

Laerdal SonoSim Ultrasound Solution (LSUS) 2.0 SimMan Trauma Care Bundle (eFAST) Peer-to-Peer Checklist

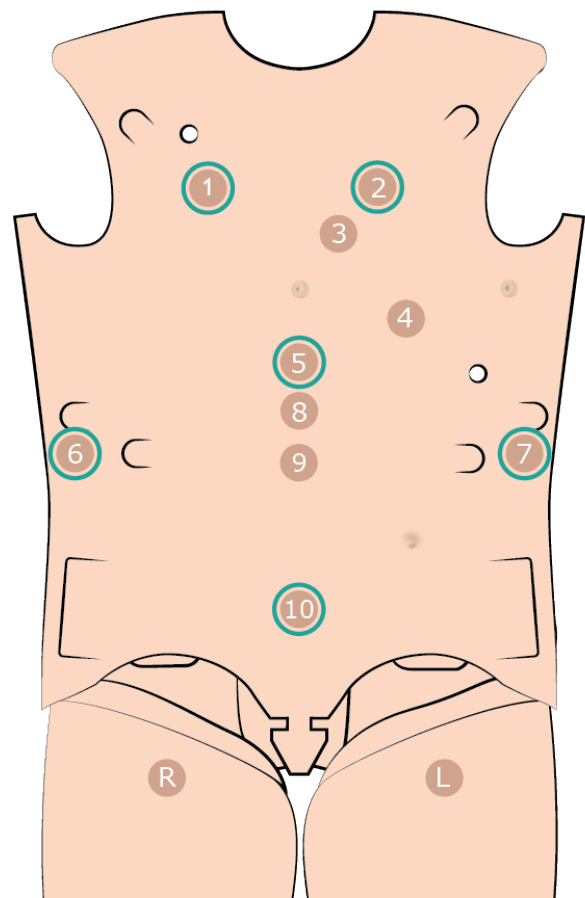
Trauma Care bundle (eFAST) contains 10 different actual patient cases where eFAST is included as part of the patient assessment and diagnosis.

Target group(s): Healthcare providers that participate in the care of trauma patients and senior medical students.

Use: Use the checklist for each eFAST case that outlines the findings for each ultrasound window available for that case. Have the participant scan each location and verbalize their findings and confirm these with the checklist. For a comprehensive, expert-narrated summary of each ultrasound window finding, select the *Findings* tab located in the right menu. The locations highlighted in blue are the sites where ultrasound images can be seen.

Trauma Bundle Active Tags:

1. Right Chest
2. Left Chest
3. Parasternal
4. Apical
5. Subcostal
6. Right Upper Quadrant
7. Left Upper Quadrant
8. Proximal IVC
9. Mid Aorta
10. Suprapubic
Right Groin
Left Groin



Case 1

Provide the following case summary - 61-year-old man with generalized pain and shortness of breath following a fall from a second story balcony.

Initial Observations: HR:54 / RR:30 / BP:120/64 / Temp: 37C / SPO2-95% room air (deterioration trend running)

eFAST Ultrasound Findings:

Ultrasound Window	Findings	Correct Interpretation Yes/No
RUQ	Normal RUQ window; no free fluid	
Suprapubic	Normal pelvic window; no free fluid; prominent prostate gland with irregular surface contour and internal calcification; small bladder diverticulum.	
LUQ	Normal LUQ window; no free fluid	
Subcoastal	Normal cardiac window; normal ejection fraction	
Right Chest	No evidence of lung sliding; supportive of pneumothorax	
Left Chest	Normal lung sliding; no evidence of pneumothorax	

Clinical Diagnosis – Tension pneumothorax (blunt trauma)

Case 2

Provide the following case summary - 38-year-old man presents with a single stab wound to the chest. Patient complains of weakness and localized chest pain at the site of the wound.

