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## Guideline for Fascia Iliaca Block for pain relief in patients with a confirmed hip or proximal femoral fracture

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

### Introduction

This guideline is designed to provide instruction and outline the management of adult patients receiving fascia iliaca compartment blocks (FICB) for a fractured neck of femur pre-operatively

**This guideline is for use by the following staff groups:**

- Trauma Nurse practitioners
- Surgical Care Practitioners
- Resident T&O doctors

### Lead Clinician(s)

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Approved by Countrywide T&O Clinical Governance meeting on:

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Approved by Anaesthetic Clinical Governance meeting on:

20<sup>th</sup> November 2024

Approved by Medicines Safety Committee on:

9<sup>th</sup> July 2025

Review Date:

9<sup>th</sup> July 2028

This is the most current document and should be used until a revised version is in place

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### Key amendments to this guideline

Date	Amendment	Approved by:
Jan 25 – May 2025	Discussed with ED some changes made to the document but agreed for use with designated staff groups.	Dr Nick Turley
19/06/25	Emergency Department LOCCIP to be included in the protocol and used with limited Local anaesthetic prescribing for Trauma practitioners	Dr Mitchell

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## **Guideline for Fascia Iliaca Block for pain relief in patients with a confirmed hip fracture**

### **Introduction**

Hip fractures are common in the elderly population and have serious consequences, with a mortality rate of 10% at one month after a fall, 20% at four months and 30% at one year. 77,000 hip fractures occur in the UK annually; 65,000 in England. 95% of hip fractures occur in patients over 60; 75% occurring in females. A large percentage will have significant co-morbidities and are often taking numerous medications. In addition, they may 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. Approximately 40% of this patient group will have at least a moderate degree of cognitive impairment. Untreated or undertreated pain can cause delirium in previously non-cognitively impaired patients, and can also worsen delirium in patients with existing dementia.

50-70% of elderly patients who have sustained hip fractures report severe to very severe pain in the first 24 hours' post-injury. The obvious fracture and the severe pain will limit their ability to move. This will have repercussions on being able to carry out their pressure area care, take in adequate food and fluids, and sleep due to the pain, not to mention the body's own neuroendocrine responses and compromised pulmonary function as a sequential reaction to pain. It is in this period where close attention should be focused on optimising pain control, in order to facilitate nutritional and pressure area care, and the provision of work up to get the patient fit for surgery.

Surgery is the best analgesic for hip fractures, and AAGBI (2011) and the NICE (2011) guidelines on the management of hip fractures recommend that patients should be operated on within 48 hours of the injury. To re-iterate pain management needs to be optimised in this period.

Pain management in this group is challenging for various reasons; inappropriate pain assessment, a reluctance to use opioids in view of side effect profile with an increased incidence of delirium/confusion in this elderly population, restriction on using NSAID's in view of the natural deterioration of renal function in the elderly along with the potential GI side effects.

Fascia iliaca compartment blocks (FICB) provide good analgesia for a fractured neck of femur, with many advantages. In addition to the reduced need for opioids and subsequent reduction in their associated side effects, they cause minimal to no haemodynamic compromise. When given correctly, they can provide great dynamic pain relief until the patient goes to theatre.

FICB's use a lower concentration of local anaesthetic than the traditional femoral nerve block, with a higher volume required to achieve a good spread. FICB is technically less demanding, and safer in comparison to other blocks which may be used. Guided by using anatomical landmarks, it is inexpensive, and can be safely performed in A&E.

### **Scope of Practice**

This procedure is for patients over the age of 18 years old.

The insertion procedure is carried out by those who have received specific training and supervision, and who have been deemed competent. These may include, Surgical care practitioners, Trauma Nurse practitioners, T&O Junior doctors, Accident and Emergency Doctors. Assessment of competency can be found in Appendix 2.

Management pre and post procedure are to be used by nursing and other medical staff.

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## Details of Guideline

### Management of the patient receiving Fascia Iliaca Block

#### Pre procedure

The fracture of the neck of femur needs to be confirmed. Patient inclusion and exclusion criteria are shown below. Some of the below exclusions may be discussed with a senior clinician to discuss absolute exclusion verses relative contraindications.

Patient inclusion criteria	Patient exclusion criteria
Confirmed fracture neck of femur	Known hypersensitivity or allergy to local anaesthetics
Confirmed femoral shaft fracture	Coagulopathy or therapeutic level of anti-coagulation INR more than 1.5
	Peripheral neuropathy
	Localised infection or inflammation at injection site
	Unable to identify patient's femoral artery
	Previous vascular surgery altering position of arterial pathways such as femoral bypass surgery
	*Patient refusal (see below)
	Suspected or confirmed compartment syndrome.

Explain procedure to the patient and the benefits of good and prolonged pain relief.

Gain patient consent and document this in their medical notes. Where the patient is unable to consent please complete the MCA 2 forms and consent form 4 covering both consent for FICB and subsequent surgery. The surgeon responsible for the patient and the operating surgeon will be required to sign this consent.

Be aware of, and explain potential complications of procedure to the patient and record in the notes. As with all peripheral nerve blocks these include [BNF \(British National Formulary\)](#) | [NICE](#) (see also further information on side effects on individual medications.:

- Intravascular injection
- Local anaesthetic toxicity
- Temporary or permanent nerve damage
- Infection
- Block failure
- Allergy to any of the preparations used

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Overall an FICB has a very low risk profile. The location of the FICB injection means the risk of intravascular injection, local anaesthetic toxicity, and mechanical nerve damage is extremely low.

