

## ED Visits by the Elderly Linked to Infection Risk

The risk of acute infection among elderly patients was increased threefold in association with a visit to the emergency room.

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January 19, 2012 – A greater than threefold risk of acute gastrointestinal or respiratory infection in elderly residents of long-term care facilities was associated with a visit to the emergency department, a new report indicates.

Caroline Quach, MD, with McGill University, Montréal, and colleagues reported their findings in the January 2012 issue of the *Canadian Medical Association Journal*.

According to the authors, healthcare-associated deaths comprise the leading cause of death in the United States. In addition, healthcare-associated infections occur in 11.6% of adults in Canada. Little is known, however, about infections arising in other healthcare settings. Therefore, the authors sought to determine the risk of infection among elderly residents of long-term care facilities, since they are likely to be at the greatest risk of morbidity and mortality from infectious diseases.

The rates of new gastrointestinal and respiratory infections were evaluated among 1,269 residents (aged 65 years and older) of 22 long-term care facilities, 424 of whom visited the emergency department during the study.

New infections were acquired in 21 (5.0%) residents who visited the emergency department (incidence of new infections 8.3/1000 patient-days), and 17 (2.0%) who did not (incidence of new infections 3.4/1000 patient-days). Following a visit to the emergency department, the adjusted odds ratio for the risk of new infection was 3.9 (95% confidence interval [CI] 1.4–10.8), corresponding to an absolute risk difference of 3.0%. The increase in risk was similar for gastrointestinal and respiratory infections.

After stratification for the presence of an outbreak, a visit to the emergency department was associated with an increased infection risk only in the absence of a current outbreak in the facility (odds ratio [OR] 3.9 [95% CI 1.7–8.6], compared with OR 0.5 [95% CI 0.1–2.8] if an outbreak was present).

“In our study, a visit to the emergency department between September and May was associated with increased risk of a new respiratory or gastrointestinal infection in the week following the visit, but only in the absence of an outbreak at the resident’s facility. In the presence of an ongoing outbreak, residents who visited the emergency department did not have an increased risk of infection,” Dr. Quach and colleagues conclude.

According to the authors, further “research is also required to identify specific sources of transmission in the emergency department (e.g., waiting room, examination and observation rooms, corridor, staff or other patients) and to monitor for the presence and compliance to infection control guidelines and policies.”

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