

Resistant Infections Are Increasing in Hospitals

VITALS

Major Finding: The percentage of hospitalizations that involved an antibiotic-resistant infection rose from 0.12% in 1997 to 0.46% in 2006. Patients with resistant infections were increasingly younger and less likely to have health insurance.

Data Source: A retrospective analysis of a weighted sample of 370.3 million U.S. hospitalizations.

Disclosures: Dr. Mainous did not report having any conflicts of interest related to the study.

BY SUSAN LONDON

FROM THE ANNUAL MEETING OF
THE NORTH AMERICAN PRIMARY
CARE RESEARCH GROUP

SEATTLE – Antibiotic-resistant infections are becoming more common in hospitalizations, and the profile of patients with these infections is changing, according to a retrospective study of about 370 million

U.S. hospitalizations spanning a recent 10-year period.

During 1997-2006, the percentage of those having a diagnosis of antibiotic-resistant infection nearly quadrupled, researchers reported at the meeting.

The mean age of the patients with resistant infections fell by 22 years, and the proportion with health insurance decreased by 7%. In addition,

those who were uninsured had a shorter length of stay than did their insured counterparts.

“There has been a steady upward trend,” said lead investigator Arch G. Mainous III, Ph.D. “Resistant infections now account for almost 2.5% of infection-related hospitalizations, and we have to assume that that will only go up.”

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Please see additional Important Safety Information for Lantus® continued on the next page.

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Because health matters

resistance are needed, both in the community (for example, a tighter control of physicians' prescribing practices and the elimination of avenues by which people obtain antibiotics without a prescription) and in hospitals (such as the use of better infection control measures), he said.

The findings suggest that insurance status may influence the care of inpatients with resistant infections, noted Dr. Mainous. "Either people without insurance are being discharged prematurely, or people with insurance are [being kept] in the hospital longer than they need to be [so that hospitals can] make money."

The researchers analyzed data from the National Hospital Discharge Survey for the years 1997-2006. Survey participants are a nationally representative sample of short-stay, children's, and general hospitals. They evaluated hospitalizations by looking for diagnosis codes for infections and drug resistance. National estimates were based on a weighted 370.3 million hospitalizations.

Results showed that the annual number of infection-related hospitalizations with resistance rose by nearly 136,000 (or 327%) between 1997 and 2006, reported Dr. Mainous, a professor in the department of

family medicine at the Medical University of South Carolina in Charleston.

Among all hospitalizations, the percentage having a diagnosis of resistant infection increased from 0.12% to 0.46%. And among just infection-related hospitalizations, the percentage having a diagnosis of resistance increased from 0.66% to 2.40%.

The mean age of patients having resistant infections fell sharply, from 65.7 years in 1997 to 44.2 years in 2006. The rise in these infections was greatest among patients younger than 18 years of age.

By far, the most common resistance

found was to penicillin, with penicillin-resistant infections accounting for 94% of all resistant infections. Infections having isolated vancomycin resistance came in a distant second, at 3%.

In a favorable 10-year trend, hospitalizations that involved resistance were more likely to end in routine discharge.

Growing awareness of antibiotic resistance may have altered coding practices during the study period, Dr. Mainous acknowledged. Additionally, the study was limited by the inability to tell if infections arose in the hospital or in the community, and how severe they were. ■

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