


INTERPROFESSIONAL COMMUNICATION AND FEEDBACK IN THE CARDIAC CATHETERIZATION LABORATORY

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INTRODUCTION: Background

- The Structural Heart Team works in a dynamic, fast paced, high procedural volume environment with multiple team members
- Highly recognized for successes in:
 - Heart & Vascular Accomplishments 
 - Patient outcomes
 - Patient satisfaction
 - Continued growth in procedural volume & innovative tech in the Cardiac Catheterization Laboratory (CCL) → increased complexity of CCL fellowship training

Aim/Purpose/Objectives

- Improve communication and feedback between fellows ↔ faculty
- Improve the effectiveness and efficiency of the CCL

METHODS: Interventions/Changes

- Explicitly defined CCL fellow's role by PGY status
 - Delineated levels of supervision x whom (attending, IC fellow)
 - Feedback frequency, formality, timing (pre-post procedure)
- Promote in office procedural consent - goal >70% outpatient
- Earlier procedural case assignment to the fellows
- Fellow confirmation of procedure and access site

METHODS: Measures/Metrics

- CCL data regarding volume, transition, and delays
- Clinical Learning Environment Quick Survey (CLEQS)
- Mayo Well-Being Index
- ACGME annual fellows survey re: feedback

FELLOW EXPECTATIONS/PROGRESSION

CARDIAC CATH LAB PGY Year and Rotation/Semester → Objectives w/ Levels of Supervision ↓	1 st Yr PGY4/fel2 No formal lab rot	2 nd Year PGY5/fel2				3 rd Year PGY6/fel3	Interv PGY7	
		1 st & 2 nd Blk	3 rd & 4 th Blk	5 th & 6 th Blk	1 st Sem		2 nd Sem	
Level of Supervision*		A	B	C	D	E	F	
Communication/feedback†		A	B	C	D	E	E	
MEDICAL KNOWLEDGE: ASSUMES PRIOR LEVEL KNOWLEDGE UNLESS OTHERWISE NOTED								
1. Coronary anatomy as pertaining to LV function and wall motion		1						
2. Coronary anatomy and role with patients presenting with Acute Coronary Syndrome		1						
3. Indications for invasive diagnostics		1						
4. Basic understanding Coronary Angiogram films and views <ul style="list-style-type: none"> Identification of view and projection Identification of coronary anatomy Identification of basic angiographic abnormalities 		1						
5. Procedural H&P, sedation note, AUC, consent <ul style="list-style-type: none"> 5.1. Procedural H&P, sedation note, AUC 			1					
6. Pertinent patient information; including prior surgical			1					
7. Review of prior angiogram results and/or images independently <ul style="list-style-type: none"> 7.1. Review of prior angiogram results and/or images with IC fellow/attending 			1		1			
8. Understanding of fluoroscopy and radiation safety			1					
PROCEDURAL SKILLS:								
20. Develop understanding in the setup, use, and interpretation of advanced equipment (ie. Atherectomy, Impella)							1	
20.1. Proficiency in appropriate coronary equipment selection							1	
20.2. Complete competency in setting up patient and equipment for procedure				1				
21. Proficiency in sterile scrub technique and procedural draping <ul style="list-style-type: none"> 21.1. Setting up procedural area: drape, manifold connections, zoll, etc 			1					
22. Development of proficiency in peripheral vascular equipment selection							1	
23. Independent conscious sedation administration					1			

* Level of supervision: A = Close, immediate oversight by the attending; B = Close, immediate oversight by the IC fellow and/or attending; C = Limited; D = Diagnostic studies-independent & Advanced/interventional procedures-Direct; E = Diagnostic studies-independent & Advanced/interventional procedures-Limited; F = Limited → Independent for diagnostic and advanced/interventional procedures
† Communication/feedback: A = verbal, before and after case. Write post op report with attending; B = verbal. Write post op report with attending/IC fellow; C = verbal, pre and post op brief with attending; D = verbal, in person, two-way assessment; E = verbal, in person, Pre-Post PCI brief;

RESULTS

CCL EFFICIENCY & EFFECTIVENESS*

- Perceived increase in outpatient CCL consents

CLINICAL LEARNING ENVIRONMENT QUICK SURVEY (CLEQS)*

- 7%-8% Decrease Fall 2019 to Feb 2021 in scores
 - Professional Candidness
 - Perceived level of respect in the CCL lab
 - Perceived teamwork effectiveness

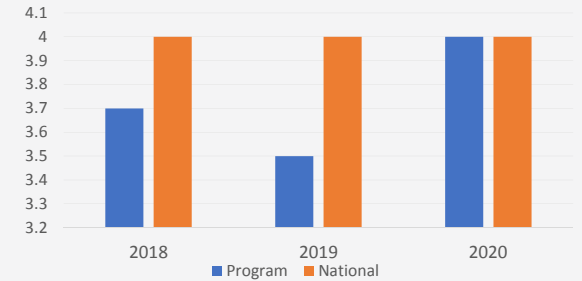
MAYO WELL BEING INDEX SCORES

- 0.42 Improvement in Cardiology Fellows score between Sept 2020 & Jan 2021
- Jan 2021 average score was 0.70 better than specialty rating

* Data results area composite of Attending Physicians, Fellow Physicians, Nurse Practitioners/Physician Assistants, Nurses, Radiology Techs, others

RESULTS: Continued

ACGME Fellow Perspectives re: Faculty Feedback



Top Obstacles Hindering Teamwork

- High volume & scheduling
- Pace and transition
- Hierarchical structure

Discussion

KEY FINDINGS

- Improvement on 3-4 metrics (small decrease in CLEQS)

LIMITATIONS

- Change in fellows, staff, and attendings in the lab during different times in academic year
- Data potentially impacted by pandemic – time away from CCL lab and then very active since restart

NEXT STEPS AND SUSTAINABILITY

- Continue to instruct all CCL stakeholders on fellows' roles and expectations
- Seek strategies to increase faculty/fellow investment in project and avoid stake holder burnout
 - Establish policies/ incentives to promote change