

# Hospitals without Pharmacist-led Antimicrobial Prophylaxis Exhibited Worse Patient Outcomes, Higher Costs

Pharmacist-managed antimicrobial prophylaxis in surgical patients was associated with reduced patient deaths, reduced infections, shortened hospital stays, and lowered costs, according to a September 15, 2007, article in the American Journal of Health-System Pharmacy. Antimicrobial prophylaxis is the prevention of post-surgical infection complications through the use of antimicrobial medications.

Hospitals surveyed that did not have pharmacist-managed antimicrobial prophylaxis showed the following results among Medicare patients in 1998:

- 52.06% higher annual death rates (105 excess deaths);
- 34.30% higher infection complications;
- 10.21% higher length of hospital stays (167,941 excess patient days);
- 3.10% higher total Medicare charges (\$182.1 million excess total Medicare charges);
- 7.24% higher drug charges (\$54.3 million excess drug charges); and
- 2.72% higher laboratory charges (\$13.8 million excess laboratory charges).

Researchers mailed 3,950 surveys to the directors of pharmacy of acute care, general medical – surgical hospitals, and acute care pediatric hospitals; 950 surveys were returned. Among those 950 hospitals, 860 had at least one Medicare patient with a surgical identification code and 162 of those hospitals offered pharmacist-managed antimicrobial prophylaxis.

If all U.S. hospitals made pharmacist-managed antimicrobial prophylaxis available for all Medicare patients, researchers predicted 488 fewer deaths, 724,468 fewer patient days in hospitals, \$865.8 million in reduced total Medicare charges, \$258.0 million in reduced drug charges, \$65.4 million in reduced laboratory charges, and 4,231 fewer patients with surgical-site infections.

The complete research results are available at [www.ashp.org/s\\_ashp/docs/files/advocacy/policy\\_alert/AJHP\\_Antimicrobial\\_Prophylaxis\\_9\\_15\\_07.pdf](http://www.ashp.org/s_ashp/docs/files/advocacy/policy_alert/AJHP_Antimicrobial_Prophylaxis_9_15_07.pdf)

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ASHP Health Policy Alerts are synopses of new studies highlighting the medication-use process in health care, especially studies assessing contemporary pharmacists' role in improving medication-use outcomes. The American Society of Health-System Pharmacists encourages recipients to keep a copy of this synopsis for future reference.

