

# Great Cocktail Without the Hangover

D. Lees, W. Harrison, M. Reed

Northumbria Healthcare   
NHS Foundation Trust

## Fascia iliaca block and fast track pain relief for proximal femoral fractures

**Pain relief** is an important part of the hospital experience and the British Orthopaedic Association "Standards for Trauma"<sup>1</sup> recognise that analgesia is a key outcome. NICE guidelines issued in June 2011 recommend the use of "a local anaesthetic block alongside systemic analgesia in the pre-operative period". The fascia iliaca block is such a method and is an easy method often undertaken by Junior Doctors. We further recommend the use of intra-operative local anaesthetic injections combined with an indwelling catheter to deliver direct local anaesthetic infusion to the hip (fast track protocol) to enhance recovery.<sup>2,3</sup>

### AUDIT STANDARDS

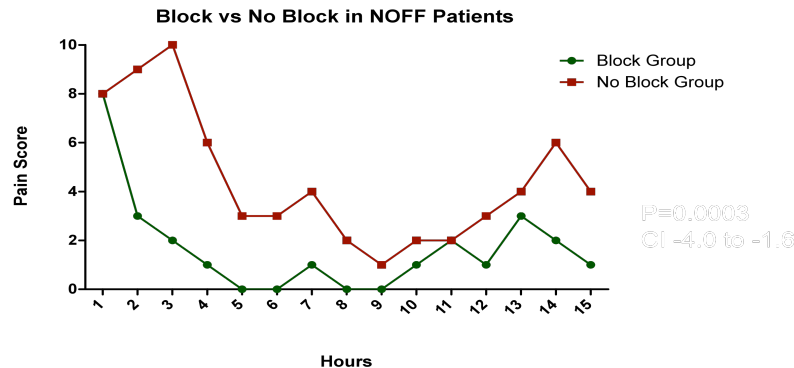
1. All neck of femur fracture (NOFF) patients should receive a fascia iliaca block (FI Block) within 4 hours of admission unless contra-indicated or refused by the patient.
2. All blocks administered should be documented in the patient notes and prescribed on the prescription chart
3. Pain scores should be routinely monitored and actioned with analgesia.
4. All patients should be considered for the fast track protocol unless contra-indicated. Partial protocol can be considered if the full protocol is not appropriate, for example, demented patients may pull out the catheter, but would still benefit from the initial intra-operative local anaesthetic infiltration
5. Reasons for not administering the full fast track protocol should be documented in the patient notes.

### Methods

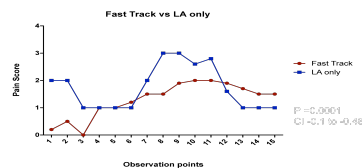
**Cycle 1:** All patients admitted with NOFF for November and December 2010 were identified and information was collected from medical records. Patients with dementia who were unable to verbally communicate pain scores were excluded from the subjective pain score component, but included in all other audit fields.

**Cycle 2:** included an additional site that subsequently adopted the use of the FI Block on admission for the NOFF patients and the methodology for cycle 1 was repeated.

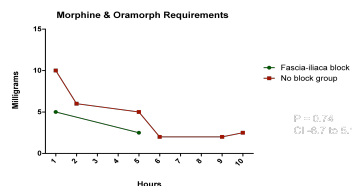
## Pre-Operative Pain Scores



Full Fast Track vs LA only



Use of Opiates Pre-Operatively



### Results

**Cycle 1** (n=56 mean 81 years). FI Block was administered within 4 hours for in 62% of admissions with 78% documented accurately. Failure to administer blocks included staff training (61.8%), patient refusal (14.2%) and equipment unavailability (4.8%).

**Cycle 2** (n=241, mean 84 years). FI Block was administered in 92% of cases within 4 hours of admission (30% increase), with 89% documented accurately (11% improvement). Failure to administer blocks included equipment unavailable (19% - increase of 14.2% due to the increased usage of equipment and delay in stock ordering) and untrained staff 13% (an improvement of 48.8%).

Pre-operative pain scores were significantly less in the patients who received FI Block (mean pain score 1.7) compared to those who did not (mean pain score 4.4). Pre-operative opiate requirement was reduced in the FI Block group (p = 0.74). Complete fast track protocol was delivered in 54% of patients, with the remainder receiving local anaesthetic injections only (20%), catheter only (6%) or excluded (20%) due to renal impairment.

Surprisingly, patients receiving the fast-track protocol had higher pain scores at 12 hours post-operatively (p=0.59) and it was discovered that this group was engaging in physiotherapy tasks more actively than the group receiving local anaesthetic only.

### Conclusions

#### Cycle 1

A&E has embraced this simple technique and has become the main source of administration, often by Junior Doctors.

Development of a bespoke medication chart and admissions document just for NOFF patients including a once only typed prescription of local anaesthetic for the block.

The separate peri-operative NOFF anaesthetic document now provides free-text space for explaining why certain elements of the protocol were not followed to allow feedback.

Data collected was expanded to include opiate usage by each patient, measured against their own corresponding pain scores.

#### Cycle 2

Audit was expanded to 2 separate sites that manage **all** the NOFF's in Northumberland.

Documentation of the FIB demonstrably improved as did levels of staff training in the technique.

Pain scores are significantly improved pre-op in those who receive the block, regardless of opiate requirements.

The development of a custom NOFF database (near completion) to facilitate detailed data collection across multiple sites in preparation for cycle 3.

**References:** 1. Willett K, Marsh D, Moran C, Giannoudis P, Bircher M. British Orthopaedic Association standards for trauma. J Bone Joint Surg Br 2009;91-8:985-6. 2. Kerr D, R., Kohan L. Local infiltration analgesia: a technique for the control of acute postoperative pain following knee and hip surgery: A case study of 325 patients. Acta Orthopaedica 2008;79-2:174-83, 2. 3 Willett K, Marsh D, Moran C, Giannoudis P, Bircher M. British Orthopaedic Association standards for trauma. J Bone Joint Surg Br 2009;91-8:985-6. 3. Malviva A, Reed M. Enhanced recovery programme for hip and knee replacement leads to reduction in death rate. Acta Orthopaedica In Press.