Contributors to the 2018 Emergency Ultrasound Standard Reporting Guidelines:

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June 2018
(This version replaces the October 2011 version)
Emergency Ultrasound Standard Reporting Guidelines: Introduction and Statement of Purpose

Developed by members of the ACEP Emergency Ultrasound Section

These guidelines represent the product of a working group that was formed based on discussions at the Industry Roundtable subcommittee of the American College of Emergency Physicians (ACEP) Emergency Ultrasound Section. The impetus for these guidelines emerged from discussions with emergency ultrasound leaders and industry, both ultrasound manufacturers and electronic medical record (EMR) companies that indicated a need for a more structured method to report and communicate the findings of point-of-care emergency ultrasound (POCUS).

This document serves as a resource to clinicians with a wide range of experience, and as such may contain fields or terms that may not be appropriate in all situations or by all clinicians. It is important to note that these guidelines in no way represent required elements of reporting. In fact, in general these guidelines err on the side of including more fields than may be used by most emergency physicians, and it is expected that many fields may remain unused depending on the situations. The elements that are BOLDED represent the core emergency ACEP views, findings and interpretations for each application.

The purpose of these guidelines is to define fields that may be helpful for POCUS in a consistent order, with consistent definitions, and in a method that may be easily coded into electronic communications and computer databases. The goal of this document is to accurately report the findings that commonly result from an ultrasound performed by a clinician in the emergency department and to avoid confusion with reports generated by other specialties. These guidelines may be used to work with existing reporting structures such as DICOM and initiatives through the Integrated Health Enterprise (IHE) to develop consistent non-proprietary methods of reporting and communicating POCUS examination findings.

Exams delineated in prior editions:

<table>
<thead>
<tr>
<th>eFAST</th>
<th>Focused Biliary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focused Abdominal Aorta</td>
<td>Focused Ocular</td>
</tr>
<tr>
<td>Focused Cardiac (Echocardiography)</td>
<td>Focused Pelvic Ultrasound</td>
</tr>
<tr>
<td></td>
<td>• Obstetrical</td>
</tr>
<tr>
<td></td>
<td>• Non-obstetrical</td>
</tr>
<tr>
<td>Focused Thoracic</td>
<td>Focused Soft Tissue/MSK</td>
</tr>
<tr>
<td>Focused Renal/Urinary Tract</td>
<td>Focused Lower Extremity Venous</td>
</tr>
</tbody>
</table>


In this 2018 version, the following examinations were added:
- Bowel
- Symptom-based hybrid evaluations (hypotension, chest pain & dyspnea, abdominal pain)
- Testicular
- Transesophageal Echocardiography

**FORMAT**

All diagnostic examinations should include:
- Patient/exam demographics
- Indications for examination
- Views
  - Findings
  - Interpretation
  - Quality assurance
The first and last portions should be consistent across exam types and are presented here.

**Patient/ exam demographics:**

Patient name: ____________________________
Patient gender: M  F
DOB: _____/____/____
MR#: ________________
Bar Code/Patient Identifier: ________________
Hospital Name: ________________________
Date and time of exam: _____/____/____
Exam type: 
  Diagnostic  
  Educational  
  Procedural
Clinical category: 
  Resuscitative  
  Symptom based  
  Therapeutic  
  Unknown/other
Initial exam
Repeat exam

Primary person obtaining/ interpreting images: ______________
Secondary person obtaining/ interpreting images: ______________
Additional person(s) obtaining/ interpreting images: ______________

**Quality assurance:**

<table>
<thead>
<tr>
<th>Grading Scale Definitions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>No recognizable structures, no objective data can be gathered</td>
<td>Minimal criteria met for diagnosis, recognizable structures but with some technical or other flaws</td>
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**Suggested Quality Assurance Grading Scale**

<table>
<thead>
<tr>
<th>Image quality</th>
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<th>4</th>
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<td>TP</td>
<td>TN</td>
<td>FP</td>
<td>FN</td>
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Comments: ________________________________
EXTENDED FAST (EFAST) EXAM

The elements that are **BOLDED** represent the core emergency ACEP views, findings and interpretations for each application.

**Patient/ exam demographics:**

Patient name: ____________________________
Patient gender: M  F
DOB: ____/____/____
MR#: ______________________
Bar Code/Patient Identifier: __________________
Hospital Name: ______________________
Date and time of exam: ____/____/____
Exam type:
Diagnostic
Educational
Procedural
Clinical category:
Resuscitative
Symptom based
Therapeutic
Unknown/other
Initial exam
Repeat exam

Primary person obtaining/ interpreting images: ______________________
Secondary person obtaining/ interpreting images: ______________________
Additional person(s) obtaining/ interpreting images: ______________________

**Indication(s) for exam:**

blunt trauma  tachycardia
dyspnea
penetrating trauma
abdominal pain altered mental status
chest pain  pregnancy
hypotension  educational
other: ______________________

**Views:**

<table>
<thead>
<tr>
<th>View</th>
<th>&lt; adequate</th>
<th>&lt; limited</th>
<th>&lt; not obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatorenal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perisplenic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suprapubic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pericardial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R thorax for fluid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R thorax for lung sliding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L thorax for fluid</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>L thorax for lung sliding</td>
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</table>

other: ______________________

**Findings:**

<table>
<thead>
<tr>
<th>Fluid</th>
<th>&lt; absent</th>
<th>&lt; present</th>
<th>&lt; indeterminate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatorenal free fluid:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perisplenic free fluid:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suprapubic free fluid:</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Right thoracic fluid:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ACEP Emergency Ultrasound Standard Reporting Guidelines

**Right lung sliding:** < present < absent < indeterminate

**lung point sign:** < yes < no

**Left thoracic fluid:** < present < absent < indeterminate

**Left lung sliding:** < present < absent < indeterminate

**lung point sign:** < yes < no

**Pericardial effusion:** < present < absent < indeterminate

**size if present:** < small < moderate < large < present size not specified

other: ________________________________

**Interpretation:**

- **Peritoneal free fluid:** < present < absent < indeterminate
- **Pericardial effusion:** < present < absent < indeterminate
- **Right thoracic fluid:** < present < absent < indeterminate
- **Left thoracic fluid:** < present < absent < indeterminate
- **Right lung pneumothorax:** < present < absent < indeterminate
- **Left lung pneumothorax:** < present < absent < indeterminate

other: ________________________________

**Quality assurance:**

**Suggested Quality Assurance Grading Scale**

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Comments: ________________________________
FOCUSED ABDOMINAL AORTA

The elements that are **BOLDED** represent the core emergency ACEP views, findings and interpretations for each application.