Aseptic Technique should be used during administration and this will minimise the risk of infection.

The injection of a large volume of local anaesthetic ensures good spread and reduces the risk of failure. The risk of local anaesthetic toxicity is highest within the first 15 minutes after injection, which makes close monitoring mandatory.

Before the procedure is commenced intravenous access for resuscitation purposes should be established. Adequate resuscitation equipment should be available (Cardiac arrest trolley) The clinician responsible should take the necessary precautions to avoid intravascular injection.

**Ensure all equipment is present before starting. This will include:**

- Dressing pack
- Patient antiseptic skin prep solution
- 1-2 ml of 1% Lidocaine for skin infiltration in the awake patient
- Appropriate block needles (Tuohy 18G epidural needle or 20G block needle)
- Syringes 10ml, 20ml x2
- Small dressing
- Or alternatively use the FICB pack to the above
- Pulse oximeter
- Local anaesthetic of choice NB. Do not exceed maximum dose of local anaesthetic (See Appendix 4)
- Rapid access to
  - Intralipid infusion 20% 2 x 500mls (see below and page 10 and Appendix 1)
  - Adrenaline 1:10,000 \*
  - Ephedrine 30mg/ml \* (in anaesthetic box see appendix 1)
  - Atropine 1mg/5mls \*available in Red Cardiac Arrest box – Ensure easy access to Cardiac arrest trolley.

NB: In the case of local anaesthetic toxicity / cardiovascular collapse following injection Intralipid infusion 20% can be found in Main Theatre WRH and Alex, Maternity Theatre at WRH, and on Critical Care Units at WRH and AH. (see page 10 and Appendix 1)

**Peri-procedure**

The patients details should be checked with there wrist band and a check that consent has been gained. The Fascia Illiaca LOCCIP form (Appendix 3) should be filled in and 2 people should check the correct side for the block to be performed (STOP BEFORE YOU BLOCK)

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**The Procedure should be explained to the patient.**

**If the practitioner inserting the block has to leave the patient's bedside after checks have been carried out the previous checks must be repeated prior to starting the procedure.**

The information has been taken from the FRCA website ([www.frca.co.uk](http://www.frca.co.uk)) - Anaesthesia UK is an educational site with training resources for anaesthetic professionals. Please refer to hyperlink if unable to view clearly in this document or more information required

<http://www.frca.co.uk/Documents/193%20Fascia%20Iliaca%20compartment%20block.pdf>

In this guideline the Landmark procedure is used to identify and locate the Fascia Iliaca compartment.

See Figure 1 below shows a transverse section of the patient.

Patient is lying on their back. The appropriately trained will carry out the procedure.

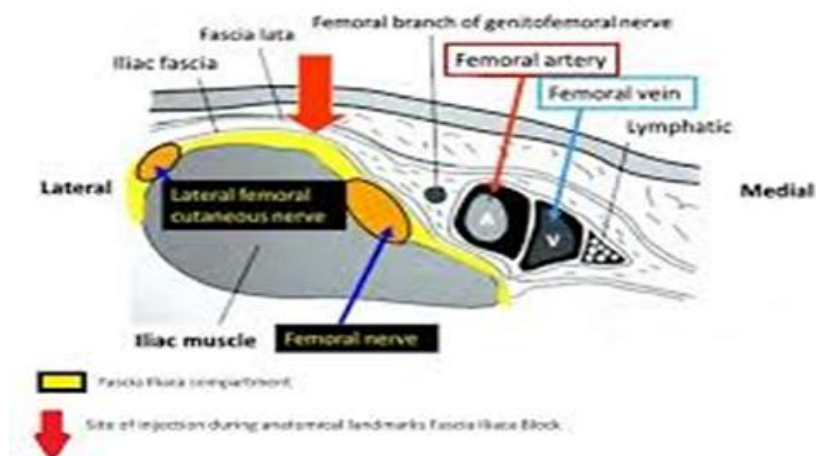


Figure 1: Anatomical structures surrounding the Fascia iliaca

In this anatomical drawing the fascia iliaca compartment is highlighted in the yellow colour. The first loss of resistance is felt when the fascia lata is punctured and the second loss of resistance when the fascia iliaca is penetrated. This drawing also shows the relation to the femoral vessels and the site of injection (red arrow).

