



BREAKOUT SESSION DISCUSSION QUESTIONS

SESSION 1: CURRENT STANDARDS AND FRONTIERS

Group 1: Hypertrophic Cardiomyopathy Diagnostics

Lead moderator: **Steve R. Ommen**

Group 1 members: Pavan Atluri, Nicole Bhave, Kemar Joseph Brown, Allison Cirino, Sharlene Day, Christopher Kramer, Sherif Nagueh, Koen Nieman, Steffen Petersen, Andrew Wang, David Zhao

1. What are the barriers to recognition of hypertrophic cardiomyopathy, and what can we do to systematically address those barriers?
2. What is most often overlooked on diagnostic imaging for hypertrophic cardiomyopathy, and how can awareness be raised to improve this?
3. How can we increase access to genetic counseling and expertise? How can we expand expertise related to genetic counseling?

Group 2: Sudden Cardiac Death Risk Stratification and Arrhythmia/Device Management

Lead moderator: **Mahesh A. Chandrasekhar**

Group 2 members: Eugene Chung, Mark Link, Martin Maron, Matthew Martinez, William McKenna, Nidhi Rohatgi, Joseph Rossano, Lisa Salberg, Leo Stevenson, Jason Wasfy

1. What are the limitations of sudden cardiac death prevention from the clinician, system, and patient perspective(s)?
2. How do we provide guidance around emerging risk factors for the prevention of sudden cardiac death (e.g., ejection fraction, aneurysm, late gadolinium enhancement, and genetics)?
3. How should different sudden cardiac death risk calculators be utilized? What mechanisms could be employed to make the risk calculators more readily accessible for clinical use?
4. What opportunities are there to enhance arrhythmia and device/management for hypertrophic cardiomyopathy?



Group 3: Hypertrophic Cardiomyopathy Therapeutics

Lead moderator: **Daniel Jacoby**

Group 3 members: Tariq Ahmad, Piper Dankworth, Nihar Desai, Preston Dunnmon, Jay Edelberg, Amy Friedrich-Karnik, Srihari Naidu, Anna Rodonski, Sara Saberi, Nicholas Smedira, Cynthia Waldman

1. How do we disseminate guidance around uptake of novel therapies versus utilization of standard-of-care therapies for patients with hypertrophic cardiomyopathy?
2. How can we support access to new and potentially expensive hypertrophic cardiomyopathy therapies in different patient populations and clinical settings?
3. What are the best options for clinical trial end points of hypertrophic cardiomyopathy interventions, considering symptom management and disease modification?

Group 4: The Spectrum of Heart Failure Management in Hypertrophic Cardiomyopathy

Lead moderator: **Meghan E. Emig**

Group 4 members: D. Marshall Brinkley, Michael Clark, Margaret Collins, Leslie Davis, Olivia Gilbert, Michelle Kittleson, Neal Lakdawala, Ahmad Masri, Dermot Phelan, Alex Vosooney

1. What are the similarities and differences compared to obstructive versus non-obstructive hypertrophic cardiomyopathy in terms of symptoms, prognosis, and management?
2. As medical management and prognostication of heart failure has rapidly progressed in recent decades, what can we glean for improved management of hypertrophic cardiomyopathy?
3. What are the barriers to recognition of advanced heart failure in hypertrophic cardiomyopathy, and how can we address them?
4. Specific to symptom management of heart failure in hypertrophic cardiomyopathy, what guidance can we provide on the benefit of physical activity? As data is sparse, what can we do to fill the gap?



