PAIN: what's the deal

By Benjamin Langton
Senior Physiotherapist
Ashford Hospital
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What is pain?

- "Pain is whatever the experiencing person says it is, existing whenever he says it does“

  Margo McCaffery

- ‘Pain is a multi-system output that motivates and assists the individual to get out of a situation that the brain perceives to be threatening body tissue’

  (Lorimer Moseley 2006)

- An unpleasant sensory and emotional experience…

  …caused by actual or potential tissue injury,

  …or described in terms of such injury.

  (International Association for the Study of Pain)

Pain in the elderly

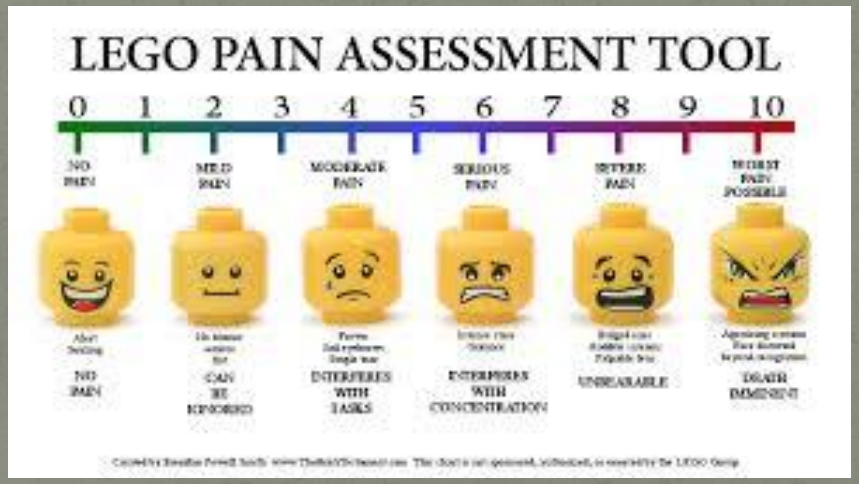
- Pain following a fractured neck of femur can be severe; in addition patients often have underlying medical problems
- The number of people over 65 in the UK is increasing and by 2050 the percentage is projected to be 36% of the population
- Pain is common in people over 65. Studies report that daily pain affects around 25–50% of the population in the community and 80% in long-term care facilities (American Geriatrics Society Panel on Persistent Pain in Older Persons, 2002)
- Furthermore, of those in care, 50% are cognitively impaired (Epps, 2001), thus greatly increasing the difficulty of pain assessment
- In addition to reports of chronic pain, studies reveal that acute pain (Desbiens et al, 1997)is poorly managed.
- The reasons for under-treatment of pain are complex and include issues around pain assessment and patient reports of pain, reluctance to prescribe opioids and to take pain medications.

Falls and Fracture in the elderly

- Falls are common among older people, often resulting in fractures, particularly the neck of femur
- A large percentage have significant co-morbidities and are often taking numerous medications which makes assessing and managing pain challenging.
- In addition to a fractured neck of femur, older patients often present in A&E with acute medical problems such as chest or urine infections, or heart failure, which may well have been the cause of the fall. This group of patients are likely to be malnourished on admission and show a rapid deterioration in nutritional status during admission (Nematy et al, 2006).

Current problems with pain and its assessment

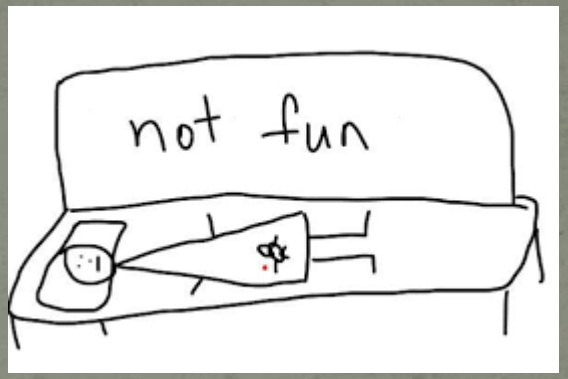
- Fractures cause significant pain which can be exacerbated by movement.
- There are problems surrounding nurses' assessment and patients' reports of pain.



Evidence

- A growing body of research supports the link between serious post-operative complications such as deep vein thrombosis, infections, sepsis, paralytic ileus, acute renal failure and uncontrolled pain (Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine, 2005). In addition, pain can interfere with sleep, impairs immune functioning and lowers patients' quality of life (Arnstein, 2002).
- In reality, current evidence shows that uncontrolled pain may actually harm patients by impairing cardiac, pulmonary and endocrine functioning (Macintyre and Schug, 2007).

