

# Risk of hospital-treated infections and use of antibiotics after hip fracture surgery

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In a *Journal of Bone and Mineral Research* study that examined trends in the incidence of infections following hip fracture surgery in Denmark, the risk of postoperative infections (at 15, 30, 90, and 365 days) increased between 2005 and 2016.

The incidence of all hospital-treated infections within 30 days after hip fracture surgery increased by 32 percent, from 10.8 percent in 2005-2006 to 14.3 percent in 2015-2016. The risk of hospital-treated pneumonia within 30 days increased by 70 percent in 2015-2016 compared with 2005-2006. Community-based [antibiotic prescriptions](#) within 30 days after surgery increased by 54 percent, from 17.5 percent in 2005-2006 to 27.1 percent in 2015-2016.

The study—which included a total of 74,771 [patients](#) aged 65 years or older with first time hip fracture surgery—revealed that risk of infections was substantially higher in hip fracture patients than in the age- and gender-matched general population, and the risk of hospital-treated pneumonia and antibiotic prescriptions increased more over time among hip fracture patients.

"This nationwide study found increasing risk of hospital-treated infections and community-based antibiotic prescriptions after hip fracture surgery during the 12-year study period, which could not entirely be explained by increases seen in the [general population](#)," said lead author Kaja Kjørholt, of Aarhus University Hospital, in Denmark. "Given the high mortality following infections in elderly individuals,

future research and clinical work should focus on improving our understanding of the risk factors and patient profiles associated with postoperative infections. Knowledge of risk factors may enable cost-effective preventive measures and treatment protocols to reduce infections and mortality."

**More information:** Kaja E Kjørholt et al, Increasing Risk of Hospital-Treated Infections and Community-Based Antibiotic Use After Hip Fracture Surgery: A Nationwide Study 2005-2016, *Journal of Bone and Mineral Research* (2018). [DOI: 10.1002/jbmr.3620](https://doi.org/10.1002/jbmr.3620)

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