### **Landmark Procedure**

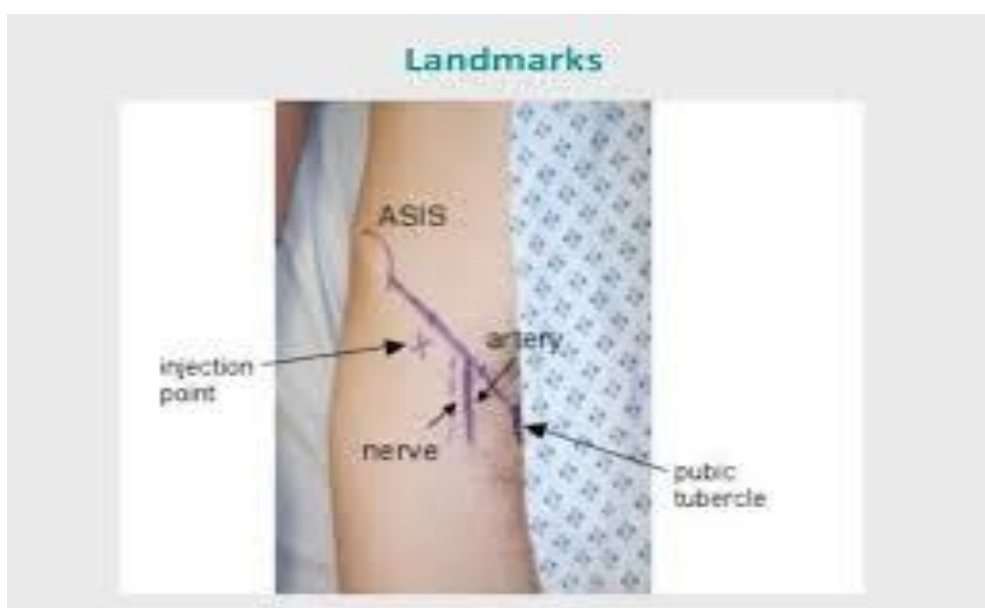
The landmarks for this block are the anterior superior iliac spine (ASIS) and the pubic tubercle of the same side. Place one middle finger on the ASIS and the other middle finger on the pubic tubercle. Draw a line between these two points. Divide this line into thirds (the index finger of both hands can be used, Fig 2a). Mark the point 1cm distal from the junction of the lateral and middle third. This is the injection entry point.

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The injection site for a right-sided FICB. Divide a line between the ASIS and pubic tubercle (PT) into thirds. The left index finger marks the junction of the lateral and middle third of the line joining ASIS with PT.

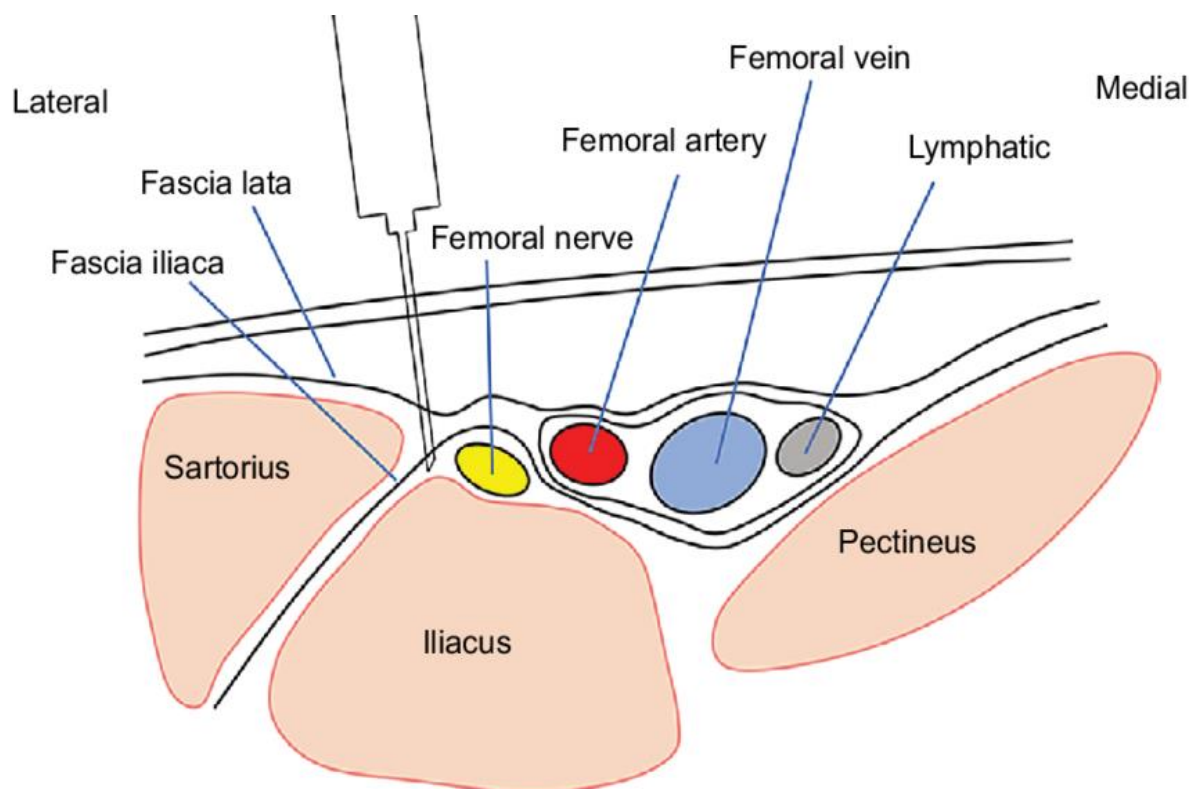
Right-sided FICB. Injection entry point is approximately 1 cm distal from the junction of lateral and middle third, indicated by left index finger.