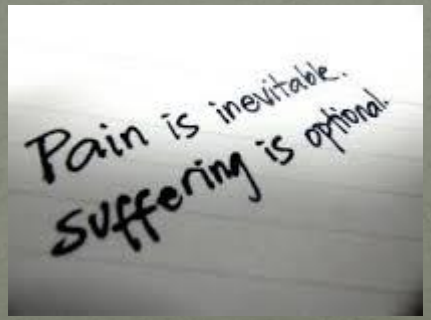
Complications of Pain for physiotherapists within the fracture patient.



- Impaired physical ability
- Prolonged bed rest
- Muscle wasting and limb movement reduction
- Poor engagement with therapy
- Prolonged hospital stay
- Bowel and chest complications

An audit of acute pain necessary?

In view of the number of patients treated annually in the trust and problems associated with delays to theatre, post operative pain, extended length of stay and poor morbidity it is important to look at ways to improve the care pathway to ensure fewer complications, increasing functional outcome and reduced length of hospital stay



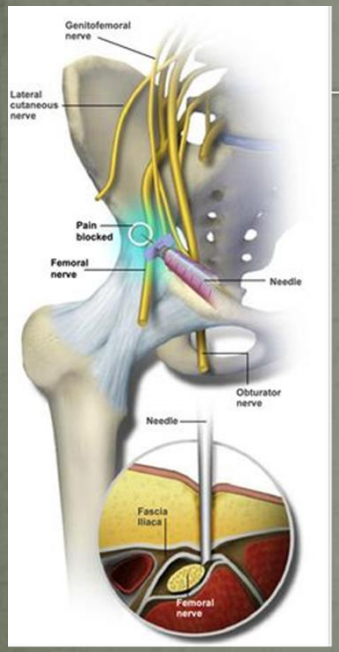
How to improve??

- Improved pain relief will allow patients to move around the bed more easily to aid nursing care procedures and to sit up more easily to eat and drink. (Parker and Johansen, 2006).
- Levobupivacaine carries lower risk of central nervous system and cardiovascular system toxicity and may cause shorter motor blockade and longer sensory blockade (Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine, 2005).

What is a Fascia Iliaca Block?

- Fascia iliaca blocks are the best way to ensure coverage of the hip joint and proximal femur.
- Local anaesthetic is injected into the iliaca compartment. This is a potential space between the fascia iliaca and the iliacus muscle. The iliacus muscles arise from the inside of the iliac crest. The fascia iliac covers the iliacus muscle. When local anaesthetic is injected into the iliaca space it makes contact with the posterior division of the lumbar plexus, blocking three nerves, the femoral nerve, and lateral femoral cutaneous nerve and obturator nerve. This should block the nerve innervating the hip joint and alleviate the pain.

FIB AUDIT SEPT 2014-MARCH 2015



BEN LANGTON
SENIOR TEAM LEAD PHYSIO
TRAUMA AND ORTHOPAEDICS

AIM

- To improve analgesia and mobility in patients who have sustained a fractured neck of femur and undergone surgery to correct this by comparing a group of patients who have been given a fascia iliaca catheter and infusion of local anaesthetic with those who have standard post-operative analgesia. This group of patients is often frail and elderly and early mobilisation can reduce complications after surgery.

PATIENT SELECTION

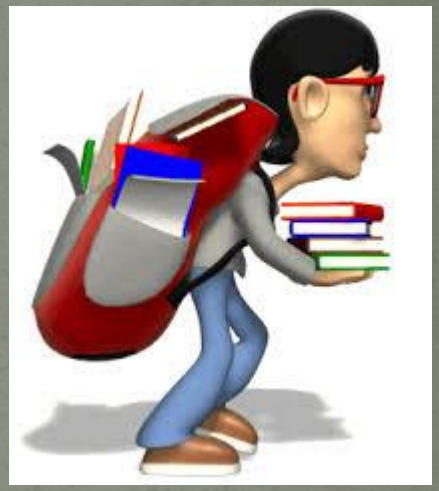
- Randomisation to receive an FIBi containing an infusion of local anaesthetic or not, depended on whether the anaesthetist covering the operating list was trained to insert them. (Not all anaesthetists currently site catheters). Patients in both groups were all prescribed weight appropriate IV paracetamol qds for the pre & peri operation period and the first 4 doses post operation then switched to regular oral paracetamol 1g qds. They also had 'when required' oral morphine solution 5mg available to be administered when the pain was assessed to be Moderate (2/3) or severe 3/3). Data was collected by the physiotherapists after being taught by the Inpatient Pain Service how to use the 0-3 VRS and Bolton Pain assessment scale for the cognitively impaired patient.

