

Sobering new statistics affirm seriousness of hospital infections in U.S.

In a newly released study, the CDC estimates that there are 4.5 hospital infections for every 100 patient admissions and nearly 100,000 deaths from hospital infection. This long awaited assessment, published in the March-April 2007 journal, Public Health Reports (1), is not yet posted to the public on the CDC's website. Consumers Union summarizes the results here.

The study concludes: "These estimates are sobering and reinforce the need for improved prevention and surveillance efforts." The numbers "exceeded the number of cases of any currently notifiable disease."

This first update from CDC for decades used several different data sources (2). The study includes some interesting details, including that the overwhelming majority of hospital-acquired infections [1.2 million] occur outside of the ICU, the focus of most infection control monitoring today. Below are the details of their analysis.

Estimated number of hospital-acquired infections in US hospitals (including federal facilities): 1.7 million (3), a rate of 4.5 infections per 100 patient admissions. The breakdown by patient population:

- Newborns in high-risk nurseries: 33,269
- Newborns in well-baby nurseries: 19,059
- Adults and children in ICUs: 417,946
- Adults and children in units other than ICUs: 1,266,851

And the estimated number of infections by type:

- urinary tract infections: 424,060
- surgical site infections: 274,098 [approximately 2 infections per 100 surgeries]
- bloodstream infections: 133,368
- pneumonia: 129,519
- infections of other sites: 263,810

Estimated number of deaths associated with hospital-acquired infections [caused or contributed to the death]: 98,987. Most patients survive a hospital-acquired infection, but many of the survivors endure years of treatment, multiple surgeries, and permanent disability. This study only analyzed the number of deaths and the specific types of infections with which they were associated:

- pneumonia: 35,967
- bloodstream infections: 30,665
- urinary tract infections: 13,088
- surgical site infections: 8,205
- infections of other sites: 11,062

Footnotes:

1. Estimating Health Care-Associated Infections and Deaths in U.S. Hospitals, 2002
R. Monina Kleven / Jonathan R. Edwards / Chelsey L. Richards / Teresa C. Horan / Robert P. Gaynes / Daniel A. Pollock / Denise M. Cardo
2. The CDC National Nosocomial Infections Surveillance System (NNIS), 1990-2002; the 2002 National Hospital Discharge Survey and the American Hospital Association Survey for 2000
3. The prior CDC estimate was 2 million; the authors indicate that these estimates were based on the same data source and comparison of them "should be avoided." In other words, this does not mean that the number of infections has been reduced.

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