

Ultrasound Logbook

-AAA

-EFAST

-Procedural Ultrasound

(Vascular Access)

Name:		
NULLIE.		

Logbook Compiled by **Dr Kyle Kophamel**Emergency Registrar

March 2015





Ultrasound Logbook

This is the Western Australian Emergency Medicine Ultrasound Education logbook.

It has been developed to comply with (and exceed) the training guidelines suggested by the Australasian College for Emergency Medicine (ACEM) and the Australasian Society for Ultrasound in Medicine (ASUM).

Modules within this logbook include:

EFAST

AAA

Procedural Ultrasound (Vascular Access)

Steps in training and gaining competence are:

Ultrasound Course

Supervised Scans

Images should be recorded and maintained as part of this logbook

Formative Assessments

Summative Assessment / Test

These records should be maintained by the trainee.

Candidates should not use ultrasound to guide their clinical decision making until they have completed their training.

It is essential both patient and doctors caring for the patient are aware scans done by the trainee are for training purposes only and are not to be used to determine the presence or absence of any pathology.

James Rippey MBBS DCH DDU FACEM





For Each Reviewer who has accredited Scans:

	Reviewer's Name	Reviewer's Initial	Reviewer's Title and Qualification
1			
2			
3			
4			
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5			
6			
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8			
9			
10			
10			
11			
12			





AAA Accreditation

Abdominal Aortic Aneurysm Ultrasound Assessment

Accreditation requires (as a minimum)

1. Completion of Introductory US course

Physics, artefacts, how to use the machine and perform a scan

2. Completion of a scan of the abdominal aorta

With theoretical and hands on components

3. Completion of an ultrasound logbook

15 scans with recording of images (ideally 25 scans)

Half indicated

5 positive

Scans all checked by a supervisor (may simply view images retrospectively)

Ideally scans compared to a gold standard (CT / Serial clinical exam / Formal ultrasound / Operative findings / Post mortem)

4. Completion of 3 Formative Assessments

Detailed and directed AAA examinations with a supervisor, going through the attached work sheet.

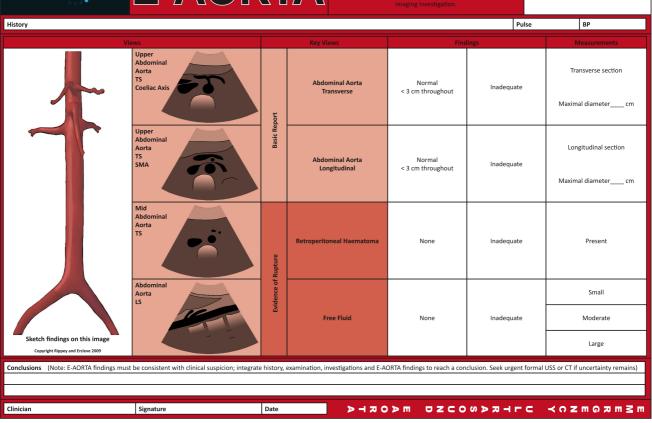
5. Summative Assessment

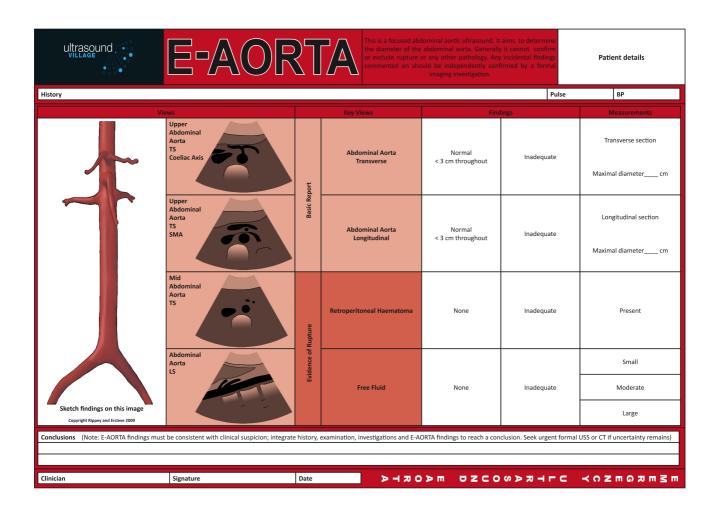
A formative assessment with no help / feedback, where the competence of the sonographer is completely assessed by a supervisor.

6. Testing of Knowledge

Ideally a test of image interpretation and clinical decision making ability to test knowledge rather than ultrasound ability.





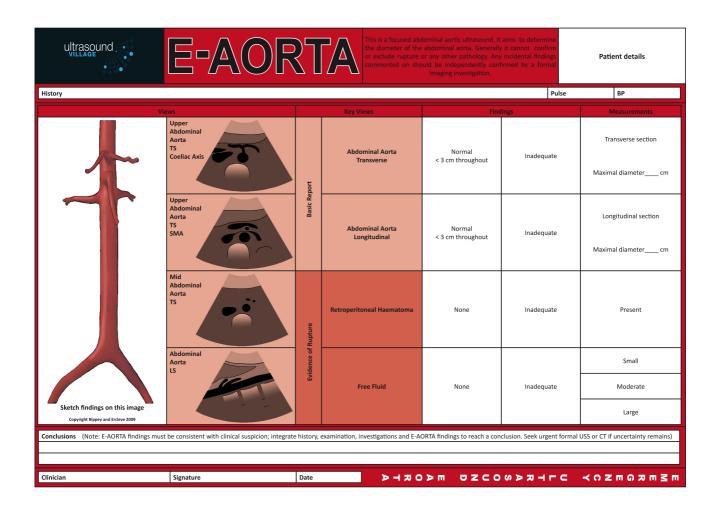




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Date



Clinician

Signature





Trainee:

