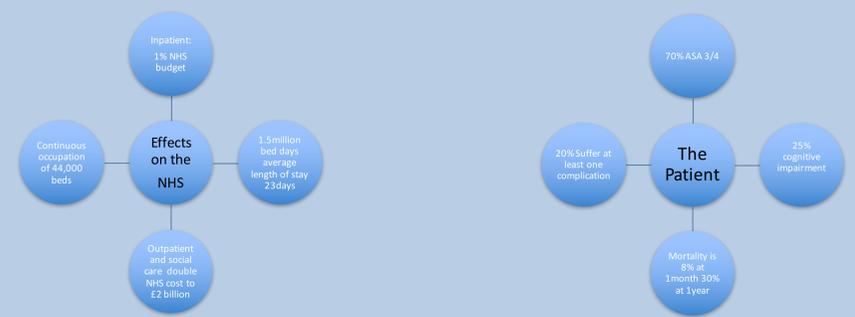


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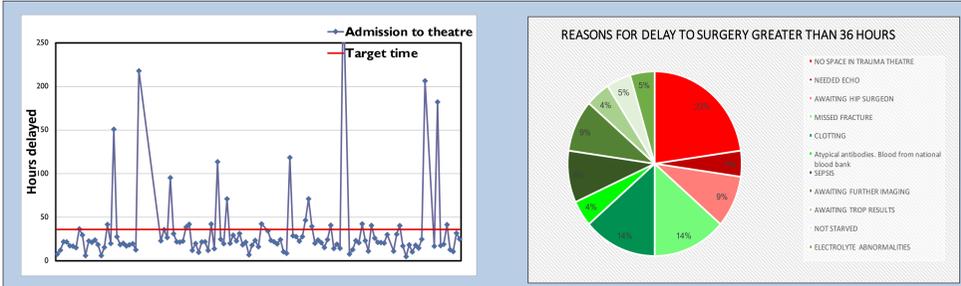


BACKGROUND

Hip fractures (NOFs) continue to pose a key challenge to health care. They remain the commonest reason for the elderly population to need emergency surgery, costing the NHS over £1 billion per year. [1]
 A prospective audit in 2015 at Croydon University Hospital (CUH) observed sub-optimal practice with protracted time to surgery 63% (national average 86%). With the introduction of a multidisciplinary QI bundle, the aim of this study was to demonstrate service improvement.



INITIAL AUDIT- PROBLEMS IDENTIFIED



Graph 1: total admissions to theatre within a 6 month period and hours delayed
 Graph 2: highlights reasons for delay. Red coloured areas are AAGBI unacceptable delays.

INITIAL AUDIT RESULTS OVER 6 MONTHS

Standards	National Average 2016	Croydon (2016) May-Nov	
Surgery within 36 hours	86%	81%	✗
Nerve Block Documentation*	43%	86%	✓
Consultant Surgeon	62%	24%	✗
Consultant Anaesthetists	72%	83%	✓

GUIDELINES FOR THE CARE OF PATIENTS WITH NOF

AAGBI: RECOMMENDATIONS CONCERNING ACCEPTABLE AND UNACCEPTABLE DELAYS FOR SURGERY

<ul style="list-style-type: none"> ✓ [Hb] <80 ✓ [Na] <120 or > 160 ✓ [K+] <2.8 or >6.0 ✓ Uncontrolled diabetes ✓ Correctable Cardiac arrhythmias with a ventricular rate >120bpm ✓ Chest Infection with sepsis ✓ Reversible Coagulopathy 	<ul style="list-style-type: none"> ✗ Lack of Facilities or Theatre space ✗ Awaiting Echocardiography ✗ Unavailable surgical expertise ✗ Minor Electrolyte abnormalities
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BEST PRACTICE TARIFF CRITERIA

The key clinical characteristics of best practice were chosen by a group of clinicians and service managers chaired by the National Clinical Director for trauma care. The characteristics are applied to patients aged 60 years of age and over are defined as:

- Time to surgery within 36 hours from arrival in an emergency department, or time of diagnosis if an inpatient, to the start of anaesthesia
- Admitted under the joint care of a consultant geriatrician and a consultant orthopaedic surgeon
- Admitted using an assessment protocol agreed by geriatric medicine, orthopaedic surgery and anaesthesia
- Assessed by a geriatrician in the preoperative period: within 72 hours of admission.
- Postoperative geriatrician-directed multi-professional rehabilitation team
- Fracture prevention assessments (falls and bone health).