Landmarks projected onto the skin: Right anterior superior iliac spine (ASIS) and pubic tubercle, with the inguinal ligament as the linking line. The femoral arterial pulse is palpable near the point where the medial and middle third of inguinal ligament meet; the femoral artery is drawn as a solid line. Estimated position of the femoral nerve dotted line lateral to artery. The injection point is just distal to the point where the middle and lateral third of the inguinal ligament meet (marked X).



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Position of insertion

### **Performing a FICB**

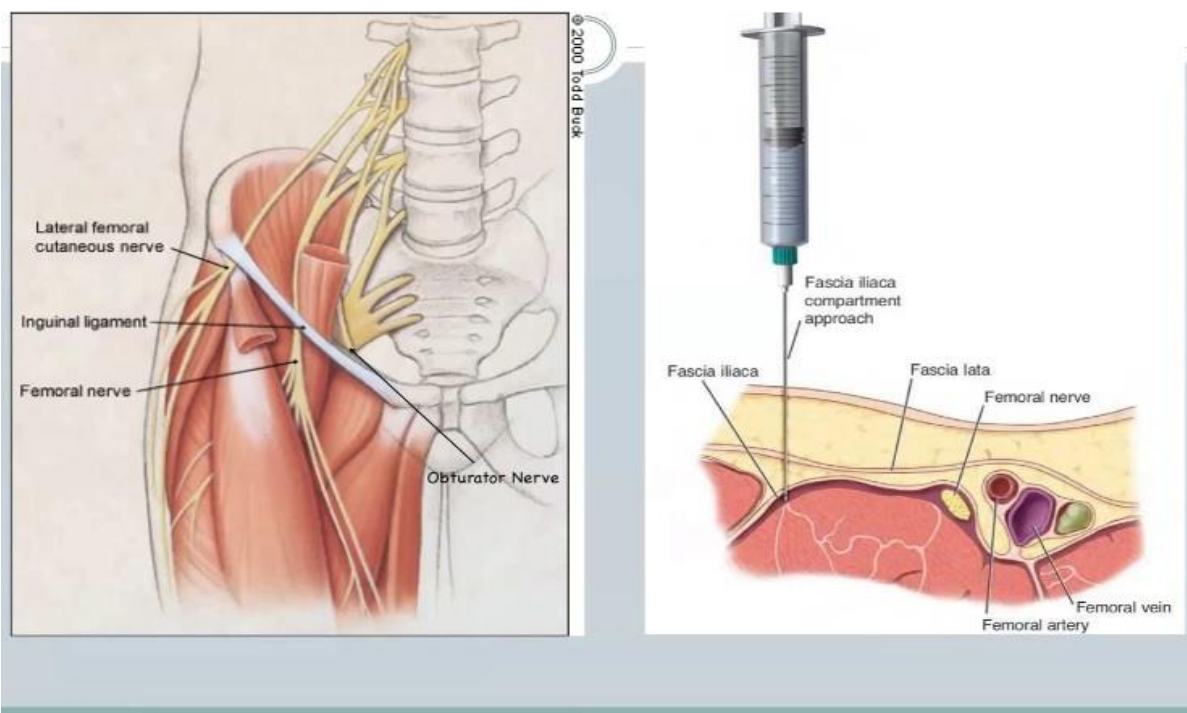
- Prepare syringe containing LA, attach to the blunt/short-bevelled needle and flush the needle.
- Identify the landmarks.
- Palpate the ipsilateral femoral pulse at the level of your planned injection site. The pulse should be palpable 1.5 to 2 cm medial to the intended injection point to ensure a safe distance from the femoral nerve to avoid femoral nerve impalement.
- Prepare the skin and infiltrate skin and deeper tissues with 1% Lidocaine in the awake patient.
- Using a blunted or short-bevelled needle pierce the skin at a right angle to its surface.
- Once through the skin adjust the needle angle to about 60 degrees directing the tip to the head or cranially.
- Keep the needle in the sagittal plane to avoid the major vessels (medially) and peritoneal cavity to the head or cranially.
- Advance the needle through two distinct “pops” as it perforates first the fascia lata, then the fascia iliaca (the latter of which gives a more subtle “pop”).
- Reduce the angle between needle and skin surface to about 30 degrees and advance the needle further 1-2 mm.

**Guideline for Fascia Iliaca Block for pain relief in patients with a confirmed hip or proximal femoral fracture**



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- Aspirate before injection and after every 5 ml injected.
- If aspiration is negative, start injecting the local anaesthetic. There should be no resistance to injection.
- If there is, the needle tip is likely to be within Iliacus muscle. In this case withdraw slightly until injection is easy. There should be no pain or paraesthesia on injection.
- Inject, approximately 20mls slowly, aspirating every 5mls, then change the syringe and inject the remaining volume. It is common to observe some of the injected fluid coming back through the needle during syringe change (Fig 4).
- If a block needle with an injection port is used, you may not see LA returning.



### Key points:

- Draw a line between ASIS and pubic tubercle, divide into thirds
- Needle insertion is 1cm distal to junction between lateral and middle third
- With blunt needle feel two pops
- After negative aspiration, inject local anaesthetic slowly aspirating every 5mls

Where the Landmark technique cannot be applied, for example in the obese patient, an ultrasound guided FICB may be required. When this is required the anaesthetist on call will need to be contacted.

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Where the patient may require repeated injections of LA an indwelling catheter maybe inserted. This may only be carried out by an appropriately trained anaesthetist, they will need to be contacted through the on-call service.