Formative Assessment **E-Aorta**

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Date:	-				
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Data entry	Enter patient	/ study details			



Competent Required Instruction

Image acquisition **Aorta TS** Optimisation Adjusts depth Understands frequency adjustment Adjusts focus if on machine Adjusts gain & TGC Firm constant pressure Identifies Vertebral body Aorta Iliac vessels IVC Coeliac Axis **SMA** Splenic vein Left renal vein (if seen) **Bowel** Liver Measures aorta accurately Outer wall to outer wall Aorta LS Optimises image Identifies Aorta and fans across it Differentiates aorta from IVC Describes Appearance of AAA (size) >3cm = aneurysm Appearance of thrombus Appearance of retroperitoneal haematoma Usually can't tell if leaking but may see haematoma / free fluid **Alternative Views** Aware of imaging the aorta through the left kidney **Essential Clinical Knowledge** Acts on ultrasound findings appropriately AAA stable patient AAA unstable patient Normal sized aorta Indeterminate findings



	Competent	Required Instruction
Record Keeping		
Stores appropriate images		
Writes appropriate report		
Machine Maintenance		
Cleans ultrasound probe		
Can replace printer paper (if printer attached) Stores machine and probes safely and correctly		
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Trainee Signature	
Trainee's Name	
Tutor Signature	
Tutor's Name	

A copy of this completed formative assessment form should be kept by the trainee.





Trainee:

Formative Assessment **E-Aorta**

Tutor:	_				
Date:	-				
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Trainee Signature	
Trainee's Name	
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Tutor's Name	

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Date:	-				
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Record Keeping		
Stores appropriate images		
Writes appropriate report		
Machine Maintenance		
Cleans ultrasound probe		
Can replace printer paper (if printer attached) Stores machine and probes safely and correctly		
. , ,		

Trainee Signature	
Trainee's Name	
Tutor Signature	
Tutor's Name	

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Candidate:

Summative Assessment **E-Aorta**

Examiner:			
Date:			
a complete ultras At least 3 Format Assessment. The and is asked que Failure to comple Assessment and	sessment is a structured assessment procund examination by their examiner. ive Assessments are required before a candidate may be prompted through the stions but should not be instructed. the any one element changes the Sumn the examination is completed as a teach of the Summative Assessment is required.	ttempting the final she ultrasound examinative Assessment ching exercise, not a	Summative nination process into a Formative a final
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Preset selection Sele	ect correct preset		
Data entry Ente	er patient / study details		



			Competent	Fail		
Image acq	uisition					
Aorta TS						
	Optimisation	n				
	•	Adjusts depth				
		Understands frequency adjustment				
		Adjusts focus if on machine				
		Adjusts gain & TGC				
		Firm constant pressure				
	Identifies	·				
		Vertebral body				
		Aorta				
		Iliac vessels				
		IVC				
		Coeliac Axis				
		SMA				
		Splenic vein				
		Left renal vein (if seen)				
		Bowel				
		Liver				
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A 1 O		Outer wall to outer wall				
Aorta LS	Ontimicacin	maga				
	Optimises in Identifies	nage				
	identifies	Aorta and fans across it		1		
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		Differentiates aorta from IVC				
	Describes					
		Appearance of AAA (size)				
		>3cm = aneurysm	<u> </u>			
		Appearance of thrombus				
		Appearance of retroperitoneal haematoma				
		Usually can't tell if leaking but may see haematoma / fr				
Alternative V	iews	, c				
		aging the aorta through the left kidney				
Essential Clinical Knowledge						
	Acts on ultrasound findings appropriate					
		AAA stable patient				
		AAA unstable patient				
		Normal sized aorta				
		Indeterminate findings				



		Competent	Fail				
Record Keeping							
Store	es appropriate images						
Write	es appropriate report						
Machine Mainte	nance						
Can r	ns ultrasound probe replace printer paper (if printer attached) es machine and probes safely and correctly						
Candidate's Signat	ure						
Candidate's Name							
Examiner's Signatu	ure						
Examiner's Name							

A copy of this completed summative assessment form should be kept by the trainee. If the department has a Dierctor of Emergency Ultrasound they should keep a copy of this document.



E-FAST Accreditation

Extended Focussed Assessment with Sonography for Trauma

Accreditation requires (as a minimum)

1. Completion of Introductory US course

Physics, artefacts, how to use the machine and perform a scan

2. Completion of a FAST or E-FAST course

With theoretical and hands on components

3. Completion of an ultrasound logbook

25 scans with recording of images

Half indicated

5 positive for free fluid

Scans all checked by a supervisor (may simply view images retrospectively)

Ideally scans compared to a gold standard (CT / Serial clinical exam / Formal ultrasound / Operative findings / Post mortem)

4. Completion of 3 Formative Assessments

Detailed and directed E-FAST examinations with a supervisor, going through the attached work sheet.

