



Equine Focused Cardiac Ultrasound (eFoCUS)

The course

Theory I: 60 minutes

The participants attend a lecture with the following goals:

- Understand the purpose and indications of eFoCUS
- Understand the goals of eFoCUS
- Learn the eFoCUS protocol and views.
- Identify normal anatomical structures on echocardiographic images

This lecture starts with a case presentation to demonstrate the purpose and indications of eFoCUS. Afterwards the eFoCUS views are demonstrated and normal anatomical structures are learned.

Theory II: 60 minutes

The participants attend a lecture covering the following goals:

- Be able to assess adequate quality of each eFoCUS view
- Be able to identify echocardiographic abnormalities

This lecture is an eFoCUS view-based presentation which covers relevant echocardiographic abnormalities related to cardiovascular diseases in horses. Examples of the following echocardiographic pathologies are provided: Obvious pathologies (pericardial effusion, extra-pericardial or pericardial mass lesions, obvious structural cardiac abnormalities and obvious valvular thickening), Chamber and great vessel enlargement or diminution, myocardial abnormalities (increased thickness, general and focal hyper- or hypoechogenicity), left ventricular mechanical function (hyper- or hypokinesis and impaired diastolic function).

Demonstration (practical): 45 minutes

The participants attend a practical session.

The course instructor demonstrates the eFoCUS protocol in real time with comments on image acquisition, identification of anatomical structures and echocardiographic pathologies to be assessed.

Questions are not allowed.

- Introduction to the use of Philips Lumify S4-1 and mobile device
- Introduction on how to prepare the horse
- Demonstration of the eFoCUS protocol

Deconstruction (practical): 45 minutes

The participants attend a practical session.

The course instructor performs a second slower presentation of the eFoCUS protocol and gives a detailed overview for every eFoCUS image plane as in demonstration. Questions are allowed at any time.

Comprehension (practical): 90 minutes

The participants attend a practical session.

The course instructor performs the eFoCUS protocol and involves a participant, asking him or her to comment on adequate image acquisition and anatomical structures.

This step is repeated x times with the participant involved subsequently assuming the role of the instructor and the next participant commenting.

A second round is carried out in the same manner but includes comments on echocardiographic pathologies.

Execution (practical): 60 minutes

The participants attend a practical session.

The participants simultaneously narrate and execute the eFoCUS protocol.