A new study from Columbia University School of Nursing supports a growing body of evidence that women are less likely to contract bloodstream or surgical site infections than their male counterparts.

Researchers investigated the incidence of infection in thousands of hospitalized patients and found the odds for women succumbing to a bloodstream infection (BSI) and surgical-site infection (SSI) were significantly lower than for men. The odds of community-associated BSI were 30% higher in men compared to women, for healthcare-associated BSI, 60% higher in men compared to women, and for SSI, 60% higher in men compared to women.

Results also showed the differences in gender for infection rates were less in young children less than twelve years old and in adults over the age of seventy.

The study, "Gender Differences in Risk of Bloodstream and Surgical Site Infections," was published in the Journal of General Internal Medicine.

"By understanding the factors that put patients at risk for infections, clinicians may be able to design targeted prevention and surveillance strategies to improve infection rates and outcomes," says Bevin Cohen, MPH, Program Director, Center for Interdisciplinary Research to Prevent Infections (CIRI) at Columbia University School of Nursing, and the lead author of the study.

All study data were collected retrospectively from electronic sources shared by a tertiary care hospital, a pediatric acute care hospital, and a community hospital within a large, academically affiliated hospital network in New York City.

A possible reason for the gender differences in both BSI and SSI incidence may be the biological differences between men and women's skin. The authors reference several studies that have found that bacterial colonization of the skin surrounding a central venous catheter at the insertion site is greater on men than on women.

Says Cohen: "In addition to using enhanced infection risk profiles to improve infection rates, it may be sensible to conduct specialized preoperative skin decontamination procedures and postoperative wound care for men to further reduce the risk of infection."

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