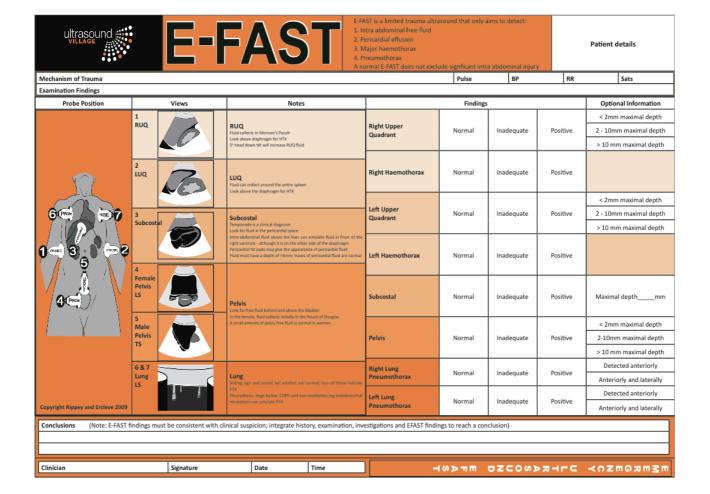
5. Summative Assessment

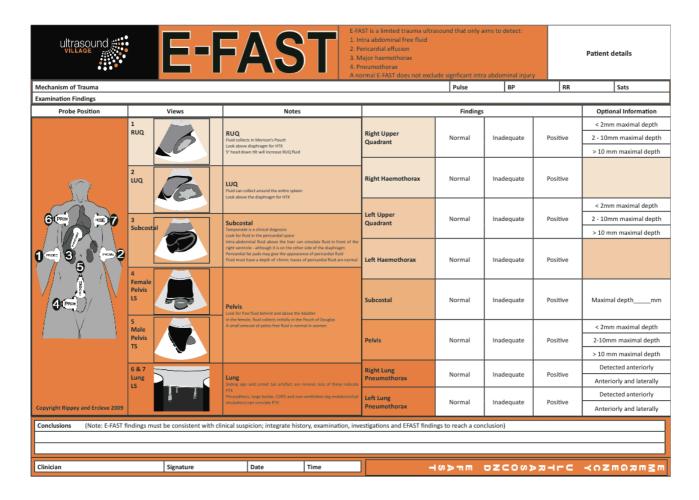
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6. Testing of Knowledge

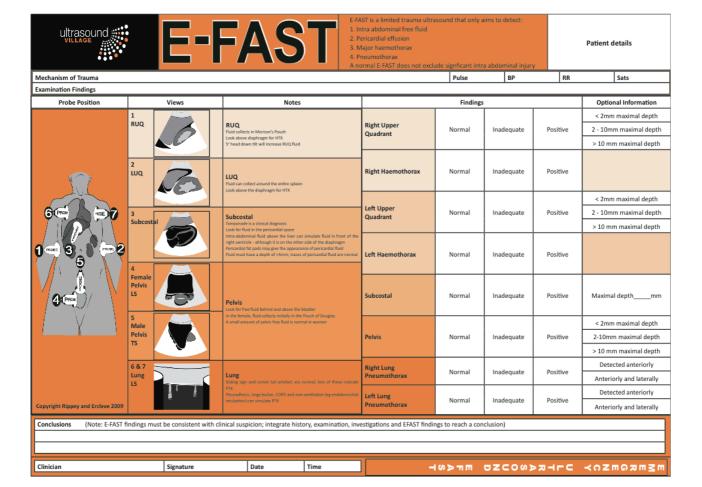
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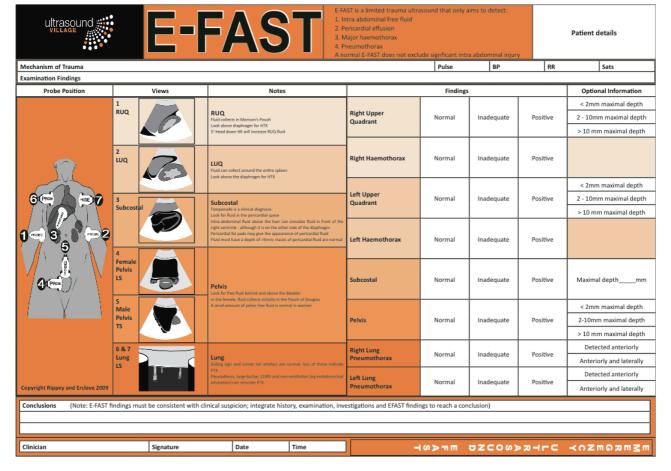




