

Regional

It is anticipated that this unit of training will not be delivered as a dedicated block and that the learning outcomes will be gained throughout the duration of Core Level training and that these should be achievable in most general hospitals at this level.

Learning outcomes:

- To become competent in all generic aspects of block performance
- Able to obtain consent for regional anaesthesia from patients
- Create a safe and supportive environment in theatre for awake and sedated patients
- Demonstrate knowledge of the principles of how to perform a number of regional and local anaesthetic procedures
- Be able specifically to perform spinal and lumbar epidural blockade
- Be able to perform some simple upper and lower limb peripheral nerve blocks *under direct supervision*
- Be able to use a peripheral nerve stimulator or ultrasound to identify peripheral nerves
- Demonstrate clear understanding of the criteria for safe discharge of patients from recovery following surgery under regional blockade
- Recognise that they should not attempt blocks until they have received supervised training, and passed the relevant assessments
- Accepts the right of patients to decline regional anaesthesia – even when there are clinical advantages

Core clinical learning outcome:

- Demonstrates safely at all times during performance of blocks including: marking side of surgery and site of regional technique; meticulous attention to sterility; selecting, checking, drawing up, diluting, and the adding of adjuvants, labelling and administration of local anaesthetic agents
- Establish safe and effective spinal and lumbar epidural blockade and manage immediate complications in ASA 1-2 patients under distant supervision
- Ability to establish a simple nerve block safely and effectively

NB: All competencies annotated with the letter 'E' can be examined in any of the components of the Primary examination identified in the FRCA examination blueprint on page B-99 or in the Final examination identified in the Final FRCA blueprint on page C72 of Annex C.

| Knowledge | | | |
|-------------------|--|---------------------------|------------|
| <i>Competence</i> | <i>Description</i> | <i>Assessment Methods</i> | <i>GMP</i> |
| RA_BK_01 | Recalls/describes the anatomy relevant to regional and peripheral blocks identified [Cross ref basic sciences] | A,C,E | 1 |

| Knowledge | | | |
|-------------------|---|---------------------------|------------|
| <i>Competence</i> | <i>Description</i> | <i>Assessment Methods</i> | <i>GMP</i> |
| RA_BK_02 | Recalls the relevant physiology and pharmacology [including toxicity of local anaesthetic agents, its symptoms, signs and management, including the use of lipid rescue] [Cross ref basic sciences] | A,C,E | 1 |
| RA_BK_03 | Recalls the relevant physics and clinical measurement related to the use of nerve stimulators in regional anaesthesia [Cross ref basic sciences; physics and clinical measurement] | A,C,E | 1 |
| RA_BK_03A | Recalls the relevant basic physics and clinical application of ultrasound to regional anaesthesia [Cross ref basic sciences; physics and clinical measurement] in respect of: <ul style="list-style-type: none"> • The components of an ultrasound machine • The interaction of ultrasound with tissues • Picture optimisation using hand movements, adjustment of depth, gain and focus | A,C,E | 1 |
| RA-BK_04 | Discusses the advantages/disadvantages, risks/benefits and indications/contra-indications of regional blockade | A,C,E | 1, |
| RA_BK_05 | Describes how to obtain consent from patients undergoing regional blockade | A,C,E | 1,2,3,4 |
| RA_BK_06 | Outlines the basic functions of an ultrasound machine [including physics [ref Basic Sciences], picture optimisation and probe selection] and how nerves to and in the upper limb can be identified using ultrasound | A,C,E | 1 |
| RA_BK_07 | Describes the principles of performing the following regional and local anaesthetic procedures: <ul style="list-style-type: none"> • Subarachnoid and Lumbar/caudal epidural blockade • Brachial plexus blocks: axillary, interscalene and supraclavicular • Other more distal upper limb blocks [elbow and wrist] • Lower limb blocks [femoral, sciatic and ankle] • Ilio-inguinal nerve blocks/penile blocks • Ophthalmic blocks [Cross reference to ophthalmic anaesthesia] • Intravenous Regional Anaesthesia [IVRA] | A,C,D,E | 1,2,3,4 |
| RA_BK_08 | Demonstrates understanding of the use of continuous epidural infusions and the need to prescribe correctly | A,C,D,E | 1 |
| RA_BK_09 | Recalls/discusses the complications of spinal and epidural analgesia and their management including, but not exclusively, accidental total spinal blockade and accidental dural tap and post-dural puncture headache | A,C,E | 1,2,3,4 |
| RA_BK_10 | Describes techniques and complications of other blocks listed in RA_BK_07 | A,C,E | 1,2 |
| RA_BK_11 | Shows understanding of the principles of identification of correct anatomy including the use of nerve stimulators and ultrasound [Cross reference Ultrasound] | A,C,D,E | 1,2 |