FIBi VS NON-FIBi

TOTAL NUMBER OF PATIENTS	FIBi received	Non FIBi
85	36	49

Data was collected for 85 patients who had sustained a hip fracture and consequently undergone surgery within a 7 month time frame (Sept 2014- March 2015):
Not all surgeons utilised the Facia Illiaca Block at the time of data collection, therefore the sample is relatively small.
Inclusion and exclusion criteria for using the FIB is yet to be defined.
'No FIB'- these patients received pain management via conventional oral analgesia.

DATA COLLECTED



- The following were collected:
- 1) Pain rating days 1,2,3 post-operatively
- 2) Mobility days 1,2,3 post-operatively
- 3) FIB or no FIB
- 4) Length of stay in the acute hospital setting (SPH- St Peter's Hospital)
- 5) Discharge destination from SPH

How we measured pain

1 Pain rating

The following 2 methods of gaining a patients pain rating were used:

The Bolton Pain Assessment Tool for the cognitively impaired

SCORE	ABSENT = 0	MILD = 1	MODERATE = 2	SEVERE = 3
VOCALISATION	None	Occasional moan or groan	Low level speech with a negative or disapproving quality	Repeatedly crying out, loud moaning or crying
FACIAL EXPRESSION –for example	Smiling or relaxed	Looking tense	Sad, Frowning	Grimacing and looks frightened
CHANGE IN BODY LANGUAGE	None	Tense, fidgeting	Guarding part of the body	Withdrawn, rigid, clenched fists. Knees pulled up
BEHAVIOURAL CHANGE	None	Increased confusion	Refusing to eat, alterations in usual pattern	Pulling or pushing away, striking out
PHYSIOLOGICAL CHANGE	Normal	Occasional laboured breath, increased heart rate	Hyperventilation, increased heart rate and BP	Change in pulse, BP, respiratory rate, and perspiring, flushed or pallor
PHYSICAL CHANGE	None	Skin tears	Pressure ulcers, arthritis	Post-surgery, trauma
• DOCUMENT IN PATIENTS NOTES COMMENTS MADE BY FAMILY OR USUAL CARE GIVERS • ENSURE PAIN ASSESED ON MOVEMENT OR PRIOR TO PHYSIOTHERAPY				
PAIN SCORE	0-2 = NO PAIN (0)	3-7 = MILD PAIN (1)	8-13 = MODERATE PAIN (2)	14+ = SEVERE PAIN (3)

