

## Remote/virtual Wet Lab Attendee Preparation Instructions- ECHO

A remote learning wet lab presents many challenges. We've put together some recommendations for optimizing your learning experience during the wet lab, as well as making it smoother and effective when dealing with a large remote group.

1. You are investing a lot of time, effort, money and yourself in this entire experience, so it is well worth planning ahead of time exactly how to optimize your set up given what is available in your clinic. We are glad to assist you with this.
2. We will be following the pattern we utilize in our hands-on lab, meaning that we will be teaching the SDEP Echo protocol in sections- for example
  - Position 1: 4 & 5 chamber long axis (the most important views and the ones we will spend the most time on)
  - Position 1: short axis heart base
  - Position 2: pulmonary to right atrium views
  - Position 3: right auricle view
  - Position 4: apical trans-diaphragmatic approach and liver
  - Add in M-mode measurements
  - Add in color and Doppler

Each attendee will scan for about 8-10 minutes, then the instructor will prompt a switch to the next attendee.

3. We suggest one of the following scenarios, designed to make it most time and learning efficient; in all cases each attendee needs to switch off scanning every 8-10 minutes or monitor their own breaks if they are single. *We cannot emphasize enough the need for a dedicated tech/assistant animal monitor throughout the weekend, to allow you to concentrate on the protocol and be successful. Please address this with management if needed.*
  - We have found that with virtual remote, it works best to have 2 attendees at a table per animal (rather than the 3 we have at on site labs). This allows time for communicating on the chat and switching , while still getting sufficient scanning practice time. So if your team has more than 2 attendees, if possible you should have a second table and patient and second ultrasound machine.
    - a. 2 attendees, with one dedicated tech/assistant animal monitor. One attendee scans, and one attendee observes and monitors the chat
    - b. 2 attendees, with no dedicated tech/assistant animal monitor. One attendee scans, and one attendee monitors the animal and tries to stay up on the chat and submit questions for the sonographer.
    - c. If there is only one attendee, then we suggest a dedicated tech/assistant animal monitor plus a second staff member to monitor the chat so the attendee can keep up. Here the attendee will need to monitor their own scanning breaks.

4. Set up
  - a. Exam/surgery table in a room with adequate space for the number of attendees and staff; height adjustable is best as a table too low or too high can result in significant ergonomic problems (back, arm, shoulder) after scanning for 3 hours. Most people find it is more natural and effective to stand rather than sit when doing the SDEP protocol.
  - b. Cardiac table ideal
  - c. The animal will be in right lateral recumbency ; machine on a cart/small table to the left of the table , and a *laptop* (not a phone – it's too small to see well) positioned where it can be easily and comfortably seen by the sonographer. Possibly a second laptop for the other attendees and monitoring the chat.
5. One animal per 3 hour session, for a total of 3 animals for the weekend; age 1-12 years, healthy. We suggest at least 2 additional animals “on deck” in case needed.
  - a. Session 1 – medium sized dog, 25-35# , preferably NOT round-chested or overweight.
  - b. Session 2- average weight cat (cats are not small dogs)
  - c. Session 3- any dog, but preferably > 50#
  - d. Keeping to the above animal recommendations, if possible, will help with consistency in the wet lab for all remote attendees.

**\*\*\* please let us know prior to lab, or at the start of the lab session, if you have something different than the recommendations above, so we can adapt for you**

6. Sedation dosages- these are designed to keep your patient sedated hopefully for the full 3 hours, although they may need to be topped off. This eliminates significant loss of time during the lab caused by having to get a new animal sedated. We highly recommend complete sedation (as we do in our hands-on labs) so you can concentrate on maneuvers and approaches and learning the protocol, and not fighting an anxious animal. This is a critical aspect of the SDEP learning experience, especially when trying to adapt to the specific and minor adjustments required for echo views that are accurate enough to produce accurate measurements.
  - a. Keeping the animals warm for a 3 hour period is important and requires constant monitoring (again a reason for a dedicated tech); we will share our warming protocols in a separate document
  - b. \*\*\* note that the dexdomitor sedation will result in slower heart rates and likely some minor regurg jets that are dexdomitor related only.
7. Chat room -
  - a. The person whose turn it is to monitor the chat should feel free to post questions from the sonographer. The instructor as well as the SonoPath technician monitors will address questions on an ongoing basis as they are able.
  - b. Please post questions only from the person currently scanning, everyone will get their chance on their turn (often everyone has the same problems and questions).

- c. Understand that we do need to keep the lab moving for all the attendees, so if the instructor addresses your question, we can only wait 30 seconds maximum for a response before moving on.
  - d. For any attendee having significant problems/ struggling, a separate time after lab will be set up to address it individually. Remember though, you will be learning an overwhelming amount over the course of the weekend, so allow yourself patience. Your learning curve continues when you begin scanning at least 2 cases a day starting Monday after the lab and it will take time to build your skill.
8. Please do not try to record the sessions – it will interrupt the speaker