



Sentinel Event Alert

. January 22, 2003

Issue 28 - January 22, 2003

Infection control related sentinel events

Despite the small number of infection-related sentinel event cases reported to the Joint Commission, the number of patients acquiring infections in the health care setting, as well as the number of patient deaths due to an acquired infection, remains high. According to estimates from the Centers for Disease Control and Prevention (CDC), each year nearly two million patients in the United States get an infection in hospitals, and about 90,000 of these patients die as a result of their infection. Infections are also a complication of care in other settings including long term care facilities, clinics and dialysis centers.

The CDC works in conjunction with approximately 315 hospitals throughout the United States to collect data for its National Nosocomial Infections Surveillance (NNIS) System. A cooperative effort begun in 1970, the system describes the epidemiology of nosocomial infections and antimicrobial resistance trends, and produces nosocomial infection rates to use for comparison purposes. The most recent NNIS report was published in the December 2002 issue of the *American Journal of Infection Control* and is available on the NNIS website.

According to the Joint Commission database, only 10 infection-related reports have been reviewed under the sentinel event policy since its implementation in 1996. Fifty-three patients were affected, of which 14 died. While the age of the patients afflicted varied, the vast majority were infants (29) and seniors (19), many of whom were immunosuppressed. Settings included the newborn and pediatric intensive care units, long term care facilities or units, general medical/surgical units, and endoscopy and obstetrics units. The infecting organisms included *HIV*, *Pseudomonas aeruginosa*, *E. coli*, *MRSA* (methicillin resistant *Staphylococcus aureus*), salmonella, and *Clostridium sordellii*. The number of reported infection-related sentinel event cases represents an insufficient sample from which to draw any generalizable conclusions and recommendations.

Numerous high profile media reports of incidences of patient death resulting from hospital-acquired infections indicate that such cases are seriously under-reported to Joint Commission. Joint Commission emphasizes that patient death or permanent injury/loss of function as a result of a nosocomial infection does indeed meet the criteria for reviewable sentinel events. As such, each event should undergo a root cause analysis to identify risk reduction strategies, and should be considered for reporting to Joint Commission's Sentinel Event Database to expand the knowledge base about the scope and characteristics of serious nosocomial infections, the factors that lead to their occurrence, and effective strategies for prevention.

Multiple root causes and risk reduction strategies

As a result of the sentinel events arising from infections and in response to the identified root causes, health care organizations implemented various risk reduction strategies, including the implementation of relevant clinical pathways for MRSA, endometritis and urinary tract infection. These strategies include:

- Revising orientation and training processes and competency assessments.
- Revising equipment cleaning processes.
- Revising handwashing procedures.
- Switching to the use of single-use IV flush vials.
- Adding waterless handrubs.
- Defining supervisory expectations.
- Revising critical care privileging and ICU admission criteria.
- Conducting in-service and team trainings.
- Instituting tracking systems.
- CDC issues new handwashing guidelines

On Oct. 25, 2002, the CDC released new guidelines that advise the use of alcohol-based handrubs in conjunction with traditional soap and water and sterile gloves to protect patients in health care settings. The recommendations come as part of the new *Guidelines for Hand Hygiene in Healthcare Settings*, and reflect the positions of the Healthcare Infection Control Practices Advisory Committee and the Hand Hygiene Task Force (comprising members of the Healthcare Infection Control Practices Advisory Committee, the Society for Healthcare Epidemiology of America, the Association for Professionals in

Infection Control and Epidemiology Inc., and the Infectious Diseases Society of America).

The hand hygiene guidelines are part of an overall CDC strategy to reduce infections in health care settings and to demonstrate that organizations can help prevent the spread of germs from one patient to another by improving hand hygiene. Information about the guidelines is available from the CDC, APIC, SHEA and IDSA, and promotional materials may be obtained from the CDC at www.cdc.gov. "Clean hands are the single most important factor in preventing the spread of dangerous germs and antibiotic resistance in health care settings," says Julie Gerberding, M.D., director, CDC. "More widespread use of these [alcohol-based handrub] products that improve adherence to recommended hand hygiene practices will promote patient safety and prevent infections."

Joint Commission plans to review its existing infection control standards and survey process with the help of a newly appointed infection control expert panel. One of the panel's goals is to support organizations' patient safety efforts by lowering nosocomial infection rates throughout the organization and in targeted specific vulnerable populations such as surgical, intensive care and immunosuppressed patients.

Joint Commission recommendations

Joint Commission recommends that health care organizations:

1. Comply with the CDC's new hand hygiene guidelines.
2. Manage as sentinel events all identified cases of death and major permanent loss of function attributed to a nosocomial infection (i.e. except for the infection, the patient would probably not have died or suffered loss of function). **Note:** This recommendation does not require any change in current surveillance methodology (see the "IC" standards in your Joint Commission accreditation manual).

Resources

1. Emerging Infectious Diseases, Vol. 7, No. 2, March-April 2001, Centers for Disease Control and Prevention, <http://www.cdc.gov/ncidod/eid/vol7no2/wenzel.htm>.
2. Centers for Disease Control and Prevention National Nosocomial Infections Surveillance System, http://www.cdc.gov/ncidod/dhqp/nnis_pubs.html.
3. NNIS definition of nosocomial infection—a localized or systemic condition 1) that results from adverse reaction to the presence of an infectious agent(s) or its toxin(s), and 2) that was not present or incubating at the time of admission to the hospital.
4. Guidelines for Hand Hygiene in Healthcare Settings – 2002, Centers for Disease Control and Prevention, <http://www.cdc.gov/>.
5. Association for Professionals in Infection Control and Epidemiology (APIC), <http://www.apic.org/>.
6. Society for Healthcare Epidemiology of America (SHEA), <http://www.shea-online.org/>.
7. Infectious Diseases Society of America (IDSA), <http://www.idsociety.org/>.

Please route this issue to appropriate staff within your organization. *Sentinel Event Alert* may only be reproduced in its entirety and credited to The Joint Commission.