Fascia Iliaca Block: An Acute Pain Service Led Initiative for Preoperative Pain Management in Patients with a Hip Fracture

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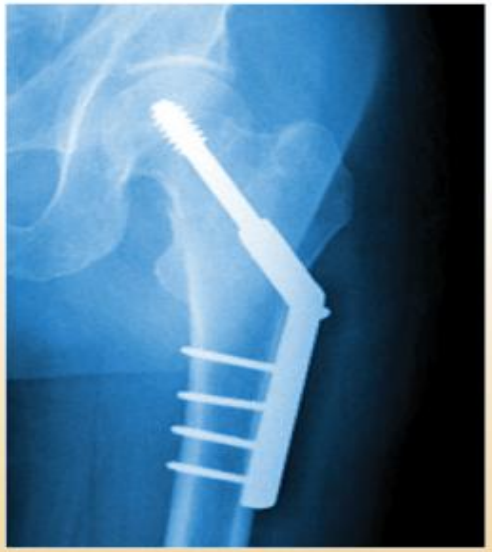
Palmerston North Hospital

Australian and New Zealand Guideline for Hip Fracture Care

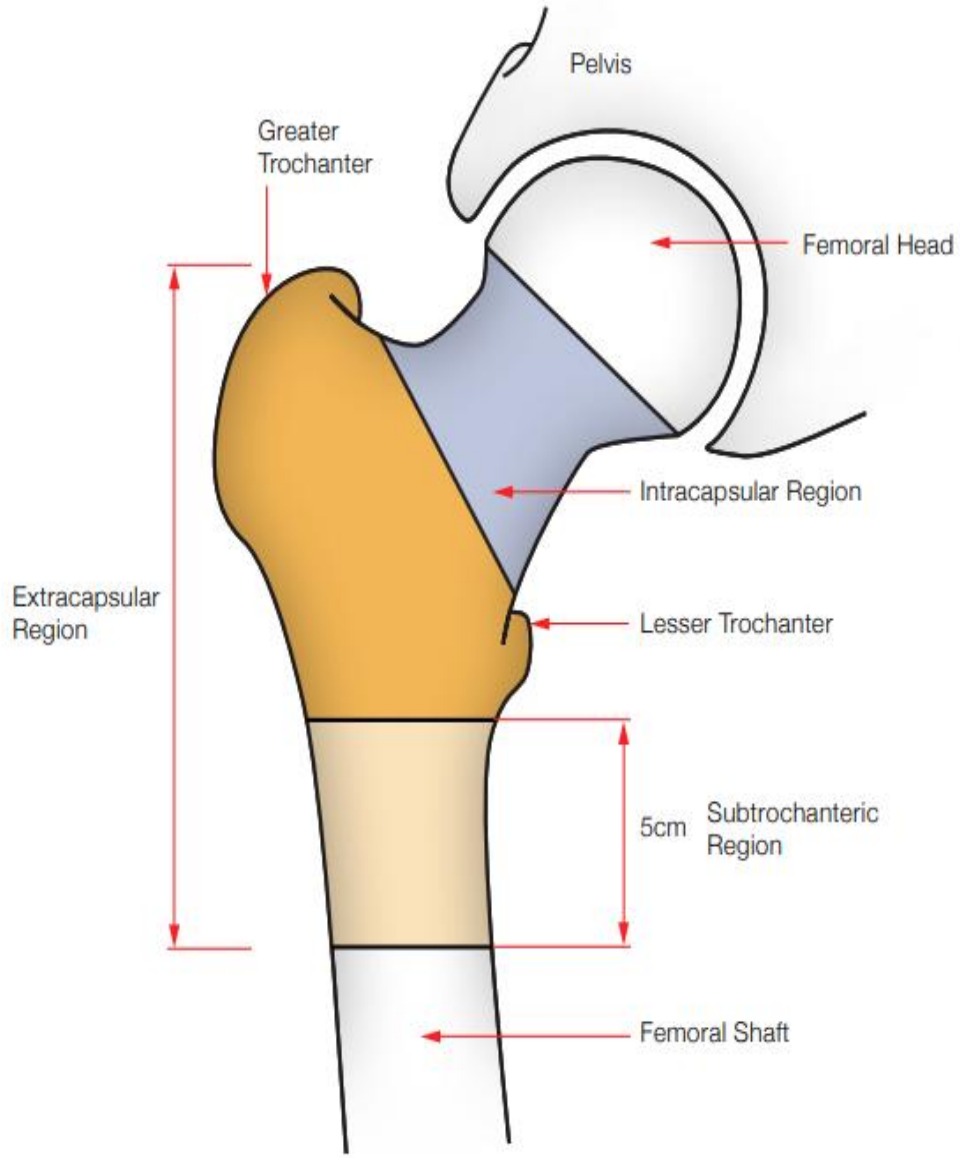
Improving Outcomes in Hip Fracture Management of Adults