**Patient/ exam demographics:**

Patient name: __________________________
Patient gender: M  F
DOB: ______/____/____
MR#: __________________________
Bar Code/Patient Identifier: __________________________
Hospital Name: __________________________
Date and time of exam: ______/____/____
Exam type:
  Diagnostic
  Educational
  Procedural
Clinical category:
  Resuscitative
  Symptom based
  Therapeutic
  Unknown/other
Initial exam
Repeat exam

Primary person obtaining/ interpreting images: __________________________
Secondary person obtaining/ interpreting images: __________________________
Additional person(s) obtaining/ interpreting images: __________________________

**Indication(s) for exam:**

- abdominal pain
- chest pain
- back pain
- flank pain
- pulsatile abdominal mass
- syncope
- hypotension
- tachycardia
- educational
- other: __________________________

**Views:**

<table>
<thead>
<tr>
<th>View</th>
<th>Complete</th>
<th>Inadequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximal Transverse view</td>
<td>&lt; complete</td>
<td>&lt; inadequate</td>
</tr>
<tr>
<td>Distal Transverse view</td>
<td>&lt; complete</td>
<td>&lt; inadequate</td>
</tr>
<tr>
<td>Sagittal view</td>
<td>&lt; complete</td>
<td>&lt; inadequate</td>
</tr>
<tr>
<td>Celiac artery</td>
<td>&lt; visualized</td>
<td>&lt; not visualized</td>
</tr>
<tr>
<td>Superior mesenteric artery</td>
<td>&lt; visualized</td>
<td>&lt; not visualized</td>
</tr>
<tr>
<td>Bifurcation</td>
<td>&lt; visualized</td>
<td>&lt; not visualized</td>
</tr>
</tbody>
</table>

**Findings:**

- Aneurysm: < present  < absent  < indeterminate
  - If present: suprarenal  infrarenal  both  iliac
- Maximal aortic diameter: _______ cm
- other: __________________________
**Interpretation:**

Sonographic Evidence for Aneurysm: < present  < absent  < indeterminate

If present: _______ cm transverse diameter
other: ___________________________________________

**Quality assurance:**

**Suggested Quality Assurance Grading Scale**

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Image quality

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Comments: ___________________________________________
FOCUSED OBSTETRICAL PELVIC ULTRASOUND

The elements that are BOLDED represent the core emergency ACEP views, findings and interpretations for each application.

**Patient/ exam demographics:**

Patient name: __________________________
Patient gender: M F
DOB: _____/____/____
MR#: __________________
Bar Code/Patient Identifier: ________________
Hospital Name: __________________________
Date and time of exam: _____/____/____
Exam type:
  - Diagnostic
  - Educational
  - Procedural
Clinical category:
  - Resuscitative
  - Symptom based
  - Therapeutic
  - Unknown/other
Initial exam
Repeat exam

Primary person obtaining/ interpreting images: _______________
Secondary person obtaining/ interpreting images: _______________
Additional person(s) obtaining/ interpreting images: _______________

**Indication(s) for exam:**

qualitative (urine) hCG positive  back pain
quantitative hCG positive  vaginal bleeding
  Level: _____
pregnant by patient history  syncope
abdominal pain  hypotension
pelvic pain  trauma
other: __________________________
educational

**Views obtained:**

<table>
<thead>
<tr>
<th></th>
<th>&lt; adequate</th>
<th>&lt; limited</th>
<th>&lt; not obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transabdominal sagittal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transabdominal transverse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endovaginal sagittal</td>
<td>&lt; adequate</td>
<td>&lt; limited</td>
<td>&lt; not obtained</td>
</tr>
<tr>
<td>Endovaginal coronal</td>
<td>&lt; adequate</td>
<td>&lt; limited</td>
<td>&lt; not obtained</td>
</tr>
<tr>
<td>Cul-de-sac</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left adnexa</td>
<td>adequate</td>
<td>limited</td>
<td>not obtained</td>
</tr>
<tr>
<td>Right adnexa</td>
<td>adequate</td>
<td>limited</td>
<td>not obtained</td>
</tr>
<tr>
<td>Hepatorenal space</td>
<td>adequate</td>
<td>limited</td>
<td>not obtained</td>
</tr>
<tr>
<td>other:</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
Findings:

Uterus: anteverted retroverted indeterminate
Cul-de-sac: fluid present no significant fluid indeterminate
If fluid present: small moderate large amount not specified

Intrauterine Pregnancy: < present < absent < indeterminate
If present:
< Yolk sac Yolk sac diameter: ___mm
< Fetal pole Measurement: ___mm
< Fetal heart FHR: ___bpm
< Fetal motion
  Double decidual sign
  Gestational sac Diameter: ___mm

For IUP:
Location: fundus eccentric indeterminate
Myometrial mantle: adequate inadequate indeterminate
  Minimal thickness: ___mm
  Crown-rump-length: ___mm
  Biparietal diameter: ___mm
  Gestational age: ___w ___d
other: __________________________

For No IUP
Intrauterine contents: indeterminate
  empty/endometrial stripe
  non-specific endometrial fluid collection
  heterogeneous endometrial material
  molar pregnancy
other: __________________________

R adnexa: no significant abnormality
  ovarian cyst
    Diameter: ___mm
      Simple complex
  ovarian mass
  indeterminate
other: __________________________

L adnexa: no significant abnormality
  ovarian cyst
    Diameter: ___mm
      Simple complex
  ovarian mass
  indeterminate
other: __________________________

Hepatorenal space fluid: absent present indeterminate
other: __________________________
**Interpretation:**

- No definitive intrauterine pregnancy
- Intrauterine pregnancy
- Live intrauterine pregnancy
- Indeterminate
- Abnormal intrauterine pregnancy
- Molar pregnancy
- Fetal demise
- Definite ectopic
- Simple ovarian cyst
- Complex ovarian cyst
- Adnexal mass
- Free pelvic fluid
- Free intraperitoneal fluid
- Other: ____________________________

**Quality assurance:**

**Suggested Quality Assurance Grading Scale**

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</tbody>
</table>

**Comments:** ___________________________________
FOCUSED Non-Obstetric PELVIC ULTRASOUND

Patient/ exam demographics:

Patient name: ____________________________
Patient gender: M F
DOB: _____/____/____
MR#: ____________________________
Bar Code/Patient Identifier: ____________________________
Hospital Name: ____________________________
Date and time of exam: _____/____/____

Exam type:
Diagnostic
Educational
Procedural

Clinical category:
Resuscitative
Symptom based
Therapeutic
Unknown/other

Initial exam
Repeat exam

Primary person obtaining/ interpreting images: ____________________________
Secondary person obtaining/ interpreting images: ____________________________
Additional person(s) obtaining/ interpreting images: ____________________________

Indication(s) for exam:
qualitative (urine) hCG negative
quantitative hCG negative
abdominal pain
pelvic pain
back pain
other: ____________________________

vaginal bleeding
syncope
hypotension
trauma
educational

Views obtained:

Transabdominal sagittal adequate limited not obtained
Transabdominal transverse adequate limited not obtained
Endovaginal sagittal adequate limited not obtained
Endovaginal coronal adequate limited not obtained
Cul-de-sac adequate limited not obtained
Left adnexa adequate limited not obtained
Right adnexa adequate limited not obtained
Hepatorenal space adequate limited not obtained
other: ____________________________

Findings:

Uterus: antevorted retroverted indeterminate
Endometrium: empty endometrial stripe
Endometrial stripe max thickness: ___ mm
heterogeneous material in endometrium
uterine fibroid present
Measurement: ____ mm
ACEP Emergency Ultrasound Standard Reporting Guidelines

Cul-de-sac:
- fluid present
- no significant fluid
- indeterminate
  - If fluid present:
    - small
    - moderate
    - large
    - amount not specified
    - simple
    - complex

R adnexa:
- ovarian size: normal
- enlarged
- indeterminate
  - length: ______ mm
  - width: ______ mm
  - height: ______ mm
  - volume: ______ ml
  - ovarian cyst
    - Diameter: ______ mm
    - simple
    - complex
  - Color flow:
    - present
    - absent
    - indeterminate
  - Spectral flow:
    - present
    - absent
    - indeterminate
  - Resistive index: ______
    - ovarian mass
    - indeterminate

L adnexa:
- ovarian size: normal
- enlarged
- indeterminate
  - length: ______ mm
  - width: ______ mm
  - height: ______ mm
  - volume: ______ ml
  - ovarian cyst
    - Diameter: ______ mm
    - simple
    - complex
  - Color flow:
    - present
    - absent
    - indeterminate
  - Spectral flow:
    - present
    - absent
    - indeterminate
  - Resistive index: ______
    - ovarian mass
    - indeterminate

other: _______________________

Interpretation:
- No sonographic evidence of gynecological pathology.
  - ovarian cyst: simple
  - complex
  - sonographic evidence suggestive of ovarian torsion
  - adnexal mass
  - fibroid(s)
  - sonographic evidence of abnormal free fluid in the pelvis

other: _______________________

Quality assurance:

Suggested Quality Assurance Grading Scale

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Accuracy of interpretation of images as presented

Accuracy of interpretation of images as compared to gold standard (ie, CT, operative report)

TP  TN  FP  FN

Comments: 

---------------------------------------------
FOCUSED BILIARY

The elements that are BOLDED represent the core emergency ACEP views, findings and interpretations for each application.

**Patient/ exam demographics:**

Patient name: ___________________________
Patient gender: M F
DOB: _____/____/____
MR#: ______________________
Bar Code/Patient Identifier: ______________
Hospital Name: ________________
Date and time of exam: _____/____/____
Exam type:
  - Diagnostic
  - Educational
  - Procedural
Clinical category:
  - Resuscitative
  - Symptom based
  - Therapeutic
  - Unknown/other
Initial exam
Repeat exam

Primary person obtaining/ interpreting images: ______________________
Secondary person obtaining/ interpreting images: ______________________
Additional person(s) obtaining/ interpreting images: ______________________

**Indication(s) for exam:**

  - abnormal labs
  - pancreatitis
  - abdominal pain
  - fever
  - jaundice
  - educational
  - other: ______________________

**Views obtained:**

- Gallbladder long axis: < adequate < limited < not obtained
- Gallbladder short axis: < adequate < limited < not obtained
- Common bile duct: adequate limited not obtained
- Main lobar fissure: visualized not visualized
- Portal vein: visualized not visualized

**Findings:**

- Gallstone(s): < present < absent < indeterminate
  - If stones present: single
  - largest measured: _____ mm
  - mobile
  - non-mobile
  - in fundus
  - in body
  - in neck
Gallbladder wall: thickened not thickened indeterminate
Wall thickness: __________ mm

Pericholecystic fluid: present absent indeterminate
Sonographic Murphy’s sign: < present < absent < indeterminate
Common Bile Duct: normal enlarged indeterminate
Largest Diameter: __________________ mm
Biliary Sludge: present absent indeterminate
Polyp: present absent indeterminate
Adenomyomatosis present absent indeterminate
Transverse gallbladder diameter: _____ mm
Longitudinal gallbladder diameter: _____ mm
other: ______________________

Interpretation:
< No significant biliary pathology identified
< Cholelithiasis without sonographic evidence of cholecystitis
< Cholelithiasis with sonographic evidence of cholecystitis
Sonographic evidence of acalculous cholecystitis
Choledocholithiasis
Polyps
other: ______________________

Quality assurance:

Suggested Quality Assurance Grading Scale

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Comments: _______________________________________________
FOCUSED RENAL/URINARY TRACT

The elements that are BOLDED represent the core emergency ACEP views, findings and interpretations for each application.

Patient/ exam demographics:

Patient name: __________________________
Patient gender:  M  F
DOB: __/__/____
MR#: __________________________
Bar Code/Patient Identifier: __________________________
Hospital Name: __________________________
Date and time of exam: __/__/____
Exam type:
  Diagnostic
  Educational
  Procedural
Clinical category:
  Resuscitative
  Symptom based
  Therapeutic
  Unknown/other
Initial exam
Repeat exam

Primary person obtaining/ interpreting images: __________________________
Secondary person obtaining/ interpreting images: __________________________
Additional person(s) obtaining/ interpreting images: __________________________

Indication(s) for exam:

  abdominal pain  dysuria
  flank pain  acute renal failure
  back pain  anuria
  hematuria  post-void
  urinary retention  educational
  other: __________________________

Views obtained:

Right kidney long axis (coronal):  < adequate  < limited  < not obtained
Right kidney short axis:  < adequate  < limited  < not obtained
Left kidney long axis (coronal):  < adequate  < limited  < not obtained
Left kidney short axis:  < adequate  < limited  < not obtained
Transverse bladder:  < adequate  < limited  < not obtained
Sagittal bladder:  < adequate  < limited  < not obtained
other: __________________________

Findings:

Right kidney

  Hydronephrosis:
    If present:  < mild  < present  < absent  < present degree unspecified
  Hydoureter:  present  absent  indeterminate
  Kidney stones:  present  absent  indeterminate
Renal Cyst | present | absent | indeterminate  
--- | --- | --- | ---
If present: | < mild | < moderate | < severe  
Diameter: | __mm  
Extra-renal Pelvis | present | absent | indeterminate  
Duplicated Ureteral System | present | absent | indeterminate  
other: ____________________  

Left kidney

Hydronephrosis: | < present | < absent | < indeterminate  
--- | --- | --- | ---
If present: | < mild | < moderate | < severe | < present, degree unspecified  
Hydroureter: | present | absent | indeterminate  
Kidney stones: | present | absent | indeterminate  
If present: | size of largest stone: ____________mm  
stone location(s): | parenchyma | renal pelvis | UPJ | Ureter | UVJ  
Renal Cyst | present | absent | indeterminate  
If present: | < mild | < moderate | < severe  
Diameter: | __mm  
Extra-renal Pelvis | present | absent | indeterminate  
Duplicated Ureteral System | present | absent | indeterminate  
other: ____________________  

