



Tips to BSE logbook/ video cases

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Overview



- BSE Accreditation is a process that can take up to 24 months to complete comprising of:
 - Exam
 - Logbook: 250 cases
 - Video: 5 cases

Logbook

- Read the BSE Accreditation pack **thoroughly**

<http://bsecho.org/Accreditation> and click on the link for TTE Accreditation.

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Consider carefully and realistically how long it is going to take you to do your logbook.



Logbook

- Look in detail at the breakdown of the logbook- its not just 250 consecutive echo's!



Logbook

- Presentation: 1 ring binder folder only
- No patient information
- Candidate name and signature
- First 100 cases can be supervised scanning
- Remaining 150 cases- unsupervised



Logbook breakdown



- At least 25 cases should be for left ventricular function assessment.
- 50 for valve disease assessment.
- 10 for replacement valves.
- 10 assessing the right ventricle.
- 5 should show pericardial disease/effusion.
- 5 should show diseases of the aorta (e.g. aortic root or ascending aorta dilatation, aortic dissection).
- 5 cases of suspected endocarditis.
- 5 left ventricular hypertrophy.

Logbook breakdown

- There should be at least 5 cases of cardiomyopathy including at least 2 with hypertrophic cardiomyopathy.
 - Cases showing mass or thrombus.
 - Cases of simple congenital disease (e.g. ASD/VSD)
 - No more than 20 studies should be specialised studies (e.g. Stress or Bubble Contrast).
 - No more than 25 studies should be completely normal.
-
- The different categories of echoes should be separated by dividers.
 - A tally of the primary diagnosis assigned to each case must be entered on the appropriate summary sheet



Summary sheet



Primary diagnosis

- Left Ventricular Function Assessment (25)
- Valve Disease Assessment (50)
- Replacement Valves (10)
- Assessment of the Right Ventricle (10)
- Pericardial Disease/Effusion (5)
- Aortic Disease (5)
- Endocarditis (5)
- Left Ventricular Hypertrophy (5)
- Hypertrophic Cardiomyopathy (2)
- Dilated Cardiomyopathy (3)
- Mass/Thrombus (some)
- Congenital Heart Disease (some)
- Stress Echo/Contrast Bubble Study (20)
- No Significant Cardiac Abnormality (25)
- Other Pathology
- Total Cases (250)

No of cases

(numbers greater than or equal to)

Report format

- See appendix 7- suggested format for a report

Remember to index to BSA/ sex of patient – BSE/BHF normal values posters- chambers and valves



Report format



Quantitative measurements, observations, conclusion

Indication, Rhythm.

Main text: Logical order

Describe chambers/ valves in full to support your conclusion.

Comments: IVC, aorta etc.

Conclusion:

BE CONSISTENT

Report format

- Minimum dataset for TTE can be found on BSE website



Conclusion writing



- Key descriptive terms only. Be specific and to the point.
Severely impaired LV systolic function.
Severe Mitral regurgitation.
Mixed aortic valve disease.

- Remember not all reports go to Cardiologists.
- Most severe/ important first.
- Answer the clinical question!
- Leave the supporting evidence out of the conclusion.
- Avoid abbreviations e.g. MVR can mean valve replacement or repair.

Highlight similarities/ differences with previous studies

Clinical Details:

20 yrs history of amphetamine use.

Report: ECG: Sinus rhythm.

LV: Normal left ventricular size and systolic function. Normal wall thickness. No resting wall motion abnormalities. Normal diastolic function.

LA: Normal size. Atrial septum appeared intact.

MV: Structurally normal. Thin leaflets, opening freely. No stenosis. Trace of regurgitation.

AV: Tricuspid. Thin cusps, opening freely. No stenosis or regurgitation.

AORTA: Normal aortic root and ascending aorta size. Aortic arch was normal with normal Doppler flow.

RV: Normal size and systolic function. Normal estimated systolic pressure.

RA: Normal size.

TV: Structurally normal. Thin leaflets, opening freely. No stenosis. Trivial regurgitation.

PV: Structurally normal. Thin leaflets, opening freely. No stenosis and trivial regurgitation.

IVC: Normal size with > 50% respiratory collapse (estimated RAP 5 mmHg).

PERICARDIUM/EXTRACARDIAC: No pericardial effusion.

Conclusions:

1) Structurally normal heart.

2) Normal bi-ventricular systolic function.

3) No significant valvular disease.

2D		M-Mode		Doppler	
IVSd	0.8 cm	IVSd	0.9 cm	MV E Vel	1.09 m/s
LVIDd	4.7 cm	LVIDd	4.5 cm	MV DecT	179 ms
LVPWd	0.7 cm	LVPWd	0.7 cm	MV Dec Slope	6.3 m/s ²
LVd Mass (ASE)	105.65 g	LVIDs	3.0 cm	MV A Vel	0.48 m/s
LVIDs	3.0 cm	EF(Teich)	64 %	MV E/A Ratio	2.30
EF(Teich)	65 %	%FS	35 %	LVOT Vmax	1.07 m/s
%FS	36 %	LVd Mass (ASE)	111.17 g	LVOT maxPG	4.59 mmHg
LA Diam	2.9 cm			LVOT VTI	23.4 cm
Ao asc	2.3 cm			AV Vmax	1.37 m/s
LA Area	10.8 cm ²			AV maxPG	7.50 mmHg
RA Area	10.0 cm ²			AV meanPG	4.82 mmHg
				AV VTI	33.6 cm
				PV Vmax	0.91 m/s
				PV maxPG	3.29 mmHg
				TR Vmax	1.96 m/s
				TR maxPG	15.35 mmHg



Video cases overview

- 5 cases
- Normal study
- Moderate/ severe aortic stenosis
- Moderate/ severe aortic OR mitral regurgitation.
- Myocardial infarction with wall motion abnormalities
- Pericardial effusion/ cardiomyopathy/ simple congenital etc.



