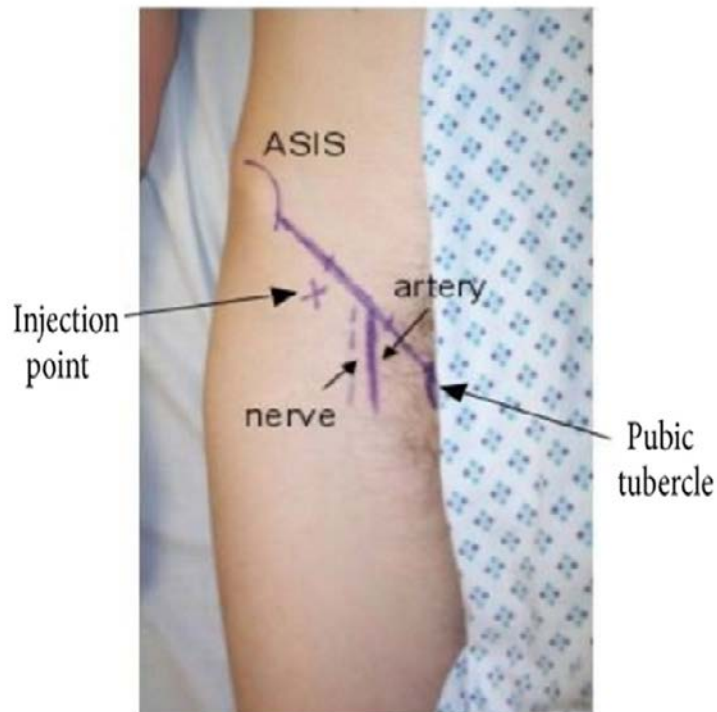


Our purpose

Working together to achieve the healthiest life possible for everyone in Ayrshire and Arran

# Fascia Iliaca Compartment Block



Angela Stewart  
ANP  
10/11/17

Our values

Caring Safe Respectful



# Driving force

- Dr J. Mitchell from acute pain service Ayr hospital produced a comprehensive guideline to authorise Non-medical prescribers (NMP) education & training to perform Fascia Iliaca block (FIB) for patients with Hip Fractures

The image shows the cover of a guideline document. At the top right is the NHS Ayrshire & Arran logo. The title 'G074' is centered, followed by the full title 'Fascia Iliaca block (FIB) for analgesia in patients with fractured neck of femur.' Below this, it states 'This Guidance relates ONLY to:' followed by two numbered points: '1) Patients admitted with fractured neck of femur' and '2) Non-medical practitioners deemed competent to perform fascia iliaca blocks who have completed the associated Competency Framework requirements;'. Under point 2, there are two sub-points: 'a) Acute Pain Nurses' and 'b) Advanced Nurse Practitioners (Orthopaedics)'. A 'Please Note' box at the bottom states: 'If you are using a paper copy of this document you must check Athena to ensure that you have the most up to date version.' At the very bottom, there is a table with two columns: 'Version: 1', 'Effective From: 02/02/2015', 'Review Date: 03/02/2018' and 'Service: Anaesthetics', 'Prepared By: Dr Joellene Mitchell, Acute Pain Service', 'Lead Reviewer: Acute Pain Service', 'Disseminated: Athena, E-News'.

**NHS**  
Ayrshire  
& Arran

**G074**

Fascia Iliaca block (FIB) for analgesia in patients with fractured neck of femur.

This Guidance relates ONLY to:

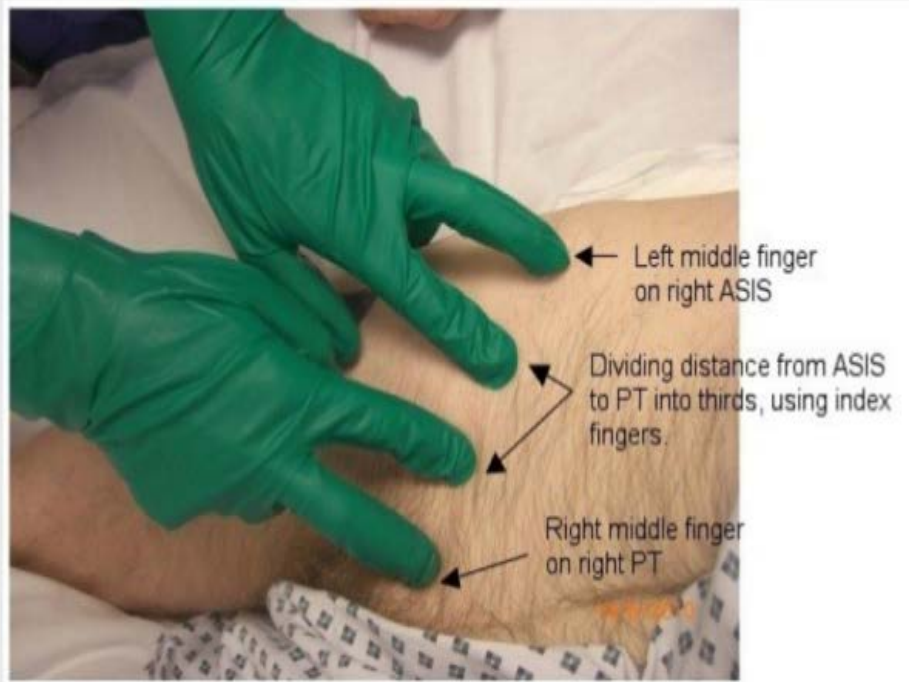
- 1) Patients admitted with fractured neck of femur
- 2) Non-medical practitioners deemed competent to perform fascia iliaca blocks who have completed the associated Competency Framework requirements;
  - a) Acute Pain Nurses
  - b) Advanced Nurse Practitioners (Orthopaedics)

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Version: 1 Effective From: 02/02/2015 Review Date: 03/02/2018	Service: Anaesthetics Prepared By: Dr Joellene Mitchell, Acute Pain Service Lead Reviewer: Acute Pain Service Disseminated: Athena, E-News
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# FICB

## Landmarks



Fascia Iliaca compartment allows accumulation of local anaesthetic of sufficient volumes to spread to at least three of the four main nerves that supply the **medial, anterior and lateral thigh** with one simple injection, namely the **femoral, lateral femoral cutaneous & Obturator nerves**. Posterior aspect of the thigh is not blocked.

# Aims

- FICB recognised as Gold Standard treatment adjunct for hip # patients to ensure effective pain management.
- All Hip # patients receive FICB in Emergency department unless contraindicated & on ward particularly when operation delayed
- To decrease intake of opioid consumption & reduce adverse drug effects
- Reduce untreated pain. Hip # is associated with increased risks of complications such as delirium(50%), depression, sleep disturbance, and decubitus ulcers



<https://learned.rocks/cooked>



# Training & Governance for ANP

- Non-medical prescriber with at least one year prescribing experience
- Advanced Life Support provider
- Follow local FICB guideline
- Complete ANP FICB competency folder
- Perform 20 FICB supervised by anaesthetist
- MCQ exam on Local Anaesthetic Toxicity (Last)

# Contraindications

- Patient refusal
- Patients who have already had a FICB within previous 8hrs
- Known sensitivity to local anaesthesia.
- Anticoagulant therapy (warfarin, clopidrogel, etc.)
- Clotting disorder (INR >1.5, platelet count <80)
- Previous vascular surgery in affected limb
- Difficulty identifying landmarks



# Complications

- Intravascular injection
- Local anaesthetic toxicity - is highest in the first 15-30 minutes which makes close monitoring mandatory at this stage
- Temporary or permanent nerve damage
- Infection- good aseptic technique should reduce the risk of infection
- Block failure - usually due to poor technique
- Injury secondary to numbness/weakness of limb
- Allergy to any of the preparations used -  
Levobupivacaine/chirocaine significantly reduces the risk of allergic reaction. (Davies 2016)



# Prior to procedure

- Obtain patient consent
- Ensure IV access available
- Ensure patient monitored including, ECG, NIBP, Pulse oximeter

# Observations

- Record pain & NEWS score before intervention
- Following FICB repeat NEWS & pain as score per guideline (15min, 30mins, 1hour, 2hours & 4 hours following procedure)
- Document and place FICB sticker in casenotes
- If pain score is not improved after 30mins ensure additional analgesia is given.

# Local Anaesthetic Toxicity

- Observe for any signs of any adverse reaction  
*Circumoral tingling, Light headedness, Visual disturbance, Seizures, Arrhythmias*
- Immediately stop local anaesthetic injection
- Commence basic life support.
- Call cardiac arrest team
- Administer 100% oxygen & resuscitation
- Consider Lipid rescue therapy Follow Guideline for Management of Severe Local Anaesthetic Toxicity (AAGBI guideline)

# AAGBI Safety Guideline

## Management of Severe Local Anaesthetic Toxicity



<b>1</b> Recognition	<b>Signs of severe toxicity:</b> <ul style="list-style-type: none"><li>• Sudden alteration in mental status, severe agitation or loss of consciousness, with or without tonic-clonic convulsions</li><li>• Cardiovascular collapse: sinus bradycardia, conduction blocks, asystole and ventricular tachyarrhythmias may all occur</li><li>• Local anaesthetic (LA) toxicity may occur some time after an initial injection</li></ul>				
<b>2</b> Immediate management	<ul style="list-style-type: none"><li>• Stop injecting the LA</li><li>• Call for help</li><li>• Maintain the airway and, if necessary, secure it with a tracheal tube</li><li>• Give 100% oxygen and ensure adequate lung ventilation (hyperventilation may help by increasing plasma pH in the presence of metabolic acidosis)</li><li>• Confirm or establish intravenous access</li><li>• Control seizures: give a benzodiazepine, thiopental or propofol in small incremental doses</li><li>• Assess cardiovascular status throughout</li><li>• Consider drawing blood for analysis, but do not delay definitive treatment to do this</li></ul>				
<b>3</b> Treatment	<table border="1"><tr><td><b>IN CIRCULATORY ARREST</b><ul style="list-style-type: none"><li>• Start cardiopulmonary resuscitation (CPR) using standard protocols</li><li>• Manage arrhythmias using the same protocols, recognising that arrhythmias may be very refractory to treatment</li><li>• Consider the use of cardiopulmonary bypass if available</li></ul></td><td><b>WITHOUT CIRCULATORY ARREST</b><p>Use conventional therapies to treat:</p><ul style="list-style-type: none"><li>• hypotension,</li><li>• bradycardia,</li><li>• tachyarrhythmia</li></ul></td></tr><tr><td><b>GIVE INTRAVENOUS LIPID EMULSION</b><p>(following the regimen overleaf)</p><ul style="list-style-type: none"><li>• Continue CPR throughout treatment with lipid emulsion</li><li>• Recovery from LA-induced cardiac arrest may take &gt;1 h</li><li>• Propofol is not a suitable substitute for lipid emulsion</li><li>• Lidocaine should not be used as an anti-arrhythmic therapy</li></ul></td><td><b>CONSIDER INTRAVENOUS LIPID EMULSION</b><p>(following the regimen overleaf)</p><ul style="list-style-type: none"><li>• Propofol is not a suitable substitute for lipid emulsion</li><li>• Lidocaine should not be used as an anti-arrhythmic therapy</li></ul></td></tr></table>	<b>IN CIRCULATORY ARREST</b> <ul style="list-style-type: none"><li>• Start cardiopulmonary resuscitation (CPR) using standard protocols</li><li>• Manage arrhythmias using the same protocols, recognising that arrhythmias may be very refractory to treatment</li><li>• Consider the use of cardiopulmonary bypass if available</li></ul>	<b>WITHOUT CIRCULATORY ARREST</b> <p>Use conventional therapies to treat:</p> <ul style="list-style-type: none"><li>• hypotension,</li><li>• bradycardia,</li><li>• tachyarrhythmia</li></ul>	<b>GIVE INTRAVENOUS LIPID EMULSION</b> <p>(following the regimen overleaf)</p> <ul style="list-style-type: none"><li>• Continue CPR throughout treatment with lipid emulsion</li><li>• Recovery from LA-induced cardiac arrest may take &gt;1 h</li><li>• Propofol is not a suitable substitute for lipid emulsion</li><li>• Lidocaine should not be used as an anti-arrhythmic therapy</li></ul>	<b>CONSIDER INTRAVENOUS LIPID EMULSION</b> <p>(following the regimen overleaf)</p> <ul style="list-style-type: none"><li>• Propofol is not a suitable substitute for lipid emulsion</li><li>• Lidocaine should not be used as an anti-arrhythmic therapy</li></ul>
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<b>4</b> Follow-up	<ul style="list-style-type: none"><li>• Arrange safe transfer to a clinical area with appropriate equipment and suitable staff until sustained recovery is achieved</li><li>• Exclude pancreatitis by regular clinical review, including daily amylase or lipase assays for two days</li><li>• Report cases as follows:<ul style="list-style-type: none"><li>In the United Kingdom to the National Patient Safety Agency (via <a href="http://www.npsa.nhs.uk">www.npsa.nhs.uk</a>)</li><li>In the Republic of Ireland to the Irish Medicines Board (via <a href="http://www.imb.ie">www.imb.ie</a>)</li></ul></li></ul> <p>If Lipid has been given, please also report its use to the International registry at <a href="http://www.lipidregistry.org">www.lipidregistry.org</a>. Details may also be posted at <a href="http://www.lipidrescue.org">www.lipidrescue.org</a></p>				

**Local Anaesthetic Toxicity**  
ANP,s introduced Intralipids on ward resuscitation trolley alongside AAGBI safety Guideline for administration in event of reaction.

Your nearest bag of Lipid Emulsion is kept.....

This guideline is not a standard of medical care. The ultimate judgement with regard to a particular clinical procedure or treatment plan must be made by the clinician in the light of the clinical data presented and the diagnostic and treatment options available.

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# Achieving FICB competencies

- Mentoring education & training from Anaesthetists
- Communication with theatre staff
- Each morning checked trauma list to identify any new hip # patients. Discussed with trauma anaesthetist for that day if administering FICB





# Sustaining the Future

- Local agreement for ANPs to prescribe & perform FICB, reducing delays to adequate analgesia
- Teaching & supporting Junior Drs & ANPs training as per A&A FICB guideline
- A&A guideline recommends Drs perform 5 FICB under supervision before attempting one alone
- Audit pain scores pre/post-procedure to inform of benefit/failure of FICB and +/- analgesia requirements.

# Summary

- The fascia Iliaca compartment block performed by landmark technique is inexpensive, safe and easy to perform (Davies 2016)
- Delivering large volumes of low concentration local anaesthetic helps to maximize the benefits of the FICB
- It provides effective pain relief whilst avoiding the side-effects of certain other forms of analgesia
- Demonstrates that non-anaesthetic personnel can perform FICB successfully & provide a more prompt service

# Conclusion

- Incidence & mortality of hip fracture are stabilizing. However, irrespective of age, patients with an increasing number of comorbidities is likely to increase costs and have longer hospital length of stay (Soong, C. 2016)
  - Every 48hr delay to theatre increases mortality at 1 month by 17%
  - Delirium increases by 11% every 48hrs delay to theatre
- All staff with various skills can contribute to Scottish Standards of care for hip # patients. Improving outcomes for patients with a hip # from ED to discharge

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# References

- Davies N,W.(2016) Fascia Iliaca Compartment Block: Landmark approach guidelines for use in the emergency department version 1.0 June 10, 2016
- Mitchell J, ( 2014) NHS AAA Fascia Iliaca block (FIB) Guideline for analgesia in patients with fractured neck of femur.
- Rashid A, et al (2014) Regional Analgesia in the Emergency Department for Hip fractures: survey of current UK practice and its impact on services in a teaching hospital. Emerg Med J 2014;31:909–913
- Soong ,C.(2016) Impact of an Integrated Hip Fracture Inpatient Program on Length of Stay and Costs. J Ortho Trauma Vol 30, No 12, Dec. 2016