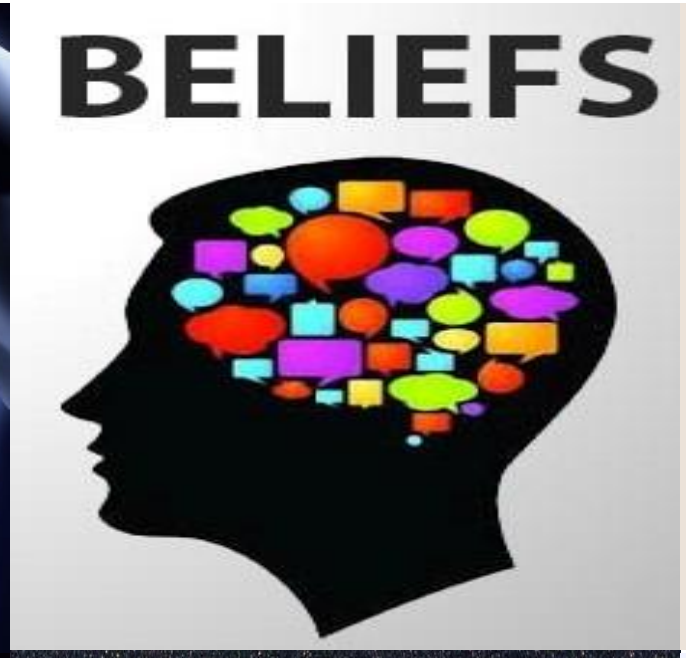
September 2014

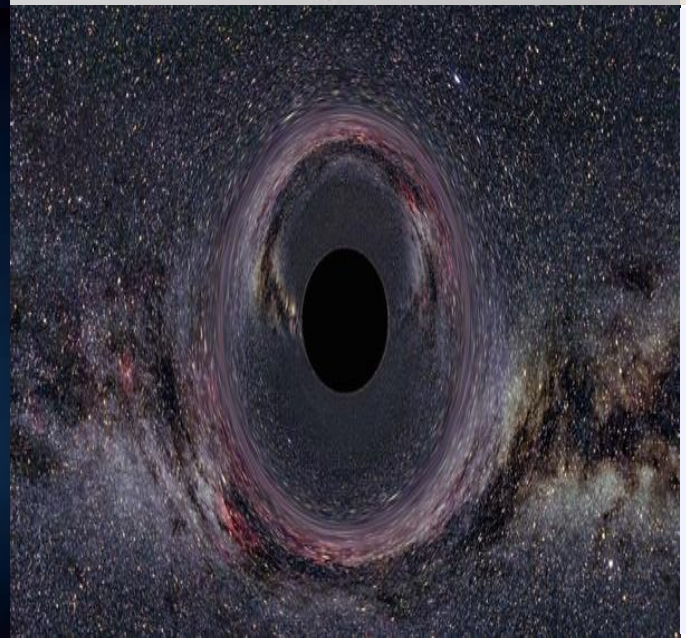


ANZHFR

Australian & New Zealand Hip Fracture Registry




BELIEFS



Acute Pain Service Role: Hip Fractures

APS alerted via pager and email. Only “NOF” and “neck of femur” are alerted through ED diagnosis descriptions.

