

Fetal heart screening views: Minimal standards Image acquisition and interpretation checklists (19-22 weeks routine scan)

STEP 1: Fetal position is favourable and image optimized during image acquisition

- Fetal position allows scanning through the anterior chest
- Ultrasound beam is within approx. 60 degrees of septum
- Adequate zoom- Fetal chest occupies 2/3 of the screen

STEP 2: Situs

Image acquisition & documentation

Annotated still image or cine clip to document situs:

- Presentation
- Stomach
- Heart apex location

Image Interpretation

Criteria for interpretations as normal:

- Levocardia and apex points to the left
- Stomach in abdomen in left upper quadrant

STEP 3: 4 chamber views

Image acquisition & documentation

- True axial plane
- 3 second cine clip

Image documents:

- relative size of 4 chambers
- contractility and AV valve motion over at least 3-4 cycles
- crux and septum

Image Interpretation

Minimum criteria for interpretation as normal:

- Axis** 45+/-20 degrees
- Size:** approx. 1/3 of the chest area
- position:** apex left
- 4 chambers are balanced**
- Moderator band** in RV
- Crux** is present
- 2 separate AV valves
- Septum** appears intact
- Normal Heart rate and rhythm**
- Contractility** is symmetric

STEP 4: Outflow tracts

Image acquisition & documentation

A. Outflow tracts:

- 3 second Cine Sweep in axial plane and still images from the stomach to just above the heart:
 - Number and origin of outflow tracts
 - Relative size
 - Relationship (crossing)

AND

B. 3 Vessel view:

- Axial plane in upper mediastinum
- Annotate "Right" next to SVC

Image Interpretation

Minimum criteria for interpretation as normal:

A. Outflow tracts: Cine clip:

- Cineclip 2 outflow tracts of similar size
- Cineclip 2 outflow tracts crossing

B. 3 Vessel view:

- PA > Ao > SVC
- Even spacing between vessels
- Three vessels all in a line
- Only 3 vessels seen