

Adapting to Change in Structural Heart Disease Training

Michael Mack, MD

Baylor Scott & White Health

Dallas, TX



Conflict of Interest Disclosure

Abbott- Co- PI of COAPT Trial of Abbott Vascular

Medtronic-Study Chair Apollo Trial

Edwards Lifesciences- Co-PI of PARTNER 3



How Have Most Operators and Centers Been Trained in Structural Heart?

Industry courses

Proctors

International meetings- London Valve, PCR, TVT, TCT

OTJ- “On the Job” Training

Non-certified fellowships with variable length and core curriculums



Do We Need Formal “Structured” Training in Structural Heart?

Structural heart is now a “specialty”

Although the current forms of training have served us well until now, future needs are going to require a more focused and comprehensive approach

This isn't all about TAVR

It's about

- Aortic Valve
- Mitral Valve
- Tricuspid Valve
- LAA
- Ascending Aorta
- LVOT/HOCM
- MCS
- Etc, etc, etc



Non-certified Structural Heart Fellowships For Interventional Cardiology in US

n=40

Banner	Henry Ford	UNC	Buffalo
Scripps	Minnesota	Rutgers	Case Western
UCLA	Mayo	Hackensack	Lankenau
UCSF	Minneapolis Heart	Lenox Hill	Brown
UCSD	Washington U	Columbia	Houston Methodist
Yale	MMHI	NYU	Baylor SW Plano
Miami	Dartmouth	U Washington	Carrillon
Emory	Duke	Prarie Heart	MGH
Rush	Johns Hopkins	Ochsner	Beaumont
Detroit	Boston U	Maryland	U Massachusetts



Non-certified Structural Heart Fellowships For Cardiac Surgery in US

n=10

Brigham & Womens	Medstar
Columbia	NYU
Emory	Penn
Baylor Scott & White Plano	UT Houston
Houston Methodist	University of Virginia



What Is Included in Fellowship Training?

Clinical decision –making (heart team approach) in valve clinics

Shared decision-making with patient

Skills in diagnostic imaging- Echo, CT, MR

Intra-procedural imaging skills

Procedural skills

Exposure to cardiac surgery procedures for cardiologists

Management of complications

Post procedural care

Research opportunities



Structural Heart Fellowships

Baylor Scott & White Health-Heart Hospital Plano



Karim Al-Azizi, MD
Interventional
Cardiologist

Anita Krueger, MD
Cardiac Surgeon

- Cover Structural Cases (1/2 TAVR Days Weekly)
- TAVR Clinic (One Half Day Per Week, Provide Opinion on Surgical/TAVR Candidacy)
- Mitral Clinic (One Half Day Per Week)
- Valve Service Responsibilities (Consults, Rounding, Discharges, etc)
- Attend/Present at Weekly TAVR Meeting
- Attend Monthly Mitral Meeting
- Surgical High Risk Conference
- Weekly Research Meeting
- Surgical Cases

Structural Heart Fellowships

Baylor Scott & White Health-Heart Hospital Plano



Structural Heart Fellowship- One Year Case Log

Interventional Cardiologist

Total Cases-436+

TAVR: 200

Watchman: 20

MitraClip: 16

PCI: 200+

Cardiac Surgeon

Total Cases: 273

TAVR: 161

MitraClip: 12

Additional Trans-Septal Punctures: 19

Mitral ViV/ViMAC: 6

BAV: 2

Tricuspid: 3

Surgery-68



Structural Heart Fellowships July 2021

Baylor Scott & White Health-Heart Hospital Plano

Interventional Cardiology

Cardiac Surgery

Imaging-Echo, CT, MRI, Intra-procedural Imaging



Proposed Future Structural Heart Training

One year structural heart fellowship

ACGME certified

Include all aspects of structural heart disease



Proposed ACGME Structural Heart Fellowship for SURGEON and CARDIOLOGIST

Pros

Preserves and promotes HEART TEAM

More cross collaboration – possibly the most effective training paradigm

Training would be DISEASE specific (i.e. valve specialists), not just TAVR

Unique paradigm multi-speciality ACGME certified training pathway...

Majority of knowledge and skills are common to both

Acceptance: Certificate recognized by cardiologists/surgeons.

Cons

Things are going pretty well right now

Most ambitious

Requires deconstructing current mindset and building from the ground up

Most likely more IC trained than surgeons

Requires extra year of training

Justify IC to train surgeons who may be competition

Surgeons start off behind IC w less wire skills... (but IC start off w less surgical skills... potential trade off)

Limited surgeon involvement

Example of Fellow Rotation Schedule

IC

July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
SH	CS	Cath	SH	SH	SH	Cath	SH	SH	SH	SH	Cath

CS

July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
CS	Cath	SH	SH	SH	SH	CS	SH	SH	SH	SH	CS

Interventionalist

CS: Cardiac Surgery- 3months

Cath: Diagnostic Cath- 1month

SH: Structural Heart- 8 months

Cardiac Surgeon

CS: Cardiac Surgery- 3months

Cath: Diagnostic Cath- 1month

SH: Structural Heart- 8 months



Structural Heart Training Summary

Structural heart disease is now a specialty within interventional cardiology and cardiac surgery

Although training until now has been sufficient, it is time to formalize training with a basic core curriculum and standardized comprehensive approach

Optimal way to preserve and foster the “heart team” approach is with a common fellowship

Myriad of “devilish details” to address including, burden of additional training, crossing departmental structure, financial...