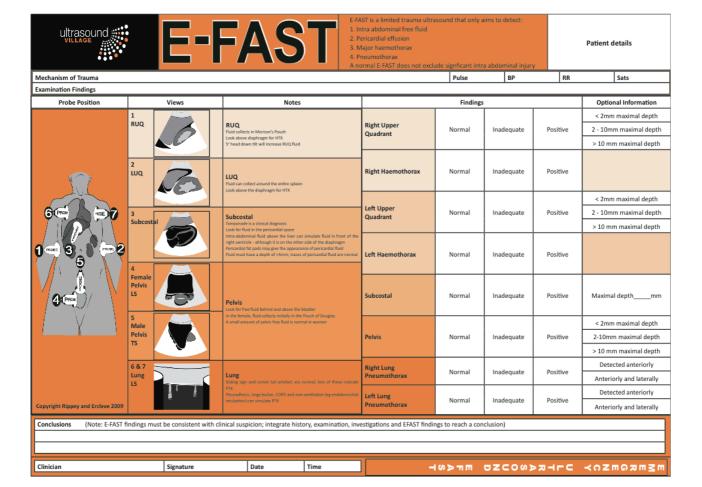


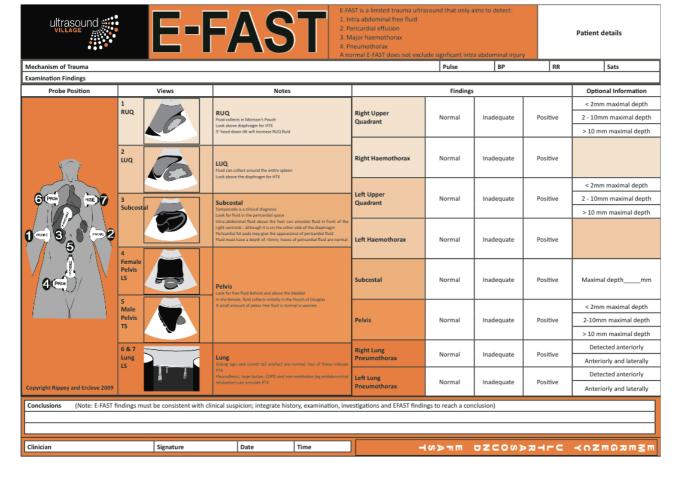




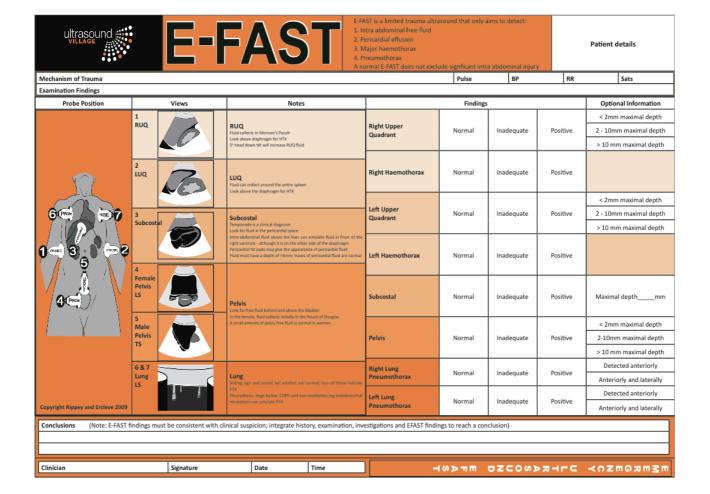


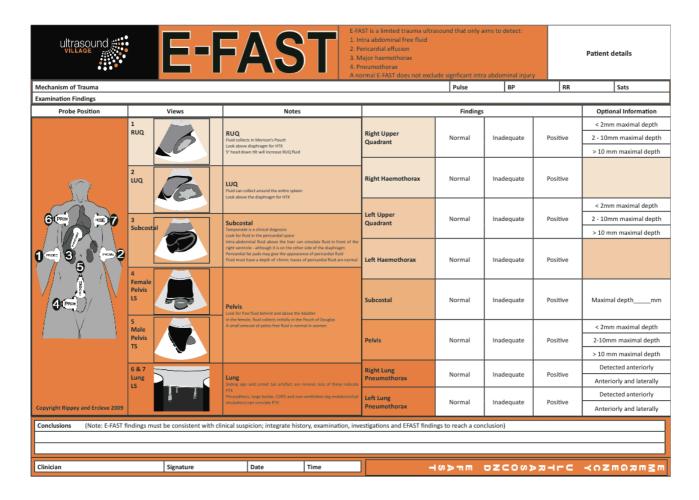




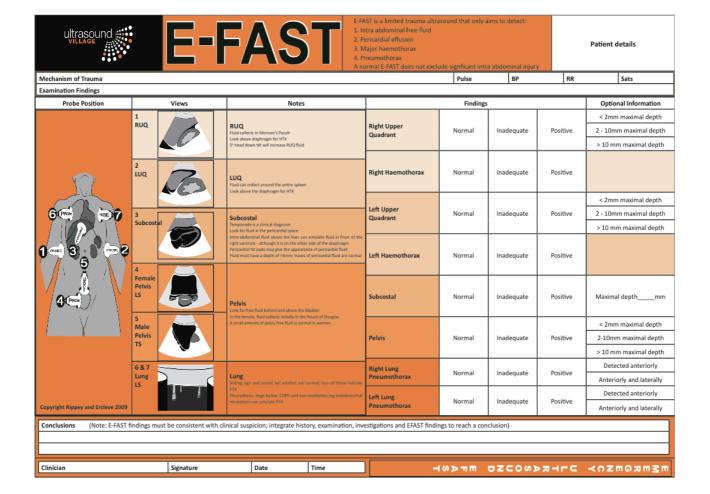


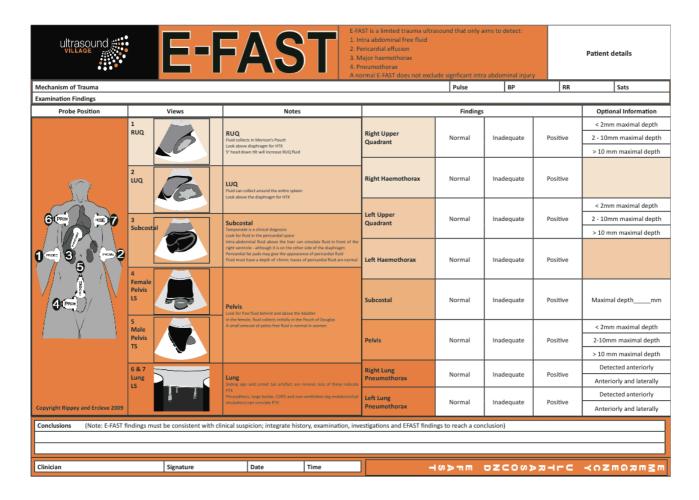
















Trainee:

Formative Assessment **E-FAST**

Tutor:					
Date:					
A Formative Assessment is a structured teaching process. The student is led through a complete ultrasound examination by their tutor. The tutor may direct, prompt and teach as they see appropriate. At least 3 Formative Assessments are required before attempting the final Summative Assessment. The Summative Assessment is a structured assessment process where the candidate may be prompted through the ultrasound examination process, is asked questions but should not be instructed.					
		Competent	Required Instruction		
Preparation	า				
Prepare patie	Position Consent / Explanation				
Prepare envi	ronment Lights dimmed if possible				
Prepare macl	nine Correct position				
Turn machine	e on				
Probe selecti	on Can change transducer Selects appropriate transducer for indication				
Preset select	ion Select correct preset				
Data entry	Enter patient / study details				



Image acquisition RUQ Optimisation Adjusts depth Understands frequency adjustment Adjusts focus if on machine Adjusts gain & TGC Identifies Liver Morrisons pouch Kidney Diaphragm Lung Gallbladder (if seen) IVC (if seen) **Bowel** Duodenum (if seen) Describes Where intraabdominal blood collects Appearance of this Where pleural blood collects Appearance of this LUQ Optimises image Identifies Spleen Kidney Diaphragm Can identify bowel / stomach Describes Where intraabdominal blood collects Appearance of this Where pleural blood collects Appearance of this **Pelvis** Optimises image Adjusts gain appropriately Identifies Bladder Iliac vessels Prostate / Uterus & Vagina Rectum Scans through in TS / LS appropriately Describes Where free fluid collects



				Competent	Required
Pericardium				-	Instruction
Subcostal view	V				
	Optimises im	nage			
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			Septum		
			Atria		
			Pericardium		
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	ound findings appriopriate Free fluid Normal scan Indeterminate Incidental findings	
Record Keeping		
Stores / prints	s appropriate images	
Writes appro	priate report	
Machine Maintenance		
	ound probe rinter paper (if printer attached) ne and probes safely and correctly	
Trainee Signature		
Trainee's Name		
Tutor Signature		
Tutor's Name		

A copy of this completed formative assessment form should be kept by the trainee.

Essential Clinical Knowledge





Trainee:

Formative Assessment **E-FAST**

Tutor:					
Date:					
A Formative Assessment is a structured teaching process. The student is led through a complete ultrasound examination by their tutor. The tutor may direct, prompt and teach as they see appropriate. At least 3 Formative Assessments are required before attempting the final Summative Assessment. The Summative Assessment is a structured assessment process where the candidate may be prompted through the ultrasound examination process, is asked questions but should not be instructed.					
		Competent	Required Instruction		
Preparation	า				
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Prepare envi	ronment Lights dimmed if possible				
Prepare macl	nine Correct position				
Turn machine	e on				
Probe selecti	on Can change transducer Selects appropriate transducer for indication				
Preset select	ion Select correct preset				
Data entry	Enter patient / study details				



Image acquisition RUQ Optimisation Adjusts depth Understands frequency adjustment Adjusts focus if on machine Adjusts gain & TGC Identifies Liver Morrisons pouch Kidney Diaphragm Lung Gallbladder (if seen) IVC (if seen) **Bowel** Duodenum (if seen) Describes Where intraabdominal blood collects Appearance of this Where pleural blood collects Appearance of this LUQ Optimises image Identifies Spleen Kidney Diaphragm Can identify bowel / stomach Describes Where intraabdominal blood collects Appearance of this Where pleural blood collects Appearance of this **Pelvis** Optimises image Adjusts gain appropriately Identifies Bladder Iliac vessels Prostate / Uterus & Vagina Rectum Scans through in TS / LS appropriately Describes Where free fluid collects



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Pericardium				-	Instruction
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Lung (optional					
•	Optimises im	_	ion (abdo or linear proba)		
		Shallow dep	ion (abdo or linear probe)		
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ı	uentines	Rib			
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		Comet tail a	rtifact		
		Sliding sign	Tillact		
Г	Describes	Sharing sign			
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		cture assessm	nent		
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Tutor's Name		

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Essential Clinical Knowledge





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Date:					
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Subcostal view	V				
	Optimises im	nage			
		_	th appropriately		
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Tutor's Name		

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Essential Clinical Knowledge