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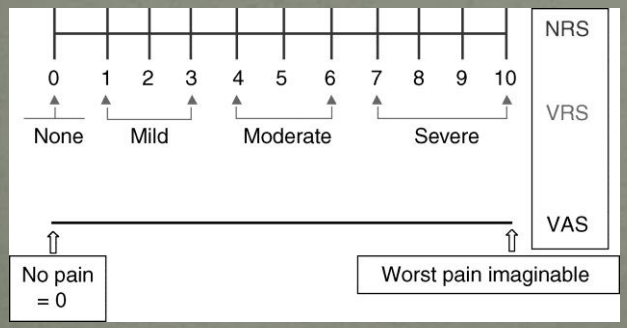
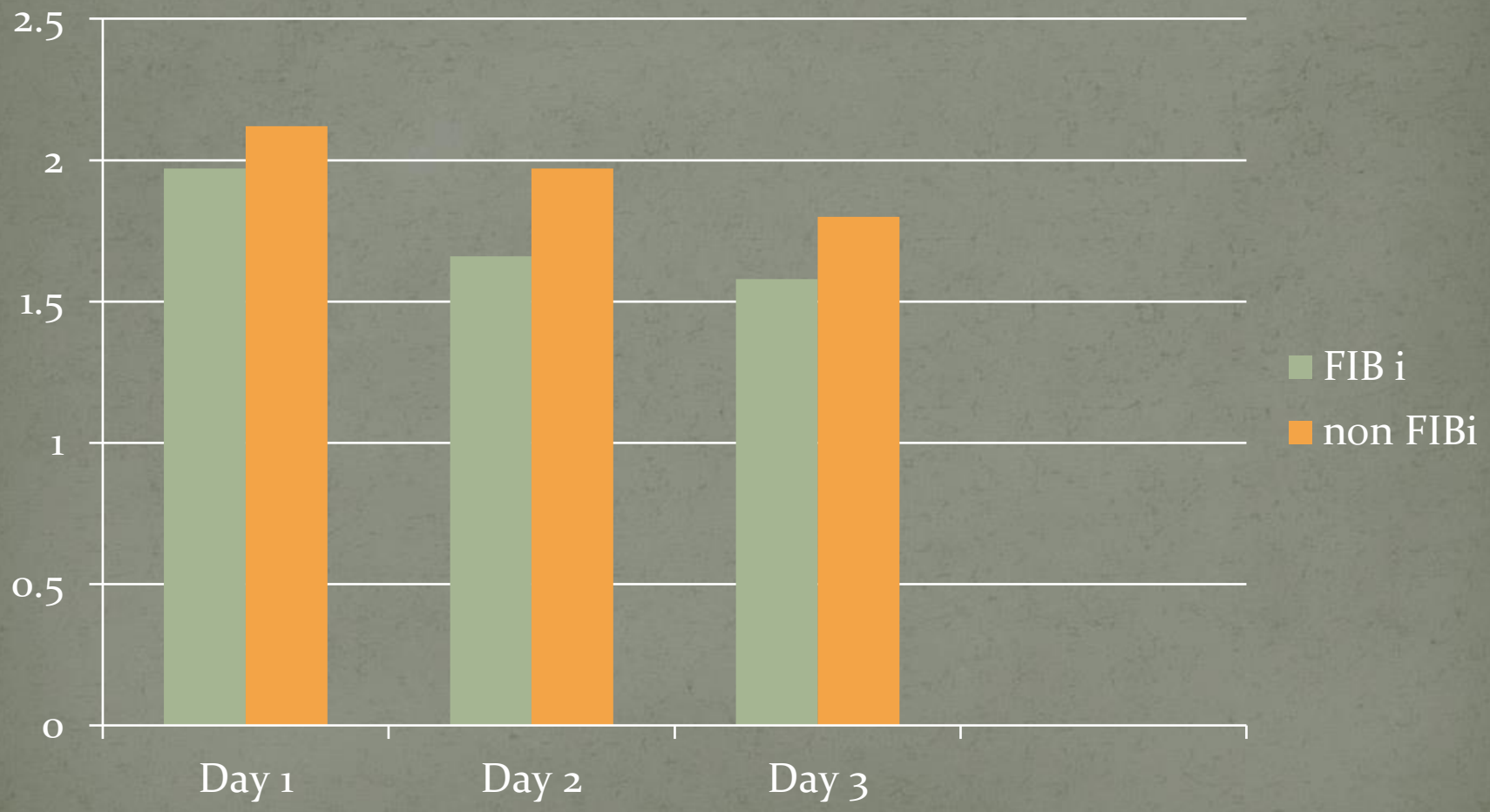
The four-point categorical verbal rating scale (VRS)



- A score of 0 (no pain), 1 (mild pain), 2 (moderate pain), or 3 (severe pain) Were given. A higher number indicates more pain.