Initial Observations: HR:134 / RR:24 / BP:94/54 / Temp: 36C / SPO2-95% room air (deterioration trend running)

eFAST Ultrasound Findings:

Ultrasound Window	Findings	Correct Interpretation Yes/No
RUQ	Normal RUQ window; incidental right renal punctate calcifications	
Suprapubic	Normal pelvic window; prominent left-sided paravesicular iliac vasculature	
LUQ	Normal LUQ window; poorly visualized left kidney; incidental renal stone	
Subcoastal	Large pericardial fluid collection; no sonographic evidence of pericardial tamponade, moderately dilated inferior vena cava showing mild collapse with inspiration.	
Right Chest	Normal lung sliding; no evidence of pneumothorax	
Left Chest	Normal lung sliding; no evidence of pneumothorax	

Clinical Diagnosis – Hemopericardium (penetrating trauma)

Case 3

Provide the following case summary - 22-year-old man presents with a single gunshot wound to the chest.

Initial Observations: HR:100 / RR:20 / BP:100/54 / Temp: 36C / SPO2-92% room air (deterioration trend running)

eFAST Ultrasound Findings:

Ultrasound Window	Findings	Correct Interpretation Yes/No
RUQ	Normal RUQ window; no free fluid	
Suprapubic	Normal pelvic window; no free fluid	
LUQ	Normal LUQ window; no free fluid	
Subcoastal	Normal subcostal window; normal ejection fraction	
Right Chest	No evidence of lung sliding; supportive of pneumothorax	
Left Chest	Normal lung sliding; no evidence of pneumothorax	

Clinical Diagnosis – Tension pneumothorax (penetrating trauma)

Case 4

Provide the following case summary - 64-year-old female on anticoagulation therapy, who presents after a motor vehicle accident.

Initial Observations: HR:114 / RR:18 / BP:94/54 / Temp: 36C / SPO2-97% room air (deterioration trend running)

eFAST Ultrasound Findings:

Ultrasound Window	Findings	Correct Interpretation Yes/No
RUQ	Normal RUQ window; no free fluid; peronephric fat pad	
Suprapubic	Normal pelvic window; no free fluid	
LUQ	Suprasplenic hematoma vs. free fluid between diaphragm and superior aspect of spleen; left kidney not visualized.	
Subcostal	Normal subcostal window; normal ejection fraction	
Right Chest	Normal lung sliding; no evidence of pneumothorax	
Left Chest	Normal lung sliding; no evidence of pneumothorax	

Clinical Diagnosis – Hemoperitoneum (blunt trauma)

Case 5

Provide the following case summary - 25-year-old male who presents following a high-speed rollover motor vehicle accident.

Initial Observations: HR:76 / RR:20 / BP:148/88 / Temp: 37C / SPO2-99% room air (deterioration trend running)

eFAST Ultrasound Findings:

Ultrasound Window	Findings	Correct Interpretation Yes/No
RUQ	Normal RUQ window; no free fluid	
Suprapubic	Normal pelvic window; no free fluid; technically limited view	
LUQ	Normal LUQ window; no free fluid	
Subcoastal	Normal subcostal window; normal ejection fraction; findings video reveals collapsible inferior vena cava and possible hypovolemia; ultrasound window does not reveal respirophasic variation; as it was obtained during breath holding.	
Right Chest	Normal lung sliding; no evidence of pneumothorax	
Left Chest	Normal lung sliding; no evidence of pneumothorax	

Clinical Diagnosis – Abnormal mental status (blunt trauma)

Case 6

Provide the following case summary - 64-year-old female, who presents after a roll-over motor vehicle accident.

Initial Observations: HR:57 / RR:26 / BP:87/46 / Temp: 37C / SPO2-95% room air (deterioration trend running)

eFAST Ultrasound Findings:

Ultrasound Window	Findings	Correct Interpretation Yes/No
RUQ	Moderate fluid in subdiaphragmatic space; hemothorax	
Suprapubic	Marked free fluid in the pelvis; hemoperitoneum	
LUQ	Moderate fluid in subdiaphragmatic and splenorenal space; hemothorax	
Subcoastal	Normal heart	
Right Chest	Normal lung sliding; no evidence of pneumothorax	
Left Chest	Normal lung sliding; no evidence of pneumothorax	

Clinical Diagnosis – Hemoperitoneum and hemothorax (blunt trauma)

Case 7

Provide the following case summary - 25-year-old male, who presents following a gunshot wound to the chest.

