efforts designed to protect patients;
- Educating the public and healthcare personnel about infectious diseases and how to limit their spread;
- Serving as leaders in preparing healthcare facilities and personnel to be ready for events such as an influenza pandemic; infectious diseases such as Ebola; and acts of bioterrorism;
- Reporting communicable diseases to the CDC.

December 1, 2016