Average Pain score days 1-3



Pain conclusion

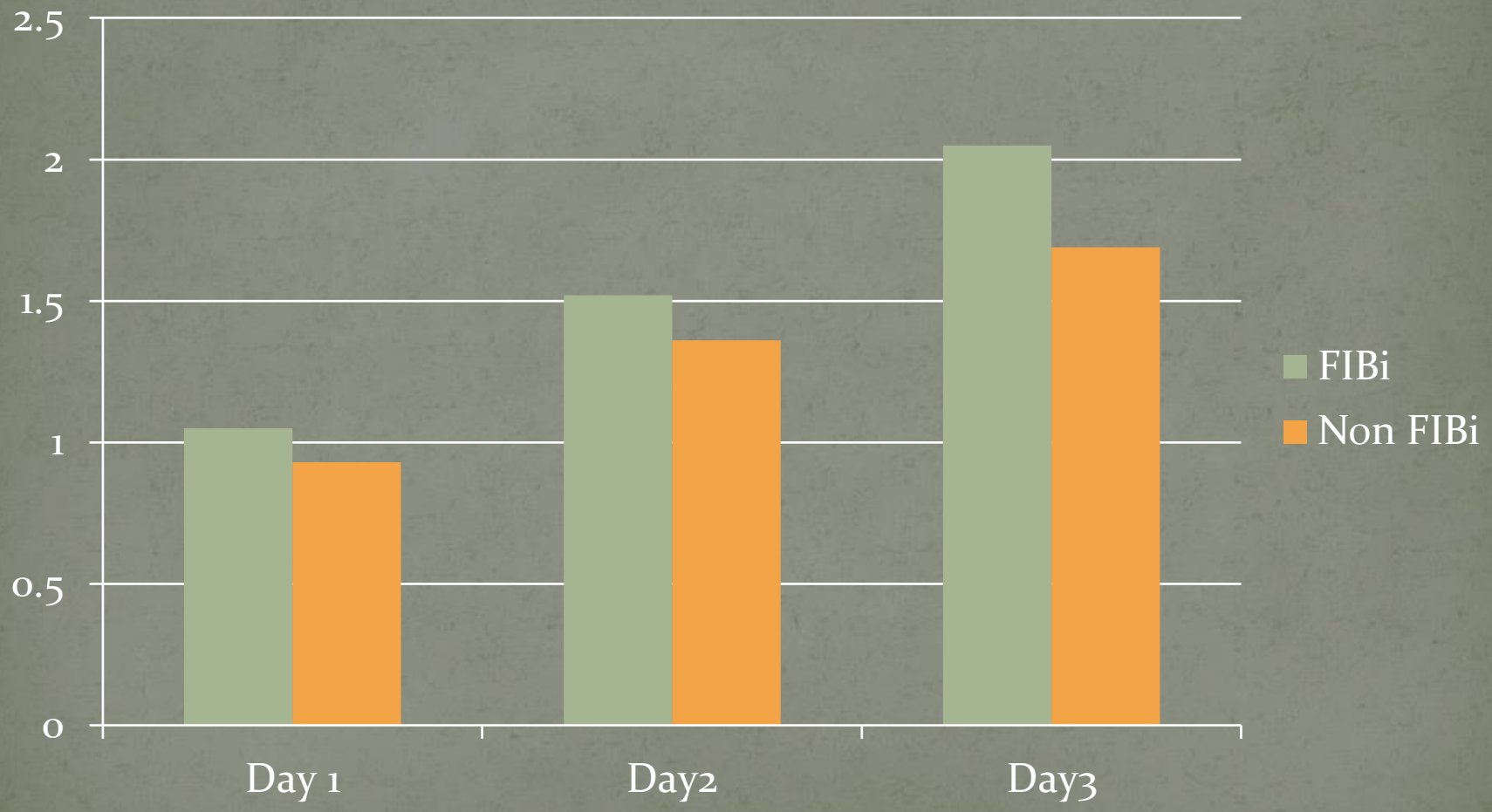
- Average pain throughout the first 3 days are:
- FIB 5.08 VS NO FIB 5.81

How we measured mobility

- Physiotherapists gave each patient a score depending on how much mobility they achieved days 1-3 post-operatively:
- 0 (unable to get out of bed)
- 1 (Bed to chair transfer)
- 2 (1-9m walked)
- 3 (10+ metres walked)
- A higher number indicates better mobility achieved.