APS follow up with patient on the ward the following day to undertake a comprehensive/focused pain assessment documented in clinical notes. If cognitively impaired use Abbey pain scale

Review of analgesia and appropriateness for patient i.e. age, frailty, renal function.

-Offer paracetamol q6h (unless contraindicated)

-Offer additional opioids if paracetamol alone does not provide sufficient pain relief

-Caution is advised when considering the use of non-steroidal anti-inflammatory medication

Consider fascia Iliaca block or femoral nerve catheter infusion if there is a lengthy surgical delay or is unfit for surgery.

Continue with daily APS reviews until surgery or removal of femoral nerve catheter

Adapted from the ANZHFR (2014) and NICE guideline (2011)

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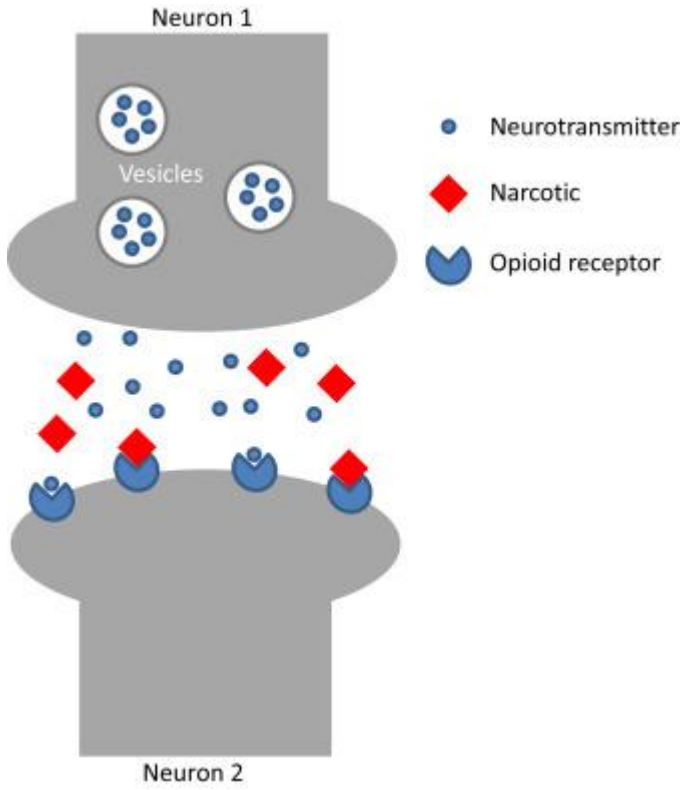
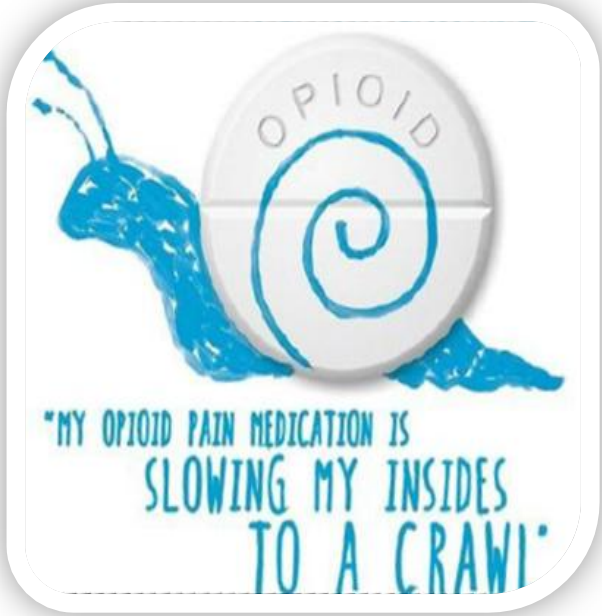
Opioids

