

Session Title:**Heart Failure management across the continuum of care**

Speakers: Sabine Gempel PT, DPT, CCS, Brady Anderson, PT, DPT, CCS; Mrudula Munagala, MD

Session Description: This session will explore updates to heart failure (HF) medical management across the continuum of care- from the intensive care unit (ICU) to outpatient Cardiac Rehabilitation (CR). Medicare added HF as a CR covered diagnosis in 2014, however this only covers a minority subset of patients with HF because they require an ejection fraction (EF) of $\leq 35\%$ (1). The prevalence of heart failure reduced ejection fraction (HFrEF) is similar to HF preserved ejection fraction (HFpEF) and the incidence of HFpEF continues to rise (2). While patients with HFpEF have few therapeutic options, we will present evolving research on medical management via pharmacology (SGLT2 inhibitors)(3-4) and implantable devices for cardiac contractility modulation (Optimizer)(5). Additionally, exercise programs such as CR have shown positive outcomes for both subgroups of HF on hospitalization, quality of life, aerobic capacity, cardiac function, and potentially mortality (2,6). Lastly, we will address best practices and emerging strategies for assessment and treatment for physical therapists treating patients with HF in either setting. This will include the use of blood flow restriction (BFR), inspiratory muscle training (IMT), expiratory muscle training (EMT), the PT role in multidisciplinary management of critically ill patients on mechanical circulatory support (MCS), thoracic ultrasound, and education (7-8).

Objectives:

1. The audience will be able to identify differences in the pathophysiology and medical management between HFrEF and HFpEF.
2. The audience will be able to discuss new advances in HF management, both from a medical and physical therapy perspective.
3. The audience will be able to discuss the benefits of CR on patient health outcomes.
4. The audience will be able to discern when to incorporate additional interventions such as BFR and respiratory muscle training into the plan of care for patients with HF.

What will be the clinician/educator takeaways/skills that can be utilized immediately?

The clinician will gain the knowledge needed to advocate for best practices for their patients with HF. The clinician will be able to appropriately and safely implement additional physical therapy interventions into their practice from the ICU to the outpatient setting. The clinician will be able to be a more effective interdisciplinary team member when discussed patients with HF. The educator will be able to better educate their students on

current updates to HF patient management as well as possible advances coming in the near future.

Speakers Bio:

Sabine Gempel, PT, DPT, is an Assistant Professor at University of Miami, Miller School of Medicine, Department of Physical Therapy and a Board Certified Cardiovascular and Pulmonary Clinical Specialist. She graduated from University of Miami with her Doctorate in Physical Therapy in 2013. She is the Program Director for the UM-JRH Cardiovascular and Pulmonary Physical Therapy Residency, course master for Cardio-Respiratory Physical Therapy, and a physical therapist at University of Miami Hospital in both acute care and outpatient cardiopulmonary rehabilitation. Her research interests include heart failure, inspiratory muscle training, high-intensity interval training, and blood flow restriction. She is a member of the American Physical Therapy Association (APTA), APTA Cardiovascular & Pulmonary Section, American Council of Academic Physical Therapy, and Florida Physical Therapy Association. Her awards include: Chair's Award 2013, Clinical Excellence Award 2013, Impact Award 2019, Outstanding PT Clinical Instructor of the Year 2020, CSM Outstanding Poster of the Year 2021, and Professor of the Year 2023.

Dr. Brady Anderson is a 2016 graduate from the Department of Physical Therapy at the University of Miami Miller School of Medicine. He became a Board Certified Clinical Specialist in Cardiovascular and Pulmonary Physical Therapy in 2019. He is currently practicing as an Acute Care Physical Therapist at Jackson Memorial Hospital in Miami, Florida, with a particular interest in ICU Rehabilitation. He serves as a Clinical Mentor and Faculty for the University of Miami Cardiovascular & Pulmonary Physical Therapy Residency Program. His awards include: Clinical Excellence Award 2016, Outstanding Mentor Award 2023.

Dr. Munagala is Director of the Advanced Heart Failure program at Jackson Health Systems, Assistant Professor, Department of Medicine at U.M. Miller School of Medicine. She specializes in Heart Failure, Mechanical Circulatory Support Devices (MCS) and Transplant. Dr. Munagala is also experienced in managing patients with Pulmonary Hypertension and Cardiac Heart and Lung amyloidosis. She undertook advanced training in Heart Failure, MCS and Transplant fellowship at UCLA-Ronald Reagan Medical Center in Los Angeles, CA after completing her Internal Medicine residency and Cardiovascular Diseases fellowship at Drexel University College of Medicine, Philadelphia, PA. She also completed a Heart Failure and Pulmonary Hypertension fellowship at Allegheny General Hospital, Pittsburgh, PA. Dr. Munagala received her medical degree from Sri Venkateswara Medical College in Andhra Pradesh, India. She has been involved in clinical research in Heart Failure, Ventricular Assist Devices (VAD) and Transplant and authored several articles and book chapters. She is an active member in various professional societies, including the American College of Cardiology, Heart Failure Society of America, International Society of Heart and Lung Transplant and American Medical Association.

Board Certified in Internal Medicine, Cardiovascular Diseases, Heart Failure and Transplant, Echocardiography and Nuclear Cardiology.

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