A Snapshot Audit of the Management of Patients aged sixty and above admitted with Neck of Femur Fractures to a Major Trauma Centre in the UK

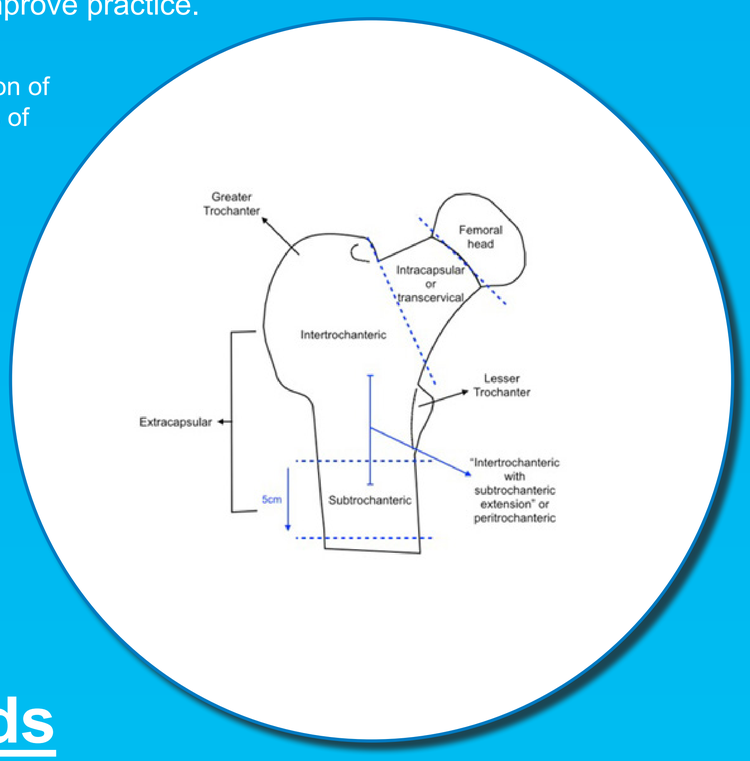
Jatinder Kaur[1], Alexander Schade[1], Katie Thin[2], Mateen Arastu[1]

[1]Trauma and Orthopaedics, [2]Geriatric Medicine, University Hospitals Coventry and Warwickshire NHS Trust

Introduction

Neck of femur (NOF) fractures are the most common serious injury in the elderly population, affecting over 65,000 people aged over 60 in 2016. It costs the NHS and social care £1 billion a year. Hip fracture mortality is high - 10% at one month and 30% at one year. The multiple co-morbidities of these elderly patients make the surgical, anaesthetic, orthogeriatric and rehabilitative management increasingly challenging. Management of these patients should be regularly audited against national standards to continuously improve practice.

