

ASSESSMENT: MITRAL VALVE ANATOMY & SUTURING

RESIDENT NAME _____ YR OF TRAINING _____ DATE _____

EVALUATOR _____

	Poor				Excellent	
	1	2	3	4	5	
1. Atriotomy	Initial anatomy in wrong orientation Improper use of scalpel/scissors Marked irregular edge Marked hesitation		Initial atriotomy correct but going in slightly wrong direction Hesitation with scalpel/scissor Mild irregular edge Some unsteadiness/hesitation		Proper location of atriotomy and correct orientation Controlled use of scalpel/scissor Smooth edge No hesitation	

Additional Comments: _____

2. Evaluate mitral valve	Not understand valve function and subvalvular apparatus Not able to assess coaptation		Partial understanding of valve function and subvalvular apparatus Partial assessment of coaptation		Complete understanding of valve function and subvalvular apparatus Complete assessment of coaptation	
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Additional Comments: _____

3. Identify posterior mitral annulus	Not identify leaflet hinge/annulus Not identify components of leaflet		Inconsistent identification of annulus Partial identification of components of leaflet		Proper identification of annulus Proper identification of components of leaflet	
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Additional Comments: _____

4. Identify anterior mitral annulus	Not identify leaflet hinge/annulus/trigones Not identify components of leaflet		Inconsistent identification of annulus/trigones Partial identification of components of leaflet		Proper identification of annulus/trigones Proper identification of components of leaflet	
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Additional Comments: _____

5. Sizing annulus	Not know how to size for repair and replacement		Able to size with some hesitation for repair and replacement		Proper use of sizer for repair and replacement	
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Additional Comments: _____

6. Needle holder use	Awkward finger placement Unable to rotate instrument Awkward need placement Inconsistent needle placement		Functional finger placement Hesitant when rotating Moderate facility Generally good needle placement		Comfortable, smooth finger placement Smooth rotation High facility Consistent proper need placement	
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(over)

7. Needle angles	1	2	3	4	5
	Not aware of angles		Understand angles, not consistent		Consistent correct angles
	Not compensate for depth		Partial compensation for depth		Compensate for depth
	Does not consider subsequent angles		Partial consideration of subsequent angles		Consistent adjustment for subsequent angles

Additional Comments:

8. Needle removal from annulus	1	2	3	4	5
	Not follow needle curve		Incomplete follow needle curve		Proper follow needle curve
	Excess trauma to annulus		Some trauma to annulus		No additional trauma

Additional Comments:

9. Needle transfer	1	2	3	4	5
	Marked hesitation in mounting needle		Able to mount needle with hand and some difficulty with needle manipulation		Able to mount needle and manipulate needle easily

Additional Comments:

10. Tissue handling	1	2	3	4	5
	Awkward or no traction		Moderate proper traction		Consistent proper traction
	Unable to expose		Abel to assist in exposure		Consistent proper exposure
	Rough with tissue/trauma		Abel to stabilize tissue but rough		Knows when to stabilize, gentle

Additional Comments:

11. Suture advance along annulus	1	2	3	4	5
	Uneven/irregular advance		Mostly even advance		Consistent even advance
	Irregular distance from previous bite		Mostly consistent distance from previous bite		Consistent distance from previous bite
	Too small or too large advance		Occasional small or large advance		Not too small or too large advance

Additional Comments:

12. Depth of bite	1	2	3	4	5
	Irregular entry/exit		Mostly regular entry/exit		Consistent regular entry/exit
	Hesitant, multiple punctures		Mostly single puncture		Consistent single puncture
	Skimming or too deep		Partially correct depth		Consistently correct depth

Additional Comments:

13. Situating mitral ring/prosthesis	1	2	3	4	5
	Unable to place into ring/cuff		Partially able to place into ring/cuff		Proper placement into ring/cuff
	Unable to mount needle		Hesitant in mounting needle		Proper mounting of needle
	Improper needle spacing		Partially appropriate needle spacing		Proper needle spacing

Additional Comments:

14. Knot-tying to seat ring/prosthesis	1	2	3	4	5
	Marked hesitancy, slow speed		Moderate facility, moderate speed		Consistent facility, no hesitancy
	No follow through		Intermittent follow through		Consistent follow through
	No able to tie, breakage		Able to tie and tension		Consistent tension and tight
	Loose or "air" knot		Concern about being loose		

Additional Comments:

15. Hand mechanics	1	2	3	4	5
	No pronation or supination		Incomplete pronation/supination		Able to modulate pronation/supination
	Awkward finger/hand motion		Hesitant finger/hand motion		Smooth, comfortable motion
	No wrist motion		Incomplete wrist motion		Smooth, appropriate wrist motion
	Awkward/not coordinated use		Moderately coordinated use		Smooth, seamless coordination
	Non-dominant hand neglect		Moderate use of non-dominant hand to assist/expose		Full use of non-dominant hand to assist/expose

Additional Comments:

16. Suture management tension	1	2	3	4	5
	Not use tension		Tension use inconsistent		Proper use of tension
	Sutures entangled		Sutures occasionally get in way		Sutures consistently not in way
	Not use tension to assist exposure		Partial use of suture tension to expose		Proper consistent use to expose

Additional Comments:

17. Economy of time and motion	1	2	3	4	5
	Marked hesitation		Some hesitation		No hesitation
	Not aware of goal		Some awareness of goal		Fully aware of goal
	Unable to do task		Able to do task but discontinuous		Able to do task smoothly

Additional Comments:

Level of Competence	1	2	3	4	5
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Overall	Pass	Fail
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General Definitions

1. **Poor:** unable to accomplish goal; marked hesitation
2. **Below average:** able to partially accomplish goal with hesitation
3. **Average:** able to accomplish goal with hesitation, discontinuous progress and flow
4. **Good:** able to accomplish goal deliberately, with minimal hesitation, showing good progress and flow
5. **Excellent:** able to accomplish goal without hesitation, showing excellent progress and flow