

PROTOCOL: TRICUSPID REGURGITATION

The focus of this document is to outline recommended additional echocardiographic image acquisition and analysis that is important in patients with significant tricuspid regurgitation to help determine patient prognosis and guide further patient management.

Inclusion Criteria

- Moderately-severe or greater tricuspid regurgitation

2D	CFI	Doppler	Measurement
Parasternal (Same as comprehensive TTE)			
Apical (Addition of 3D RV volume and 2D strain)			
	Full qualitative and quantitative TR assessment as indicated: <ul style="list-style-type: none">Color flow jet areaVena contracta diameterCW Doppler TR velocityPISA assessment		RV - 3D volume and RVEF <u>RV-focused 2D view for:</u> RV diameter - base, mid, length [†] RV - area d/s [†] RV - FW strain RA - monoplane Simpson's RV - TAPSE [†]
Subcostal and RSC (Same as comprehensive TTE, including HV Doppler)			

[†] 2D measurements of the RV can be omitted if diagnostic 3D volumetric measurements are performed.

Caveats and Tips

- Acquire an RV-focused view for dedicated 2D measurements
- DO NOT use para-apical view for RV measurements (2D and strain)
- Avoid foreshortening, consider dropping down an interspace and ask the patient to take a breath in
- Optimizing visualization of the lateral RV wall is key for accurate 2D and 3D measurements
- For 3D RV volumes:
 - Optimal frame rate at least 20 fps (depending on heart rate)
 - Ensure entire RV is in view
 - Consider multibeam acquisition if needed to optimize frame rate
 - Optimal patient positioning is important for 3D RV volume acquisition