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National Healthcare Safety Network report, data summary for 2013, Device-associated Module

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This report is a summary of Device-associated (DA) Module data collected by hospitals participating in the National Healthcare Safety Network (NHSN) for events occurring from January–December 2013 and reported to the Centers for Disease Control and Prevention (CDC) by June 1, 2014. This report updates previously published DA Module data from the NHSN and provides contemporary comparative rates.¹ Figure 1 provides a brief summary of highlights from this report. This report complements other NHSN reports, including national and state-specific progress reports for select health care–associated infections (HAIs).²

NHSN data collection, reporting, and analysis are organized into 5 components: Patient Safety, Outpatient Dialysis, Health Care Personnel Safety, Biovigilance, and Long-Term Care Facility. Each component is composed of ≥ 1 module for which standardized methods and definitions are provided.^{3–5} Health care facilities may use modules singly or simultaneously, but once selected, the facilities must use the module(s) for a minimum of 1 calendar month for the data to be included in the CDC's analyses. All infections are categorized using standard CDC definitions that include laboratory and clinical criteria.^{4,5} The DA Module within the Patient Safety Component may be used by facilities other than acute care hospitals, including inpatient rehabilitation facilities (IRFs) and long-term acute care hospitals (LTACHs). The NHSN facilities contributing HAI surveillance data to this report did so voluntarily, in response to state mandatory reporting requirements, or to comply with the Centers for Medicare and Medicaid Services' (CMS's) Quality Reporting Programs.^{6–8} The CDC aggregated these data into a single national database for 2013, consistent with the stated purposes of the NHSN, which are as follows:

- To collect data from a sample of health care facilities in the United States to permit valid estimation of the magnitude of adverse events among patients and health care personnel.
- To collect data from a sample of health care facilities in the United States to permit valid estimation of the adherence to practices known to be associated with prevention of these adverse events.
- To analyze and report collected data to permit recognition of trends.
- To provide facilities with risk-adjusted metrics that can be used for interfacility comparisons and local quality improvement activities.
- To assist facilities in developing surveillance and analysis methods that permit timely recognition of patient and health care worker safety problems and prompt intervention with appropriate measures.
- To conduct collaborative research studies with NHSN member facilities (eg, describe the epidemiology of emerging HAI and pathogens, assess the importance of potential risk factors, further characterize HAI pathogens and their mechanisms of resistance, and evaluate alternative surveillance and prevention strategies).
- To comply with legal requirements, including but not limited to state or federal laws, regulations, or other requirements, for mandatory reporting of health care facility–specific adverse event, prevention practice adherence, and other public health data.
- To enable health care facilities to report HAI and prevention practice adherence data via the NHSN to the U.S. CMS in fulfillment of the CMS's quality measurement reporting requirements for those data.
- To provide state departments of health with information that identifies the health care facilities in their state that participate in the NHSN.
- To provide to state agencies, at their request, facility-specific, NHSN's Patient Safety Component and Health Care Personnel Safety Component adverse event and prevention practice adherence data for surveillance, prevention, or mandatory public reporting.

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hematology/oncology and hematopoietic stem cell transplant units, central line day counts are split into those with only a permanent central line versus those with temporary central lines (with

critical care and ward location designation. CLABSI data for IRFs are not stratified by any additional factors; however, CAUTI data for IRFs are stratified by setting and, if the IRF is freestanding, by unit bed size category. Rates and DU ratios in CAHs continue to be stratified into combined critical care units and combined noncritical care units.

Tables 14-19 provide data on select attributes of the DA infections for each major location type. For example, Table 14 shows

Table 3
Continued

Central line utilization ratio ⁴		Percentile
Type of acute care hospital location	No. of locations ¹	

Table 5

definition is developed and available for use, VAP surveillance should continue to be made available in the NHSN for pediatric critical care locations (pedVAP). Additionally, the group recommended that, beginning in 2014, VAP surveillance be withdrawn as an in-plan surveillance option for neonatal critical care locations based on recognition that the current VAP surveillance definition is of questionable utility and meaning in the neonatal population. As a result, this report will be the last report to include VAP rates and ventilator utilization ratios for NICU locations. VAP rates and ventilator utilization ratios for pediatric locations will continue to be provided.

In producing this report, there were several areas identified for which prevention activities and further investigation may be needed, both at national and local levels. For example, the CLABSI pooled mean rate for LTACH critical care units is higher than most critical care unit types in other facility types ([Tables 3 and 11](#)). Similarly, the CAUTI pooled mean rate for LTACH wards is higher than CAUTI pooled mean rates in many ward-level locations in

acute care hospitals ([Tables 5 and 11](#))

distributions so that the best possible risk-adjusted comparative data may be provided in future reports.

For those who do not report to the NHSN but would like to use these data for comparison, the information must fi

Facilities should use the data in this report and their own data to guide local prevention strategies and other quality improvement

interpretation of percentiles of infection rates or DU ratios. Although a high rate or ratio (>90th percentile) does not necessarily define a problem, it does suggest an area for further investigation. Similarly, a low rate or ratio (<10th percentile) may be the result of inadequate surveillance.

Example: Five patients on the first day of the month had ≥ 1 central lines in place: 5 on day 2, 2 on day 3, 5 on day 4, 3 on day 5, 4