### **Troubleshooting**

<b>Problem</b>	<b>Suggested Action</b>
No distinct pops are felt during needle advancement	Withdraw the needle, check landmarks, change angle to be more perpendicular or more cranially
Hitting bone on needle advancement	Too deep, change angle directing more cranially
Blood on aspiration	Remove needle, apply pressure to needle insertion site for 2 minutes. Re-attempt, directing more laterally
Resistance to injection of local anaesthetic	Slightly withdraw the needle as it may be positioned in muscle tissue
Pain on injection	Localised slight burning sensation around the injection site is normal - slow your injection rate to ease it.
Signs of local anaesthetic toxicity (circumoral numbness, tinnitus, dizziness, seizure)	Stop injecting, call an anaesthetist or MET call on 2222 give high flow oxygen, provide life support as required (See below and Appendix 1)
No pain relief within 30 minutes	Inject further 20 ml of low concentration local anaesthetic, consider alternatives for pain relief. Do not give greater than the maximum dose in any 6 hour period. (See Appendix 4)

### **Post procedure**

Inform the nursing staff the block has been carried out. All nursing and medical staff need to know the signs of local anaesthetic toxicity and what to do in the event of this occurring. Observations are to start immediately post FICB. Observations include blood pressure, pulse, respiratory rate, and oxygen saturation levels, in addition to signs of LA toxicity. These observations are to be taken immediately post procedure, and then every 5 minutes for the first 15 mins then the last obs check at 30 minutes, then every 15 minutes for the next hour post FICB. If unintentional IV administration occurs LA toxicity will occur immediately. LA toxicity due to overdose can be generally picked up within 30 minutes post bolus however it is possible for toxicity to occur after this time, therefore continued vigilance is required.

PRESENTATION CAN BE VARIABLE. Seizures are the most common presenting symptom. Less than 20% of patients present with signs of early /mild toxicity. High level of vigilance is required.

### **Early / mild toxicity symptoms include**

- Confusion
- Vagueness / restlessness
- Metallic taste

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- Twitching
- Auditory changes
- Tingling or numbness in and / or around the mouth
- Dizziness or feeling light-headed

The patient may not divulge these symptoms so always ask if they experience any of the above and ask the patient to let a member of medical staff know immediately if they occur.

### **Severe Toxicity (Local anaesthetic systemic toxicity - LAST) symptoms**

Local anaesthetic intoxication can present in many different ways, making it very difficult to recognise.

After injection of a bolus of local anaesthetic, toxicity may develop at any time in the following hour.

- From central nervous system (CNS) excitability the patient may experience seizures progressing to CNS depression (coma, respiratory arrest)
- In classic descriptions of LAST (Local anaesthetic systemic toxicity) cardiac toxicity does not precede CNS toxicity. However, where LAST is due to accidental intravascular injection, these CNS symptoms may be bypassed; seizure activity may progress quickly to cardiac excitation (hypertension, tachycardia, ventricular arrhythmias)
- In higher blood concentrations, cardiac excitability may be followed by cardiac depression (bradycardia, asystole, decreased contractility, and hypotension).

The management of LAST are in appendixes. These are the guidelines set out by the Association of Anaesthetists of Great Britain and Ireland (AAGBI) in 2023. They are the most up to date guidelines for the treatment of LAST. Management consists of Recognition, Immediate management, Treatment, and Follow-up. Can be found in appendix 1.

If you suspect LAST please contact anaesthetist immediately and locate Intralipid infusion (Main theatres AH/WRH, Maternity theatres WRH and Critical Care AH/WRH).

### **Staff and Training**

The Fascia Iliaca compartment block can only be carried out by trained and appropriately assessed staff. This would include those who have had specific training in FICB insertion. The staff carrying out the FICB procedure must have

- Read the policy
- ILS training.
- Nurse practitioners must have completed WAHT IV Therapy Training (and completed competencies for injectable medicines)
- Theory Training will be carried out either face to face or virtually with educational training package provided through anaesthetic dept.
- The staff member will have to identify a mentor / supervisor who will supervise five Fascia Iliaca Blocks.
- Staff should carry out at least 1 FICB per month to ensure competency and ask for supervision if they feel it is required.
- Reassessment of competency every three years

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Once both theory and practical training has been completed and the staff member has a signed competency document they will be able to carry out FICB independently without supervision. A copy of the signed document should be held in the staff record.

The guideline also covers nursing staff managing patients who have received a fascia iliaca compartment block. They must have the appropriate knowledge and clinical skills to provide safe, evidence based care.

All medical and nursing staff need to be aware of local anaesthetic toxicity signs and symptoms and be able to respond to correct this.

### **Infection Prevention**

The infection prevention practice within WAHT is for all staff to have strict hand hygiene before and after patient contact.

FICB is carried out aseptically.

Aprons and gloves and eye protection to be worn as appropriate.

### **Non-Compliance with this Guideline**

Non-compliance to the guideline leads to suboptimal pain relief for the patient and may leave them in unnecessary distress. In the event of this occurring, a Datix form must be completed for each event of non-compliance with this guideline which must be forwarded to the Trust Risk Manager.

### **Audit and Monitoring**

Individual incidents of non-compliance are addressed by the consultant orthopaedic surgeon responsible for the patient and the clinical manager of the individual immediately, and risk assessments done as indicated.

