

2014

*Rete Oncologica Piemonte e Valle D'Aosta*

# PROTOCOLLO ECOCARDIOGRAFICO SECONDO RACCOMANDAZIONI DEL

*HTTP://EHJCIMAGING.OXFORDJOURNALS.ORG*

*A cura del gruppo di studio  
Valutazione Cardiovascolare*

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## RECOMMENDED CARDIO-ONCOLOGY ECHOCARDIOGRAM PROTOCOL

STANDARD TRANSTHORACIC ECHOCARDIOGRAPHY	REPORTING
In accordance with ASE/EAE guidelines and IAC-Echo 2D strain imaging acquisition.	Timing of echocardiography with respect to the i.v. infusion (number of days before or after)
Apical three-, four-, and two-chamber views.  Acquire $\geq 3$ cardiac cycles.	Vital signs (BP, HR).
Images obtained simultaneously maintaining the same 2D frame rate and imaging depth.  Frame rate between 40 and 90 frames/sec or $\geq 40\%$ of HR.	3D LVEF/2D biplane Simpson's method.
Aortic VTI (aortic ejection time) 2D strain imaging analysis.	GLS (echocardiography machine, software, and version used).
Quantify segmental and global strain (GLS).	In the absence of GLS, measurement of medial and lateral s' and MAPSE.
Display the segmental strain curves from apical views in a quad format.	RV: TAPSE, s', FAC.
Display the global strain in a bull's-eye plot.  2D strain imaging pitfalls.	
Ectopy.	
Breathing translation.  3D imaging acquisition.	
Apical four-chamber full volume to assess LV volumes and LVEF calculation.	
Single and multiple beats optimising spatial and temporal resolution.	

**BP:** blood pressure; **FAC:** fractional area change; **HR:** heart rate;  
**IAC-Echo:** Intersocietal Accreditation Commission Echocardiography;  
**MAPSE:** mitral annular plane systolic excursion;  
**TAPSE:** tricuspid annular plane systolic excursion; **RV:** right ventricle