Heart Team Approach

April 17, 2019
Nora Brown APRN.CNS
Valve Nurse Coordinator
Evolution of TAVR Program: Cleveland Clinic

- 2006: BAV
- 2007: REVIVAL TF
- 2008: REVIVAL TA
- 2009: PARTNER Cohort A&B
- 2010: PARTNER Registry
- 2011: PARTNER IIB, IIA, TA-IIB
Heart Team Approach

- Background
- Characteristics of Multidisciplinary Team
- Conference Room Logistics
- Benefits and Barriers MHT
- Patient’s Perspective
Treatment Modality Selection
Patient with Aortic Valve Stenosis

- Technological Advancement
- Feasibility Investigational Trial
- Fragile Patient Population
- Life Limiting Illness

Sharing Opinions and Expertise
Concept of Heart Team
Gaining Momentum

• Widely discussed in published literature

• Highlighted at scientific conferences

• Prominently incorporated into professional society guidelines

A Joint Report of the American Association for Thoracic Surgery, American College of Cardiology, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons

Decision Summary

The Centers for Medicare & Medicaid Services (CMS) proposes to cover Transcatheter Aortic Valve Replacement (TAVR) for the treatment of symptomatic aortic valve stenosis through Coverage with Evidence Development (CED).

A. TAVR is covered for the treatment of symptomatic aortic valve stenosis when furnished according to a Food and Drug Administration (FDA)-approved indication and when all of the following conditions are met:

1. The procedure is furnished with a complete aortic valve and implantation system that has received FDA premarket approval (PMA) for that system’s FDA approved indication.
2. One cardiac surgeon has independently examined the patient face-to-face, evaluated the patient’s suitability for surgical aortic valve replacement (SAVR), TAVR or medical or palliative therapy, and has documented the rationale for their clinical judgment, and the rationale is available to the heart team.
3. The patient (preoperatively and postoperatively) is under the care of a heart team: a cohesive, multidisciplinary, team of medical professionals. The heart team concept embodies collaboration and dedication across medical specialties to offer optimal patient-centered care. The heart team includes a cardiac surgeon and an interventional cardiologist experienced in the care and treatment of aortic stenosis and includes providers from other physician groups as well as advanced patient practitioners, nurses, research personnel and administrators.
4. The heart team’s interventional cardiologist(s) and cardiac surgeon(s) must jointly participate in the intraoperative technical aspects of TAVR.
Multidisciplinary Team (MDT)

A comprehensive MDT is mandatory for a TAVR program

RATIONALE:
No one individual, group, or specialty possesses all the necessary skills for optimal patient outcomes

Source: 2018 AATS/ACC/SCAI/STS Expert Consensus Systems of Care Document
2017 ACC Expert Consensus Decision Pathway for TAVR
Heart Team Approach
TAVR Warrants a Comprehensive Program

- Interdisciplinary infrastructure
- Complexities of patient population
- Expertise required to perform procedure
“Getting the Details Straight”

IMAGING GUIDELINES

RISK STRATIFICATION

FUNCTIONAL CAPACITY

Figure 1
Choice of TAVR Versus Surgical AVR in the Patient with Severe Symptomatic AS

Severe AS
Symptomatic
(stage D)

Class I

Class IIa

Class IIb

Low surgical risk

Intermediate surgical risk

High surgical risk

Prohibitive surgical risk

Surgical AVR
(Class I)

Surgical AVR
(Class IIa)

TAVR (Class IIa)

Surgical AVR or TAVR
(Class I)

TAVR (Class I)

TAVR Referral

Initial Assessment

AS not severe or symptoms not due to AS

Periodic Monitoring

Functional Assessment

Life expectancy <1 yr or other factors suggestive of futility

Palliative Care Discussion

Overall Procedural Risk

Proceed to TAVR OR SAVR*

TAVR = transcatheter aortic valve replacement

*per current AHA/ACC Guideline for the Management of Patients with Valvular Heart Disease

Abbreviations:
AS = aortic stenosis, AVR = aortic valve replacement, TAVR = transcatheter aortic valve replacement
Heart Team
Systematic Approach

I. Patient Selection

II. Joint Processes of Care

III. Multidisciplinary Collaborative Agreements

IV. Optimal Outcomes

Source: Agarwal, et al, J Am Heart Assoc. 2015, Oct 4
Heart Team Approach
Organized Screening

Cleveland Clinic
Patient Workflow

THV Referral Line (external)
TAVR Consult Order (internal)

Consultation Interventional Cardiologist (4),
Imaging Cardiologist (4) or Clinical Cardiologist (1)
Echo, CTA, Labs, PFT
(CT, Cardiac MRI, TEE)
Catheterization if necessary

Evaluation by Cardiac Surgeon (4)
TAVR Clinic Visit (3)
Frailty Assessment

Discussion of Patients in
once a week Team Meeting
Heart Team Approach
Performance of Procedure

Complex Interplay of Cognitive and Technical Skills
Surgical Expertise, Vascular Access, Catheter Based Skills
(device delivery and placement)

Follow up Assessments
Patient may not have decision at first meeting presentation
“What exactly is a Heart Team”

- **Structural Interventionalist**
  - TAVR feasibility
  - Options for CAD
  - Other Valve Disease

- **Imaging Cardiologist**
  - Vascular Imaging
  - Severity of AS

- **Cardiac Surgeon**
  - Feasibility of SAVR
  - Treatment for other valves

- **Vascular Access**
“Integrated, active, decision making between groups of physicians with diverse expertise”

- Structural Interventionalist
  - TAVR Device Selection Options for CAD
  - Other Valve Disease

- Cardiac Surgeon
  - Surgical Risk Assessment
  - Treatment for other valves

- Imaging Cardiologist
  - Vascular Imaging
  - Severity of AS

- Vascular Access

- Consensus
  - Weigh Treatment with Risk Complex Clinical Tradeoffs
  - Value Judgments
  - Integration of Multiple Data Sources (MV repair, carotid revascularization)
Key Elements of Decision Making

• Patients are informed of the MT’s recommendations regarding treatment options.

• Program incorporates best practices for educating patients

• Program implements patient-family Shared Decision Making (SDM), including patient preferences
MDT: Patient Perspective

Source: Bate, et al (Oct 2017) Patients Perspectives on National MDT

• Educate Function of MDT
  - How is it organized
  - What is discussed
  - Issues related to time and commencement of treatment

• Involvement in Decisions
  - Decisions made with knowledge of patient’s personal life
  - Overwhelmed with amount of information provided
  - Not always told all information

• Effective Communication
  - Disconnect between primary and secondary practitioner
  - Being able to contact members of the MDT
## MDT: Patient Centered

<table>
<thead>
<tr>
<th>PATIENT INVOLVEMENT</th>
<th>COMMUNICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient’s views should be included in the decision making process</td>
<td>Education tools to enhance patient choice (Shared Decision Making) and communication</td>
</tr>
</tbody>
</table>
| Presented by clinician who has met them | Decision aides:  
- Increase patient’s knowledge  
- Improve patient-clinician discussions  
- Influence treatment decisions |
Shared Decision Making
Patient’s Values and Preferences

Patients should:
1. Be well-informed regarding their options
2. Understand the risks and benefits including data that are patient specific as possible
3. Articulate their treatment and recovery-related goals
4. Identify preferences and values related to their care
5. Integrate all of the above to make a final treatment choice

Source: 2018 AATS/ACC/SCAI/STS Expert Consensus
Shared Decision Making
Patient’s Values and Preferences

CMS actively promotes SDS process to enhance beneficiary engagement and incentive

Development of teaching tools to aid TAVR programs to ensure meaningful patient participation
- Paper leaflets
- Web-based videos

Source: CardioSmart
Key Elements of Decision Making

1. Patients are evaluated by the MHT once testing done

2. The MHT incorporates relevant guidelines and appropriate use criteria for all forms of care for VHD
   - THV
   - Cardiac Surgery
   - Medical Surveillance
   - Palliative Care
Heart Team: Benefits

• Broader input by different physicians into a complex decision-making process

• Minimize “fragmented” decision making
Heart Team: Benefits

- Improve timeliness and consistency of decisions
- Allow more intricate and patient-centered treatment plans to be developed
Heart Team: Benefits

- Provides education & training for team members
  - Case discussions
  - Image reviews

- Problem solving / process improvement
  - Enhance imaging protocols
  - Redesign clinical pathways
Heart Team: Benefits

• Promotes Research Activity
  - Enhance enrollment
  - Continued awareness

Structural Heart Clinical Trials

**EARLY TAVR**

2017

**Sponsor:** Edwards Lifesciences

**Status:** site initiation

Evaluation of Transcatheter Aortic Valve Replacement Compared to Surveillance for Patients with Asymptomatic Severe Aortic Stenosis: EARLY TAVR trial

**Objective:** to establish safety and effectiveness of Edwards SAPIEN 3 (Edwards Lifesciences, Irvine, CA) Transcatheter Heart Valve (THV) compared with clinical surveillance (CS) in asymptomatic patients with severe, calcific aortic stenosis
Heart Team: Benefits
Interprofessional Teamwork

Effective Communication breaks down professional barriers which leads to:

1. Resolution of Inter-team Conflicts
2. Promotes positive interpersonal relations
3. Improves Interprofessional communication
Heart Team: Barriers

• Engagement of physicians into a complex decision making process

• Ensuring a streamlined process
  - Integrate & summarize input from multiple viewpoints
  - Systematic manner

• Ensure accurate communication of discussions
Heart Team: Barriers

- Resource Intensive
  - Case Booking / Case Preparation
  - Audiovisual / Imaging Review
  - Detailed information needs to be synthesized and communicated
  - Attendance / Concurrent clinical commitments
MHT Meeting Preparation

• Case Preparation prior to meeting

• “Buddy System”

• Standardized Pro Forma for recording information

• Protocol-driven recommendations

• Emphasis on patient choice and preferences

Source: Sarkar et al, J Clinical Urology, 2014, Vol 7(6)
Case Preparation

The governing aspect of the MDT discussion relies upon quality information and effective audiovisuals.

“AGENDA”

Daily Working Tool
Various Avenues
Defined Parameters

Members need to come prepared
Meeting Format

The governing aspect of the MDT discussion relies upon quality information and effective audiovisuals.
Decision Making as a Team to Determine Best Option for the Patient
One Common Goal

Sit in a room and ask, “What is better for the patient?”
Standardized Pro Forma

Synthesize detailed and complex information in an effective manner
Heart Team Recommendations

Post Meeting Summaries

• Medical Record
• Team Summary
• Correspondence to Primary Care
• Need to also clearly report why treatment was not adopted i.e. co-morbid status
Shared Goals

• Constant Communication
• Everyone is Involved
• Openness to Learn Across Specialty Lines
• Flexible
• High Performers w/o Egos
Shared Team Values

Honesty

Discipline

Creativity

Humility

Curiosity

“IT’S NOT HARD TO MAKE DECISIONS WHEN YOU KNOW WHAT YOUR VALUES ARE”

- ROY DISNEY

SOURCE: DAIC, JUL 17, 2015
Role Delineation

Understand each member’s scope of practice and how each role compliments each other

Putting the Jigsaw Puzzle Together
Relationship between Team Members

• Collaboration
• Respect each other’s role and contributions
• Support and Recognition
• Mutual Trust

Spend 90% of our days together (Clinic, Phone, In Person, Meetings, etc.)
Team Leader

Leadership should be flexible, reflecting the needs of the patient at a particular time

• Team Leader:
  - team member with the greatest knowledge and experience for the task at hand

• Ultimate Leader: PATIENT
  - Patient determines goals
  - Informed patient in consultation w/ family

It is up to the TEAM to constructively engage the patient
Team Leadership

• No Single Captain:
  - Decided Therapeut

• Leader
  - Avoid hierarchies
  - Avoid power differences

• Team Leadership:
  - Well defined team objectives
  - High level team participation
  - Distinct direction & management
  - Commitment to excellence
Team Perspective
“Can” does not equal “Should”

• Cohort C:
  - Age
  - End organ dysfunction
  - Comorbidities associated with reduced survival

• Frailty:
  - Decreased physiological reserve
  - Decreased resistance to stressor
  - Slowness, weakness, poor endurance, low activity level

• Referral to Palliative Care
Heart Team Strategies

Key Takeaways
Rule #1: Be on the Same Page

As a TEAM … **WE** can decide together what is the best option for the patient.

- Contributions of all team members
- Understand rigors of one another’s specialties
- Different terms and perspectives
Rule #2: Outcomes

GOOD Outcomes result from GOOD JUDGMENTS

Patient Selection

- New Technologies
- Difficult Pathologies
- No More “Eyeball” Test

Heart Team: no longer on an island making judgments by yourself
Rule #3: Primary Driver

**Patient Benefits**

- Symptom Resolution
- Improvement QOL
- Return to Independent Living
“Step Back & Take a Deep Breath”

Biggest Merit of Working Side-by-Side

Honest dialogue in all circumstances
- Struggles
- Procedural obstacles
- Undesirable effects

TRUE CAMARADERIE
Cleveland Clinic

Every life deserves world class care.