

The elderly have an increased risk of fractures, since they often suffer from osteoporosis in addition to having an increased risk of falling. The choice of treatment technique for fractures depends on the fracture's location, the position of the fractured bone and circumstances relating to the patients, but discretionary judgement and local practice also have a bearing on the choice. The most common types of fractures in the elderly are wrist and femoral neck fractures.

### Background

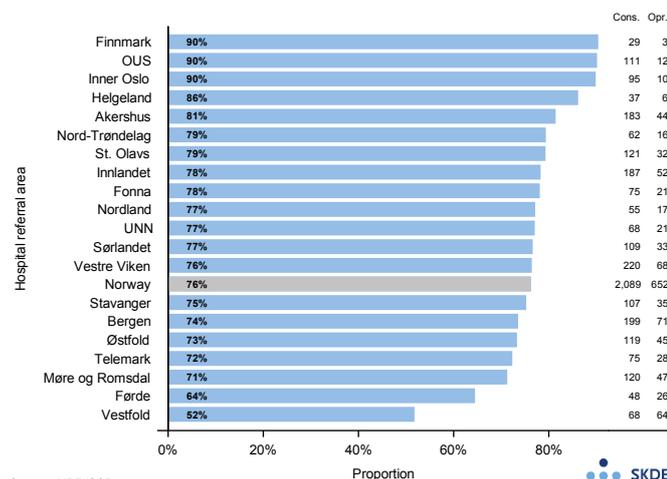
There are approx. 12,500 wrist fractures in Norway each year, and the incidence is deemed to be among the highest in the world. Stable fractures can be reduced and a plaster cast applied (conservative treatment), while unstable fractures require surgery with pins, external fixation or plates (osteosynthesis) to keep the fracture in position.

Approx. 5,000 femoral neck fractures are reported to the Norwegian Hip Fracture Register each year, and this incidence is very high in the international context. Some of the fractures are correctly aligned, while the more serious fractures (approx.

70-75%) are displaced. Undisplaced fractures can be treated by inserting screws or nails (osteosynthesis), while hip replacement surgery is recommended for displaced fractures.

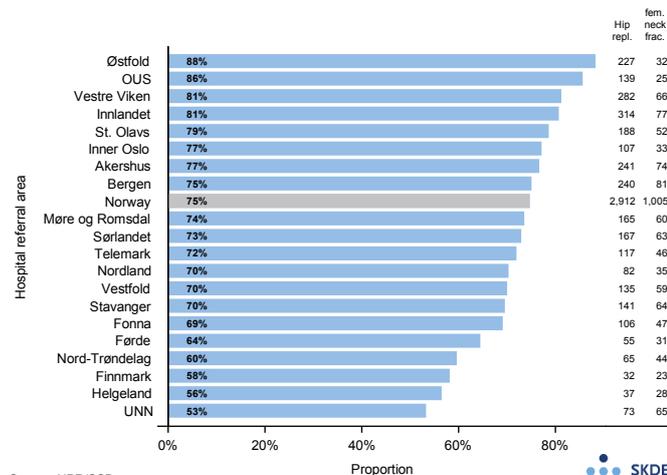
### Results

Each year, nearly 2,700 wrist fractures in elderly patients are treated in hospital, and as many as 87% of these fractures are suffered by women. The average age of these patients is 83.3 years. For Norway as a whole, conservative treatment is used for as many as 76% of the fractures. Conservative treatment is used for approx. 70% more wrist fractures in Finnmark, OUS and Inner Oslo hospital referral areas than in the Vestfold area.



Source: NPR/SSB

Wrist fractures, proportion of fractures treated conservatively, adjusted for gender and age. Av. number treated conservatively and surgically per year.



Source: NPR/SSB

Femoral neck fracture, proportion treated with hip replacement, adjusted for gender and age. Av. number of fractures treated with hip replacement and osteosynthesis per year.

There are approx. 4,000 femoral neck fractures among elderly people in Norway each year. The proportion of women among these patients is 70%, and the average age is 85.6 years.

Femoral neck fractures are treated with hip replacement approx. 70% more often in residents of Østfold hospital referral area than in residents of the UNN area.

### Comments

There is variation between hospital referral areas in the choice of treatment techniques for wrist and femoral neck fractures. Considering the low number, particularly of wrist fractures, there is reason to believe that much of the observed variation between hospital referral areas is random, and the variation can therefore be characterised as relatively small.

National guidelines for wrist fractures that are intended to ensure uniform treatment have existed since 2013, without this resulting in the harmonisation of variation in practices between hospital referral areas in the period 2013–2015.

There are no national guidelines for the treatment of femoral neck fractures, but international documentation indicates that elderly patients with displaced fractures should be treated with hip replacement surgery. There is no reason to believe that the described variation in treatment techniques can be explained by geographical differences in the proportion of displaced and undisplaced fractures.

The specialist communities' treatment preferences, combined with the available surgical capacity, are probably weighty factors when choosing between treatment methods.