Bladder Dimensions

width: ___ mm  
Height: ___ mm  
depth: ___ mm  
volume: ___ mL  

Right ureteral jet: | present | absent | indeterminate | not assessed  
Left ureteral jet: | present | absent | indeterminate | not assessed  
other: ____________________  

Interpretation:

< No sonographic evidence of renal tract obstruction  
< Hydronephrosis present | < left | < right | bilateral  
< mild | < moderate | < severe | < present, degree not specified  
Hydroureter present | left | right | bilateral  
Nepholithiasis | left | right | bilateral  
parenchyma  
UPJ  
UVJ  
Renal Cyst | left | right | bilateral  
Simple | complex  
< Bladder Size | < distended | < collapsed | < normal  
other: ____________________
**Quality assurance:**

**Suggested Quality Assurance Grading Scale**

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Comments: _____________________________________________________________
FOCUSED THORACIC

The elements that are **BOLDED** represent the core emergency ACEP views, findings and interpretations for each application.

**Patient/ exam demographics:**

Patient name: ________________________
Patient gender:  M  F
DOB: ________/______/____
MR#: ________________________
Bar Code/Patient Identifier: ______________
Hospital Name: ______________
Date and time of exam: ____/____/____
Exam type:
  Diagnostic
  Educational
  Procedural
Clinical category:
  Resuscitative
  Symptom based
  Therapeutic
  Unknown/other
Initial exam
Repeat exam
Primary person obtaining/ interpreting images: _______________
Secondary person obtaining/ interpreting images: _______________
Additional person(s) obtaining/ interpreting images: _______________

**Indication(s) for exam:**

dyspnea  hypotension
chest pain  blunt thoracic trauma
pleurisy  penetrating thoracic trauma
hypoxia  educational
other: ________________________

**Views:**

<table>
<thead>
<tr>
<th>Thorax</th>
<th>&lt; adequate</th>
<th>&lt; limited</th>
<th>&lt; not obtained</th>
</tr>
</thead>
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<td></td>
<td></td>
</tr>
<tr>
<td>Right lateral/ inferior thorax:</td>
<td></td>
<td></td>
<td></td>
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<td>Left anterior/ superior thorax:</td>
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<td></td>
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</table>
other: ________________________

**Findings:**

**Right thorax**

**lung sliding:**  
  < present  < absent  < indeterminate
  present  absent  indeterminate

**Interstitium:**

a-lines:  
  present  absent  indeterminate
b-lines:  
  present  absent  indeterminate

**anterior/ superior region:**  
  present (greater than 3 per view)  absent

**inferior/ lateral region:**  
  present (greater than 3 per view)  absent

**pleural effusion:**  
  < present  < absent  < indeterminate
ACEP Emergency Ultrasound Standard Reporting Guidelines

If present:  < small  < large  < anechoic  < complex
Lung consolidation: present absent indeterminate
Air bronchograms: present absent indeterminate

Left thorax

lung sliding:  < present  < absent  < indeterminate
lung point sign: present absent indeterminate
Interstitium:
a-lines: present absent indeterminate
b-lines: present absent indeterminate
anterior/ superior region: present (greater than 3 per view) absent
inferior/ lateral region: present (greater than 3 per view) absent

pleural effusion:  < present  < absent  < indeterminate
If present:  < small  < large  < anechoic  < complex
Lung consolidation: present absent indeterminate
Air bronchograms present absent indeterminate
other: ___________________________________

Interpretation:
< No sonographic evidence of acute pulmonary disease
< Pneumothorax  < left  < right  < bilateral
< Pleural effusion  < left  < right  < bilateral
Alveolar interstitial syndrome (focal)
Alveolar interstitial syndrome (diffuse)
Lung consolidation left right bilateral
other: ___________________________________

Quality assurance:
Suggested Quality Assurance Grading Scale

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Image quality 1 2 3 4 5 | TP | TN | FP | FN
Accuracy of interpretation of images as presented |  |  |  |  |  |
Accuracy of interpretation of images as compared to gold standard (ie, CT, operative report) |  |  |  |  |  |

Comments: ____________________________________________
FOCUSED LOWER EXTREMITY VENOUS

The elements that are **BOLDED** represent the core emergency ACEP views, findings and interpretations for each application.

**Patient/ exam demographics:**

Patient name: ______________________

Patient gender: M  F

DOB: _____/___/____

MR#: ______________________

Bar Code/Patient Identifier: ______________________

Hospital Name: ______________________

Date and time of exam: _____/___/____

Exam type:

- Diagnostic
- Educational
- Procedural

Clinical category:

- Resuscitative
- Symptom based
- Therapeutic
- Unknown/other

Initial exam

Repeat exam

Primary person obtaining/ interpreting images: ______________________

Secondary person obtaining/ interpreting images: ______________________

Additional person(s) obtaining/ interpreting images: ______________________

**Indication(s) for exam:**

<table>
<thead>
<tr>
<th>leg pain:</th>
<th>left</th>
<th>right</th>
<th>bilateral</th>
</tr>
</thead>
<tbody>
<tr>
<td>leg swelling:</td>
<td>left</td>
<td>right</td>
<td>bilateral</td>
</tr>
<tr>
<td>leg erythema:</td>
<td>left</td>
<td>right</td>
<td>bilateral</td>
</tr>
<tr>
<td>dyspnea:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>tachypnea:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>pleurisy:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>educational:</td>
<td></td>
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</table>

other: ______________________

**Views:**

| Right saphenofemoral junction: | <adequate | <limited | < not obtained |
| Right common femoral vein: | <adequate | <limited | < not obtained |
| Right femoral vein: | <adequate | <limited | < not obtained |
| Right popliteal vein: | <adequate | <limited | < not obtained |
| Right popliteal trifurcation: | <adequate | <limited | < not obtained |

Left saphenofemoral junction: | <adequate | <limited | < not obtained |

Left common femoral vein: | <adequate | <limited | < not obtained |

Left femoral vein: | <adequate | <limited | < not obtained |

Left popliteal vein: | <adequate | <limited | < not obtained |

Left popliteal trifurcation: | <adequate | <limited | < not obtained |

tother: ______________________
Findings:

Right leg
- Saphenofemoral junction: < compressible < NOT compressible < indeterminate
- Common femoral vein: < compressible < NOT compressible < indeterminate
- Femoral vein: < compressible < NOT compressible < indeterminate
- Popliteal vein: < compressible < NOT compressible < indeterminate
- Popliteal trifurcation: < compressible < NOT compressible < indeterminate

other:

