

## Orthogeriatric Hip Fractures: Time To Surgery & Factors Associated With Surgical Delay

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### INTRODUCTION:

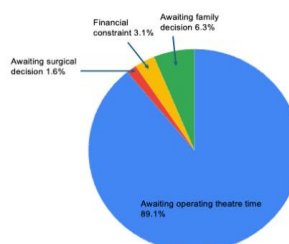
The Malaysian Ministry of Health (MOH) Clinical Practice Guidelines of Management of Geriatric Hip Fracture recommends surgery within 48 hours of admission in medically stable geriatric hip fracture patients.<sup>1</sup> In this study, we analysed time to surgery in an urban tertiary hospital in Malaysia with orthogeriatric services, as well as factors associated with surgical delay.

### MATERIAL & METHODS:

We performed a retrospective review of patients aged  $\geq 65$  years with hip fractures admitted to a single institution in Malaysia from 2022-2023. Data collected included age, time to surgery (defined as time of admission to start of surgery), reason for operative delay, length of hospital stay (LOS) and peri-operative complications. Statistical analysis was done using Mann-Whitney test, with  $p < 0.05$  considered significant.

### RESULTS:

Out of 224 patients who had surgical intervention, 97.3% (n=218) were operated  $> 48$  hours after admission to ward. Median time to surgery was 162.6 hours = 6.8 days. Patients who had undergone surgery within 48 hours had a median LOS of 5 days, while patients who underwent surgery  $> 48$  hours later had a median LOS of 12.2 days, with difference in LOS being statistically significant ( $p < 0.05$ ). After excluding patients requiring medical stabilisation (n=40), reasons for delay in the remaining medically stable group (n=178) were as follows:



**Figure 1:** Reasons for surgical delay

Among the 218 patients who were delayed, 45% (n=99) had complications, including pressure sores (26.4%), pneumonia (5.7%), and urinary tract infection (UTI) (1.9%).

### DISCUSSION:

Even after only taking into account medically stable patients, they still did not have surgery within 48 hours, largely due to lack of operating theatre time. Our rate of complications is consistent with studies highlighting associations between surgery performed  $> 48$  hours after admission with pneumonia, pressure ulcers and UTIs.<sup>2</sup> While we observed an increased LOS in patients with longer time to surgery, we would like to analyse further if this added time was due to surgical delay or longer time to discharge post-operatively.

### CONCLUSION:

In keeping with MOH guidelines, issue of operating theatre time needs to be addressed urgently in order to reduce surgical delay, and thus, complications and LOS.

### REFERENCES:

1. Ministry of Health Malaysia. Clinical Practice Guidelines: Management of Geriatric Hip Fracture. 2023.
2. van Rijckevorsel VAJIM, de Jong L, Verhofstad MHJ, Roukema GR; Dutch Hip Fracture Registry Collaboration. Influence of time to surgery on clinical outcomes in elderly hip fracture patients : an assessment of surgical postponement due to non-medical reasons. Bone Joint J. 2022 Dec;104-B(12):1369-1378.