Ensuing actions are undertaken by the clinical manager to ensure omissions and errors are brought to the attention of the appropriate person(s) and to reduce the risk of repeat: i.e. training and education or system reviews.

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## Appendix 1

### Treatment of LAST

Association of Anaesthetists. Local anaesthetic toxicity. Quick Reference Handbook

Guidelines for crises in anaesthesia. June 2023.

[QRH 3-10 Local anaesthetic toxicity v2 June 2023.pdf \(anaesthetists.org\)](#)

AAGBI Safety Guideline Management of Severe Local Anaesthetic Toxicity  
Accompanying notes:

[http://www.aagbi.org/sites/default/files/la\\_toxicity\\_notes\\_2010\\_0.pdf](http://www.aagbi.org/sites/default/files/la_toxicity_notes_2010_0.pdf)

For the infusion of Intravenous Lipid emulsion, which is used in LAST, there is not a set regime for the Trust. The hyperlinks above show details of suggested infusions by the AAGBI. The ultimate judgement with regard to a particular clinical procedure or treatment plan must be made by the Anaesthetist called to assess the patient has LAST, in the light of the clinical data presented and the diagnostic and treatment options available.

**Intralipid infusion 20% solution is stocked in the following areas if required. A&E resus, Main theatres and ICU. Midazolam (benzodiazepine), thiopental or propofol for seizures are available in emergency anaesthetic drug boxes in fridges of A&E resus, Main theatres and ICU's for Anaesthetist emergency use.**

### Document in patient's medical notes

- Consent gained; inclusion of MCA 2 and consent 4 if required
- Record of procedure; time, local anaesthetic used and dose
- Pre and post block pain scores; Abbey Pain scores where the patient is cognitively impaired
- Request for vital signs observations post procedure; frequency and duration

### Communication and Implementation

The Trust governance team will ensure that the guideline is uploaded to the intranet and the website and can be viewed via document finder.

## Appendix 2

## Clinical Competency Assessment

Name:	Name of Assessor:
Designation:	Designation:
Date:	Date:

Clinician carrying out the FICB has been taught and has the correct level of knowledge and has been deemed competent to carry out this procedure.

	Witnessed FICB	Supervised FICB 1	Supervised FICB 2	Supervised FICB 3	Supervised FICB 4	Supervised FICB 5
<b>NHS no of patient receiving FIBC:</b>						
<b>Competency</b>						
<b>Is able to identify correct patient and identify hip fracture</b>						
<b>Discusses with the patient treatment options and risks and benefits of the procedure and gains consent</b>						
<b>Ensures prescription for local anaesthetic and calculates the correct dose for patient</b>						
<b>Ensures good hand hygiene</b>						
<b>Prepares the equipment effectively using aseptic technique</b>						
<b>Ensure stop before you block is performed</b>						
<b>Cleans area appropriately</b>						

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<b>Identifies the area to be injected effectively using landmarks</b>						
<b>Uses the correct technique to inject</b>						
<b>Documents the procedure in the notes</b>						
<b>Details of candidate feedback:</b>						
<b>Details of assessor feedback:</b>						
<b>Assessors name:</b>						
<b>Assessors designation:</b>						
<b>Comments</b>						
<b>Signature:</b>						
<b>Date:</b>						



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### Appendix 3

## Emergency Department FEMORAL BLOCK CHECKLIST

AGH	
WRH	

<Name>      <Age>      <DoB>      <Hosp number>      <NHS Number>      <ED episode number>

#### BEFORE THE PROCEDURE

Indication:

☐ Fracture Neck of Femur

☐ Other

	Yes	No		Yes	No
Patient Identity checked as correct?			Any drug Allergies ?		
Appropriate Consent completed?			Safe Site of BLOCK insertion identified?		
Confirm SITE / SIDE of clinical abnormality by two clinicians – sign below			Are there any concerns about this procedure for the patient or its timing?		
Risk of Coagulopathy & Medicines checked?					

#### TIME OUT

	Yes	No		Yes	No
Patient is adequately Monitored?			Patient adequately analgesed?		
Patient position is optimal			Team members identified & roles assigned		

#### STOP BEFORE YOU BLOCK

Have you got the Correct Side?

Clinician 1

☐ Right

☐ Left

Clinician 2

☐ Left

☐ Right

#### DURING PROCEDURE

- ☐ Hands washed and Sterile Gloves and Apron  
☐ Chlorprep 2% to skin and allowed to dry

WEIGHT

☐ Actual

☐ Estimate

Kg

Local Anaesthetic:

☐ Lidocaine 1%

☐ Lidocaine 2%

Volume:

☐ Bupivacaine 0.25%

☐ Bupivacaine 0.5%

Volume:

Time of Block (24hr)

Technique:

☐ Iliofascial

☐ Femoral

U/S Guided?

