



## **Patients with hip fracture: A decade of morbidity and surgery**

av

**Noelle Probert**

### **Akademisk avhandling**

Avhandling för medicine doktorsexamen i kirurgi,  
som kommer att försvaras offentligt  
fredagen den 19 januari 2024 kl. 09:00,  
Värmlands museums hörsal

Opponent: Professor Katarina Wilhelmsson  
Sahlgrenska akademien  
Göteborgs Universitet

Örebro universitet  
Institutionen för medicinska vetenskaper  
701 82 ÖREBRO

## **Abstract**

Hip fracture is a devastating condition causing excess mortality in older people. Over recent time, incidence has declined while mortality remains unchanged, suggesting changes in morbidity. Swedish national guidelines recommend preoperative full-body disinfection (FBD) to prevent surgical site infection (SSI) despite little evidence, a method causing patients' substantial pain. The aim of this thesis was to investigate differences in comorbidity, malnutrition, sarcopenia, mortality, surgical characteristics, and functional outcome in patients with hip fracture, ten years apart (I-II). Another aim was to compare preoperative FBD with local disinfection (LD) of the surgical site regarding SSI incidence (III) and experiences of nursing personnel (IV). Patients with hip fracture from 2008 and 2018 (I-II) respectively from 2018 to 2019 (III) and orthopedic nursing personnel (IV) were included. Anthropometric measurements were collected prospectively (I-II) and data from medical records (I-III) and the Swedish hip fracture register (II) were collected retrospectively. Focus group discussions were conducted and analyzed by content analysis (IV). Results suggest increasing levels of comorbidity over time while malnutrition and sarcopenia decreased, potentially explaining the unaltered mortality (I). Concurrently, choice of surgical method seems to have changed, potentially contributing to the seen improvements in functional outcome (II). Study III presented no significant difference in SSI incidence between 2018 (FBD) and 2019 (LD) in the adjusted regression analysis and in study IV nursing personnel testified to an increased wellbeing in patients after the switch to LD. In conclusion, patients who succumb to hip fracture today are not the same as they were yesterday, highlighting the importance of continuous adjustment of treatment and care.