

Mortality following Periprosthetic Fractures of the Femur: A Retrospective Analysis of the Risk Factors

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Aims

- To retrospectively analyse the mortality rates for patients sustaining periprosthetic fractures of the femur
- To evaluate the risk factors associated with mortality in these patients

Results

- Overall mortality between April 2017 to December 2019 was 34.29%

30-day mortality	11.43%
120-day mortality	20.00%

- Patients with a fracture adjacent to THA had significantly lower mortality rates than those with a fracture adjacent to hip HA or TKA ($p < 0.01$)

Take home points

- Mortality for periprosthetic fractures is significant
- Risk factors identified in this study should be carefully considered during fracture management, so that patient outcome can be optimised, and mortality risks reduced

Methods

- Routine clinical data collected from Victoria Hospital, Kirkcaldy, Scotland, were reviewed and analysed
- Altogether, 35 patients admitted with a periprosthetic femoral fracture around a total hip arthroplasty (THA), or hip hemiarthroplasty (hip HA), or total knee arthroplasty (TKA), were included in final data analysis
- Data on mortality rates, patient characteristics and demographics, fracture-related data, treatment, and patient outcome were retrospectively analysed and tested for significance using chi-square tests and t-tests

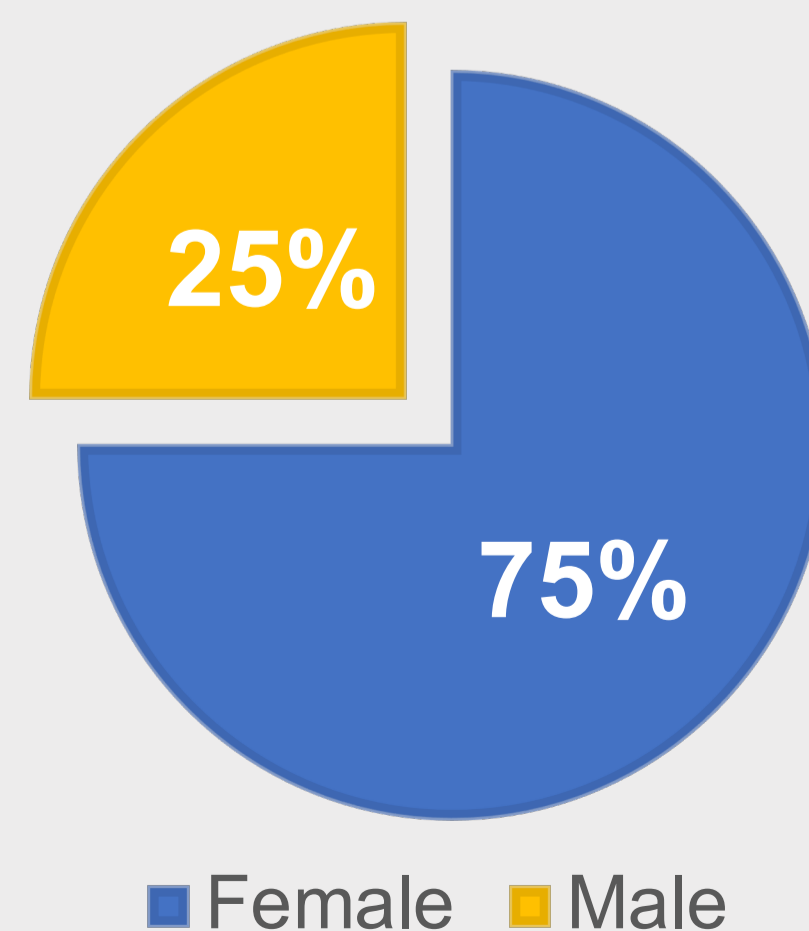
- Risk factors identified in this study that could potentially contribute to higher post-fracture mortality risks include advanced age, female gender and shorter length of hospital stay ($p < 0.01$)