Left leg
- Saphenofemoral junction: < compressible < NOT compressible < indeterminate
- Common femoral vein: < compressible < NOT compressible < indeterminate
- Femoral vein: < compressible < NOT compressible < indeterminate
- Popliteal vein: < compressible < NOT compressible < indeterminate
- Popliteal trifurcation: < compressible < NOT compressible < indeterminate

other:

Interpretation:
- < no sonographic evidence of deep vein thrombosis
- < DVT present

Location(s):
- < R saphenofemoral junction < L saphenofemoral junction
- < R CFV < L CFV
- < R FV < L FV
- < R popliteal < L popliteal
- < R popliteal trifurcation < L popliteal trifurcation
- < indeterminate for DVT

other:

Quality assurance:

Suggested Quality Assurance Grading Scale

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Accuracy of interpretation of images as presented

Accuracy of interpretation of images as compared to gold standard (ie, CT, operative report)

Comments: ___________________________
FOCUSED TRANSTHORACIC CARDIAC ULTRASOUND

The elements that are **BOLDED** represent the core emergency ACEP views, findings and interpretations for each application.

**Patient/ exam demographics:**

Patient name: ____________________________

Patient gender:  M  F

DOB: _____/___/____

MR#: ____________________________

Bar Code/Patient Identifier: ____________________________

Hospital Name: ____________________________

Date and time of exam: _____/___/____

Exam type:

Diagnostic

Educational

Procedural

Clinical category:

Resuscitative

Symptom based

Therapeutic

Unknown/other

Initial exam

Repeat exam

Primary person obtaining/ interpreting images: ____________________________

Secondary person obtaining/ interpreting images: ____________________________

Additional person(s) obtaining/ interpreting images: ____________________________

**Indication(s) for exam:**

- cardiac arrest
- hypotension
- shock
- chest pain
- shortness of breath
- tachycardia
- other: ____________________________

- chest wall injury
- dyspnea
- syncope
- tachypnea
- fever
- educational palpitations

**Views:**

- Subxiphoid (4 chamber): <adequate <limited < not obtained
- Parasternal long axis: <adequate <limited < not obtained
- Parasternal short axis: <adequate <limited < not obtained
- Subxiphoid (long axis, IVC view): <adequate <limited < not obtained
- Apical four-chamber: <adequate <limited < not obtained

other: ____________________________

**Findings:**

Pericardial effusion: < present < absent < indeterminate size

- If present < small < moderate < large < present, size not specified
- Evidence of tamponade < IVC plethoric < R atrial collapse < R ventricular collapse < Excessive mitral inflow variation
Global Ventricular Function:  
- hyperdynamic < normal < reduced < severely reduced 
- asystole < indeterminate

Right Ventricular Size:  
- normal < dilated < indeterminate

Signs of RV strain:
- RV hypokinesis
- Paradoxical septal motion
- McConnell’s Sign
- Tricuspid regurgitation
  - Max velocity: ______ m/s RV hypertrophy

Thoracic aorta:
- normal < dilated < indeterminate
  - Aortic root: _____ mm
  - Thoracic aorta diameter: ______ mm

IVC:
- normal < dilated < collapsed < indeterminate
  - Maximum diameter: ___ mm
  - Minimum diameter: ___ mm
  - Collapse: >50% <50%

other: __________________________

Interpretation:
- No sonographic evidence of significant cardiac dysfunction
- No sonographic evidence of significant pericardial effusion
- Pericardial effusion:
  - small < moderate < large < present size not specified
- Pericardial effusion with evidence of pericardial tamponade
- Global ventricular function:
  - hyperdynamic < normal < reduced < severely reduced
- No cardiac activity / Cardiac standstill
- No sonographic evidence of RV size dilation
- RV dilation
- No sonographic evidence of volume depletion
- Sonographic findings suggestive of volume depletion
- Dilated IVC
- No evidence of sonographic aortic root dilation
- Dilated Aortic Root
other: __________________________

Quality assurance:

Suggested Quality Assurance Grading Scale

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FOCUSED TRANSESOPHAGEAL CARDIAC ULTRASOUND

The elements that are BOLDED represent the core emergency ACEP views, findings and interpretations for each application.

Patient/ exam demographics:

Patient name: ___________________________
Patient gender: M  F
DOB: _____ / _____ / _____
MR#: _________________________
Bar Code/Patient Identifier: _______________________
Hospital Name: _______________________
Date and time of exam: _____ / _____ / _____
Exam type:
  Diagnostic
  Educational
  Procedural
Clinical category:
  Resuscitative
  Symptom based
  Therapeutic
  Unknown/other
Initial exam
Repeat exam
Primary person obtaining/ interpreting images: _______________________
Secondary person obtaining/ interpreting images: _______________________
Additional person(s) obtaining/ interpreting images: _______________________

Indication(s) for exam:
cardiac arrest
hypotension
dyspnea
shock
syncope
chest pain
tachypnea
shortness of breath
fever
arrhythmia
other: _______________________

Views:
Mid-esophageal 4-chamber: <adequate <limited < not obtained
Mid-esophageal long axis: <adequate <limited < not obtained
Mid-esophageal bicaval: <adequate <limited < not obtained
Transgastric short axis: <adequate <limited < not obtained
other: _______________________

Findings:
Pericardial effusion:
  if present < small < moderate < large
  < present < absent < indeterminate size
  < SVC plethoric
  < R atrial collapse
  < R ventricular collapse
  < Excessive mitral inflow variation

Evidence of tamponade
  < present < absent < indeterminate size
  < SVC plethoric
  < R atrial collapse
  < R ventricular collapse
  < Excessive mitral inflow variation
Global Ventricular Function:  < hyperdynamic  < normal  < reduced  < severely reduced
< asystole  < indeterminate

Right Ventricular Size:  < normal  < dilated  < indeterminate

Signs of RV strain
  RV hypokinesis
  Paradoxic septal motion
  McConnell’s Sign
  Tricuspid regurgitation

  Max velocity: _______ m/s
  RV hypertrophy

Thoracic aorta:  normal  dilated  indeterminate

  Aortic root: _______ mm
  Thoracic aorta diameter: _______ mm

Cardiac Thrombus:  absent  present  indeterminate

Location:

SVC:  < normal  < dilated  < collapsed  < indeterminate

  Maximum diameter: _______ mm
  Minimum diameter: _______ mm
  Collapse:  >50%  <50%

other: ********************************

Interpretation:
  < No sonographic evidence of significant cardiac dysfunction
  < No sonographic evidence of significant pericardial effusion
  < Pericardial effusion
    < small  < moderate  < large  < present size not specified
  < Pericardial effusion with evidence of pericardial tamponade
  < Global ventricular function:
    < hyperdynamic  < normal  < reduced  < severely reduced
  < No cardiac activity/ Cardiac standstill
  < No sonographic evidence of RV size dilation
  < RV dilation
  < Cardiac Thrombus
  < No sonographic evidence of volume depletion
  < Sonographic findings suggestive of volume depletion
  < Dilated SVC
  < No evidence of sonographic aortic root dilation
  < Dilated Aortic Root

other: ********************************
**Quality assurance:**

**Suggested Quality Assurance Grading Scale**

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**Comments:**

_________________________________________________________________________
SOFT TISSUE/MUSCULOSKELETAL

The elements that are **BOLDED** represent the core emergency ACEP views, findings and interpretations for each application.