Average Mobility days 1-3 post-op

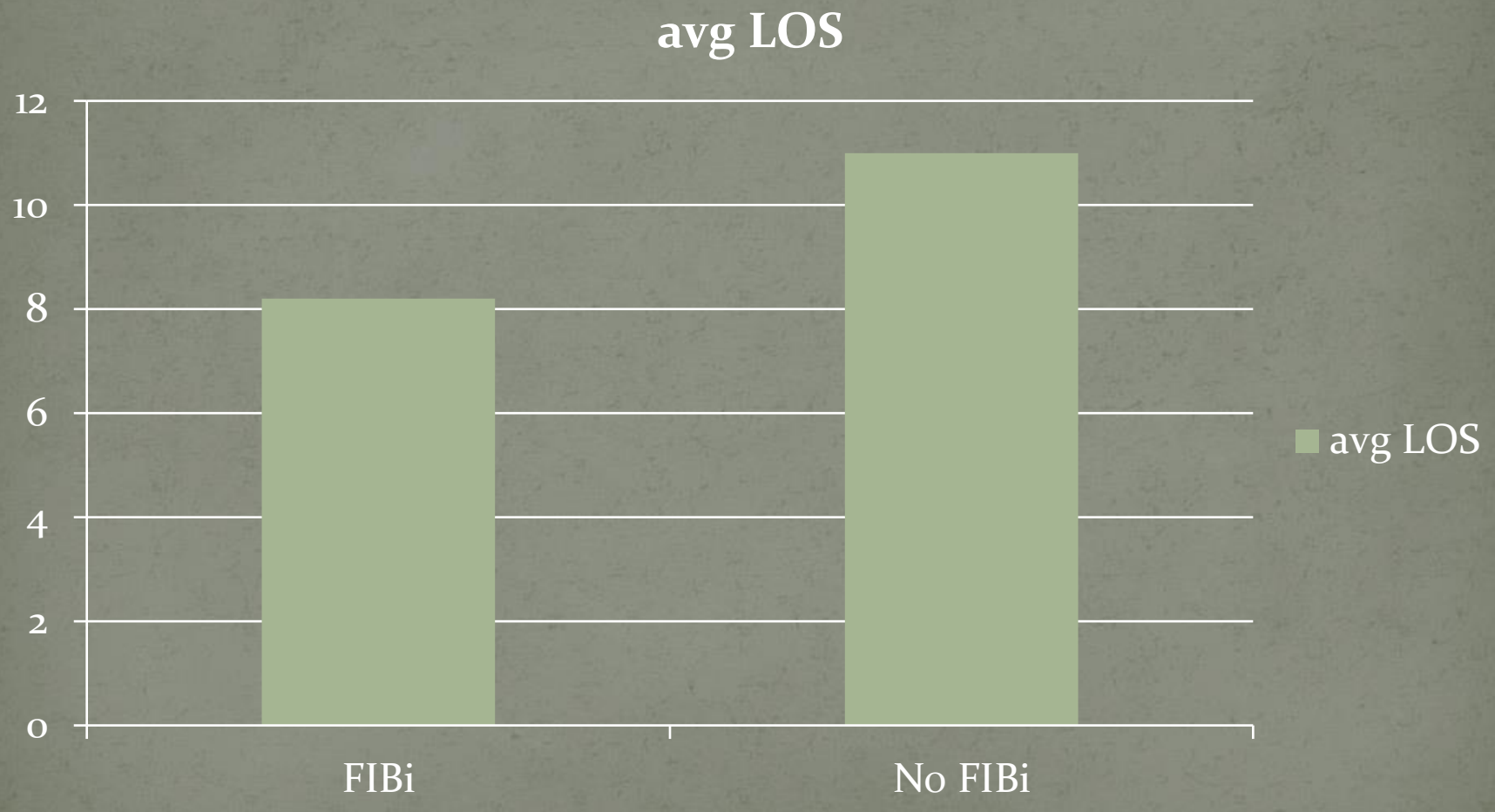
A higher number indicates better mobility was achieved.



Mobility conclusion

- 76% FIB patients achieved at least 1-9m mobility by day 3
- 54% Non-FIB patients achieved 1-9m mobility by day 3

