

 ORIGINAL ARTICLE

Early results and future challenges of the Danish Fracture Database

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INTRODUCTION

The Danish Fracture Database (DFDB) was established in 2011 to establish nationwide prospective quality assessment of all fracture-related surgery. In this paper, we describe the DFDB's setup, present preliminary data from the first annual report and discuss its future potential.

MATERIAL AND METHODS

The DFDB collaboration includes 13 hospitals and covers a population of 3.7 million. Data registration is performed on-line by the surgeon following surgery, and it includes patient-, trauma- and surgery-related data. Primary procedures, reoperations and planned secondary procedures are registered. Indication for reoperation is also recorded. The reoperation rate and the one-year mortality are the primary indicators of quality.

RESULTS

Approximately 10,000 fracture-related surgical procedures were registered in the database at the time of presentation of the first annual DFDB report (currently 15,000). 85% of all procedures were performed on adult fractures and 15% on paediatric fractures. Proximal femur (33%), distal radius (15%) and malleolar fractures (12%) were the three most common primary adult fractures. Pain and discomfort from orthopaedic hardware, infection and failure of osteosynthesis were the three most common indications for reoperation and accounted for 34%, 14% and 13%, respectively.

CONCLUSION

The DFDB is an online database for registration of fracture-related surgery that allows for basic quality assessment of surgical fracture treatment and large-scale observational research by registering primary surgery, reoperations and planned secondary procedures.

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 ORIGINAL ARTICLE

Major congenital anomalies in a Danish region

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INTRODUCTION

This study describes the prevalence of congenital anomalies and changes over time in birth outcome, mortality and chronic maternal diseases.

MATERIAL AND METHODS

This study was based on population data from the EUROCAT registry covering the Funen County, Denmark, 1995-2008. The registry covers live births, foetal deaths with a gestational age (GA) of 20 weeks or more, and terminations of pregnancy due to congenital anomalies (TOPFA).

RESULTS

The overall prevalence of congenital anomalies was 2.70% (95% confidence interval: 2.58-2.80). The majority of cases had an isolated congenital anomaly, 13.9% had a chromosomal anomaly and 7.7% were multiple congenital anomalies. The combined foetal and infant mortality in the study area was 11.6 per 1,000 births. 19% (2.2 per 1,000) of these deaths were foetuses and infants with major congenital anomalies. Combined foetal and infant mortality decreased significantly over time for cases with major congenital anomalies ($p < 0.001$), whereas the number and proportion of TOPFA increased. Median GA at TOPFA decreased from 18 to 15 weeks. Among the congenital anomaly cases, 8% had a registration of one of these chronic maternal diseases: diabetes, epilepsy, mental disorder, thyroid disease, asthma, or inflammatory bowel disease. Medication for these conditions accounted for 46% of maternal drug use.

CONCLUSION

Maternal morbidity and use of potentially teratogenic medication have increased among congenital anomaly cases. Foetal and infant mortality for congenital anomaly cases have decreased significantly, probably owing to an increase in early prenatal diagnosis and TOPFA.

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