SESSION 2: POPULATION HEALTH- CREATING THOUGHTFUL AND EFFICIENT PATHWAYS FOR SUCCESS

Group 5: National System

Lead moderator: **Olivia N. Gilbert**

Group 5 members: Nicole Bhave, D. Marshall Brinkley, Nihar Desai, Preston Dunnmon, Jay Edelberg, Michelle Kittleson, William McKenna, Steve Ommen, Steffen Petersen, Leo Stevenson, Jason Wasfy

1. How do geography, expertise, and costs influence care access and therapy choice for patients with hypertrophic cardiomyopathy?
2. How will ongoing corporatization of medicine affect access to care for these patients?
3. How can novel technologies (such as telehealth, artificial intelligence, remote monitoring, and electronic health records) and payer models help with access, costs, and disparities for patients with hypertrophic cardiomyopathy?
4. What are relevant considerations for payers regarding cost effectiveness for hypertrophic cardiomyopathy management (diagnostics and therapeutics)?
5. What opportunities are there for industry partnership to promote hypertrophic cardiomyopathy diagnosis and treatment?

Group 6: Local System (Hospital-Level)

Lead moderator: **Daniel Jacoby**

Group 6 members: Tariq Ahmad, Meghan Emig, Christopher Kramer, Neal Lakdawala, Ahmad Masri, Sherif Nagueh, Srihari Naidu, Koen Nieman, Sara Saberi, Lisa Salberg

1. What are appropriate thresholds for referral to hypertrophic cardiomyopathy specialty centers with regard to diagnostics (such as cardiac MRI) and therapeutics (such as novel therapies)?
2. How can we improve communication and support between multidisciplinary specialty centers and non-specialty centers in caring for hypertrophic cardiomyopathy patients? How can remote monitoring, telehealth, and digital communication platforms (e.g., Zoom, Webex) be introduced and/or supported to help with this?
3. What are the incentives and hurdles faced by health systems for development of hypertrophic cardiomyopathy expertise? What are solutions to overcome these?
4. Can we provide guidance on collaboration between disciplines for optimal multidisciplinary management (e.g., patient entry point EP, surgery, genetics, imaging, and ultimate referral for comprehensive evaluation)? How might this guidance vary in hypertrophic cardiomyopathy specialty centers versus non-specialty centers?



Group 7: Clinician

Lead moderator: **Martin S. Maron**

Group 7 members: Pavan Atluri, Kemar Joseph Brown, Michael Clark, Margaret Collins, Leslie Davis, Anna Rodonski, Nidhi Rohatgi, Nicholas Smedira, Andrew Wang, David Zhao

1. What are clinician and patient incentives and disincentives for referral to hypertrophic cardiomyopathy specialty centers? What would inhibit clinicians from referral to these centers?
2. What training opportunities would be most beneficial for enhancing hypertrophic cardiomyopathy diagnostics and treatment, considering both medical and surgical providers?
3. How do we promote diversity among hypertrophic cardiomyopathy specialists?
4. How do we streamline communication between referring centers and primary and multidisciplinary hypertrophic cardiomyopathy centers?
5. What educational tools and novel technologies could improve guideline-directed care?

Group 8: Patient

Lead moderator: **Sharlene M. Day**

Group 8 members: Mahesh Chandrasekhar, Eugene Chung, Allison Cirino, Piper Dankworth, Amy Friedrich-Karnik, Mark Link, Matthew Martinez, Dermot Phelan, Joseph Rossano, Alex Vosooney, Cynthia Waldman

1. How do we address access to care gaps within disparate populations, particularly for women and minorities?
2. How should we think about patient reported outcomes in terms of quality and program improvement for hypertrophic cardiomyopathy specialty centers? What are the right metrics to capture patient reported outcomes?
3. How can we best guide physical activity in patients with hypertrophic cardiomyopathy?
 - a. What does low to moderate activity look like?
 - b. How do we best support and advise the hypertrophic cardiomyopathy athlete?
 - c. How do we optimize shared decision-making?
4. What are the opportunities and challenges patients face regarding advocacy efforts for insurance coverage, clinical trials, health policy and clinical structure related to the management of hypertrophic cardiomyopathy?
5. What psychologic and emotional considerations should clinicians consider, and what are the mechanisms to address those factors?