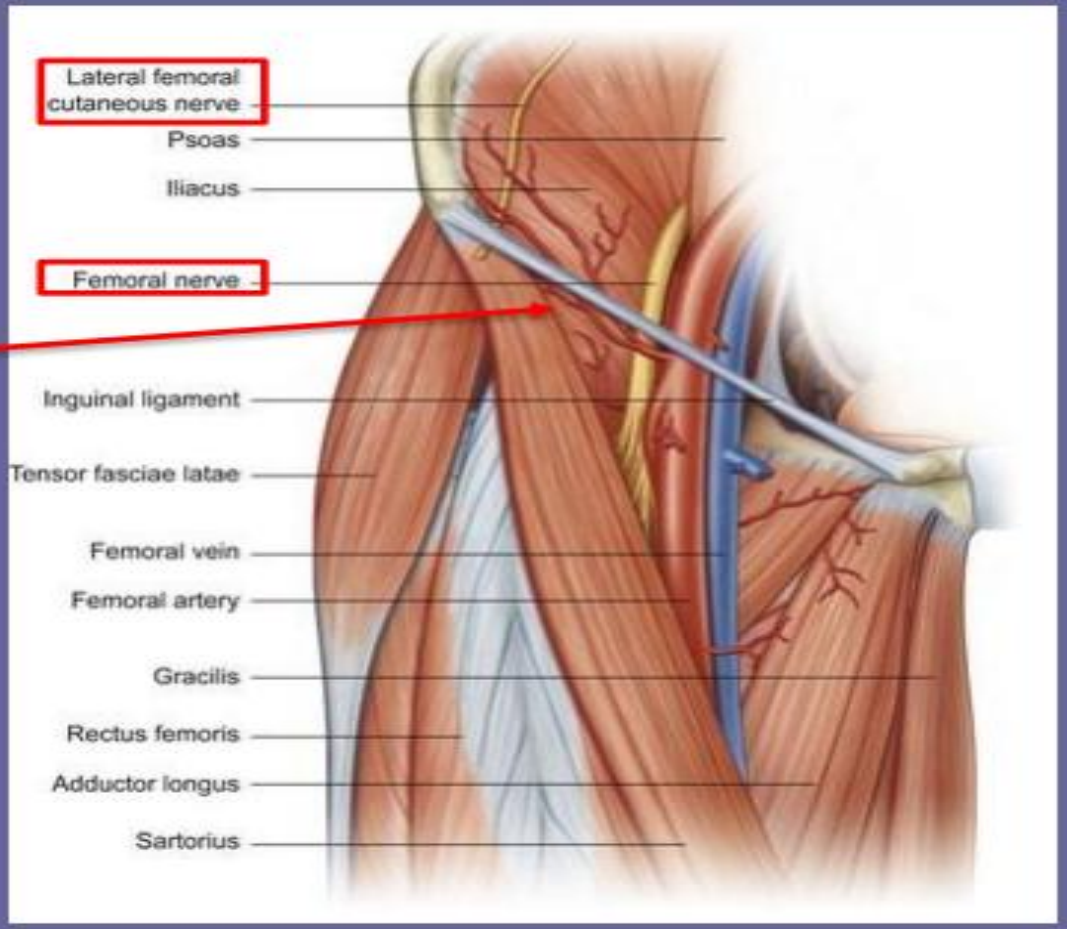

Neuron 1
Vesicles
Neurotransmitter
Narcotic
Opioid receptor
Neuron 2

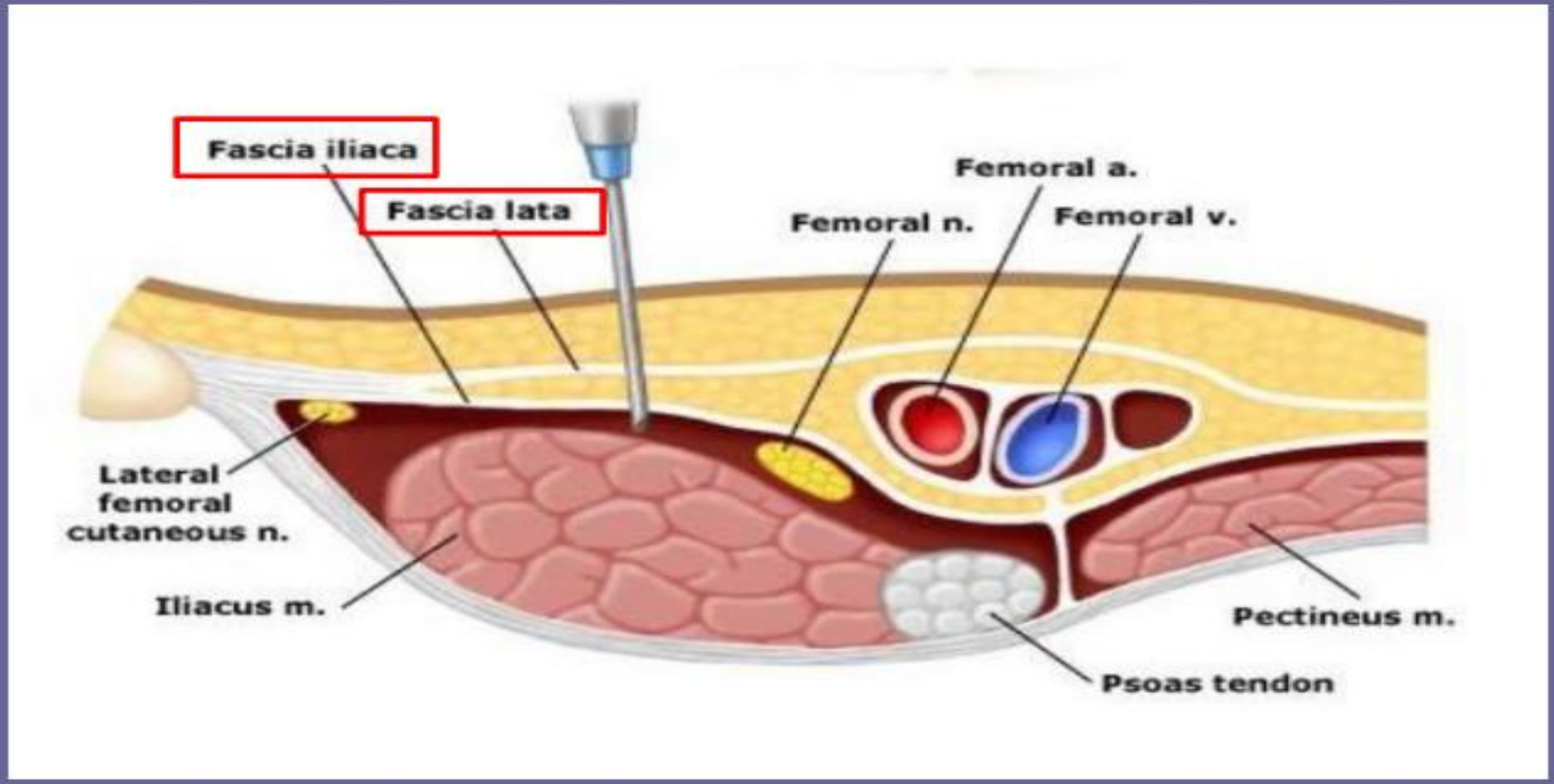

KEEP
CALM
AND
CARR
NALOXON
KEEP
CALM
AND
CARRY
NALOXONE


OPIOID
"MY OPIOID PAIN MEDICATION IS
SLOWING MY INSIDES
TO A CRAWL"

Fascia Iliaca Block

Insertion point




Fascia iliaca
Fascia lata
Femoral a.
Femoral n.
Femoral v.
Lateral femoral cutaneous n.
Iliacus m.
Pectineus m.
Psoas tendon

