

Notes re ultrasound for APLS Trauma Scenarios

An increasing number of candidates (and instructors) use Point of Care Ultrasound (POCUS) in their clinical practice.

Many of our trauma scenarios cases are unstable with significant chest / abdominal injuries and the extended Focused Assessment with Sonography in Trauma (eFAST) could assist in directing management for some of them.

Please note the following caveats

- POCUS does not have to be asked for in every trauma case.
- The importance of eliciting and discussing physical signs should still be emphasized and use of ultrasound (US) should not replace physical examination.
- If a candidate says that they would perform an eFAST scan as part of assessing the patient, check that they are accredited for eFAST at their institution.
 - some candidates ask for an eFAST as they pick up that this is what has been asked in previous scenarios and is expected/adds to the case.
 - If they are **not** able to do POCUS then it is acceptable **not** to give them the POCUS information.
- Given the diversity of our learners, it is essential that, if US findings are incorporated into the scenario, ‘..what would you do if you didn’t have access to an US machine or someone accredited to do an eFAST scan?’ is covered in the learning conversation

There are limitations to eFAST in paediatric trauma, including:

- A positive abdominal FAST scan may influence decisions regarding the need for advanced imaging (CT) or use of blood products but does not necessarily dictate need for operation or interventional radiology.
- A negative abdominal FAST scan does not exclude solid organ or hollow viscus injury

Ensure that the Learning Conversation covers the Key Learning points before eFAST. We are not teaching an US course. Candidates may sign up for one of the many US courses if they want to explore US in more detail.

For those instructors comfortable with feeding US findings to candidates, the following scripts for eFAST are suggested

- **Abdominal component**
 - **No free fluid is seen**
 - = the *abdominal component of eFAST scan is negative*
 - **There is a large amount of intra-peritoneal free fluid**
 - = the *abdominal component of eFAST scan is positive*
- **Cardiac component**
 - **there is no pericardial effusion**
 - there is a pericardial effusion with signs of tamponade
- **Lung component**
 - **‘There is lung sliding anteriorly on both sides’** - no pneumothorax
 - **‘Lung sliding is absent on the L/R and a lung point is present’** - pneumothorax present
 - **‘There is intrapleural fluid present’** - haemothorax