

# An Audit of Delayed Hip Fracture Surgery at the Royal Glamorgan Hospital

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## Introduction

Hip fracture is a common, serious injury of older people. Evidence increasingly shows that timely surgery relates to both favourable clinical outcomes and financial benefits. We reviewed our practice, focusing on reasons for delayed (>24 hours) surgery, identifying definite areas for improvement.

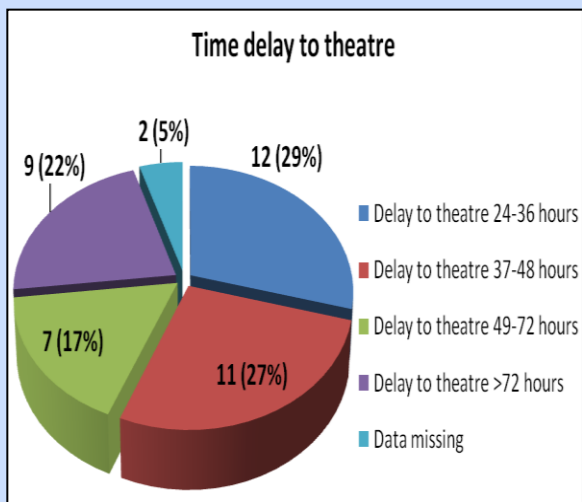
## Methods

Patients presenting to theatre for hip fracture surgery during 2012, whose surgery had been delayed more than 24 hours from hospital admission, were systematically reviewed for reasons for delay.

Delay category	Definition
Theatre	Non-availability of theatre
Surgical	Uncertain diagnosis (requiring further investigation)
Unfit	Medically unfit (McLaughlin criteria)
Other	Medically unfit (non-McLaughlin), multiple reasons & missing data

## Results

- 241 hip fracture patients presented to theatre during 2012
- 47 patients were delayed (20% hip fracture patients)
- 41 patients were included (87% delayed patients)



Reason for delay	Number of cases
Theatre	14
Surgical	4
<b>Unfit</b>	<b>15</b>
Other	8

Analysis of the 'unfit' group identified:

- 15 patients meeting McLaughlin major or minor criteria
  - 9 patients meeting McLaughlin 'major' criteria
  - 6 patients meeting McLaughlin 'minor' criteria
  - No abnormalities were corrected within 24 hours**
- 6 of the 9 McLaughlin 'major' criteria were therapeutically raised INRs
  - The mean time taken to correct INR to <1.5 was 45.2 hours**

## Discussion

# 6 of the 9 patients appropriately delayed as 'unfit' were due to delayed reversal of therapeutically raised INRs; we have produced a protocol for warfarinised patients presenting with hip fracture to promote more timely surgery

# Patients continue to be delayed inappropriately; 'minor' McLaughlin criteria should be corrected peri-operatively with no delay to surgery

# Patients presenting on weekdays were **more likely** to be delayed than those presenting on weekends; we have reviewed our weekday CEPOD/trauma availability to improve this

## Reference

McLaughlin MA, Orosz GM, Magaziner J, et al., Preoperative status and risk of complications in patients with hip fracture, JGIM 2006; 21: 219 – 22