**Patient/ exam demographics:**

Patient name: ______________________
Patient gender: M  F
DOB: _____/____/_____  
MR#: ________________
Bar Code/Patient Identifier: ________________
Hospital Name: ________________
Date and time of exam: _____/____/____
Exam type:  
Diagnostic  
Educational  
Procedural
Clinical category:  
Resuscitative  
Symptom based  
Therapeutic  
Unknown/other
Initial exam  
Repeat exam

Primary person obtaining/ interpreting images: ________________
Secondary person obtaining/ interpreting images: ________________
Additional person(s) obtaining/ interpreting images: ________________

**Indication(s) for exam:**

- Swelling  
- Mass  
- Decreased Range of Motion  
- Redness  
- Fever  
- Deformity  
- Pain  
- Foreign Body  
- Educational  
- other: ________________

**Views:**

- **Skin and subcutaneous tissue:**  
  - Tissue thickness: < adequate < limited < not obtained  
  - Thickness: __________ mm  
  - Tissue Echogenicity: normal increased indeterminate  
  - Cobblestoning: < normal < increased < indeterminate  
  - Subcutaneous Collection: < present < absent < indeterminate  
  - If present: Diameter: __________ mm  

- Muscle: adequate limited not obtained  
- Tendon: adequate limited not obtained  
- Joint: adequate limited not obtained  
- Bone: adequate limited not obtained  
- other: ________________

**Findings:**

- Skin and subcutaneous tissue:
  - Tissue thickness: normal thickened indeterminate
  - Thickness: __________ mm
  - Tissue Echogenicity: normal increased indeterminate
  - Cobblestoning: < normal < increased < indeterminate
  - Subcutaneous Collection: < present < absent < indeterminate
  - If present: Diameter: __________ mm
Muscle:
- Appearance: normal, irregular, indeterminate
- Echogenicity: normal, increased, indeterminate
- Collection: present, absent, indeterminate

Tendon:
- Appearance: normal, irregular, indeterminate
- Defect: present, absent, indeterminate

Joint:
- Fluid: present, absent, indeterminate

Bone:
- Cortex Appearance: normal, irregular, indeterminate
  - If irregular: aligned, angulated/misaligned

Other: ________________________________

Interpretation:
**< No sonographic evidence of soft tissue abnormality**

**< Cellulitis**  **< location:** ___

**< Abscess**  **< location:** ___

Joint Effusion  **location:** __________________

Tendon Injury  **complete**  **partial**  **indeterminate**

Fractured Bone  **location:** __________________

Other: ________________________________

Quality assurance:

Suggested Quality Assurance Grading Scale

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Comments: ________________________________________________________________________
**Patient/exam demographics:**

Patient name: ____________________________
Patient gender: M  F
DOB: ____/____/____
MR#: _______________________
Bar Code/Patient Identifier: ______________________
Hospital Name: ________________________
Date and time of exam: ____/____/____
Exam type:
  - Diagnostic
  - Educational
  - Procedural
Clinical category:
  - Resuscitative
  - Symptom based
  - Therapeutic
  - Unknown/other
Initial exam
Repeat exam
Primary person obtaining/ interpreting images: ____________________________
Secondary person obtaining/ interpreting images: ____________________________
Additional person(s) obtaining/ interpreting images: ____________________________

**Indication(s) for exam:**

- eye pain
- eye/orbital trauma
- vision change
- visual loss
- other: ______________________________________
- head injury
- suspected foreign body
- headache
- educational

**Views:**

<table>
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<tr>
<th></th>
<th>Right eye transverse:</th>
<th>Right eye longitudinal:</th>
<th>Left eye transverse:</th>
<th>Left eye longitudinal:</th>
<th>other: ____________________________</th>
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<tr>
<td></td>
<td>&lt; adequate</td>
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**Findings:**

- **Right eye**
  - Retinal contour: < normal  < abnormal/ detached  < indeterminate
  - Lens: normally located  dislodged  indeterminate
  - Vitreous body: < anechoic  < hyperechoic density  < indeterminate
  - Optic nerve sheath: enlarged  normal  indeterminate
  - ONSD: ____mm
  - other: ______________________________________
Left eye

**Retinal contour:**  & < normal & < abnormal/ detached & < indeterminate  
Lens: & normally located & dislodged & indeterminate  
**Vitreous body:**  & < anechoic & < hyperechoic density & < indeterminate  
Optic nerve sheath: & enlarged & normal & indeterminate  
ONSD: mm

**Interpretation:**

< No acute abnormalities identified  
< Retinal Detachment & < left & < right & < bilateral  
Lens dislocation & left & right & bilateral  
< Vitreous Hemorrhage & < left & < right & < bilateral  
Intraocular Foreign body & left & right & bilateral  
Increased ONSD & left & right & bilateral  
other: ___________________________

**Quality assurance:**

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Comments: ________________________________________________________________
FOCUSED BOWEL EXAMINATION

Patient/ exam demographics:

Patient name: __________________________
Patient gender: M   F
DOB: ______/____/____
MR#: __________________________
Bar Code/Patient Identifier: __________________________
Hospital Name: __________________________
Date and time of exam: ______/____/____
Exam type:
  Diagnostic
  Educational
  Procedural
Clinical category:
  Resuscitative
  Symptom based
  Therapeutic
  Unknown/other
Initial exam
Repeat exam

Primary person obtaining/ interpreting images: __________________________
Secondary person obtaining/ interpreting images: __________________________
Additional person(s) obtaining/ interpreting images: __________________________

Indication(s) for exam:

  abdominal pain
  abdominal tenderness  vomiting
  abdominal bruising  diarrhea
  abdominal distension  fever
  abdominal mass  GI bleeding
  other: __________________________

Views:

  Concerns for appendicitis:
    Right lower quadrant  < adequate  < limited  < not obtained
    Appendix short axis  < adequate  < limited  < not obtained
    Appendix long axis  < adequate  < limited  < not obtained
    Blind end  < adequate  < limited  < not obtained
    Psoas / iliac landmarks  < adequate  < limited  < not obtained
    Other: __________________________

