



1. Overview

- The bedside cardiac ultrasound [or FOCUS **F**ocused **C**ardiac **U**ltra**S**ound] and the Focused Assessment with Sonography in Trauma [FAST] are two very important skills for the AGANCP. FOCUS can rapidly diagnose a pneumothorax with 87% sensitivity and 99% specificity. A clinician can diagnose a pericardial effusion or pericardial tamponade with ultrasound.

2. Goal of the Procedure

- Rapidly assess and evaluate dyspnea and hypotension

3. Reference(s)

- Ebrahimi, A., Yousefifard, M., Mohammad Kazemi, H., Rasouli, H. R., Asady, H., Moghadas Jafari, A., & Hosseini, M. (2014). Diagnostic Accuracy of Chest Ultrasonography versus Chest Radiography for Identification of Pneumothorax: A Systematic Review and Meta-Analysis. *Tanaffos*, 13(4), 29–40.
- Miller, A., & Mandeville, J. (2016). Predicting and measuring fluid responsiveness with echocardiography. *Echo Research and Practice*, 3(2), G1–G12. <http://doi.org/10.1530/ERP-16-0008>
- Parrillo, J. E., & Dellinger, R. P. (2013). *Critical care medicine: Principles of diagnosis and management in the adult* (Fourth ed.). Philadelphia, PA: Elsevier/Saunders.

4. Required Reading / Review

To access the Clinical Key webpages listed below use the [Direct Link Generator](#) and use the second box on the page (below the OR) to put in the following URLs (one at a time) then click “show URL” to generate a link to the information (if the page does not display click on the generated link again)

https://link-springer-com.ezproxy2.library.arizona.edu/chapter/10.1007/978-1-4939-1723-5_1

<https://www-clinicalkey-com.ezproxy2.library.arizona.edu/#!/content/book/3-s2.0-B9781455733835000208>

<http://ovidsp.tx.ovid.com.ezproxy2.library.arizona.edu/sp->

[3.31.1b/ovidweb.cgi?&S=ILJOFPPNFFDDIBJANCEKKFLBJDHMAA00&Link+Set=S.sh.22.23.27.31%7c14%7csl_10](http://ovidsp.tx.ovid.com.ezproxy2.library.arizona.edu/sp-3.31.1b/ovidweb.cgi?&S=ILJOFPPNFFDDIBJANCEKKFLBJDHMAA00&Link+Set=S.sh.22.23.27.31%7c14%7csl_10)

<https://www-clinicalkey-com.ezproxy2.library.arizona.edu/#!/content/book/3-s2.0->

[B9780323462150000549?scrollTo=%23h0000103](https://www-clinicalkey-com.ezproxy2.library.arizona.edu/#!/content/book/3-s2.0-B9780323462150000549?scrollTo=%23h0000103)

5. Required Procedure Competencies

Parasternal Window

- Student properly places full left-lateral decubitus position, with the patient’s left arm extended
- The probe is placed on the left sternum between the 3rd and 5 intercostal spaces the indicator toward the right shoulder. The RVOT should be in the window.
- The probe is turned clock wise to view a parasternal short axis (90 degrees to left shoulder)

Apical 4Window

- Student properly positions patient, probe is properly placed inferior to the left breast mid clavicular line.

Intercostal View

- Probe is properly placed to the patient’s right of sternum, 45 degree angle, marker to the patient’s left,
- Rotate the probe until the IVC comes into view.

Hepatic/Renal View (Morrison's pouch)

- Probe is left mid axillary line with marker pointed caudally and rotated ventrally to view kidney and liver.

Spleen/renal window

- Probe is right mid axillary line with marker pointed caudally and rotated ventrally to view kidney and spleen.

Suprapubic View

- Properly places ultrasound probe superior to the bladder marker to the right (dot on the left given an abdominal view) the Cul de sac /retrovesical space should be apparent. Turn the probe toward the marker caudally