

Kahoot: Parasternal Short Axis (PSAX)

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CVSG1240 Echocardiography Scanning Lab I • Concorde Career College Portland

A 15-question Kahoot covering the parasternal short-axis levels, anatomy on the screen, and color/spectral Doppler at the base.

1. To go from PLAX to PSAX, you rotate the probe approximately:

- A. 45 degrees clockwise
- B. 90 degrees clockwise (**correct**)
- C. 90 degrees counterclockwise
- D. 180 degrees

Answer: B.

2. In PSAX, the probe notch points toward the patient's:

- A. Right shoulder
- B. Left shoulder (**correct**)
- C. Right hip
- D. Left hip

Answer: B.

3. The "Mercedes sign" in PSAX Base refers to:

- A. Three pulmonary vein orifices
- B. Three coronary cusps of a normal trileaflet aortic valve (**correct**)
- C. Three papillary muscles
- D. Three heads of the tricuspid valve

Answer: B.

4. Confirming three aortic cusps in PSAX Base is the deliverable that rules out:

- A. Aortic stenosis
- B. Aortic regurgitation
- C. A bicuspid aortic valve (**correct**)
- D. A patent ductus arteriosus

Answer: C.

5. In a PSAX Base view, the tricuspid valve typically appears at what clock position?

- A. 9 o'clock (**correct**)
- B. 12 o'clock
- C. 3 o'clock
- D. 6 o'clock

Answer: A.

6. In a PSAX Base view, the pulmonic valve/RVOT typically appears at what clock position?

- A. 9 o'clock
- B. 12 o'clock
- C. 3 o'clock (**correct**)
- D. 6 o'clock

Answer: C.

7. From base to apex, the standard PSAX levels are:

- A. Apex, papillary, mitral, base
- B. Base, mitral (fish-mouth), papillary, apex (**correct**)
- C. Base, apex, mitral, papillary
- D. Mitral, base, papillary, apex

Answer: B.

8. The two LV papillary muscles seen in PSAX at the papillary level are:

- A. Anterior and posterior
- B. Septal and lateral
- C. Anterolateral and posteromedial (**correct**)
- D. Apical and basal

Answer: C.

9. The "fish mouth" appearance in PSAX refers to the:

- A. Aortic valve in systole
- B. Tricuspid valve at the annulus
- C. Mitral valve at the leaflet tips (**correct**)
- D. Pulmonic valve at peak flow

Answer: C.

10. For valvular color Doppler in PSAX, you should set the Nyquist limit to approximately:

- A. 5 to 10 cm/s
- B. 20 to 30 cm/s
- C. 50 to 60 cm/s (**correct**)
- D. 150 to 200 cm/s

Answer: C.

11. For PW measurement of the RVOT VTI, the gate is placed:

- A. In the main pulmonary artery
- B. At the pulmonic valve leaflet tips
- C. In the RVOT just proximal to the pulmonic valve, on the RV side (**correct**)
- D. In the right atrium

Answer: C.

12. Normal RVOT VTI in an adult is approximately:

- A. 4 to 8 cm
- B. 12 to 18 cm (**correct**)
- C. 25 to 35 cm
- D. 40 to 60 cm

Answer: B.

13. Normal peak pulmonic valve velocity in a healthy adult is:

- A. Less than 1.5 m/s (**correct**)
- B. 2.0 to 3.0 m/s
- C. 3.0 to 4.0 m/s
- D. Greater than 4.0 m/s

Answer: A.

14. To estimate RVSP from TR Vmax, you apply the modified Bernoulli equation:

- A. $RVSP = 2V + RAP$
- B. $RVSP = 4V^2 + RAP$ (**correct**)
- C. $RVSP = V^2 / 4 + RAP$
- D. $RVSP = \pi * V^2 + RAP$

Answer: B.

15. If you cannot see all three aortic cusps in PSAX Base, the most likely problem is:

- A. The patient inhaled too deeply
- B. The probe is rotated too far
- C. The PSAX level is above or below the AV; rock the probe heel-to-toe (**correct**)
- D. The gain is too low

Answer: C.

Suggested Kahoot settings: 20 seconds per question; 30 seconds for #7, #11, #14.

Source: CVSG1240 Module 2 Lab 1 Protocol (Outflow Tracts, Valves, and Doppler); ASE 2019 Comprehensive TTE Guidelines (Mitchell et al., JASE 32(1)); Rudski LG et al. 2010 RV Echo Guidelines.

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