Developing a Successful TAVR Program/Clinic: The Team Approach

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The Heart Valve Center NYP-Columbia University Medical Center

- Collaboration between Department of Medicine and Surgery
- Vision is to create a world renowned multidisciplinary center for the treatment of valvular heart disease
- Provide a "one stop shop" for referring physicians and patients
- · Valve center brand is marketed both internally and externally

Essentials for a Successful Program

- Strong support from administration
- Programmatic goals
 - Short-term
 - Long-term

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- TAVR Team
 - Collaborative relationships between essential divisions and departments (Interventional Cardiology, CT Surgery, Nursing, Echo, Radiology, Vascular, Cardiology, Anesthesia)
 - Role designation/Processes for communication

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Essentials for a Successful Program

- Develop mechanisms for efficient evaluation
 - Valve clinic (multispecialty)
 - Inpatient service
 - Multidisciplinary roundsDedicated service attending
 - Access to advanced imaging
- Strong referral base within and outside institution
 - Maintain communication with referring providers

Team Based ApproachCADAS• Interventional• Interventional

- Cardiologist
- CT Surgeon
- Clinical Cardiologist
- PA/NP

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- Cardiologist

 CT Surgeon
- Clinical Cardiologist
- Cillical Calulologis

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- Imaging Specialist
- Anesthesia
- Intensivist
- Radiologist
- PA/NP

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How to Form the Team?

- · Find interested motivated individuals
 - 'cutting edge'
 - Generally earlier in career
- Focus on treating valve/structural disease
- Not TAVR vs. sAVR, TA vs. TF
- Align organization and incentives
 - All benefit from treating patients
 - Allows unbiased decisions

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Who/What Do You Need?

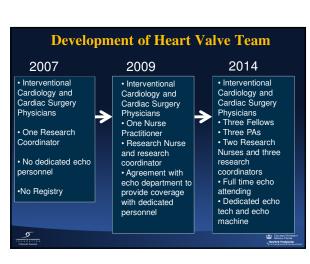
- Collaborative environment
 - Joint evaluation by CT Surgery and Interventional Cardiology
 - Essential input from an experienced Echocardiographer
- Program coordinator(s)
 - NP/RN/PA
 - Facilitate efficient evaluation
 - Patient triage
 - Assist with clinical oversight and communication with referrings

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- Patient/family education
- Administrative support
 - Dedicated phone line with "live" coverage
 - Database to track patients, referring physicians etc.
- Medical assistant(s)

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Who Should Do TAVR?

- · Only well trained qualified individuals
- This is done as a team
 - Not a single operator procedure
 - Focus needs to be on catheter skills
 - Surgical skills must be available
 - Best served by having multiple expertise
 Interventional Cardiologist/ Cardiac Surgeon
 Echo, anesthesia, nursing
- Team is ideally a formal structure

TAVR Procedural Requirements

- Hybrid OR and/or Cath Lab
 - Location will vary from institution to institution
 - Necessary surgical and interventional equipment must be available in either location
 - Cardiopulmonary bypass on stand-by
- Staff education and training
 - Core group to "own" TAVR procedures
 Cath lab/OR cross-training
 - Scrub/circulating nurse roles
 - Create familiar environment for staff
 Worst-case scenario planning
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Pivotal Processes

- Referral Management
 - Telephone Triage /Scheduling
 - Receipt and review of records
 - Communication

Clinical Management

- Valve Clinic oversight
- Evaluation/ Patient/family education/consent process
- Inpatient Service

Team Communication

- Regular team meetings
- Operations
- Patient review
- Coordination of procedures
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Inpatient Valve Service

- Dedicated service to facilitate management of the TAVR patient population
- Standardize protocols for post procedural patient management
 Include PAs, NPs, RNs, Fellows (surgery and interventional)
- Identify key sub-specialty consultants
- GI, Neurology, EP, Pulmonary, Psychiatry, etc
- Strong relationships with ancillary services
- Social workers
- PT, OT
- Continued communication with referring physicians during inpatient stay
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Expectations

Patients

- Easy access to appointments
- They will be seen on time
- All questions will be answered
- A decision will be made that day
- They will leave happy

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Reality

- Appointment within 10 days
- ✓ AS/TAVR discussion is long - We are sometimes on time
- ✓ We try and answer ALL questions
- ✓ We CAN Have an answer that day
- They usually leave happy

Who Should be in Valve Clinic? EVERYONE

- Surgeon
- Cardiologist/Interventionalist
- TAVR Coordinator (PA/NP)
- ECHO Attending
- Research Team
- Registry Coordinator
- Medical Assistants
- Front Desk Personal

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Components to a Successful Clinic

- Chart Review PRIOR to appt
- Calc STS, review studies, Cheat Sheet
 Registration materials mailed prior to appointment
- Obtain ALL images/reports prior to appt and review PRIOR to seeing the patient
- Have any additional testing done at your facility PRIOR to appt - Repeat ECHO, PFTs, etc.
- · Hardware/Software for image review

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- · Plan formulated and all tests scheduled at end of visit
- Referral MDs called/letter mailed within 24 hours of visit
- · Dedicated database to track patients and referral patterns

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Team Approach

- Having the ENTIRE Team in Clinic will aide
 in the clinical decision making process
- Seen by Interventional Cardiologist and Cardiac Surgeon during same initial visit
- Begin Research and Registry requirements

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 This will ease the decision process and will please the patient by having the answer in the SAME day

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Summary: Strategies for Success

- Identify Team Members and Role Designation
- Formalize

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- Processes for managing referrals and evaluating patients
- Operational structure
- Establish relationships between essential divisions
 Communication channels
- Standardize communication channels
- Follow up requirements
- Expect speed bumps and be prepared for frequent adjustments along the way

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STATE-OF-THE-ART PAPER	
The Heart Team of Cardiovasc	
David R. Holmes, Jr, MD,* Jeffrey B. Rich, MD,†	William A. Zoghbi, MD,‡ Michael J. Mack, MD
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David R. Holmes, Jr, MD,* Jeffrey B. Rich, MD,† Rochester, Minnesola; Norfold, Virginia; and Houston The management of complex cardiovascular disease has gets of case. In increasing amount of scientific editories	William A. Zoghbi, MD,‡ Michael J. Mack, MD and Dallas, Texas changed markedy with the development of new strate- backed data and appropriate use criteria. Applying this
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