

In general function is overestimated at the parasternal short apical level and underestimated at parasternal short mitral valve, aortic, or pulmonary valve level. Parasternal long axis the operator may obtain views that cut the LV and inappropriate levels and can over or underestimate function by looking at the 'squeeze'

Mitral valve excursion can be measured visually or with M-mode. Visually if the mitral valve is hitting the anterior wall of the LV, it corresponds to hyperdynamic LV. If the mitral valve is barely moving, the LV is function is said to be poor.

D sign indicates deformation of the interventricular septum when looking at the parasternal short axis. This indicates pressure or volume overload of the RV.

Poor, normal, or hyperdynamic are appropriate classifications to give to LV function when evaluating in the ICU. Specific EF measurements and evaluation of wall motion abnormalities is not the goal of ICU point of care bedside ultrasound

1. What is the best view of evaluation of LV systolic function?
 - A. Parasternal short - Mitral valve level
 - B. Parasternal short - Papillary muscle level**
 - C. Parasternal short - Apical level
 - D. Parasternal long
2. What can be evaluated on the parasternal long axis view in order to evaluate LV function?
 - A. Aortic valve opening velocity
 - B. RV wall contraction
 - C. Mitral valve excursion**
 - D. LV Apical contraction
3. What is the significance of the "D" sign?
 - A. Indicates high LV pressures
 - B. Indicates high RV pressures**
 - C. There is no such thing as "D" sign
 - D. Can not be evaluated with 2D ultrasound
4. From the parasternal long axis view, the parasternal short axis view is obtained by:
 - A. Clockwise rotation of 45 degrees
 - B. Clockwise rotation of 90 degrees**
 - C. Counter-clockwise rotation of 90 degrees
 - D. 180 degrees clockwise
5. What is the appropriate terminology to report when evaluating LV function in the ICU setting?
 - A. 10% EF, 50% EF, 80% EF
 - B. Low, Middle, High
 - C. Subnormal, Normal, Hypernormal
 - D. Poor, Normal, Hyperdynamic**