  Concern for bowel obstruction or intussusception:
    Right upper quadrant  < adequate  < limited  < not obtained
    Left upper quadrant  < adequate  < limited  < not obtained
    Right lower quadrant  < adequate  < limited  < not obtained
    Left lower quadrant  < adequate  < limited  < not obtained
    Periumbilical area  < adequate  < limited  < not obtained
    Other: __________________________
Concern for pyloric stenosis:
- Epigastrium: < adequate < limited < not obtained
- Pylorus short axis: < adequate < limited < not obtained
- Pylorus long axis: < adequate < limited < not obtained

Other: ________________

Concern for diverticulitis:
- Right lower quadrant: < adequate < limited < not obtained
- Periumbilical area: < adequate < limited < not obtained
- Suprapubic: < adequate < limited < not obtained
- Left lower quadrant: < adequate < limited < not obtained

Other: ________________

Concern for GI Bleed:
- Left upper quadrant: < adequate < limited < not obtained
- Stomach: < adequate < limited < not obtained
- Left lower quadrant: < adequate < limited < not obtained
- Right upper quadrant: < adequate < limited < not obtained
- Right lower quadrant: < adequate < limited < not obtained

Other: ________________

**Findings:**

**Appendicitis:**
- **Appendix diameter (> 6mm):**
  - Measurement: ___________
  - < absent < present < indeterminate
- **Appendix Compressibility:**
  - < absent < present < indeterminate
- Target sign (short axis): < absent < present < indeterminate
- Appendicolith: < absent < present < indeterminate
- Doppler findings: < ischemia < normal < hyperemia < indeterminate

**Bowel Obstruction:**
- **Bowel loop diameter:**
  - Location: _____
  - Measurement: ____
  - Wall edema or fluid: < absent < present < indeterminate
  - Peristalsis: < absent < present < indeterminate
  - “To-and-fro” of contents: < present < absent < indeterminate

**Intussusception:**
- Bowel loop diameter (> 4 cm):
  - Location: ________________
  - Measurement: ___________
  - Telescoping appearance: < absent < present < indeterminate
  - Target sign: < absent < present < indeterminate
  - Pseudokidney/sandwich sign: < absent < present < indeterminate
  - Hayfork sign: < absent < present < indeterminate
  - Doppler findings: < ischemia < normal < hyperemia < indeterminate
Pyloric Stenosis:
- Pyloric muscle wall diameter (>3 mm):  
  Measurement: ___________  
- Pyloric Channel length (>15mm):  
  Measurement: ___________

Diverticulitis:
- Bowel wall thickening (> 4 mm):  
  Measurement: ___________  
- Hypoechoic diverticulum:  
  Measurement: ___________  
- Surrounding echogenic fat:  
  Measurement: ___________  
- Noncompressible fat:  
  Measurement: ___________  
- Target sign:  
  Measurement: ___________  
- Pseudokidney sign:  
  Measurement: ___________

Upper GI Bleed:
- Heterogenous gastric content:  
  Volume (mL): ___________

Simple free fluid:  
  Measurement: ___________  
Complex free fluid collection:  
  Measurement: ___________  
Extramural free air:  
  Measurement: ___________  
Abdominal wall defect:  
  Measurement: ___________  
Other: ___________

Interpretation:
- No significant findings
- Bowel obstruction
- Upper GI bleed
- Hernia
- Inflammation – appendicitis
- Inflammation – diverticulitis
- Intussusception
- Intraabdominal abscess
- Perforation (free fluid or free air)
- Pyloric stenosis
Other: ________________________

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Comments: ____________________________________________
FOCUSED TESTICULAR EXAMINATION

**Patient/ exam demographics:**

Patient name: ______________________
Patient gender: M F
DOB: ______/____/____
MR#: ______________________
Bar Code/Patient Identifier: ______________________
Hospital Name: ______________________
Date and time of exam: ______/____/____

Exam type:
 Diagnostic
 Educational
 Procedural

Clinical category:
 Resuscitative
 Symptom based
 Therapeutic
 Unknown/other

Initial exam
 Repeat exam

Primary person obtaining/ interpreting images: ______________________
Secondary person obtaining/ interpreting images: ______________________
Additional person(s) obtaining/ interpreting images: ______________________

**Indication(s) for exam:**

- testicular pain
- abnormal testicular lie
- testicular swelling
- testicular mass
- testicular tenderness
- hernia
- groin pain
- scrotal trauma
- other: ______________________

**Views obtained:**

- Right testicle sagittal without Doppler: adequate limited not obtained
- Right testicle transverse without Doppler: adequate limited not obtained
- Right testicle with Doppler: adequate limited not obtained
- Left testicle sagittal without Doppler: adequate limited not obtained
- Left testicle transverse without Doppler: adequate limited not obtained
- Left testicle with Doppler: adequate limited not obtained
- other: ______________________

**Findings:**

- **Right hydrocele:**
  - absent
  - present
  - indeterminate
- **Right testicular Color flow:**
  - absent
  - present
  - indeterminate
- **Right testicular Spectral flow:**
  - absent
  - present
  - indeterminate
- **Resistive index:**
  - normal
  - hyperemia
  - indeterminate
- **Right epidydimal flow:**
  - normal
  - hyperemia
  - indeterminate
- **Right testicle appearance:**
  - homogenous
  - heterogenous
  - indeterminate
- **Right scrotal wall appearance:**
  - normal
  - cobblestoning
  - abscess/swelling
  - indeterminate
- other: ______________________
Left hydrocele:  absent  present  indeterminate
Left testicular Color flow:  absent  present  indeterminate
Left testicular Spectral flow:  absent  present  indeterminate
Resistive index:
Left epididymal flow:  normal  hyperemia  indeterminate
Left testicle appearance:  homogenous  heterogenous  indeterminate
Left scrotal wall appearance:  normal  cobblestoning  abscess/swelling  indeterminate
other:  

**Interpretation:**
- No significant abnormality
- testicular torsion
- hydrocele
- epididymitis
- orchitis
- scrotal abscess
- scrotal cellulitis
- mass
other:  

**Quality assurance:**

**Suggested Quality Assurance Grading Scale**

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Comments:  

- **Quality assurance**
  - Suggested Quality Assurance Grading Scale
  - Grading Scale Definitions
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- **Image quality**
  - Accuracy of interpretation of images as presented
  - Accuracy of interpretation of images as compared to gold standard (ie, CT, operative report)
UNDIFFERENTIATED CHEST PAIN AND DYSPNEA

Patient/ exam demographics:

Patient name: __________________________
Patient gender:  M  F
DOB: / / __
MR#: __________________________
Bar Code/Patient Identifier: ____________
Hospital Name: ________________________
Date and time of exam: / / __
Exam type:
    Diagnostic
    Educational
    Procedural
Clinical category:
    Resuscitative
    Symptom based
    Therapeutic
    Unknown/other
Initial exam
Repeat exam

