Exploring hospital-based mortality – Examples from the 2014 National Hospital Care Survey Linked to the National Death Index

Distribution of in-hospital and post-acute mortality for patients hospitalized in 2014

Background
When fully implemented, the National Hospital Care Survey (NHCS) will provide nationally representative health care utilization across hospital-based settings. The 2014 NHCS data include encounters from inpatient hospital stays as well as visits to the emergency department (ED) and outpatient departments (OPD). NHCS collects patient identifiers such as patient name, Social Security Number, and date of birth, which allows linkage to external data sources. This analysis uses data from the NHCS and from the NHCS linked to the 2014 and 2015 National Death Index (NDI), which provides information on patient mortality at and post-hospital discharge. Deaths were categorized as occurring in-hospital and 1-30, 31-60, 61-90 and 91 days up to 2 years post discharge. Although the 2014 NHCS inpatient data are not nationally representative because of low hospital participation (94 out of 581 hospitals), the information collected can provide insights into post-hospital mortality associated with diseases and procedures and transfers within hospital settings.

The 2013, 2014, and 2015 NHCS data files as well as the 2014 NHCS-2014/2015 NDI linked file are available through the National Center for Health Statistics Research Data Center (https://www.cdc.gov/rdc/b1datatype/dt1224h.htm).

Results

There were 132,217 deaths among patients hospitalized at the 86 participating NHCS hospitals in 2014, which had eligible data for linkage. These deaths represented 12% of all hospitalized patients. Twenty-two percent of deaths occurred in the hospital, and another 22% occurred within 30 days of hospital discharge. Eight percent of deaths occurred between 31-60 days and six percent between 61 and 90 days of hospital discharge. Forty-three percent of deaths occurred from 91 days to 2 years post hospital discharge.

Distribution of In-hospital and Post-Acute Mortality for Patients Hospitalized in 2014: 2014 National Hospital Care Survey Linked to the 2014-2015 National Death Index

Notes: There were 132,217 deaths, representing 12% of patients with hospitalizations at the 86 sampled hospitals in 2014. Due to a low response rate, NHCS is not nationally representative. Numbers may not add to 100% because of rounding. The time period for the last category, 91 days up to 2 years, varies by patient. For patients discharged from the hospital on January 1, 2014, they are followed for a period of 2 years, from January 1, 2014 until December 31, 2015. However, for patients discharged on December 31, 2014, they are followed for 1 year, December 31, 2014-December 31, 2015.


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