Average patient age

THA	80 years	Hip HA	89 years	TKA	82.7 years
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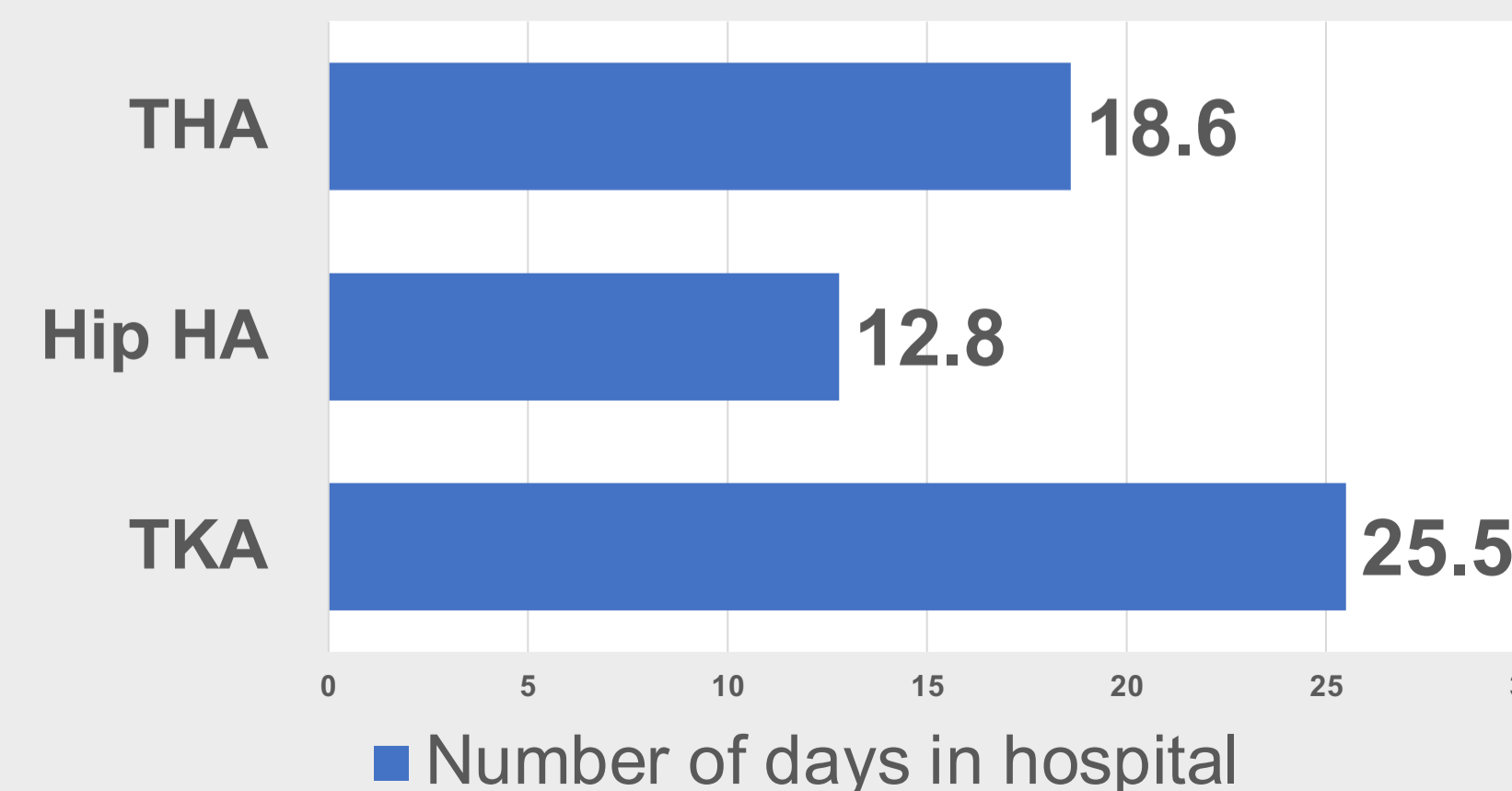
Gender

DECEASED, N=12



Length of hospital stay

LENGTH OF STAY SPLIT BY INDEX OPERATION



30-DAY MORTALITY

THA	Hip HA	p-value
0%	27%	< 0.01
Hip HA	TKA	p-value
27%	9%	< 0.01