

Many healthcare-acquired infections can be prevented

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As many as 70% of certain cases of healthcare-acquired infections may be preventable with current evidence-based strategies according to a new study by Craig A. Umscheid, MD, MSCE, Assistant Professor of Medicine and Epidemiology and Director of the Center for Evidence-based Practice at the University of Pennsylvania. Healthcare-acquired infections are infections that occur during a hospitalization and that are not present prior to hospital admission.

Using estimates from national reports and published studies related to healthcare-acquired infections, the study suggests that if best practices in [infection](#) control were applied at all US hospitals, reducing the number of cases of catheter-associated bloodstream infections could save as many as 5,520-20,239 lives annually; for ventilator-associated pneumonia, 13,667- 19,782 lives annually; for catheter-associated urinary tract infections, 2,225-9,031 lives annually; and for surgical site infections, 2,133-4,431 lives annually.

The study by Umscheid and five Penn colleagues is published in February's issue of [Infection Control and Hospital Epidemiology](#).

Examples of current prevention strategies include clinician education, hand hygiene, maximum sterile barrier precautions during catheter insertion, chlorhexidine disinfection of [catheter](#) and surgical sites, prompt removal of unnecessary catheters, good blood sugar control in the surgical setting, and appropriate use of antibiotics.

Reducing hospital acquired infections also saves money. Based on the studies examined, preventable cases of catheter-associated bloodstream infections are likely to have the highest associated costs, ranging anywhere from \$960 million to \$18.2 billion annually. The hospital costs of preventable ventilator-associated [pneumonia](#) are estimated to be \$2.19 billion to \$3.17 billion annually. Costs of preventable

catheter-associated [urinary tract infections](#) are estimated to be \$115 million to \$1.82 billion annually, and the costs of preventable surgical site infections are estimated to be \$166 million to \$345 million annually.

Umscheid concluded, "Given the limitations of the data used in this study and the resulting uncertainty in our estimates, it is our hope that this study guides future research to accurately measure the impact of strategies to reduce healthcare-acquired infections, as well as the incremental costs of these infections."

Provided by University of Pennsylvania School of Medicine

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