


3D TEE Assessment Guide

Only measurements not included in the 2D protocols are indicated under MPR below.
High volume rate (HVR) may be used instead of 3D gated acquisition.
Target frame rates are for the 3D image. CFD images will have much lower rates.

| Structure | Suggested Starting Point | Assessment | Optimal 3D Acquisition Modes | Frame rate | Include | 2° acquisitions | Analysis |
|-------------|--------------------------|-----------------------------|--|---|------------------------------------|--|---|
| LV | ME4C, MELAX, ME2C | Systolic function | Gated 4-6 Full | > 10 Hz > 20 Hz → a3DQ  | | Cropped ME4C, ME2C | 3D LVEF (QLAB 3DQ, a3DQ, TomTec) |
| RV | ME4C | Systolic function | Gated 4-6 Full | > 10 Hz (> 20 Hz ideal) | LV | Cropped ME4C | 3D RVEF (Tomtec) |
| MV | MELAX, ME4C | Screening | Live Zoom | > 10 Hz | | En Face, PM comm. | MPR |
| | | MR | +CFD Gated 4-6 Zoom / Full | > 20 Hz | AV, LVOT | En face, AL comm., PM comm., Ventricular | MPR: 2D valve measures + VC area on CFD |
| | | MS | Gated 4-6 Zoom / Full | > 10 Hz | | En Face, Cropped ME4C | MPR: Valve area planimetry |
| AV | MELAX | Screening | Live Zoom | > 10 Hz | | | |
| | | AI | +CFD Gated 4-6 Zoom / Full | > 20 Hz | LVOT to prox Asc. Ao | | MPR: VC area on CFD |
| | | AS | Gated 4-6 Zoom / Full | > 10 Hz | | | MPR: Valve area planimetry |
| TV | ME4C | Screening | Live Zoom | > 10 Hz | Part of AV for orientation | | |
| | | TR | +CFD Gated 4-6 Zoom / Full | > 10 Hz (> 20 Hz ideal) | | | MPR: VC area on CFD (difficult) |
| IAS | MEBC | ASD/PFO | +CFD Gated 4-6 Zoom / Full | > 10 Hz | Part of SVC and AV for orientation | | MPR: ASD dimensions, ASD rim |
| | | Trans-sept. punct. guidance | Live Zoom / X-plane (Multi-D) | > 10 Hz | | | |
| LAA | ME2C | Screening / thrombus | Live Zoom / X-plane (Multi-D) | > 10 Hz (> 20 Hz ideal) | Part of MV & LUPV for orientation | | |
| | | Closure Device | Gated 4-6 Zoom / Full | > 5 Hz | | | MPR: LAA dimensions |
| Desc. Aorta | DAoSax | Plaque, Dissection | +CFD X-plane (Multi-D) Live Zoom large plaques | > 5 Hz | | LAX/SAX high risk lesions | MPR: measure large lesions |