Video cases overview

- No patient identification.
- Must demonstrate use of Pedoff probe/
CW stand alone (blind) probe.



Video cases- overview

- Keep them simple- you don't need complex pathology/ complex assessments
- They are to demonstrate your echo skills.
- Must demonstrate all views
- Must demonstrate measurements of all dimensions and Doppler's.



Video cases

- Do's and don'ts on BSE Accreditation section for video cases
- Digital format
- In PowerPoint presentation
- avi file- MAKE SURE FILES "PLAY".
- If submitting on video refer to guidelines in Accreditation pack
- Must have an ECG for storing loops.
- Loop length- 1 sinus rhythm, 3 for atrial fib/ ectopics making sure you trigger on R wave.
- Preferably sinus rhythm- but if you must use Atrial fibrillation you must use an average of 10 Doppler measurements.
- Preferably no suboptimal images



Video cases overview



- M mode leading edge to leading edge
- Make sure LV mode is perpendicular to septum- 2D is acceptable therefore avoiding inaccurate m mode measurements.
- Don't measure post ectopic beats for Doppler measurements
- Refer to check list for each case in Appendix 12 on BSE Accreditation pack

Video cases



Appropriately optimise

- Doppler scale,
- Doppler baseline,
- 2D depth,
- Focus,
- Sector width,
- Harmonics,
- Sweep speed,
- Gains

Check List for each video case



Candidate Membership number: Case No:

Referral Diagnosis:

Marking system 0- Poor, 1-Borderline, 2-Good

A pass for any single case is about 66% (20 out of 30 possible marks)

If a single case scores below 50% and/or 2 cases score below 66% the candidate will fail this section of the exam.

- 1. ECG trace present and usable? Yes No

ECG Mark 0 / 1 / 2

- 2. M-Mode (shown in at least one case if not used routinely)

- Is the cut on-axis? Yes No

- Are the M-mode views of good quality? Yes No

- M-mode Mark 0 / 1 / 2

- General

Comments: _____

- 4. Measurements from M-mode or 2D

- Are the measurements correct? Yes No N/A

- General

Comments: _____

- Are the M-mode / 2D measurements correct? Mark 0 / 1 / 2

Check list for video cases



- 3. 2-D Images
- Is the image optimised? Yes No
- (gain setting, sector width, depth, harmonics, focus)
- Are the following views shown (if applicable)?
- Parasternal Long Axis Yes No N/A
- RV Inflow Yes No N/A
- Parasternal Short Axis Yes No N/A
- Apical Four Chamber Yes No N/A
- Apical Two Chamber Yes No N/A
- Apical Long Axis Yes No N/A
- Subcostal Yes No N/A
- Suprasternal Yes No N/A
- Are any relevant views missing? Yes No N/A
- General
Comments: _____
- 2D optimisation Mark0 / 1 / 2
- Are the 2D views of good quality and appropriate? Mark 0 / 1 / 2
- Are the 2D views complete? Mark 0 / 1 / 2

Check list for video cases



- 5. Colour Doppler
- Is Colour Flow Imaging used? Yes No N/A
- Is it of good quality? (colour gain, appropriate sample size) Yes No N/A
- Is its use appropriate to the pathology? Yes No N/A
- General Comments: _____
- Is the colour Doppler of good quality and appropriate? Mark 0 / 1 / 2
- 6. Spectral Doppler
- Are Pulsed and Continuous Wave Doppler Used? Yes No N/A
- Are the waveforms of good quality? Yes No N/A
- (sweep speed, Doppler baseline and scale)
- Is its use appropriate to the pathology? Yes No N/A
- Are accurate measurements made? Yes No N/A
- Are appropriate calculations made? Yes No N/A
- Are calculations performed correctly? Yes No N/A
- Is the Stand Alone' probe used appropriately? Yes No N/A
- (At least in one case)
- Are all Doppler measurements correct? Yes No N/A
- General Comments: _____

Is the spectral Doppler of good quality and appropriate? Mark 0 / 1 / 2

Are the Doppler measurements correct? Mark 0 / 1 / 2

Check list for video cases



7. Report:

- Does it include accurate measurements? Yes No N/A
- Does it contain appropriate/accurate Doppler calculations? Yes No N/A
- Does it describe all parts of the heart? Yes No N/A
- Are descriptions complete? Yes No N/A
- Does the report relate appropriately to the request? Yes No N/A
- Does it offer conclusions? Yes No N/A
- Are the conclusions accurate and relevant? Yes No N/A
- Comments: _____

- Is the study done in a logical and systematic order? Mark 0 / 1 / 2
- Does the report match the recorded images? Mark 0 / 1 / 2
- Is the report logical and structured? Mark 0 / 1 / 2
- Are descriptions complete? Mark 0 / 1 / 2
- Does it contain an accurate assessment of LV and RV function? Mark 0 / 1 / 2
- Are the conclusions accurate and relevant? Mark 0 / 1 / 2

TOTAL MARK /30

(or 28 if no M-mode used)

Conclusion

- Take as much time to think about your logbook and video cases as you do the exam
- More to the Accreditation process than meets the eye!
- Good luck!