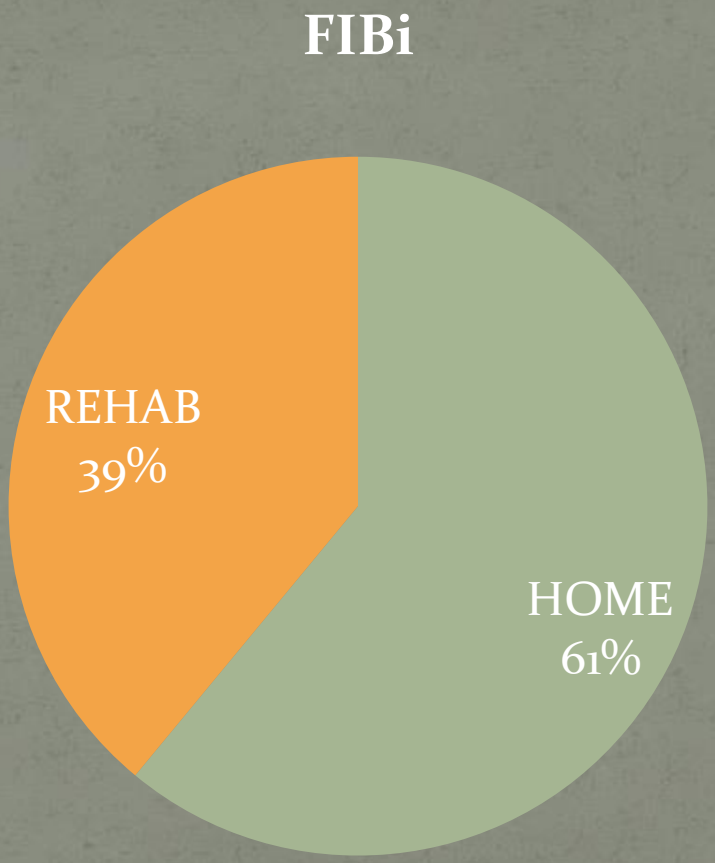
LENGTH OF STAY



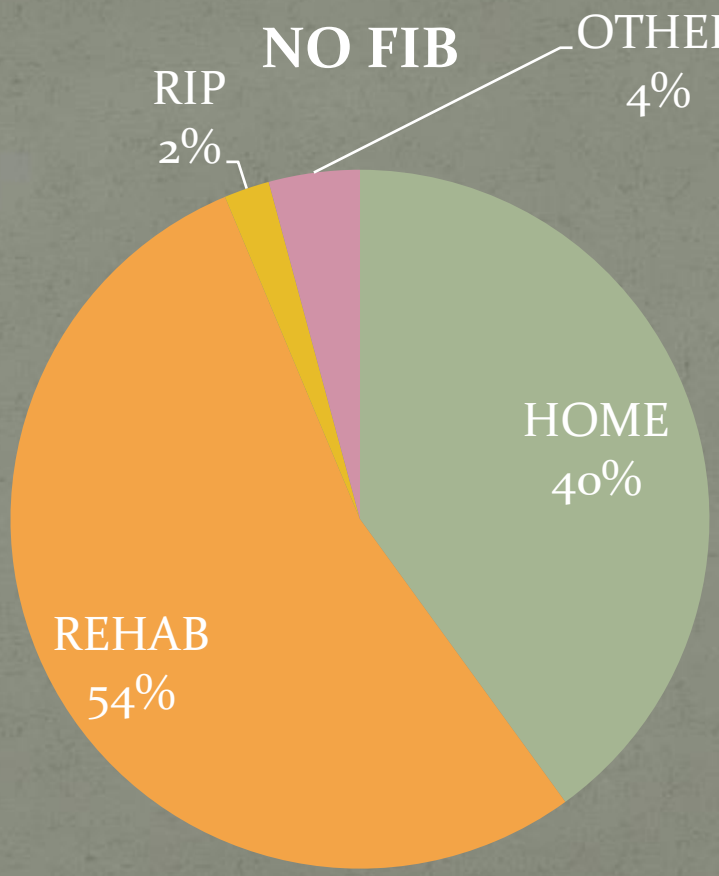
- 81% D/C from SPH by day 10
- 64% D/C from SPH by day 10

- A shorter length of stay would have a beneficial cost saving in ‘bed days’ for the trust.
- On average St Peter’s Hospital has 25-30 hip fracture patients each month. Over the course of a year these results would indicate that if all patients had an FIB for pain relief a potential saving of 1188 ‘bed days’ could be made. This financially equates to approx. £297,000 (based on an average hospital ‘bed day’ costing £250).

DISCHARGE DESTINATION



DISCHARGE DESTINATION



FIB WINS AGAIN!!!!

- The discharge destination from the acute hospital setting would contribute to good patient experience and enhanced satisfaction of the service they have received. If a patient is able to return home quickly they are likely to be functioning better and have had a better experience in hospital with minimal complications. For this trust this would have a cost-saving benefit in reduced 'bed days' to pay for both in the acute trust and onwards into alternative facilities e.g. Rehabilitation units.
- The higher percentage of patients returning directly home from SPH would indicate these benefits.

OTHER STATS

- Average pain throughout the first 3 days are:
- FIB 5.08 VS NO FIB 5.81
- Average mobility first 3 days:
- FIB 4.51 vs NO FIB 4.0
- Patients walking 1-9 meters by day 3:
- FIB 75% VS NO FIB 53%
- D/C from SPH by day 10
- FIB 80% VS NO FIB 61%

To Conclude overall

- Patients who have an FIB appear to have:
- - less pain
- - better mobility
- - decreased length of stay in the acute setting
- - less requirement for onward rehabilitation as an inpatient
- - Less secondary complications from other oral anagesia e.g delirum, constipation, etc

WE SHOULD FEEL GOOD ABOUT THIS!!!

