

Course towards Level 1 College of Emergency Medicine Accreditation in USS

Level 1 Accreditation and Beyond

The 8th London Emergency Medicine Ultrasound Course

A practical course on the use of Ultrasound in the assessment of critically ill patients designed for Acute Physicians, Anaesthetists, Intensivists and Emergency Physicians

organised in partnership with **Infomed Research & Training**,
on **Tuesday 2 and Wednesday 3 March 2010**, at Conference Centre, Russell Square House,
10-12 Russell Square, London WC1B 5WH

Programme Director:

Dr Tim Harris BM BS BMedSci Dip O&G Dip ImmeCare FACEM FFAEM
Consultant Emergency Physician, Royal London Hospital

The Faculty includes:

- **Dr Romila Bahl**, Consultant in Emergency Medicine, University College Hospital, London
- **Dr Nicholas Thomas**, Principal Vascular Ultrasound Scientist, Guy's and St Thomas' NHS Foundation Trust
- **Dr Susan Rowe**, Consultant Radiologist, Homerton University Hospital, London
- **Dr Alistair Billington**, Consultant in Intensive Care and Emergency Medicine, University Hospital Birmingham
- **Dr Ben Teasdale**, Consultant, Homerton University Hospital, London
- **Ms Leisha de Cruz**, Ultrasonographer, Royal London Hospital
- **Ms Jo Hutchinson**, Sonographer, Homerton University Hospital, London
- **Ms Emma Boer**, Sonographer, Homerton University Hospital, London
- **Dr Juan Ballesteros**, Consultant in Emergency Medicine, Doncaster Royal Infirmary
- **Dr Harith Al-Rawi**, Consultant in Emergency Medicine, St Thomas' Hospital, London,

Course equipment and technical support is kindly provided by:



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BMUS



Course Objectives:

- ☑ Become competent in the basic skills required to achieve **Level 1 accreditation** in USS
 - ☑ **Learn how to set up the machines and USS knobology**
 - ☑ Become familiar with the **physics of Ultrasound** and the **training and certification requirements** in USS for EM
 - ☑ Look into costs, choices and developing a **USS business case**
 - ☑ Learn and *practice* **USS techniques:**
 - **FAST and Pneumothorax**
 - **AAA**
 - **Peri-Arrest Scenarios**
 - **Vascular Access**
 - Pleural and pericardial fluid
 - ☑ Practice **beyond Level 1:**
 - **Gall Bladder and Renal USS**
 - **Soft Tissue USS and DVT**
 - **Thoracic USS**



About the Course

The Course:

- gives you an Introduction to Emergency USS based on *CEM Curriculum – Emergency Medicine Ultrasound* (EMUS)
- takes you **beyond** Level 1
- is suitable for Consultants, Middle Grades, Registrars and SHOs
- includes interactive, focused **lectures**, with extensive use of real-life screenshots and video clips
- features immediate post-lecture **Practical Sessions** with live demos with models and patients (condition allowing)
- offers an opportunity for delegates to practice on a variety of widely used and state-of-the-art machines
- provides each delegate with a **USS logbook – your training file** – plus a course folder and CD-ROM with copies of the lecture slides and information about Level 1 requirements

DAY 1: Tuesday 2 March 2010

08.30 – 09.15 **Registration**

09.15 – 09.30 **Welcome**
and introduction to the course

Introductory lectures

09.30 – 10.00

Ultrasound in Emergency Medicine

Dr Tim Harris,
Consultant in Emergency Medicine,
Royal London Hospital

Topics to be covered:

- What is level 1 training?
- What is the CEM position on USS?
- Governance and training
- Image storage

10.00 – 10.45

The physics of Ultrasound

Dr Nicholas Thomas, Principal Vascular Ultrasound Scientist, Guy's and St Thomas' NHS Foundation Trust

Topics to be covered:

- Frequencies used in medical Ultrasound
- Interaction with soft tissue including biological effects
- Basic principles of A, B, M real time and Duplex scanning
- Basic principles of pulsed, continuous wave and colour Doppler ultrasound

10.45 – 11.05 **Tea and coffee break**

Machines and Techniques

11.05 – 12.30

PRACTICAL SESSION A

How to set up machines, knobology and USS techniques

Facilitated by

Dr Ben Teasdale, Consultant,
Homerton University Hospital, London

Topics to be covered:

- Turning on and setting up USS machines
- Machine components
- Obtaining basic images, then maximising image quality
- Depth, focus, TGC

12.30 – 12.50

Ultrasound Machines: Costs, Choices and Developing a Business Case

Dr Juan Ballesteros,
Consultant in Emergency Medicine,
Doncaster Royal Infirmary

Topics to be covered:

- What it costs to buy a machine
- What to look for in a machine
- Storage
- Maintenance
- On-going costs

12.50 – 13.30 **Lunch**

Attendees can practise on the USS

13.30 – 15.15

PRACTICAL SESSION B

FAST and Pneumothorax

Facilitated by

Mr Daniel P. Strong, Consultant in Emergency and Intensive Care Medicine, University Hospitals Coventry and Warwickshire

Topics to be covered:

- What is a FAST scan and what is its place in trauma management?
- How to spot pericardial and intra-abdominal free fluid
- How to spot (heamo) pneumothorax?



15.15 – 15.35 **Tea and coffee break**

15.35 – 17.00

PRACTICAL SESSION C

AAA

Facilitated by **Dr Susan Rowe**,
Consultant Radiologist,
Homerton University Hospital, London

Topics to be covered:

- Identifying AAA
- Is there any evidence of rupture?
- USS or CT?

17.00 – 17.10 **Summary**

17.10 **Close**

DAY 2: Wednesday 3 March 2010

08.30 – 09.00 **Registration**

09.00 – 10.30

PRACTICAL SESSION D

Soft Tissue USS and DVT

Facilitated by
Dr Harith Al-Rawi,
Consultant in Adult and Paediatric Emergency Medicine,
St Thomas' Hospital, London

Topics to be covered:

- Identifying FBs
- Haematoma or abscess
- Is there a DVT?

10.30 – 10.50 **Tea and coffee break**

10.50 – 12.40

PRACTICAL SESSION E

Peri-Arrest Scenarios

Facilitated by
Dr Alistair Billington,
Consultant in Intensive Care and Emergency Medicine,
University Hospital Birmingham

Topics to be covered:

- This patient is peri-arrest – *why*?
- Rapidly excluding life-threatening pathology
- What the four chamber Echo can tell you
- Can Ultrasound assess circulating volume?

12.40 – 13.25 **Lunch**

Practice Beyond Level 1

This session consists of three parts, each looking at topic that takes you beyond Level 1

13.25 – 14.45

PRACTICAL SESSION F

Vascular Access

Facilitated by
Dr Alistair Billington,
Consultant in Intensive Care and Emergency Medicine,
University Hospital Birmingham

Topics to be covered:

- Evidence-based practice for CVC placement
- Practical tips and tricks
- Access in difficult patients

14.45 – 15.00 **Tea and coffee break**

15.00 – 16.30

PRACTICAL SESSION G

Liver, Gall Bladder and Renal USS

Facilitated by
Dr Susan Rowe,
Consultant Radiologist, Homerton
University Hospital, London



Topics to be covered:

- Identifying gall stones from artefacts
- Finding the CBD
- Defining hydronephrosis and renal calculi

16.30 – 17.15

ILLUSTRATED LECTURE

Thoracic USS

Facilitated by
Dr Romila Bahl, Consultant in Emergency Medicine,
University College Hospital, London

Topics to be covered:

- Pneumothorax
- Pleural effusion
- Draining pleural effusion

17.15 – 17.30 **Close**
and collection of Attendance Certificates