Initial Observations: HR:124 / RR:32 / BP:88/40 / Temp: 36C / SPO2-91% on non-rebreather face mask (deterioration trend running)

eFAST Ultrasound Findings:

Ultrasound Window	Findings	Correct Interpretation Yes/No
RUQ	Normal RUQ window; no free fluid	
Suprapubic	Normal pelvic window; no free fluid	
LUQ	Normal LUQ window; no free fluid; perinephric fat pad	
Subcoastal	Normal subcoastal window; normal ejection fraction; normal IVC	
Right Chest	Normal lung sliding; no evidence of pneumothorax	
Left Chest	Left-sided hemothorax; anechoic fluid collection in left thoracic cavity; pathologic B-line artifacts; no evidence of pneumothorax.	

Clinical Diagnosis – Hemothorax (penetrating trauma)

Case 8

Provide the following case summary - 48-year-old intoxicated male, who presents following a ground-level fall.

Initial Observations: HR:84 / RR:18 / BP:140/62 / Temp: 36C / SPO2-98% room air (deterioration trend running)

eFAST Ultrasound Findings:

Ultrasound Window	Findings	Correct Interpretation Yes/No
RUQ	Positive RUQ window; subdiaphragmatic free fluid	
Suprapubic	Positive pelvic window; free fluid in pelvis	
LUQ	Abnormal LUQ window; anechoic region within spleen; no free fluid	
Subcoastal	Normal subcoastal window; normal ejection fraction; pleural effusion suggested; no pericardial effusion.	
Right Chest	Normal lung sliding; no evidence of pneumothorax	
Left Chest	Normal lung sliding; no evidence of pneumothorax	

Clinical Diagnosis – Hemoperitoneum (blunt trauma)

Case 9

Provide the following case summary - 19-year-old female, who presents following a motor vehicle accident.

Initial Observations: HR:99 / RR:22 / BP:90/48 / Temp: 37C / SPO2-96% room air (deterioration trend running

eFAST Ultrasound Findings:

Ultrasound Window	Findings	Correct Interpretation Yes/No
RUQ	Normal RUQ window; no free fluid; atretic right kidney	
Suprapubic	Positive pelvic window; free fluid visible; inflated Foley catheter within a decompressed bladder	
LUQ	Positive LUQ window; free fluid within suprasplenic and splenorenal spaces; left-sided pleural effusion; atretic left kidney	
Subcoastal	Normal subcoastal window; normal ejection fraction; mildly narrowed inferior vena cava luminal diameter	
Right Chest	Normal lung sliding; no evidence of pneumothorax	
Left Chest	Normal lung sliding; no evidence of pneumothorax	

Clinical Diagnosis – Hemoperitoneum & coagulopathy (blunt trauma)

Case 10

Provide the following case summary - 51-year-old intoxicated male, who presents after an assault.

Initial Observations: HR:110 / RR:22 / BP:90/40 / Temp: 37C / SPO2-96% room air (deterioration trend running)

eFAST Ultrasound Findings:

Ultrasound Window	Findings	Correct Interpretation Yes/No
RUQ	Positive RUQ window; large amount of anechoic free fluid	
Suprapubic	Positive pelvic window; anechoic free fluid surrounding bladder	
LUQ	Positive LUQ window; small amount of anechoic free fluid	
Subcoastal	Normal subcoastal window; normal ejection fraction	
Right Chest	Normal lung sliding; no evidence of pneumothorax; possible trace of pleural effusion	
Left Chest	Normal lung sliding; no evidence of pneumothorax	

Clinical Diagnosis – False-positive hemoperitoneum; liver cirrhosis and ascites complicated by an acute gastrointestinal hemorrhage (blunt trauma)