- Patient WIN
  - Analgesia, side effects, home faster, better rehab and sleep, fewer complications.
- Nurses WIN
  - Happier patients, reduced requirements for pain relief
- Hospital WIN
  - Patient satisfaction, length of stay, cost savings
- Surgeons WIN
  - Happier patients, less issues to address, less rounds!!
- Anaesthesia WIN
  - Improved image, patients have less pain
- Healthcare WIN

ISSUES

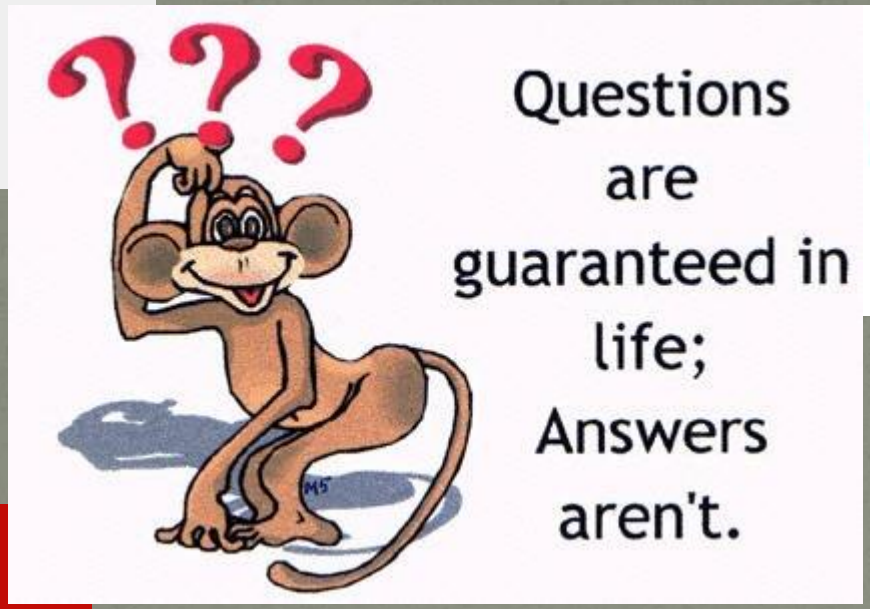
- There were a number of FIBi's inserted that failed
- Considerable teaching for staff has been needed so they know how to use the infusion devices
- Data collection was sporadic in the early implementers there is much better staff compliance now and the weekend data now has support from the inpatient pain service.

Points for discussion

- - Inclusion/ exclusion criteria
- - Current reasoning for use
- - Ongoing data collection: any additional information needed?
- Lack of anaethetists qualified to administer FIB infusion pumps
- Nursing competency and pain assessment
- Patient compliance
- Issues in collection of data

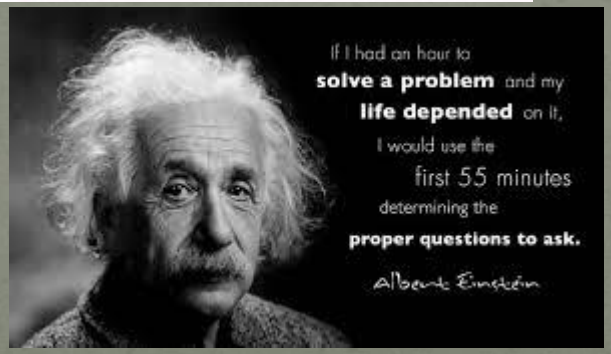
Future Plans

- · We have identified that more infusion devices are required in order to extend the service. We are currently in negotiation with the supplier
- · More anaesthetists need to be trained to insert FIBis to improve the availability to all patients
- · We need to look at whether insertion of FIBi can be extended into the preoperative period in order to improve pain so that nurses can give better pressure area care, sit patients up more easily to facilitate eating and drinking and to improve overall dignity for patients. A patient satisfaction survey may be used to measure some of these areas


Questions
are
guaranteed in
life;
Answers
aren't.


ABSOLUTELY
FABULOUS


KEEP
CALM
AND
ASK ME
QUESTIONS


If I had an hour to
solve a problem and my
life depended on it,
I would use the
first 55 minutes
determining the
proper questions to ask.
Albert Einstein

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