Orthopaedics 2012-2016

Shoulder fractures

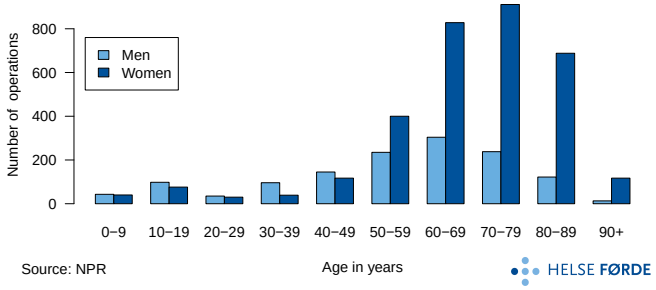
Helseatlas

Shoulder fractures account for approx. 5 % of adult extremity fractures. In persons over 60 years of age, shoulder fractures are the third most common type of fracture, with only hip and wrist fractures being more common. Conservative treatment is considered relevant for about 80 % of shoulder fractures. If a fracture is clearly displaced or the bone has shattered into several pieces, surgery may be an option. Surgery can take the form of pinning, plate fixation or prosthetic replacement. Damage to nerves and blood vessels occurs in connection with 20–35 % of shoulder fractures, and prosthetic replacement may be necessary at a later date if the blood supply to the bone has been damaged or the bone fails to heal.

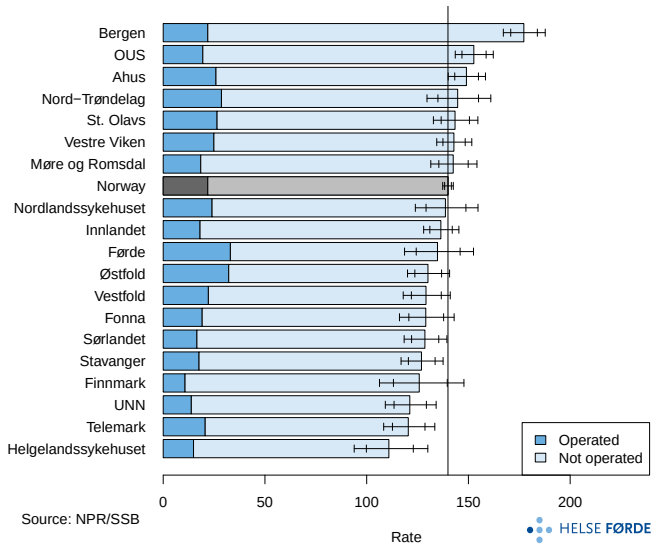
Background

Shoulder fracture is defined by a primary or secondary diagnosis of S42.2 (ICD-10). Surgical treatment of shoulder fractures is defined by a diagnosed shoulder fracture in combination with one or more of the NCSP procedure codes NBJ21, NBJ31, NBJ41, NBJ51, NBJ61, NBJ71, NBJ81, NBJ91, NBB02, NBB12, NBB20, NBB30, NBB40, NBB99 (NCSP). Conservative treatment is defined by a shoulder fracture diagnosis and the absence of procedure codes for surgical treatment as listed above. Patients aged 18 years or older are included in the sample, except in the figure that shows gender and age distribution of patients who have been operated.

Each year there are more than 5,500 shoulder fractures in Norway, and 16% of patients with shoulder fractures have surgery.



Total number of operations for shoulder fractures during the period 2012–2016, for Norway as a whole. The patients have been broken down by gender and age group.



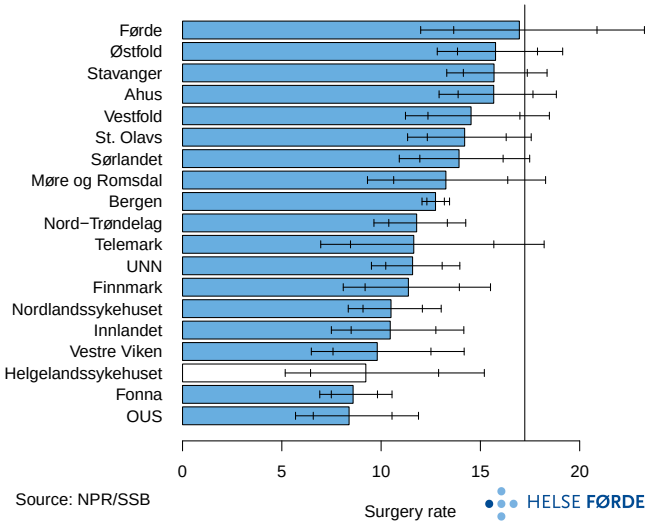
Fracture rate: Total number of shoulder fractures per 100,000 population (18 years and older) in 2012–2016, broken down by hospital referral area and for Norway as a whole. Bars show average value per year with 95 % and 99.8 % confidence intervals, broken down by operated and non-operated fractures. The vertical line indicates the rate for Norway as a whole. Rates have been adjusted for gender and age.

Results

Surgical treatment for shoulder fracture is three times as common in Førde hospital referral area as in the UNN area. However, with a small number of operations, a relatively high proportion of the observed variation could be random. The rate for Finnmark hospital referral area is uncertain because the calculations are based on fewer than 40 persons.

The number of operations per year was stable for Norway as a whole, with some considerable changes in individual areas.The clearest example is Førde hospital referral area, where the surgery rate decreased throughout the period.

Østfold og Førde areas stand out with 25 % operated shoulder fractures, and the lowest percentage is found in the OUS (13 %), Bergen (12 %), UNN (11 %) and Finnmark areas.



Surgery rate: Number of operated shoulder fractures per 100,000 population (18 years and older), broken down by hospital referral area. Bars show average value per year, with pertaining 95 % and 99.8 % confidence intervals. The vertical line indicates the average for Norway as a whole. Rates have been adjusted for gender and age. Finnmark: the calculation is based on fewer than 40 unique persons, and this makes the rate uncertain.

Comments

The systematic variation in surgical treatment of shoulder fractures is moderate to high. There is no great variation in fracture rates between hospital referral areas and there is reason to believe that the variation in surgical treatment for shoulder fractures is unwarranted.

The percentage of shoulder fractures operated on is somewhat lower than expected, but it corresponds to the proportion of shoulder fracture patients expected to benefit from surgical treatment, nationally and internationally.