Donor Heart Transthoracic Echo Assessment

PROVISIONAL NOT APPROVED FOR USE v1.7 October 2022

If you are fully accredited please scan & report the echo as per BSE standards.

If you are focused echo accredited (i.e. Fusic Heart or Level I BSE), please scan and report as per your accreditation standards, consider recording the following 18 views and transfer images to transplant centre.

Remote Image review is essential in all cases.

Parasternal long axis

1) 2D
 2) Colour over aortic valve*
 3) Colour over mitral valve*
 4) Measure*: Intraventricular septum thickness
 Posterior wall thickness,
 End diastolic LV diameter

Parasternal short axis

5) 2D Aortic level

Subcostal

17) 2D18) Colour over inter-atrial septum*

Reporting

If you feel able please comment on following:

Inotrope/vasopressor level: PEEP on ventilator:

LV function: normal/impaired/severely impaired/NA RV function: normal/impaired/severely impaired/NA Aortic valve: normal/stenotic/regurgitant/NA Mitral valve: normal/stenotic/regurgitant/NA Tricuspid valve: normal/stenotic/regurgitant/NA Pulmonary valve: normal/stenotic/regurgitant/NA Other (eg VSD/effusions):

6) Colour over tricuspid*
7) Colour over pulmonary valve*
8) 2D Mitral level
9) 2D Papillary muscle level
10) 2D Apical level

Apical 4 Chamber

11) 2D

12) Colour over mitral valve*13) Colour over tricuspid valve*

14) Measure*: RV basal diameter

Apical 5 Chamber

15) 2D16) Colour over aortic valve*

LV diameter (cm): LV septal wall thickness (cm): LV posterior wall thickness (cm): RV basal diameter (cm):

Please transfer images to transplant center

Advanced

If you are able to perform a complete BSE Level 2 Echo this would be ideal.

Please record LVEF, regional wall abormalities, RV function and any valvular abnormalities with quantification.

Many changes occur at end of life and do not necessarily preclude transplantation e.g RWMA

* See overleaf for how to make measurements



Parasternal long axis measurements

Measure these parameters in diastole (when the LV is the biggest)

A Intraventricular septum thickness

B End diastolic LV diameter

C Posterior wall thickness

(Consider end systolic LV diameter)



Apical 4 Chamber measurement

A RV basal diamater in diastole (when RV is biggest)

Colour Nyquist Limit





When taking colour images ensure the colour scale Nyquist limit is set between 50– 60cm/s.

A wide box to capture any valvular lesion is useful but too wide & the image frame rate will reduce

Blood and Transplant



NHSBT National Focused Echocardiography for Donor Hearts Working Group Authors: W Akhtar, M Peck, A Miller, T Billyard, C Goedvolk, M Ryan, H Soliman–Aboumarie, F Riesgo Gil, M Berman, A Rubino Contact: a.rubino@nhs.net