

EMIT
TRAINING MODULE "PHYSICS OF ULTRASOUND"

TRAINING TIMETABLE - DIAGNOSTIC ULTRASOUND

No.	Sub-module
i	Introduction. Program. Using the training materials
1	Basic introduction to ultrasound applications
2	Introduction to ultrasound systems, basic physics
3	B-mode ultrasound. Principles and scanner factors affecting image quality including phantom measurements
4	Spectral Doppler continuous and pulsed wave systems – principles and implementation
5	Colour flow methods - principles and implementation
6	M-mode - principles, implementation and uses
7	Safety of ultrasound, standards and measurement
8	Measurement of total acoustic power
9	Measurement of acoustic pressure and intensity
10	Quality assurance - B-mode standards and techniques
11	Quality assurance - Doppler /colour Doppler techniques
12	Ultrasound applications – II
13	Blood flow and Doppler measurement
14	Transmission techniques (ToF, attenuation , f-dependent attenuation)
15	Contrast agents, physics, clinical use, safety
16	3-D ultrasound, methods, applications, QA
17	"New techniques" in ultrasound imaging
18	Ultrasound image storage
19	Purchasing, specification, evaluation and maintenance
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ii	Organising the portfolio, training assessment, etc.