Figure 1: illustration of the different types of NOF fractures



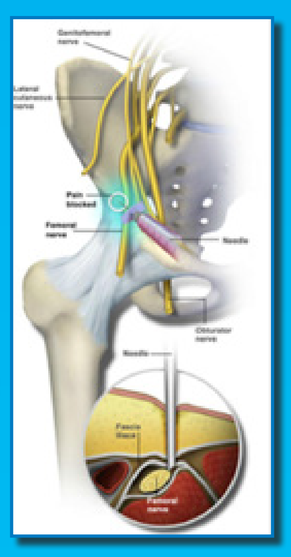


Figure 3: Fascia-iliac block insertion

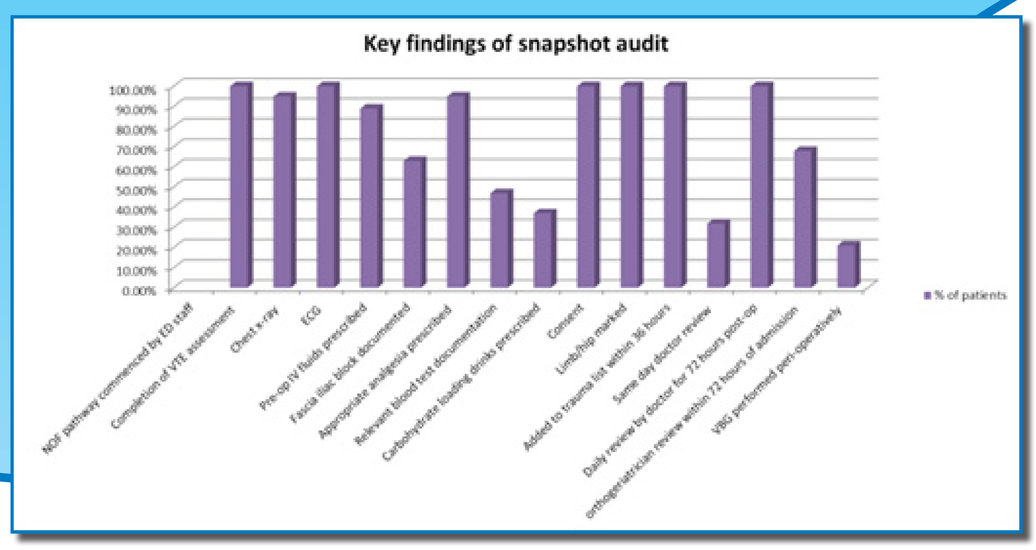
Methods

Notes, bedside charts and drug charts were reviewed for all current inpatients over 60 on 8th February 2018, admitted with a NOF facture (n=19). This day was deemed representative in terms of number and characteristics of inpatients, of any other day within the orthopaedics department of a major trauma centre. The notes were compared to the hospital's NOF fracture pathway standards.

Results

- All patients had a VTE assessment, a pre-operative ECG, a valid consent form and were marked and listed within 36 hours of admission
- The NOF fracture pathway was commenced by ED staff in 68% of patients (n=13)
- 63% (n=12) had documented fascia-iliac blocks pre-operatively
- 68% (n=13) were reviewed by an orthogeriatrician within 72 hours
- 32% (n=6) were reviewed by a doctor on the ward post-operatively on the same day of their surgery
- 21% (n=4) of patients had a VBG peri-operatively

Figure 2: Key results of audit conducted on 8th February 2018



Discussion

For two patients, it was documented that a NOF pathway was not available in ED. Evidence shows that using proformas and checklists significantly reduces chance of error and helps optimise patient safety and care. Lack of availability of pathways should not be a reason for poor delivery of care. Fascia-iliac blocks are an important adjunct to other analgesia given to patients pre-operatively. Callear et al, 2016 found that patients who received a fascia-iliac block received significantly less post-operative and total analgesia, had lower rates of delirium, and patients discharged directly home had a shorter inpatient stay (p values <0.05).

NICE emphasises the importance of multidisciplinary care for hip fracture patients, and so same-day doctor review and rapid orthogeriatric assessment are vital for delivering high quality post-operative care. Performing a VBG on patients peri-operatively is important in order to assess whether they needed a blood transfusion before returning to the ward. Many patients suffer significant blood loss during hip surgery, and therefore they should receive transfusions as early as possible.

Conclusion/Recommendations

- Informative sessions on using the hospital NOF pathway at orthopaedic, emergency medicine and anaesthetic departmental meeting are essential. One session has been conducted as part of the induction afternoon for junior doctors rotating through the orthopaedics department
- A poster to be displayed around the wards and offices, highlighting aspects that are done well and key improvements that need to be made
- Nurses on the NOF area of the ward have now been instructed to bleep the on-call senior house officer to review NOF patients once they have returned to the ward
- NOF pathways should be easily available on relevant wards and within ED. The space provided to documented fascia-iliac blocks should be utilised appropriately
- Space to record VBG results could be added to the anaesthetic proforma. The orthopaedic anaesthetists are keen to support improvement of care for patients with NOF fractures

Re-Audit

A re-audit will be conducted this month in order to assess whether implementation of the recommendations has improved clinical practice and patient care. Auditing the performance of managing post-operative acute kidney injury would be an important addition to the next cycle.

AGE ANAESTHESIA ASSOCIATION

NHS University Hospitals Coventry and Warwickshire NHS Trust