



Prehospital Point-of-Care Ultrasound (pPOCUS)

This ultrasound course will equip you with expertise in applying POCUS across diverse prehospital scenarios, including trauma, non-trauma, and resuscitative situations. Following an initial overview of physics, POCUS device functions, and basic ultrasound imaging, you'll quickly develop proficiency in detecting free fluid, hemothorax, and pneumothorax. You'll also swiftly recognize pericardial effusion, tamponade, low left ventricular function, severe valve dysfunction, signs of pulmonary embolism, and large wall motion abnormalities. Furthermore, you'll know how to accurately detect aortic aneurysm, aortic dissection, and acute peripheral arterial occlusion. The course also covers a range of non-trauma conditions, including Pulmonary edema, Liver vein dilation, Urinary retention, Obstruction, Ileus, Acute cholecystitis chole(docholithiasis, and more. Throughout, you'll explore essential protocols such as eFAST, FATE, RUSH, DYSPNEA, and CPR protocol. Note: This course includes AI-generated translations in Spanish and Arabic. Accuracy is not guaranteed (read more in Terms & Conditions)

10

CME credits

7

Chapters

39

Lectures

6

Quizzes

Chapter 1 | CME

Free lectures

This free chapter provides access to a curated collection of free lectures, offering valuable insights and knowledge from our medical experts on various subjects related to Prehospital Point-of-Care Ultrasound.

Lectures & Quizzes:

- Free lecture 1
- Free lecture 2
- Free lecture 3

Chapter 2 | 0.25 CME

Introduction to pPOCUS

At the outset, all participants will be greeted with a warm welcome. Furthermore, attention will be drawn to the fact that ultrasound is a skill that is easily learnable. In addition, the broad learning objectives of this course will be presented.

Lectures & Quizzes:

- I spy with my little eye: A simple cold – turning life-threatening!
- Quiz - Introduction to pPOCUS

- Hocus pPOCUS – or some real magic?

Chapter 3 | 1.25 CME

pPOCUS Basics

In this section, participants will learn the fundamental principles of physics, relevant artifacts, and the most commonly used buttons and settings. Tips and tricks for improving image quality, as well as the handling of the ultrasound transducer, will also be discussed.

Lectures & Quizzes:

- Physical Background: Speed of sound
- Probes and Knobology: Who's joining the party?
- Applying proper technique: Rocking, tilting, rotating
- Tips & Tricks: Can you see what I see?
- Artifacts: Mirror mirror on the diaphragm
- Quiz - pPOCUS Basics

Chapter 4 | 2 CME

Abdomen

In this section, the focus is on the sonographic examination of the abdomen, with particular emphasis on the identification of free fluid in the Morison, Koller, Douglas, or Proust spaces. Additionally, the most common pathologies and their etiology, as well as treatment options, will be discussed.

Lectures & Quizzes:

- Introduction & Peritonealsitus: Is there something behind it?
- Kidney and urogenital tract: Rock solid
- Morison Pouch, liver and gallbladder:
- Spleen and Koller Pouch: A deer story
- Free fluid and ascites: Everything comes and goes in waves
- Imaging the intestines: Play the piano
- Quiz - Abdomen

Chapter 5 | 1 CME

Thorax

In thoracic sonography, artifacts such as A- and B-lines are discussed, with a primary focus on pneumothorax and pleural effusion, as well as hemothorax. Additionally, pathologies like pulmonary edema will be addressed, and the interpretation of specific images will be practiced using case examples.

Lectures & Quizzes:

- Introduction to lung ultrasound: Beyond the air
- Helpful artefacts: A or B?
- Pneumothorax: Till I collapse
- Pulmonary edema: drowning or not?
- Pleural effusion: Close the curtains
- Quiz - Thorax

Echocardiography

In the echocardiography chapter, we will begin by discussing positional relationships and anatomical considerations. Participants will familiarize themselves with standard views and aim to assess left ventricular function through eyeballing and simple measurements. The discussion will extend to the right heart, with a clear emphasis on detecting pulmonary embolism. In preclinical emergency medicine, recognizing pericardial tamponade/effusion is of significant importance. Additionally, we will delve into topics such as valves, wall motion abnormalities, and vegetations.

Lectures & Quizzes:

- Introduction to echocardiography: Thomas' favourite
- Where to start? The first look
- Standard cuts: One heart, many views
- Left ventricular function: Pump's basic mission
- The right heart: a sensitive soul
- Pulmonary embolism: Heavy luggage
- Myocardial Infarction and Wall Motion Abnormalities
- Valvular Heart Disease
- Pericardial effusion/tamponade: Under pressure
- Aortic dissection: Rescue me
- Quiz - Echocardiography

Protocols

In the Protocol Section, the objective is to synthesize the acquired knowledge of various views and recognized pathologies. Participants will gain insight into the application of specific protocols and the optimal sequence for conducting examinations.

Lectures & Quizzes:

- Protocols overview
- eFAST
- FATE - Part 1
- FATE - Part 2
- RUSH Protocol
- Resuscitation - Part 1
- Resuscitation - Part 2
- Resuscitation - Case example
- Quiz - Protocols