FASCIA ILIACA BLOCK

Contra-indications

Patient refusal
Allergy to chlorhexidine, iodine, local anaesthesia
Inflammation or infection over injection site
Previous femoral-bypass surgery, or near a graft site
Anticoagulation:
INR>1.5, consider recent clopidogrel,
high dose aspirin, LMWH
Use clinical judgement and discuss with a senior clinician

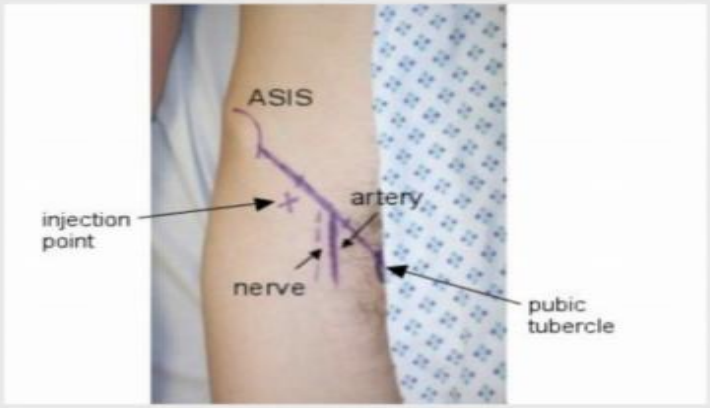
Pre-procedure

ECG, SpO2, NIBP

Drugs

Wt < 50kg, 30ml 0.2% ropivocaine
Wt > 50kg, 40ml 0.2% ropivocaine

Landmarks



Anatomy

-Draw a line between ASIS and pubic tubercle, divide it into thirds

-Needle insertion point is 1cm below the junction of the lateral 1/3 and medial 2/3

-Insert needle, feel two 'pops'

Post-procedure

Obs: every 5 mins for 15mins
at 30 mins
4 hourly thereafter

Potential complications:
intravascular injection
LA toxicity
nerve damage
infection
block failure
allergic reaction

If you suspect LA toxicity...

Symptoms: peri-oral numbness,
tinnitus,
dizziness
arrhythmia
seizures

-Stop injecting
-Call DA for immediate help
-Give high-flow oxygen
-Perform ACLS as indicated
-Consider intravenous lipid emulsion

Intralipid and treatment protocols are kept in PACU crash cart

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Aim

To improve preoperative pain management for patients with a hip fracture who are surgically delayed.