Candidate: ____

Summative Assessment **E-FAST**

Examiner:			
Date:			
ultrasound exam At least 3 Forma The candidate m but should not b Failure to compl Assessment and	sessment is a structured assessment processionation by their examiner. Itive Assessments are required before attempting be prompted through the ultrasound example instructed. The eter any one element changes the Summative of the examination is completed as a teaching attive Assessment is required prior to accreditation.	ting the final Sumi nination process a Assessment into exercise, not a fin	mative Assessment. nd is asked questions a Formative
		Competent	Fail
Preparation			
Prepare patient	Position Consent / Explanation		
Prepare enviro	nment Lights dimmed if possible		
Prepare machir	ne Correct position		
Turn machine o	n		
Probe selection	n Can change transducer Selects appropriate transducer for indication		
Preset selection	n Select correct preset		
Data entry	Enter patient / study details		



Competent

Fail



				Competent	Faii
Pericardium					
Subcostal vi	ew				
	Optimises in	mage			
	Optimises in	_	n appropriately		
	lala matifica	Aujusts depti	тарргорпасету		
	Identifies				-
		Liver			
		Lung			
		Heart			
			R Ventricle		
			L Ventricle		
			Septum		
			Atria		
			Pericardium		
	Describes				
		Where perica	ordial fluid collects		
		Appearance of	of this		
Long axis pa	arasternal viev	• •			-
		(• •••••			
	Optimises in	mago		I	
	Identifies	liage			
	identifies				
		Heart			
			RV		
			LV		
			LA		
			MV		
			AV		
			Pericardium		
	D 11		Pericardium		
	Describes				-
			ordial fluid collects		
		Appearance of	of this		
Lung (option	nal)				
	Optimises in	nage			
		High resolution	on (abdo or linear probe)		
		Shallow dept			
	Identifies				
	racitantes	Rib			
		Pleura			
		Comet tail ar	tifact		
		Sliding sign			
	Describes				
		Appearance of	of pneumothorax		
			of pneumothorax size		
Other (option	nal)		,		
5 (op o		cture assessme	⊇nt		
	ive size and	variation asses	22111GUL	ı l	



		Competent	Fail
Essential Clinical Know	vledge		
	sound findings appriopriately Free fluid Normal scan Indeterminate Incidental findings		
Record Keeping			
Stores / print	s appropriate images		
Writes appro	priate report		
Machine Maintenance			
·	ound probe printer paper (if printer attached) ne and probes safely and correctly		
Candidate's Signature			
Candidate's Name			
Examiner's Signature			
Examiner's Name			

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Procedural Ultrasound Accreditation Vascular Access

Accreditation requires (as a minimum)

1. Completion of Introductory US course

Physics, artefacts, how to use the machine and perform a scan

2. Completion of a Vascular Access US course or Training Day

With theoretical and hands on components

3. Completion of an ultrasound logbook

In those competent at peripheral cannulation, 3 successful directly supervised scans should be completed prior to independent practice.

In those new to cannulation, at least 5 successful directly supervised procedures should be performed

For those undertaking central venous cannulation, 5 successful, directly supervised procedures are required

For those undertaking arterial cannulation, 5 successful, directly supervised procedures are required

4. Completion of 2 Formative Assessments

Detailed and directed examinations with a supervisor, going through the attached work sheet.

5. Summative Assessment

A formative assessment with no help / feedback, where the competence of the sonographer is completely assessed by a supervisor.

6. Testing of Knowledge

Ideally a test of image interpretation and clinical decision making ability to test knowledge rather than ultrasound ability.



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Procedural Ultrasound

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Procedural Ultrasound

Record Of Training Procedure	Procedure Type	Date:	Indication Comments	Any Important Learning Points	Supervisor's Comments	Candidate's Signature	Candidate's Name	Supervisor's Signature
Record Of Training Procedure	Procedure Type	Date:	Indication	Any Important Learning Points	Supervisor's Comments	Candidate's Signature	Candidate's Name	Supervisor's Signature





Procedural Ultrasound

Record Of Training Procedure Any Important Learning Points Supervisor's Comments **Procedure Type** Supervisor's Signature Candidate's Signature Candidate's Name Comments Indication Date: **Procedural Ultrasound Record Of Training Procedure** Any Important Learning Points Supervisor's Comments **Procedure Type** Supervisor's Signature Candidate's Signature Supervisor's Name Candidate's Name Comments Indication Date:



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Record Of Training Procedure	Record Of Training Procedure
Procedure Type	Procedure Type
Date:	Date:
Indication	Indication
Comments	Comments
Any Important Learning Points	Any Important Learning Points
Supervisor's Comments	Supervisor's Comments
Candidate's Signature	Candidate's Signature
Candidate's Name	Candidate's Name
Supervisor's Signature	Supervisor's Signature
Supervisor's Name	





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Procedure Type		Procedure Type	
Date:		Date:	
Indication		Indication	
Comments		Comments	
Any Important Learning Points		Any Important Learning Points	
Supervisor's Comments		Supervisor's Comments	
Candidate's Signature Candidate's Name		Candidate's Signature Candidate's Name	



Supervisor's Signature

Supervisor's Name

Supervisor's Signature

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Record Of Training Procedure	Record Of Training Procedure	lure
Procedure Type	Procedure Type	
Date:	Date:	
Indication	Indication	
Comments	Comments	
Any Important Learning Points	Any Important Learning Points	
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Candidate's Signature Candidate's Name	Candidate's Signature Candidate's Name	
Supervisor's Signature	Supervisor's Signature	



