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

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

Team Based Approach

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

AS
- Interventional Cardiologist
- CT Surgeon
- Clinical Cardiologist
- Imaging Specialist
- Anesthesia
- Intensivist
- Radiologist
- PA/NP

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

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

Development of Heart Valve Team

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<th>Year</th>
<th>Interventional Cardiology and Cardiac Surgery Physicians</th>
<th>One Research Coordinator</th>
<th>No dedicated echo personnel</th>
<th>No Registry</th>
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- Interventional Cardiology and Cardiac Surgery Physicians
- One Research Coordinator
- Agreement with echo department to provide coverage with dedicated personnel
- Dedicated echo tech and echo machine
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

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

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
HEART VALVE CLINIC

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

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
- Medical Assistants
- Front Desk Person
Components to a Successful Clinic

- Chart Review PRIOR to appt
  - CalcSTS, 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
- 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

Organization is Key!

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
- This will ease the decision process and will please the patient by having the answer in the SAME day
Summary: Strategies for Success

- Identify Team Members and Role Designation
- Formalize
  - 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

The Heart Team is Here to Stay

The Heart Team of Cardiovascular Care

David R. Holmes, Jr, MD,* Jeffrey B. Rich, MD,† William A. Zoghbi, MD,‡ Michael J. Mack, MD,
*Richmond, Minnesota, Nefsky, Virginia, and Houston and Dallas, Texas

The management of complex cardiovascular disease has changed dramatically with the development of new strategies of care, an increasingly active service-oriented environment and outcomes may affect, making this philosophy of care more complex. The American College of Cardiology Foundation, in collaboration with the American Heart Association, has established a set of guidelines for the care of patients with cardiovascular disease. The Heart Team is a multidisciplinary group of experts who work together to provide the best possible care for patients. The Heart Team approach is a comprehensive, evidence-based, and patient-centered care model that involves the integration of medical, surgical, and other services. The Heart Team is a multidisciplinary group of experts who work together to provide the best possible care for patients. The Heart Team approach is a comprehensive, evidence-based, and patient-centered care model that involves the integration of medical, surgical, and other services. The Heart Team is a multidisciplinary group of experts who work together to provide the best possible care for patients. The Heart Team approach is a comprehensive, evidence-based, and patient-centered care model that involves the integration of medical, surgical, and other services.

The Heart Valve Center Team
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