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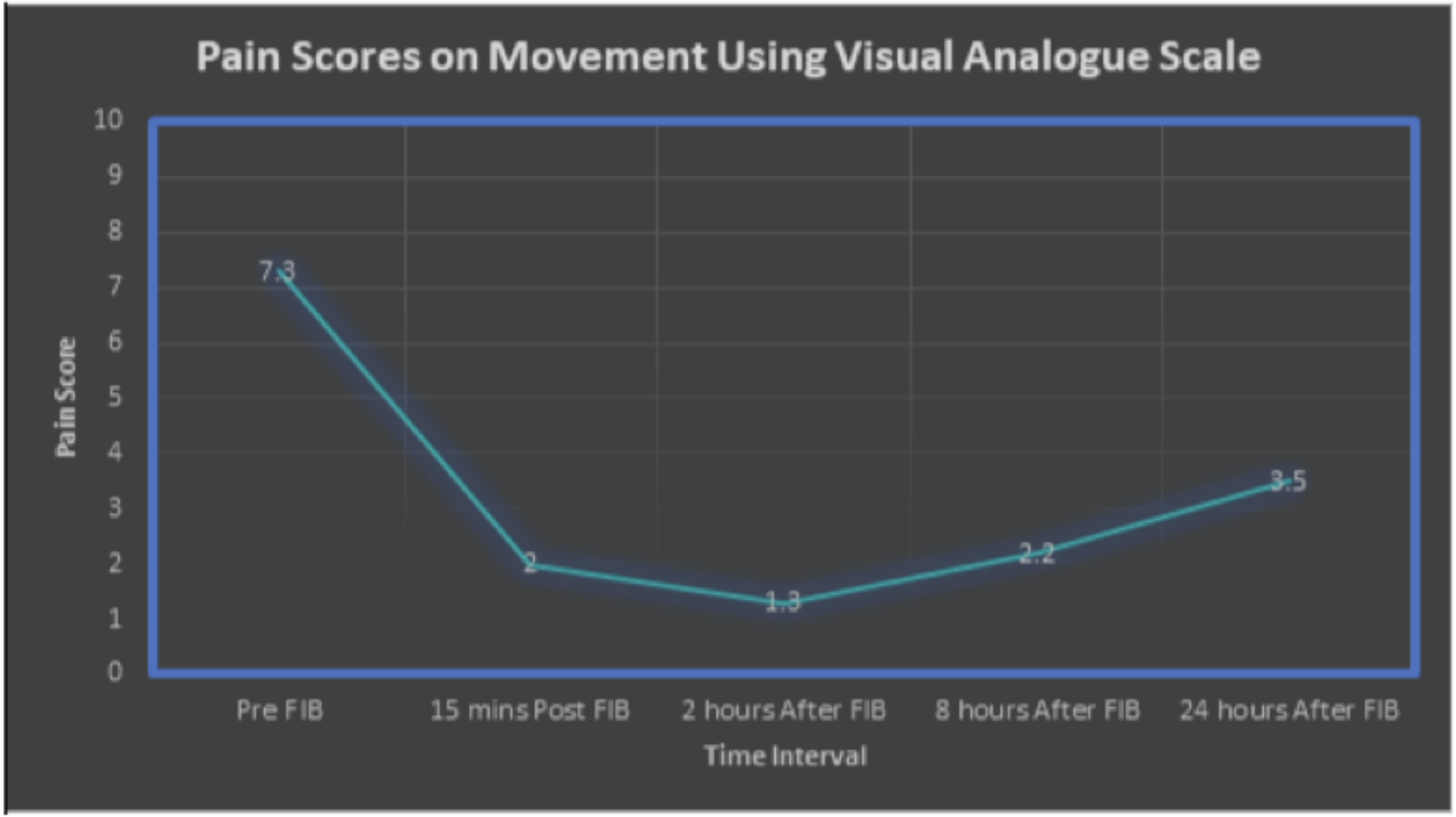
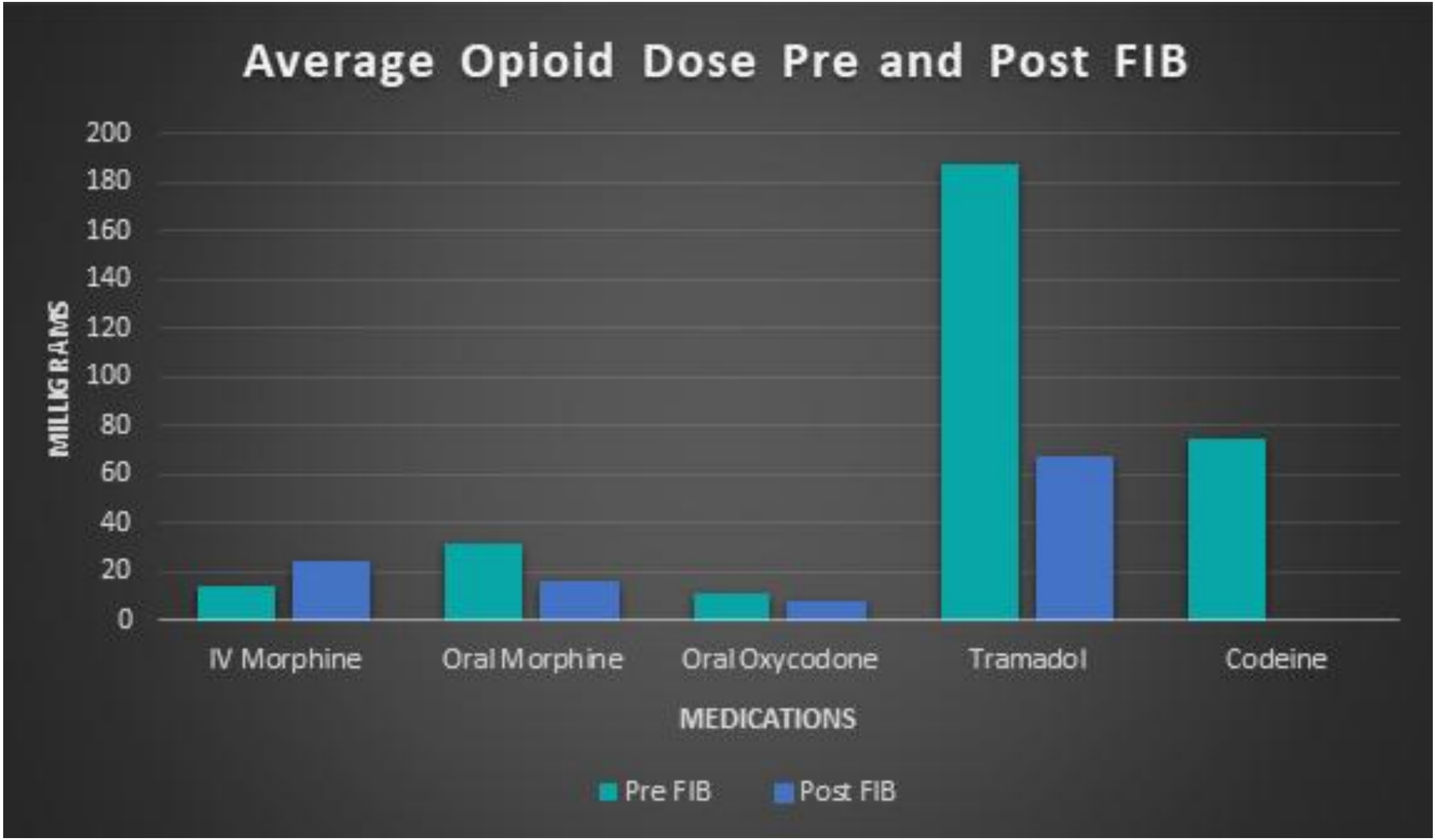
Methodology

- 38 patients considered, 25 included
- Procedure explained which outline risks and benefits, verbal consent obtained
- 7 Patients with diagnosis of dementia included – consent from EPOA
- Standard exclusion criteria applied

Results


Pain Scores on Movement Using Visual Analogue Scale
Pain Score
10
9
8
7
6
5
4
3
2
1
0
7.3
2
1.3
2.2
3.5
Pre FIB
15 mins Post FIB
2 hours After FIB
8 hours After FIB
24 hours After FIB
Time Interval


Average Opioid Dose Pre and Post FIB
200
180
160
140
120
100
80
60
40
20
0
MILLIGRAMS
IV Morphine
Oral Morphine
Oral Oxycodone
Tramadol
Codeine
MEDICATIONS
Pre FIB
Post FIB


PATIENT SATISFACTION
10
9
8
7
6
5
4
3
2
1
0
OR RESPONSES
1-Very Poor
2-Poor
3-Average
4-Good
5-Very Good
PATIENT RATING

Discussion

- Having surgery within 48hrs leads to better outcomes
- Three patients did not receive benefit from FIB and required IV morphine after the block
- Unplanned acute care demand
- Measures to reduce the risk of falling and routine screening for osteoporosis

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Conclusion

A FIB given preoperatively by trained nursing staff is safe, reduces opioid consumption and improves patient satisfaction post a hip fracture.

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Future Considerations

- Benefits of reduced opioid use – delirium, constipation and OIVI
- Impact of surgical delay in fracture patients
- Causes of surgical delay

Acute Pain Palmerston North Experience

- # patient FIB block
- Reduction of VAS post block
- Decreased opioid consumption
- Patient and whanau satisfaction with initial block
- No complication or adverse effects
  - -Nil haematoma
  - -No neuropraxias

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