LITERATURE HIGHLIGHTS

Evaluating the Role of Multidisciplinary Heart Teams in Cardiovascular Medicine

Dr. Wayne B. Batchelor and colleagues review the history, composition, and challenges of the cardiovascular MDHT and present best practices for its use.

In an expert panel paper, Batchelor et al considered the cardiovascular multidisciplinary heart team (MDHT): its history and evolution, team structure and role in a range of clinical scenarios, best practices for operation, and potential challenges. The study was published online in *JACC: Advances*.[1]

Modeled after its use in cancer care and solid organ transplantation programs, MDHTs for cardiovascular medicine are a crucial component to care models for complex diseases across the spectrum of cardiovascular subspecialties.

Batchelor et al note that at its core, an MDHT prioritizes the patient. The MDHT is made up of the core health care professionals involved in the patient's routine evaluation and treatment and any relevant extended members, both of which vary depending on the clinical scenario. Each team must have the necessary collective expertise and be flexible enough to adjust to individual patients.

Cardiovascular MDHTs are routinely used in various scenarios, including but not limited to valvular heart disease, myocardial revascularization decisions (percutaneous coronary intervention vs coronary artery bypass grafting), advanced heart failure and cardiac transplantation, adult congenital heart disease, cardio-oncology, cardio-obstetrics, and geriatric cardiology. Discussion of and clinical case examples for the MDHT in each scenario are outlined in the *JACC: Advances* article.

The overall value of the cardiovascular MDHT lies in an ability to consolidate input from multiple experts to provide up-to-date informed treatment recommendations that are not present in the current care guidelines for complex patients, as well as new and emerging treatments.

As outlined in the article, core responsibilities of the MDHT are as follows:

1. Gather team member input and feedback.
2. Establish the final MDHT treatment plan.
3. Ensure effective communication between MDHT, patients, and providers.
4. Review program metrics (procedural volume, clinical outcomes/quality improvement [QI] processes).
5. Review program billing, coding, and finances.
6. Track research site performance.
7. Ensure that team members are kept up to date with treatment guidelines and/or other relevant developments in the field.

Key principles include strong team leadership, mutual respect between team members, consistency in workflow and team member tasks, clear delineation of roles of team members, regularly scheduled case review meetings, regularly scheduled QI and morbidity/mortality meetings, and patient-centeredness.

The main challenges facing the cardiovascular MDHT are the lack of data on its effectiveness in improving patient outcomes and a need for standardization in the composition, definition, and function of these teams.

KEY FINDINGS

- Cardiovascular MDHTs play a central role in the treatment of a wide range of cardiovascular diseases by filling in the gap left by established care guidelines and providing up-to-date recommendations for complex patients.
- Future research on cardiovascular MDHTs needs to define best practices, determine the best scenarios for use of the MDHT, and evaluate the benefit of the MDHT on patients and the heart team itself.

Other hurdles include logistical concerns due to the number of people involved in an MDHT, the potential lack of collective expertise and subspecialization, the need for a reimbursement structure for the time spent by members of the MDHT, and the increasing number of clinical scenarios requiring input from the team.

Although future research efforts need to further define best practices, which scenarios benefit most, and the extent to which MDHT care improves treatment decision-making, team member efficiency and satisfaction, and patient outcomes, the MDHT is and will remain a central element of successful cardiovascular care delivery, noted the authors. ■

1. Batchelor WB, Anwaruddin S, Wang D, et al. The multidisciplinary heart team in cardiovascular medicine: current role and future challenges. JACC Adv. 2023;2:100160. doi: 10.1016/j.jacadv.2022.100160

CARDIAC INTERVENTIONS TODAY ASKS…

Lead author Wayne B. Batchelor, MD, MHS, with Inova Heart and Vascular Institute in Falls Church, Virginia, provides further insight into the MDHT's value and how to approach some of the challenges facing MDHTs.

What are the first steps to establishing an MDHT? What advice would you share with clinicians embarking on this endeavor for the first time?

The first steps are to define the scope of the MDHT and for what disease scenarios it will be used. This may vary across institutions according to local expertise and clinical need. The next step is to decide on the core members of the MDHT, how and when it will meet, and its primary goals (eg, case review, tracking quality metrics, volume, research). The final step is to agree on the roles and responsibilities of each team member, including how cases will be reviewed and final decisions rendered.

One challenge for MDHTs noted in the article is the reduction of health care disparities in terms of race/ethnicity, gender, age, rurality, and social determinants of health. Can you elaborate on how MDHTs can make an impact here?

MDHTs can and should intermittently review case volume according to race, ethnicity, gender, and rurality to understand to what extent they are effectively serving their entire surrounding community. This may identify unrecognized disparities in care that should trigger further investigation to understand how certain groups are being systematically undertreated. This may lead to specific interventions such as community outreach and/or targeted education of key referring physicians to understand where there may be opportunities to close the gap. Artificial intelligence (AI)—through the use of cardiac intelligence software, natural language processing, and machine learning—holds promise for identifying untreated patients. However, the incremental value of AI in this setting has yet to be proved.

How can discordant recommendations among the MDHT, another potential challenge, be avoided?

The best way to avoid discordant recommendations is to prevent them from happening. Therein lies the importance of clearly establishing how discordance will be dealt with within the MDHT at the point of initiating its operation. This may vary from a completely democratic process (majority opinion rules) to other scenarios where a small number of influential providers decide on final recommendations. Although there are no data to suggest that a particular decision-making process is superior to another, if the voices and opinions of all parties are not heard, respected, and taken into account, the harmony and overall effectiveness of the MDHT may be severely compromised.

Regarding future research of MDHTs in the cardiovascular realm, what are the immediate next steps?

We need to establish best practices for MDHTs. We hope that our review article helps serve this purpose, but there is much more to do. For example, how can we measure the effectiveness of the MDHT, both for patients and team members? This will require a combination of creative research designs, starting with surveys that help identify MDHT practices that are viewed as most effective and associated with the highest level of team member satisfaction. Surveys may also help identify impediments and areas of frustration. However, we also need research studies that attempt to measure the impact of MDHTs on patient outcomes and satisfaction. This is more difficult given that this type of research is not easily prone to experimental designs. We can take a lesson from our oncology colleagues, because there is more work published on the effectiveness of multidisciplinary cancer teams than heart teams.