Primary person obtaining/ interpreting images: ________________
Secondary person obtaining/ interpreting images: ________________
Additional person(s) obtaining/ interpreting images: ________________

Indication(s) for exam:

- chest pain
- shortness of breath
- hypoxia
- hypotension
- cardiomyopathy
- syncope
- COPD / Emphysema
- new murmur
- tachycardia
- palpitations
- arrhythmia
- abnormal EKG
- prior MI
- sepsis
- chest bruising
- other: __________________________

Views obtained:

Echo:  PSLA  PSSA  Apical 4 chamber  Subxiphoid  IVC
Thoracic:  Right Pleural Line  Right Thoracic Space for fluid
            Left Pleural Line  Left Thoracic Space for fluid
other: __________________________

Echo Findings:

Pericardial Effusion: None
Global Ventricular Function: normal hyperdynamic mod depressed severely depressed
no cardiac activity indeterminate not assessed
Equality (RV:LV size): normal enlarged indeterminate not assessed
Exit (Aortic Root Diameter) normal (<4.0 cm) borderline (4-4.5 cm) dilated (>4.5 cm)
ACEP Emergency Ultrasound Standard Reporting Guidelines

IVC qualitative size  normal  plethoric  flat  indeterminate  not assessed
IVC qualitative collapse  no collapse  minimal collapse  some collapse  significant collapse  indeterminate  not assessed

Other echo findings:

**Thoracic Findings:**

Right pleural line sliding: normal  absent  lung point  indeterminate  not assessed
Right pulmonary fluid (B lines (>3)): present  absent  indeterminate  not assessed
Right pleural space (effusion / consolidation): none  small  moderate-large consolidation  indeterminate  not assessed

Left pleural line sliding: normal  absent  lung point  indeterminate  not assessed
Left pulmonary fluid (B lines (>3)): present  absent  indeterminate  not assessed
Left pleural space (effusion / consolidation): none  small  moderate-large consolidation  indeterminate  not assessed

Other thoracic findings:

**Interpretation Echo:**

- no significant abnormality
- significant pericardial effusion
- decreased ejection fraction
- right ventricle enlargement
- dilated aortic root
- dehydration
- fluid overload / pulmonary edema

other: __________________________

**Interpretation Thoracic:**

- no significant abnormality
- right pneumothorax
- left pneumothorax
- right alveolar interstitial fluid (B lines +)
- left alveolar interstitial fluid (B lines +)
- right pleural effusion
- left pleural effusion
- right lung consolidation
- left lung consolidation

other: __________________________
## Quality assurance:

### Suggested Quality Assurance Grading Scale

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Comments: ________________________________________________________________________
UNDIFFERENTIATED HYPOTENSION

**Patient/ exam demographics:**

Patient name: __________________________
Patient gender: M F
DOB: _____/____/____
MR#: ______________________
Bar Code/Patient Identifier: ________________
Hospital Name: ________________________
Date and time of exam: _____/____/____
Exam type: Diagnostic
Educational
Procedural
Clinical category: Resuscitative
Symptom based
Therapeutic
Unknown/other
Initial exam
Repeat exam

Primary person obtaining/ interpreting images: ________________________
Secondary person obtaining/ interpreting images: ________________________
Additional person(s) obtaining/ interpreting images: ________________________

**Indication(s) for exam:**
sBP <100
Shock Index >1 (HR/SBP)
altering mental status
arrhythmia
abdominal/back pain
chest pain
diaphoresis
dyspnea
feeling of doom
fever
hypoxia
GI bleed
palpitations
pregnancy
unresponsiveness
syncope
vaginal bleeding
other: ________________________

**Views obtained (RUSH protocol):**

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<th>Thoracic</th>
<th>Abdominal</th>
<th>Aorta</th>
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<tbody>
<tr>
<td>other: ________________________</td>
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</tbody>
</table>

**Echo Findings:**

Effusion

- no significant effusion
- small effusion
- mod-large effusion
- indeterminate
- not assessed

Global Ventricular Function (EF):
- hyperdynamic (>65%)
- normal (60-65%)
- moderately depressed (30-50%)
- severely depressed (<30%)
- no myocardial activity
- indeterminate
- not assessed
Chamber size
- RV < LV: dilation present (> 4.5 cm)
- RV >= LV: dilation borderline (4 - 4.5 cm)
- indeterminate: dilation not present (< 4 cm)
- not assessed: indeterminate

Thoracic Aortic Diameter:
- RV < LV: dilation present (> 4.5 cm)
- RV >= LV: dilation borderline (4 - 4.5 cm)
- indeterminate: dilation not present (< 4 cm)
- not assessed: indeterminate

IVC:
- Full and No collapse
- Normal collapse
- Flat
- Indeterminate
- Not assessed

Other cardiac findings:

Thoracic Findings:
Right pleural line
- Lung sliding: present, absent, indeterminate, not assessed
Left pleural line
- Lung sliding: present, absent, indeterminate, not assessed

Right pleural fluid
- present, absent, consolidation, indeterminate, not assessed
Left pleural fluid
- present, absent, consolidation, indeterminate, not assessed

Alveolar Interstitial Syndrome:
- present bilaterally, present unilaterally
- absent, indeterminate

Other thoracic findings:

Abdominal Findings:
- AAA > 3 cm: present, absent, indeterminate, not assessed
- Abdominal Free Fluid:
  - present hepatorenal space
  - present suprapubic space
  - indeterminate
- no free fluid

Other abdominal findings:

Interpretation:
- acute coronary syndrome
- tamponade
- RH strain/pulmonary embolus
- dysrhythmia
- LV failure
- hypovolemia
- ectopic pregnancy rupture
- hemothorax
- hemoperitoneum
- ruptured AAA
- tension pneumothorax
- thoracic Aorta Pathology
- sepsis
- no clear findings
- other: ______________________________
Quality assurance:

Suggested Quality Assurance Grading Scale

<table>
<thead>
<tr>
<th>Grading Scale Definitions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>No recognizable structures, no objective data can be gathered</td>
<td>Minimal recognizable structures but insufficient for diagnosis</td>
<td>Minimal criteria met for diagnosis, recognizable structures but with some technical or other flaws</td>
<td>Minimal criteria met for diagnosis, all structures imaged well and diagnosis easily supported</td>
<td>Minimal criteria met for diagnosis, all structures imaged with excellent image quality and diagnosis completely supported</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Image quality</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy of interpretation of images as presented</td>
<td>TP</td>
<td>TN</td>
<td>FP</td>
<td>FN</td>
<td></td>
</tr>
<tr>
<td>Accuracy of interpretation of images as compared to gold standard (ie, CT, operative report)</td>
<td>TP</td>
<td>TN</td>
<td>FP</td>
<td>FN</td>
<td></td>
</tr>
</tbody>
</table>

Comments: ____________________________________________________________________________