

AB145. 129. All hip fractures are not created equal: impact of fracture type, procedure performed and length of stay on total cost of treatment

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Background: Anecdotal evidence from our trauma service suggested that all hip fractures are not created equal. Several authors have reported on time to surgery (TTS), length of stay (LOS) and total cost. We decided to investigate this suspicion and report on implications for hip fracture management. We analysed our hip fracture population and show how patient demographics and operative features may directly impact length of stay and cost of treatment. From a total of 6,584 orthopaedic operations performed between 2014 and 2016 at Mayo University Hospital, we captured 400 neck of femur (NOF) fixations.

Methods: From a total of 6,584 orthopaedic operations performed between 2014 and 2016 at Mayo University Hospital, we captured 400 neck of femur (NOF) fixations. We recorded 12 data fields from theatre logbooks including medical record number, procedure performed and length of operation (LOO). Type of fracture was determined from

plain radiograph with ASA physical classification from the anaesthetic note. TTS and LOS were provided by our patient administration system (PAS) and the completed data set was then analysed and charted in R.

Results: Fifty-five percent of our hip fracture patients underwent hemiarthroplasty while 45% received fixation. LOS varied significantly from a mean of 1.22 (0.23 to 5.08). Mean LOS was 24.7 days (median 15 days) ranging from 1 to 559 days. LOS did not correlate to age or to operation performed. Mean LOS was significantly shorter for patients discharged home, though the ratio of hemiarthroplasty to fixation is the same for both. Implant prices vary from as little as €200 to over €2,000, with operating theatre costing €15,000 for an 8-hour day (from 8:00 until 16:00). Mean total cost of treatment is €21,470 (€3,006 to €421,788)

Conclusions: The total cost of dynamic hip screw (DHS)/percutaneous compression plate (PCCP) (€21,758) is 23% less than that of intramedullary (IM) nailing (€28,385); PCCP is 1/2 the cost of DHS or IM nail ($P < 0.05$). The cost of an orthopaedic bed (€750/day) is still the most critical inpatient cost; €18,554 (of €22,155) is 84% of the cost of hip surgery. Discharge destination and length of stay are shown to have a significant effect on total cost of treatment.

Keywords: Hip; fracture; treatment; outcome

doi: 10.21037/map.2018.AB145

Cite this abstract as: Headon R, Linton K, Headon R, O'Grady P, Bennett D. All hip fractures are not created equal: impact of fracture type, procedure performed and length of stay on total cost of treatment. *Mesentery Peritoneum* 2018;2:AB145. doi: 10.21037/map.2018.AB145