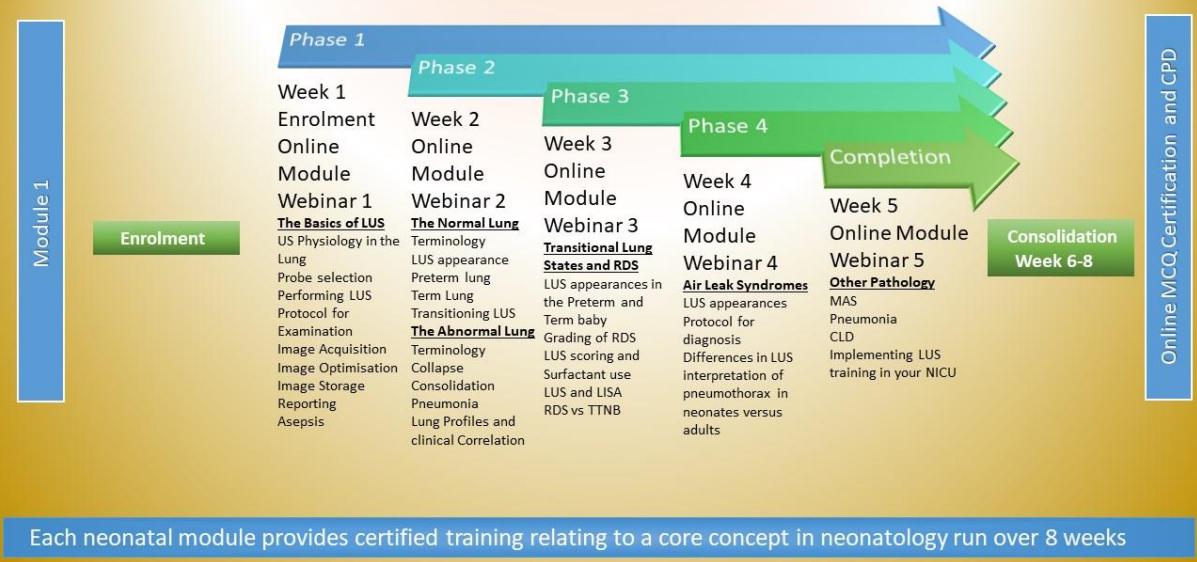# POCUS- LUNG ULTRASOUND IN NEONATAL CARE

MODULE 1

Dr Alok Sharma-Course Organiser and Mentor

MPROVE ACADEMY | SOUTHAMPTON UNITED KINGDOM

Point of Care Ultrasound in Neonatal Care
Module 1-Lung Ultrasound

Phase 1

Week 1
Enrolment
Online
Module
Webinar 1
The Basics of LUS
US Physiology in the Lung
Probe selection
Performing LUS
Protocol for Examination
Image Acquisition
Image Optimisation
Image Storage
Reporting
Asepsis

Phase 2

Week 2
Online
Module
Webinar 2
The Normal Lung
Terminology
LUS appearance
Preterm lung
Term Lung
Transitioning LUS
The Abnormal Lung
Terminology
Collapse
Consolidation
Pneumonia
Lung Profiles and clinical Correlation

Phase 3

Week 3
Online
Module
Webinar 3
Transitional Lung States and RDS
LUS appearances in the Preterm and Term baby
Grading of RDS
LUS scoring and Surfactant use
LUS and LISA
RDS vs TTNB

Phase 4

Week 4
Online
Module
Webinar 4
Air Leak Syndromes
LUS appearances
Protocol for diagnosis
Differences in LUS interpretation of pneumothorax in neonates versus adults

Completion

Week 5
Online Module
Webinar 5
Other Pathology
MAS
Pneumonia
CLD
Implementing LUS training in your NICU

Module 1

Enrolment

Consolidation
Week 6-8

Online MCQ Certification and CPD

Each neonatal module provides certified training relating to a core concept in neonatology run over 8 weeks

Topic	Speaker	Date/Time	Link
Introduction-The Normal Lung			
1. Introductions to the module, mentorship, logbooks, accreditation, POCUS-US Physics Nuts and Bolts-Get it right the first time			
2. US Physiology in the lung, Artefact and Nomenclature **Your machine** **Probe selection** **Settings** **Performing LUS** **Protocol for examination** **Image acquisition** **Image storage** **Reporting** **Reporting templates**			
3. LUS appearance **What is normal?** **The Term and Preterm Neonate** **Transitioning lung states** **Defining and reporting lung profile**			
4. The Abnormal Lung **Revision of lung profiles** **Collapse** **Consolidation** **Pneumonia** **Pneumothorax** **Pulmonary Atelectasis**			

Topic	Speaker	Date/Time	Link
Lung Pathology			
5. RDS in the term neonate **Pneumonia** **RDS** **TTNB** **MAS**			
6. Air leak syndromes **Pulmonary Haemorrhage** **Pleural Effusion**			
7. RDS in the Preterm Neonate **Recognition and Application** **LUS scoring in the** **management of RDS** **When is the best time to scan** **after birth?**			
8. LUS in diagnosis of BPD and **Chronic lung disease**			
8. LUS in babies with **congenital diaphragmatic** **hernia**			
Topic	**Speaker**	**Date/Time**	**Link**
Clinical and POCUS Approach			
9. LUS to assess diaphragmatic **contractility and** **approach to the neonate with** **extubation failure**			
10. POCUS -Heart Lung **Interaction**			
11. POCUS approach to the **neonate with acute** **deterioration-SAFE-SAFE R** **protocol**			
12. Running and developing an **LUS training programme** **-Competency acquisition and** **keeping things safe-** **Grandfather Clause and** **Quorum Approach**			
13. LUS and LISA for the **preterm neonate**			
Close			