Hospital-Acquired Infection Data

Overview

New York State Department of Health Office of Public Health Bureau of Healthcare-Associated Infections

OPEN Data NY

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Introduction

A hospital-acquired infection (HAI) is an infection acquired as a result of treatment in a hospital. In accordance with Public Health Law 2819, New York State (NYS) has been tracking HAIs since 2007. This law was created to provide the public with fair, accurate, and reliable HAI data to compare hospital infection rates, and to support quality improvement and infection prevention activities in hospitals.

Hospitals report to NYS using Centers for Disease Control and Prevention's (CDC) National Healthcare Safety Network (NHSN). This online system allows hospitals, NYS, and CDC to concurrently monitor the same data, collected using the same surveillance definitions. Additional information about the NHSN can be found at http://www.cdc.gov/nhsn/.

NYS DOH evaluates which HAI indicators should be reported annually with the help of a Technical Advisory Workgroup, a panel of experts in the prevention and reporting of HAIs. The following indicators are reported:

- Central line-associated blood stream infections (CLABSIs): A central line is a tube that is placed into a large vein, usually in the neck, chest, arm or groin that is used to give fluids and medications, withdraw blood, and monitor the patient's condition. A bloodstream infection can occur when microorganisms (e.g., bacteria, fungi) travel around or through the tube, attach and multiply on the tubing or in fluid administered through the tubing, and then enter the blood. CLABSIs occurring in intensive care units have been reported since 2007.
- Surgical Site Infections (SSIs): SSIs are infections that occur after an operation in the part of the body where the surgery took place. NYS hospitals are required to report SSIs following colon surgery (since 2007), coronary artery bypass graft surgery (since 2007), hip replacement/revision surgery (since 2008), and abdominal hysterectomy surgery (since 2012).
- <u>Clostridium difficile Infections (CDI): Clostridium difficile</u> is a type of bacteria that causes a range of health effects, from mild diarrhea to potentially fatal colitis. The elderly and people who have recently taken antibiotics are at the greatest risk for developing CDI. Laboratory-identified CDI cases among hospital inpatients have been reported since 2010.

The METRIX spreadsheet summarizes hospital-specific HAI rates from NYS acute care hospitals between 2008 and the most currently available year. Hospital-specific data are not available for 2007 because this year was designated as a "pilot phase" to develop the reporting system. This spreadsheet is an electronic version of the information that is also summarized in annual NYS reports. The reports provide additional information, such as overall trends in HAI rates and infection prevention resources, and progress of HAI prevention projects supported by NYSDOH.

Data Collection Methods

Hospitals submit the required HAI data using the NHSN website. The NYS DOH validates the data using several methods: checks for inconsistent or duplicate information; checks for completeness in reporting using secondary datasets; and checks for the validity of the data by auditing a sample of medical charts. As a result of this audit, the hospital may be asked to modify their original data submittal. Since the audits may involve data from both the current and previous calendar year, a revised data file will be published the year after the original data file was released. For example, when a current year's dataset is added, the data for the previous year is updated.

Limitations

Despite the data validation described in the above section, variability in case findings of HAIs may occur between facilities. In addition, while the data are risk-adjusted using data reported to NHSN, additional differences in patient risk-factors may further explain variation in HAI rates between hospitals. Prior to comparing NYS HAI rates to National averages, see the caveats listed in the Data Dictionary, which is in the "About" section of the open data platform. (NYSDOH_HAI_HAI.pdf).

Supporting Documents/References

For additional details about the data, and to obtain the annual NYS HAI reports, see our website, at: http://www.health.ny.gov/statistics/facilities/hospital/hospital_acquired_infections/.