



Division of Orthopaedic Surgery

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Title of Project: Antegrade vs Retrograde nailing for humeral shaft fractures. A clinical audit



Abstract

Background: Humeral nails are a routine procedure done at the Helen Joseph Hospital. The choice between fixation options is often influenced by surgeon experience.

Methods: Thirty-one patient folders and x-rays were reviewed retrospectively spanning a period of two years (2014 – 2016). The information collected included age, gender, classification, mechanism of injury and choice of fixation. The data were then entered on to an excel spreadsheet and analysed using Stata software. Numbers and correlations were then noted.

Results: Of the thirty-one patients included in the study, twenty-one patients were males and 10 were females. The youngest patient was 21 years and the eldest was 45 years. The mean age was 34.5 years with a range of 21 – 45 years. Five open fractures were noted in the clinical notes. Two were graded Gustillo Anderson type 1 with the three gunshots each being graded Gustillo Anderson type 3B. The most common mechanism of injury observed was between falls and assault. The most common fracture pattern seen was the AO A2 subtype (simple oblique). The association between the mechanism of injury and classification was statistically significant ($p = 0.017$). There was no correlation between fracture classification and choice of fixation, ($p = 0.569$).

Conclusion: Both antegrade and retrograde humeral nail techniques are effective ways of managing humerus shaft fractures. Antegrade nails by far outnumber retrograde nails possibly based on surgeon experience and potential complications.