CHANGES IMPLEMENTED – NEW HIP BUNDLE

An improvement bundle for hip fractures was introduced at our hospital.

THE BUNDLE INCLUDED:

- Clear assessment and referral pathway for NOF patients.
- Anaesthetic review within 6 hours to aid surgical optimisation.
- Raising awareness of the 'trauma coordinator' post.
- Education on the importance of documenting pain scores in A&E.
- Training on Fascia iliaca block (FIB) administration in A&E and in theatre.
- Introduction of FIB stickers to improve documentation and improve safety by avoiding duplication of block at two sites.
- Weekly clinical governance highlighting a "process of the week" and relaying feedback of current care.
- Designated "NOF noticeboard" outside the trauma theatre displaying current targets.

THE MAIN OUTCOMES OF INTEREST IN LINE WITH NICE AND THE NATIONAL HIP FRACTURE DATABASE WERE:

- Admitted using an MDT agreed assessment protocol
- Time to surgery to be within 36 hours -Target 85%
- The consideration of nerve blocks for perioperative pain- Target 45%
- Weekly trauma meetings between anaesthetists, orthopaedics, theatre team, managers and allied healthcare staff to identify problems in the service and bring in the solutions.

KEY MESSAGE:

By adopting a standardised, protocol-driven approach to referrals and perioperative management of NOFs we are developing a culture of continuous improvement and awareness across the Trust. This has made significant improvements in our perioperative management of patient presenting with NOFs.

RESULTS

SUMMARY OF RESULTS LOOKING AT CARE OF NOF PATIENTS AT CROYDON UNIVERSITY HOSPITAL

	National Average 2016 (%)	CUH 2015	CUH 2016 (Post intervention)
Surgery within 36 hours	86	63.7	81
Perioperative pain assessment	71.6	31.2	56.6
Nerve block documentation	43.3	NR	86.1
Consultant surgeon in theatre	62.6	27.5	24.6
Consultant anaesthetists in theatre	72.2	74	83

Since the introduction of QI bundle 120 NOF patients have been treated. **Results show-**

- Adherence to the referral pathway has been high.
- Time from diagnosis to surgery at 36 hours is now 81%.
- Use of nerve blocks for perioperative pain has improved to 86% (national average 46%).
- 50% increase in performance of FIB with spinal anaesthesia intraoperatively.
- Documentation of perioperative pain scores has improved.
- Improvement in senior presence in theatre.
- 'Trauma coordinator' job has been approved.
- Fascia iliaca block stickers have been introduced Trust wide to improve documentation and communication between teams.
- Awareness and culture across the Trust has shown to be more positive, hence improving the overall service and quality of care.

WHERE NEXT?

STICKERS TO AID FIB DOCUMENTATION

With the introduction of Quality improvement bundle we have shown significant improvements with the overall care for patients with NOFs.

NEXT STEPS-

- Provide regular teaching on Nerve blocks to A&E staff esp. on their induction day.
- Re-audit to show the usability of the stickers.
- Appointment of a trauma coordinator staff to tie in the multidisciplinary teams and to be the bleep holder of the service to deal with any trouble shooting.

Fascia Iliaca Compartment Block			
Patient's name	DOB	MRN	
Date	Time (24 hours' time)		
Clinician's Name	Designation		
Department	A&E	Ward	
Pain score	Before FIB	After FIB	
FIB Offered	Yes	No	
FIB Performed	Yes	No	Why?
Side	Right	Left	
Aseptic precautions	Aseptic spray	Gloves	
Technique	Landmark	Ultrasound	
Local to skin	Lignocaine ___ %	___ ml	
Needle	Tuohy	Other	
Local anaesthetic	Lignocaine ___ % ___ ml	Bupivacaine ___ % ___ ml	
Immediate complications	Yes	No	
Comments			

References

- Royal College of Physicians. National Hip Fracture Database annual report 2016. London: RCP, 2016. <http://web1.crownaudit.org/Report2016/NHFD2016Report.pdf> [Accessed January 2016]
- National Institute for Health and Care Excellence. Hip fracture in adults: quality standard (QS16). London: NICE, 2012. www.nice.org.uk/guidance/qs16 [Accessed January 2017]