

Trainee Name:

Ultrasound Use in Anaesthesia

Assessments to accompany Workbook for
anaesthetic trainees in North
Queensland
2010

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Introduction

As part of the process of development of your skills in ultrasound use in Anaesthesia we have established a structured assessment tool. This will allow you, as a trainee, to understand the steps required in your training in this technology.

The anaesthetic departments of Cairns Base Hospital and The Townsville Hospital currently use Sonosite™ equipment as such this assessment refers to the M-Turbo™ and S-Nerve™ devices.

For module structure and details of the training course please refer to the workbook – <http://www.cairnsanaes.org/page8/page8.html>

As a general guide we suggest trainees aim to complete modules at the following rate:

BTY 1 modules 1 to 12

BTY 2 modules 13 to 20

ATY 1 modules 21 to 31

ATY 2 complete all remaining modules

ATY 3 consolidate skills and practice with a lower level of supervision.

We suggest that you keep this assessment pack in your ANZCA learning portfolio for your reference and for when you rotate between Anaesthetic Departments.

There is no requirement to complete any of this workbook for the ANZCA training program. It is merely provided for trainees who wish to learn techniques in ultrasound guided procedures in anaesthesia and is supported by the anaesthetic departments in North Queensland.

Disclaimer:

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Trainee Name: _____

Assessment 1: Ultrasound Basics – Modules 1 to 11

Assessed Steps	
Turn Ultrasound Machine On	<input type="checkbox"/>
Review and select appropriate probe	<input type="checkbox"/>
Review and select appropriate Preset	<input type="checkbox"/>
Review and select appropriate depth	<input type="checkbox"/>
Review and select appropriate frequency	<input type="checkbox"/>
Review and optimise gain	<input type="checkbox"/>
Freeze and unfreeze image	<input type="checkbox"/>
Enter patient details	<input type="checkbox"/>
Save image	<input type="checkbox"/>
Save clip	<input type="checkbox"/>
Export image and clip to USB	<input type="checkbox"/>
Identify vascular structure (carotid artery)	<input type="checkbox"/>
Apply and interrogate Doppler on carotid	<input type="checkbox"/>
Identify peripheral nerve (median nerve)	<input type="checkbox"/>
Trace median nerve proximally wrist to elbow	<input type="checkbox"/>
Identify bone & acoustic shadow	<input type="checkbox"/>
Identify pleura & peritoneum	<input type="checkbox"/>
Manipulate probe from SAX ¹ to LAX ² internal jugular vein	<input type="checkbox"/>
Image needle phantom model SAX	<input type="checkbox"/>
Image needle phantom model LAX	<input type="checkbox"/>
Perform needle to target phantom model SAX	<input type="checkbox"/>
Perform needle to target phantom model LAX	<input type="checkbox"/>

Comments:

Assessor: _____ Date Completed: _____

¹ SAX – Short Axis

² LAX – Long Axis

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Assessment 2: Ultrasound Guided Vascular Access – Module 12

Assessed Steps	
Demonstrate Sonoanatomy of Great Vessels in the neck	<input type="checkbox"/>
Demonstrate Sonoanatomy of Femoral Vessels	<input type="checkbox"/>
Identify Radial Artery	<input type="checkbox"/>
Identify Peripheral Venous Structure (e.g. basilic / cephalic v)	<input type="checkbox"/>
Demonstrate use of Doppler colour	<input type="checkbox"/>
Demonstrate identification of venous or arterial vessel	<input type="checkbox"/>
Demonstrate manipulation of probe from SAX to LAX	<input type="checkbox"/>
Demonstrate on blue phantom needle approach in SAX & LAX	<input type="checkbox"/>
Demonstrate cannulation of central vein	Vein: _____
Consent	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>
Patient and equipment positioning	<input type="checkbox"/>
Aseptic Technique	<input type="checkbox"/>
Appropriate US Machine Settings	<input type="checkbox"/>
Successful completion of cannulation	<input type="checkbox"/>

Comments:

Assessor: _____ Date Completed: _____

Trainee Name: _____

**Assessment 3: Basic Ultrasound Guided Regional Anaesthesia –
Modules 13 to 20**

Assessed Steps	
Demonstrate awareness of complications of Regional Anaesthesia	<input type="checkbox"/>
Describe the management of local anaesthetic toxicity	<input type="checkbox"/>
Demonstrate Sonoanatomy of Axillary Block	<input type="checkbox"/>
Demonstrate Sonoanatomy of Forearm	<input type="checkbox"/>
Demonstrate Sonoanatomy of Femoral Nerve & Fascia Iliaca	<input type="checkbox"/>
Demonstrate Sonoanatomy of Lateral Cutaneous Nerve of Thigh	<input type="checkbox"/>
Perform Selected Nerve Block	Nerve: _____
Consent	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>
Patient and equipment positioning	<input type="checkbox"/>
Aseptic Technique	<input type="checkbox"/>
Appropriate US Machine settings	<input type="checkbox"/>
Appropriate selection of local anaesthetic agent	<input type="checkbox"/>
Visualisation of target nerve	<input type="checkbox"/>
Identification of adjacent structures of interest	<input type="checkbox"/>
Safe needle insertion and approach in selected axis	<input type="checkbox"/>
Identification of injection point	<input type="checkbox"/>
Achievement of defined end point for block	<input type="checkbox"/>
Assessment of adequacy of block	<input type="checkbox"/>

Comments:

Assessor: _____ Date Completed: _____

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**Assessment 4: Intermediate Ultrasound Guided Regional Anaesthesia –
Modules 21 to 31**

Assessed Steps	
Demonstrate Sonoanatomy of Interscalene Block	<input type="checkbox"/>
Demonstrate Sonoanatomy of Supraclavicular Block	<input type="checkbox"/>
Demonstrate Sonoanatomy of Infraclavicular Block	<input type="checkbox"/>
Demonstrate Sonoanatomy of Transverse Abdominal Plane Block	<input type="checkbox"/>
Demonstrate Sonoanatomy of Proximal Sciatic Block (Sub-gluteal)	<input type="checkbox"/>
Demonstrate Sonoanatomy of Distal Sciatic Block (Popliteal)	<input type="checkbox"/>
Demonstrate Sonoanatomy of Saphenous Block	<input type="checkbox"/>
Perform Selected Nerve Block	Nerve: _____
Consent	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>
Patient and equipment positioning	<input type="checkbox"/>
Aseptic Technique	<input type="checkbox"/>
Appropriate US Machine settings	<input type="checkbox"/>
Appropriate selection of local anaesthetic agent	<input type="checkbox"/>
Visualisation of target nerve	<input type="checkbox"/>
Identification of adjacent structures of interest	<input type="checkbox"/>
Safe needle insertion and approach in selected axis	<input type="checkbox"/>
Identification of injection point	<input type="checkbox"/>
Achievement of defined end point for block	<input type="checkbox"/>
Assessment of adequacy of block	<input type="checkbox"/>

Comments:

Assessor: Date Completed:

Trainee Name: _____

**Assessment 5: Advanced Ultrasound Guided Regional Anaesthesia –
Modules 32 to 35**

Assessed Steps		
Demonstrate Sonoanatomy of Lumbar Plexus Block		<input type="checkbox"/>
Demonstrate Sonoanatomy of Anterior Sciatic Block		<input type="checkbox"/>
Demonstrate Sonoanatomy of Penile Block		<input type="checkbox"/>
Demonstrate Sonoanatomy of Paravertebral Block		<input type="checkbox"/>
Demonstrate Sonoanatomy of Neuraxial Structures		<input type="checkbox"/>
Perform Selected Nerve Block	Nerve:	
	Consent	<input type="checkbox"/>
	Monitoring	<input type="checkbox"/>
	Patient and equipment positioning	<input type="checkbox"/>
	Aseptic Technique	<input type="checkbox"/>
	Appropriate US Machine settings	<input type="checkbox"/>
	Appropriate selection of local anaesthetic agent	<input type="checkbox"/>
	Visualisation of target nerve	<input type="checkbox"/>
	Identification of adjacent structures of interest	<input type="checkbox"/>
	Safe needle insertion and approach in selected axis	<input type="checkbox"/>
	Identification of injection point	<input type="checkbox"/>
	Achievement of defined end point for block	<input type="checkbox"/>
	Assessment of adequacy of block	<input type="checkbox"/>

Comments:

Assessor: Date Completed: