

Quality Improvement Project: Preoperative Anaesthetic and Medical Assessment of patients presenting with proximal femur fractures



Joanna Shak¹, Manish Chablani², Suganthi Joachim²

¹ Core Trainee, ² Consultant Anaesthetists

Anaesthetic Department, Pilgrim Hospital, United Lincolnshire Hospitals NHS Trust

Introduction

- Patients with hip fractures are medically complex with diverse biopsychosocial needs.
- NICE Guidelines and AAGBI states that surgery should be performed less than 48 hours post admission, identifies correctable co-morbidities and emphasises early medical and orthogeriatric involvement.

Correctable co-morbidities

Anaemia <8gdl-1	Acute chest infection with sepsis
Reversible coagulopathies	Exacerbation of chronic chest conditions
Volume depletion	Uncontrolled heart failure
Electrolyte imbalance Na <120 or >150mmolL-1 or K <2.8 or >6.0mmolL-1	Correctable cardiac arrhythmia with ventricular rate >120bpm or ischaemia
Uncontrolled diabetes with ketosis or acidosis	

Unacceptable reasons for delay in surgery

Awaiting echocardiography	Lack of facilities, theatre space or surgical expertise
Minor electrolyte disturbance	

Context

- Pilgrim Hospital is a busy district general hospital treating approximately 360 patients with hip fractures per year.
- The unpredictable nature of trauma lists and complexity of hip fracture patients can lead to delays in theatre start time and delay between admission and operation.
- Orthogeriatrician services are ward based and therefore less suited to ensure early, pre-operative treatment of acute medical co-morbidities in hip fracture patients.
- The aim is to facilitate early pre-operative assessment, correction of co-morbidities and identification of rehabilitation needs.

Methods

- An initial cross-sectional audit of 14 inpatients with hip fractures highlighted cases of sub-optimal management:
 - ECG with missed ischaemic changes.
 - Delay due late diagnosis of severe aortic stenosis.
 - Uninvestigated respiratory symptoms.
- An initiative was implemented:

Alert the on-call anaesthetist upon admission of patients with hip fracture

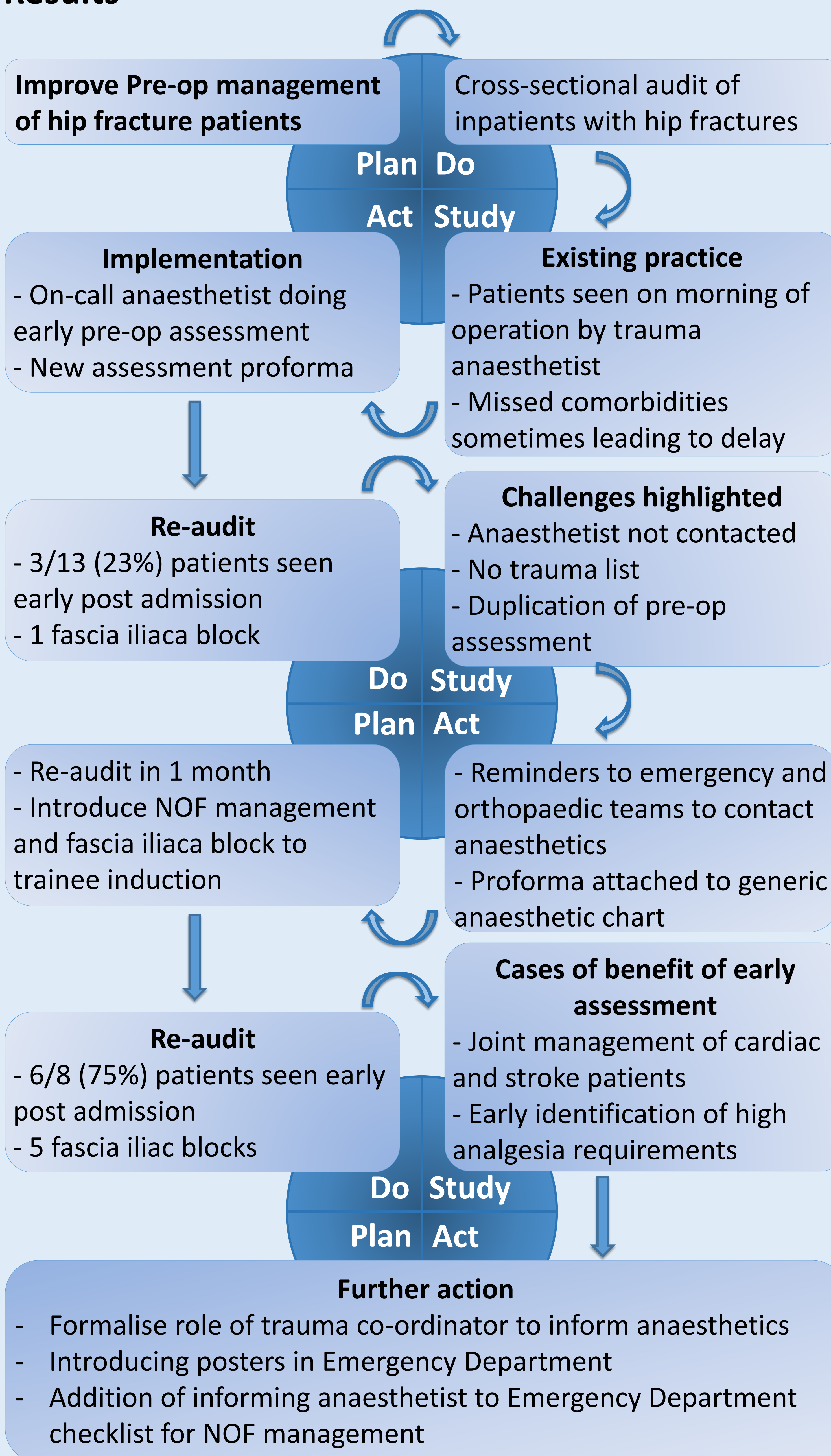
On-call anaesthetist assesses patient and identifies reversible pathology

New pre-op assessment proforma designed to highlight reversible pathology

Fascia iliaca block performed in absence of contra-indication

- Subsequent PDSA (Plan Do Study Act) cycles were carried out over three months to improve implementation.

Results



Conclusion

- This quality improvement project has enhanced **early anaesthetic involvement** in management of complex patients presenting with proximal femur fractures.
- Further audit cycles and staff engagement aims to achieve **sustainable, universal early pre-operative assessment** of patients with hip fracture.
- Potential benefits include:

Early treatment of medical co-morbidities

Identification of rehabilitation needs

Facilitating efficient use of trauma theatre time

References

- Nice Guidelines CG124: "Hip fracture: Management"
- AAGBI guidelines "Management of Proximal Femoral Fractures 2011"