| Knowledge | | | |
|-------------------|---|---------------------------|------------|
| <i>Competence</i> | <i>Description</i> | <i>Assessment Methods</i> | <i>GMP</i> |
| RA_BK_12 | Outlines the dangers of accidental intravenous administration of local anaesthetic drugs, signs, symptoms and management, including the role of lipid emulsion | A,C,E | 1,2,3,4 |
| RA_BK_13 | Outlines the management of incomplete or failed regional blockade including, where appropriate, the use of rescue blocks | A,C,D,E | 1,2,3,4 |
| RA_BK_14 | Demonstrates understanding of the methods of sedation used in conjunction with regional anaesthesia | A,C,D,E | 1,2,3,4 |
| RA_BK_15 | Recalls/describes absolute and relative contraindications to regional blockade | A,C,E | 1,2,3,4 |
| RA_BK_16 | Outlines the possible effects regional blockade will have on the patient, list and the theatre staff and how these may be managed | A,C,E | 1,2,3,4 |
| RA_BK_17 | Lists the advantages and disadvantages of regional anaesthetic techniques for post-operative analgesia | A,C,E | 1,2 |
| RA_BK_18 | Describes the problems and solutions to obtaining adequate post-operative analgesia in the ward or home [if discharged] setting when the regional anaesthetic wears off | A,C,E | 1,2,3,4 |
| RA_BK_19 | Understands the need to review patients or contact patient following regional anaesthetic techniques to ensure block has worn off and there are no residual complications | A,C,E | 1,2,3 |
| RA_BK_20 | Understand the necessity to document the procedure and any complications e.g. paraesthesia, vascular puncture, pneumothorax and record images / video clip if using ultrasound where appropriate or indicated | A,C,E | 1,2,3,4 |
| RA_BK_21 | Be aware of the use of information leaflets in the decision making process and in the reporting of problems or complications following discharge | A,C,E | 1,2,3,4 |
| RA_BK_22 | Recalls the relevant basic physics and clinical application of ultrasound to regional anaesthesia [Cross ref basic sciences; physics and clinical measurement] in respect of: <ul style="list-style-type: none"> • The components of an ultrasound machine • The interaction of ultrasound with tissues • Picture optimisation using hand movements, adjustment of depth, gain and focus | A,C,E | 1 |

| Skills | | | |
|-------------------|---|--------------------------|------------|
| <i>Competence</i> | <i>Description</i> | <i>Assessment Method</i> | <i>GMP</i> |
| RA_BS_01 | Obtains valid consent for regional blockade, including confirmation and marking of side of operation and site or regional technique where indicated | A,D | 1,2,3,4 |

| Skills | | | |
|-------------------|---|--------------------------|------------|
| <i>Competence</i> | <i>Description</i> | <i>Assessment Method</i> | <i>GMP</i> |
| RA_BS_02 | Demonstrates safe and correct checking of the contents of epidural / spinal packs | A,D | 1,2 |
| RA_BS_03 | Practices safely including: meticulous attention to sterility during performance of blockade; selecting, checking, drawing up, diluting, adding adjuvants, labelling and administration of local anaesthetic agents | A,C,D | 1,2,3,4 |
| RA_BS_04 | Demonstrates how to undertake a comprehensive and structured pre-operative assessment of patients requiring a subarachnoid blockade, perform the block and manage side effects/complications correctly | A,C,D | 1,2,3,4 |
| RA_BS_05 | Demonstrates how to undertake a comprehensive and structured pre-operative assessment of patients requiring a lumbar epidural blockade, perform the block and manage side effects/complications correctly | A,C,D | 1,2,3,4 |
| RA_BS_06 | Recognises which patients are unsuitable for regional blockade | A,C | 1,2,3,4 |
| RA_BS_07 | Recognises patients in whom a block would be difficult to perform | A,C | 1,2,4 |
| RA_BS_08 | Demonstrates the management of hypotension, nausea, anxiety and shivering induced by spinal or epidural blockade | A,C,D | 1,2,3,4 |
| RA_BS_09 | Demonstrates correct post-operative care following spinal or epidural block | A,C,D | 1,2,3,4 |
| RA_BS_10 | Demonstrates how to use epidural techniques for post-operative pain management | A,C,D | 1,2 |
| RA_BS_11 | Demonstrates how to perform some simple nerve blocks from amongst the following: <ul style="list-style-type: none"> • Femoral • Ankle • Elbow, wrist and or digital • Rectus sheath • Inguinal • Intercostal • Infiltration techniques | A,C,D | 1,2,3,4 |
| RA_BS_12 | Shows how to use sedation correctly during surgery under regional blockade | A,C,D | 1,2,3,4 |
| RA_BS_13 | Manages patients with combined general and regional anaesthesia | A,C,D | 1,2,3,4 |
| RA_BS_14 | Shows consideration for the views of patients, surgeons and theatre team with regard to surgery under regional blockade | A,C,D | 1,3,4 |
| RA_BS_15 | Shows the ability to correctly manage the theatre environment with an awake or sedated patient | A,C,D | 1,2,3,4 |
| RA_BS_16 | Demonstrates list planning to allow time for the conduct of a block and for it to take effect | A,C,D | 1,2,3,4, |
| RA_BS_17 | Shows good communication skills towards the patients and staff during the use of regional blockade | A,C,D | 3,4 |
| RA_BS_18 | Shows due care and sensitivity to the patient's needs during performance of regional block | A,C,D | 1,2,3,4 |

Skills

| <i>Competence</i> | <i>Description</i> | <i>Assessment Method</i> | <i>GMP</i> |
|-------------------|---|--------------------------|------------|
| RA_BS_19 | Demonstrates how to identify peripheral nerves using basic ultrasound technology [e.g. the median, radial and ulnar in the arm] | A,C,D | 1 |