Supervisor's Name

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Procedural Ultrasound

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Procedural Ultrasound

Record Of Training Procedure	Procedure Type	—— Date:	Indication Comments Comment	Any Important Learning Points Supervisor's Comments	Candidate's Signature Candidate's Name	Supervisor's Signature
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Record Of Training Procedure	
Procedure Type	Record Of Training Procedure
Date:	Procedure Type
	Date:
Indication	
Comments	Indication
	Comments
Any Important Learning Points	
Supervisor's Comments	Any Important Learning Points
	Supervisor's Comments
Candidate's Signature	
Candidate's Name	Candidate's Signature
	Candidate's Name
Supervisor's Signature	
Supervisor's Name	Supervisor's Signature



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Record Of Training Procedure	Record Of Training Procedure
Procedure Type	Procedure Type
Date:	Date:
Indication	Indication
Comments	Comments
Any Important Learning Points	Any Important Learning Points
Supervisor's Comments	Supervisor's Comments
Candidate's Signature	Candidate's Signature
	Candidate's Name
Supervisor's Signature	Supervisor's Signature
Supervisor's Name	





Procedural Ultrasound

Formative Assessment Procedural Module: Vascular Access Candidate: **Examiner:** Date: A Formative Assessment is a structured teaching process. The student is lead through the ultrasound examination process and is asked questions by their tutor. They should have completed a course and 5 supervised procedures. Required Competent Instruction Prepare patient Consent / Explanation Prepare environment Lights dimmed if possible Prepare machine Correct position Ensure probe, patient and machine all in one visual line Turn machine on **Probe selection** Can change transducer Selects appropriate transducer for indication **Preset selection** Select correct preset **Data entry** Enter patient / study details **Knowledge of Technique** Asceptic technique Hat, gown, gloves Chlorhexidine and drape Probe in sterile cover Discuss which technique - longitudinal vs transverse Longitudinal

> See needle entire way Can slip to other vessel

Easy to go in too deep

Watch surrounding structures
Only see transverse cut of needle

Transverse



With a Patient Simulate CVC Placement	Competent	Required Instruction
Preparation and positioning correct Patient		T
Equipment		
Optimisation		
Adjusts depth		
Understands frequency adjustment		
Adjusts focus if on machine Adjusts gain & TGC		
Anatomical Knowledge Identifies		
Vein		
Artery		
Explains how to differentiate vein and artery		
Anatomical site		
Compressibility Pospiratory variation		
Respiratory variation Pulsatility		
Shape		
Neck		
Identifies all relevant anatomy		
IJV Carotid		
Trachea		
Sternomastoid		
Thyroid		
Other		
Using IJ for CVC Approach Ensure patient in best position		
For comfort		
To ensure veins distended		
Ensure carotid is not directly deep to IJ		
Identify best point to approach		
Measure depth from skin Determine best angle to approach		
Describes technique competently		
Maximal safety assured through operator technique		
With a Patient Simulate Peripheral Vascular Access Preparation and positioning correct		
Patient Equipment		
Optimisation		
. Adjusts depth		
Understands frequency adjustment		
Adjusts focus if on machine Adjusts gain & TGC		
Peripheral Vascular Access		
Identifies all relevant anatomy		
Vessels		
Nerves		
Other		
Ensure patient in best position For comfort		
Touniquette on		
Identify best approach point / position		
Measure depth from skin		
Determine best angle to approach Ensures needle avoids important structures		
Describes technique competently		
Maximal safety assured through operator technique		



		Competent	Required Instruction
Practical demonstration			
Demonstrates	on a phantom Transverse approach Longitudinal approach		
Record Keeping			
Writes approp	riate report		
Machine Maintenance			
Stores machin	und probe rinter paper (if printer attached) e and probes safely and correctly probe covers are stored		
Candidate's Signature		_	
Candidate's Name	_	_	
Examiner's Signature		_	
Examiner's Name		_	

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With a Patient Simulate CVC Placement	Competent	Required Instruction
Preparation and positioning correct Patient		T
Equipment		
Optimisation		
Adjusts depth		
Understands frequency adjustment		
Adjusts focus if on machine Adjusts gain & TGC		
Anatomical Knowledge Identifies		
Vein		
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Explains how to differentiate vein and artery		
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Describes technique competently		
Maximal safety assured through operator technique		
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Optimisation		
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Determine best angle to approach Ensures needle avoids important structures		
Describes technique competently		
Maximal safety assured through operator technique		



		Competent	Required Instruction
Practical demonstration			
Demonstrates	on a phantom Transverse approach Longitudinal approach		
Record Keeping			
Writes approp	riate report		
Machine Maintenance			
Stores machin	und probe rinter paper (if printer attached) e and probes safely and correctly probe covers are stored		
Candidate's Signature		_	
Candidate's Name	_	_	
Examiner's Signature		_	
Examiner's Name		_	

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Transverse

Watch surrounding structures
Only see transverse cut of needle

Easy to go in too deep



with a Patien	it Simulate CVC Placement	Competent	instruction
	Preparation and positioning correct		
	Patient		
	Equipment		
	Optimisation		
	Adjusts depth		
	Understands frequency adjustment		
	Adjusts focus if on machine		
	Adjusts gain & TGC		
	Anatomical Knowledge		
	Identifies		
	Vein		
	Artery		
	Explains how to differentiate vein and artery		
	Anatomical site		
	Compressibility		
	Respiratory variation		
	Pulsatility		
	Shape		
	Neck		
	Identifies all relevant anatomy		
	IJV		
	Carotid		
	Trachea		
	Sternomastoid		
	Thyroid		
	Other		
	Using IJ for CVC Approach		
	Ensure patient in best position		
	For comfort		
	To ensure veins distended		
	Ensure carotid is not directly deep to IJ		
	Identify best point to approach		
	Measure depth from skin		
	Determine best angle to approach		
	Describes technique competently		
	Describes technique competently		
	Maximal aniaty and unad through an aretar to shair un		
1400 B 41	Maximal safety assured through operator technique		
With a Patien	t Simulate Peripheral Vascular Access		
	Preparation and positioning correct		
	Patient		
	Equipment		
	Optimisation		
	Adjusts depth		
	Understands frequency adjustment		
	Adjusts focus if on machine		
	Adjusts gain & TGC		
	Peripheral Vascular Access		
	Identifies all relevant anatomy		
	Vessels		
	Nerves		
	Other		
	Ensure patient in best position		
	For comfort		
	Touniquette on		
	Identify best approach point / position		
	Measure depth from skin		
	Determine best angle to approach		
	Ensures needle avoids important structures		
	Describes technique competently		
	Maximal safety assured through operator technique		
	•		



Required

	Competent	Instruction	
Practical demonstration			
Demonstrates on a phantom			
Transverse approach			
Longitudinal approach			
Record Keeping			
Writes appropriate report			
Machine Maintenance			
Cleans ultrasound probe			
Can replace printer paper (if printer attached)			
Stores machine and probes safely and correctly			
Knows where probe covers are stored			

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Required

Candidate's Signature

Candidate's Name

Examiner's Signature

Examiner's Name



Candidate:

Procedural Ultrasound

Competence Based Assessment Procedural Module: Vascular Access

Examine	er:		
Date:			
A Summativ	/e Assessment is a structured assessment process.		
The candida	ate may be prompted through the ultrasound examination	process and is as	ked questions
out should r	not be instructed. They should have completed a course a	and 5 supervised p	rocedures.
ailure to co	omplete any one element is a failure overall.		
		Competent	Fail
Prepare pa	tient		
	Consent / Explanation		
Prepare en	vironment	-	
	Lights dimmed if possible		
Prepare ma	achine		
	Correct position		
	Ensure probe, patient and machine all in one visual line		
Turn machi	ine on		
Probe selec	ction		
	Can change transducer		
	Selects appropriate transducer for indication		
Preset sele	ection		
	Select correct preset		
Data entry			
	Enter patient / study details		
Knowledge	e of Technique		
	Asceptic technique		
	Hat, gown, gloves		
	Chlorhexidine and drape		
	Probe in sterile cover		
	Discuss which technique - longitudinal vs transverse		
	Longitudinal		
	See needle entire way		
	Can slip to other vessel		
	Transverse		
	Watch surrounding structures		
	Only see transverse cut of needle		
	Easy to go in too deep		



	With a Patient Simulate CVC Placement	Competent	Fail
Preparation a	nd positioning correct		
•	Patient		
	Equipment		
Optimisation			
	Understands frequency adjustment		
	Adjusts focus if on machine		
	Adjusts gain & TGC		
Anatomical Kı	-		
Identifies	Vein		
	Artery		
	Explains how to differentiate vein and artery		
	Anatomical site		
	Compressibility Respiratory variation		
	Pulsatility		
	Shape		
Neck	Identifies all relevant anatomy		
HOOK	IJV		
	Carotid		
	Trachea		
	Sternomastoid		
	Thyroid		
	Other		
Using IJ for C			
	Ensure patient in best position		
	For comfort		
	To ensure veins distended		
	Ensure carotid is not directly deep to IJ		
	Identify best point to approach		
	Measure depth from skin Determine best angle to approach		
	Describes technique competently		
Maximal safet	y assured through operator technique		
maximar ourot	With a Patient Simulate Peripheral Vascular Access		
Preparation a	nd positioning correct		
•	Patient		
	Equipment		
Optimisation			
	Adjusts depth		
	Understands frequency adjustment		
	Adjusts focus if on machine		
Davish and Ma	Adjusts gain & TGC		
Peripheral Vas	Identifica ell relevent enetemy		
	Identifies all relevant anatomy Vessels		
	Nerves		
	Other		
	Ensure patient in best position		
	For comfort		
	Touniquette on		
	Identify best approach point / position		
	Measure depth from skin		
	Determine best angle to approach		
	Ensures needle avoids important structures		
	Describes technique competently		
Maximal safet	y assured through operator technique		



		Competent	Fail	
Practical demonstration				
Demonstrates	on a phantom Transverse approach Longitudinal approach			
Record Keeping				
Writes approp	riate report			
Machine Maintenance				
Stores machin	ound probe rinter paper (if printer attached) ne and probes safely and correctly probe covers are stored			
Candidate's Signature		_		
Candidate's Name		_		
Examiner's Signature		_		
Examiner's Name		_		

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