☐ No

☐ Yes

Adverse Events

☐ No

☐ Yes (record below or in notes)

#### NOTES

#### SIGN OUT

	Yes	No		Yes	No
Dressing / Plaster			Vitals signs monitored for LA toxicity		
Verbal handover to Nurse			Analgesia prescribed		
Mandatory Post Procedure Vital Signs	<input type="checkbox"/> 5mins <input type="checkbox"/> 10mins <input type="checkbox"/> 15mins <input type="checkbox"/> 30mins				

#### PROCEDURE

Date

Time (24hr)

#### STAFF (print & sign)

Operator

Assistant

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These are recommended doses. These doses are NOT additive. When the recommended dose of one local anaesthetic has been reached no further local anaesthetic (of any type) should be given. Absorption varies depending on injection site / method of administration, and blood levels may increase in the elderly and unwell patient.

	Concentration (mg/ml)	Maximum Dose (mg/kg)	Maximum Volume (ml)						
			35Kg	40Kg	45Kg	50Kg	60Kg	70Kg	80Kg - 100Kg
<b>Lidocaine 1%</b>	10mg/ml	3mg/Kg	10.5	12	13.5	15	18	20ml (200mg)	
<b>Lidocaine 2%</b>	20mg/ml	3mg/Kg	5.25	6	6.75	7.5	9	10ml (200mg)	
<b>Bupivacaine 0.25%</b>	2.5mg/ml	2mg/Kg	28	32	36	40	48	56	60ml (150mg)
<b>Bupivacaine 0.5%</b>	5mg/ml	2mg/Kg	14	16	18	20	24	28	30ml (150mg)
<b>Lidocaine 1% with adrenaline (1in 200000)</b>	10mg/ml	7mg/Kg	24.5	28	31.5	35	42	49	50ml (500mg)
<b>Lidocaine 2% with adrenaline (1in 200000)</b>	20mg/ml	7mg/Kg	12.25	14	15.75	17.5	21	24.5	25ml (500mg)
<b>Prilocaine 1%</b>	10mg/ml	6mg/Kg	21	24	27	30	36	40ml (400mg)	

### Local Anaesthetic Systemic Toxicity

Almost always occurs within minutes of injection of the local anesthetic and is rare. Neurologic symptoms typically precede cardiovascular symptoms in lidocaine toxicity. Cardiovascular symptoms typically present first in bupivacaine toxicity.

#### Causes:

- Injection of local anesthetic into the systemic circulation (either errantly as part of a regional block i.e. Bier block)
- Rapid absorption of local anesthetic injected into a highly vascular area
- Use of local anesthetic doses in excess of the maximum dose (typically occurs with multiple subcutaneous injections)
- **Consider diagnosis in any patient coming from outpatient surgical center with cardiac arrest.**

#### CNS Symptoms

##### Minor Signs/Symptoms

- Tongue and perioral numbness
- Parasthesias
- Restlessness
- Tinnitus
- Muscle fasciculations + tremors

##### Major Signs/Symptoms

- Tonic-clonic seizures
- Global CNS depression
- Decreased level of consciousness
- Apnea

#### Cardiovascular Symptoms

##### Early Signs

- Hypertension and tachycardia

##### Late Signs:

- Peripheral vasodilation + profound hypotension
- Sinus bradycardia, AV blocks
- Conduction defects (Prolonged PR, Prolonged QRS)
- Ventricular dysrhythmias
- Cardiac arrest

**Management** – toxicity is worsened by the presence of Hypercapnia, Hypoxia, Acidosis

- Any symptom of LA toxicity eg. perioral tingling – stop injection, IV access, cardiac monitor, consider resus room.
- Aggressive supportive care as required and may include-FiO<sub>2</sub> 100%, hyperventilate, adrenaline, bicarbonate, benzodiazepines.
- High Quality CPR may be necessary particularly in the case of the longer lasting Local Anaesthetics such as bupivacaine.
- **Intralipid** (Resus fridge / ICU) Bolus: 1 – 1.5 ml/kg over 1 min. Can repeat bolus every 3 minutes up to a total dose of 3 ml/kg

Infusion: 0.25 ml/kg/min. Continue infusion until haemodynamically stable for at least 10 minutes. Can increase infusion to 0.5 ml/kg/min if BP worsens.

### Guideline for Fascia Iliaca Block for pain relief in patients with a confirmed hip or proximal femoral fracture

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**Appendix 4 - Local Anaesthetic Dose calculation chart for Trauma Practitioners**  
**NB Trauma Practitioners only to use Bupivacaine 0.25 dose titrated as per weight below.**

Please refer to [BNF \(British National Formulary\) | NICE](#) or <https://www.medicines.org.uk/emc/> for information on individual medications.

Weight	Bupivacaine
Less than 50kgs	30mls of 0.25%
Greater than 50kgs	40mls of 0.25%

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## Monitoring Tool

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the Policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: (Responsible for also ensuring actions are developed to address any areas of non- compliance)	Frequency of reporting:
	WHAT?	HOW?	WHEN?	WHO?	WHERE?	WHEN?
	Number of cases of incidents of LA toxicity reported	Capture all Datix reports	All incidents should be investigated	Lead Trauma Practitioner	Divisional clinical Governance meeting	Annually

## References

1. Range and Egeler,C 'Fascia Iliaca Compartment Block: LANDMARK AND ULTRASOUND APPROACH' ANAESTHESIA TUTORIAL OF THE WEEK 193 23rd AUGUST 2010 Taken from [www.frca.org.uk](http://www.frca.org.uk)
2. Layzell ,M. 'Exploring pain management in older people with hip fracture' Nursing Times (20) January 2009 Vol 105 No 2 pages 20-23
3. Association of Anaesthetists of Great Britain and Ireland. Management of proximal femoral fractures 2011. Anaesthesia 2012; 67: pages 85-98. This guideline can be viewed online via the following URL: <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2044.2011.06957.x/abstract>
4. The National Institute for Health and Clinical Excellence. Clinical Guideline 124. The management of hip fracture in adults. 2011. <http://www.nice.org.uk>
5. [QRH 3-10 Local anaesthetic toxicity v2 June 2023.pdf \(anaesthetists.org\)](#)
6. Bupivacaine. Aspen. SmPC available online at: [Bupivacaine Hydrochloride 0.25% w/v solution for injection - Summary of Product Characteristics \(SmPC\) - \(emc\) \(medicines.org.uk\)](#)
7. Joint Formulary Committee. 2024. British National Formulary. [Online] London: BMJ Group and Pharmaceutical Press Available online at [BNF \(British National Formulary\) | NICE](#)

## Contribution List

This key document has been circulated to the following individuals for consultation:

Designation
Mr Charles Docker, Clinical Lead T&O, NHFD Lead WRH.
Dr Joanne Mackie Consultant Anaesthetist
Rachel Hodgkinson Clinical Pharmacist

This key document has been circulated to the chair(s) of the following committee's / groups for comments:

Committee

## Supporting Document 1 - Equality Impact Assessment Tool

### Appendix- 1 Equality Impact Assessment Tool

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.



### Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form

Please read EIA guidelines when completing this form

#### Section 1 - Name of Organisation (please tick)

Herefordshire & Worcestershire STP		Herefordshire Council		Herefordshire CCG	
Worcestershire Acute Hospitals NHS Trust	✓	Worcestershire County Council		Worcestershire CCGs	
Worcestershire Health and Care NHS Trust		Wye Valley NHS Trust		Other (please state)	

<b>Name of Lead for Activity</b>	
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<b>Details of individuals completing this assessment</b>	<b>Name</b>	<b>Job title</b>	<b>e-mail contact</b>
	Tracey Dennehy	Surgical Care Practitioner	Tracey.dennehy@nhs.net
<b>Date assessment completed</b>	16/10/20		

#### Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	<b>Title: Guideline for Fascia Iliaca Block for pain relief in patients with a confirmed hip or proximal femoral fracture</b>
What is the aim, purpose and/or intended outcomes of this Activity?	To enable Junior Doctors Nurse practitioners / AAHPs to safely administer Fascia Iliaca blocks for pain relief to hip and femoral fractures



It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet

Who will be affected by the development & implementation of this activity?	<input type="checkbox"/> Service User <input checked="" type="checkbox"/> Patient <input type="checkbox"/> Carers <input type="checkbox"/> Visitors	<input type="checkbox"/> Staff <input type="checkbox"/> Communities <input type="checkbox"/> Other _____
Is this:	<input checked="" type="checkbox"/> Review of an existing activity <input type="checkbox"/> New activity <input type="checkbox"/> Planning to withdraw or reduce a service, activity or presence?	
What information and evidence have you reviewed to help inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc.)	This is part of the improvements made to hip fracture care driven by the national hip fracture database to improve patient outcomes.	
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)	The document has sent the clinical director and anaesthetic lead for hip fractures before wider circulation to all orthopaedic consultants, anaesthetic lead for hip fractures.	
Summary of relevant findings		

### Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. **Please tick one or more impact box below for each Equality Group and explain your rationale.**

Please note it is possible for the potential impact to be both positive and negative within the same equality group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

Equality Group	Potential <u>positive</u> impact	Potential <u>neutral</u> impact	Potential <u>negative</u> impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Age		✓		
Disability		✓		
Gender Reassignment		✓		
Marriage & Civil Partnerships		✓		
Pregnancy & Maternity		✓		
Race including Traveling Communities		✓		
Religion & Belief		✓		
Sex				

Equality Group	Potential <u>positive</u> impact	Potential <u>neutral</u> impact	Potential <u>negative</u> impact	Please explain your reasons for any potential positive, neutral or negative impact identified
<b>Sexual Orientation</b>		✓		
<b>Other Vulnerable and Disadvantaged Groups</b> (e.g. carers; care leavers; homeless; Social/Economic deprivation, travelling communities etc.)		✓		
<b>Health Inequalities</b> (any preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies)		✓		

#### Section 4

What actions will you take to mitigate any potential negative impacts?	Risk identified	Actions required to reduce / eliminate negative impact	Who will lead on the action?	Timeframe
	•			
<b>How will you monitor these actions?</b>				
<b>When will you review this EIA?</b> (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation)				

#### Section 5 - Please read and agree to the following Equality Statement

##### 1. Equality Statement

1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation

1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.

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All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer's etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

<b>Signature of person completing EIA</b>	Tracey Dennehy
<b>Date signed</b>	23/10/23
<b>Comments:</b>	
<b>Signature of person the Leader Person for this activity</b>	
<b>Date signed</b>	
<b>Comments:</b>	

## Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	No
2.	Does the implementation of this document require additional revenue	No
3.	Does the implementation of this document require additional manpower	No
4.	Does the implementation of this document release any manpower costs through a change in practice	No
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments:	Training will be delivered in house

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval.