

Rotation Name: Cardiology - VU CVICU
Rotation Site Leaders: Andrew DeFilippis
Date: 05/07/2021 - Updated by Lee Richardson
Updated: 7/5/2021 mapped to milestones 2.0 (sm)

Goals:

The purposes of this educational unit are to:

- Provide broad clinical exposure on the diagnosis and management of advanced cardiovascular disease in a critical care setting
- Provide clinical experience and guided coaching in managing complex patients requiring coordination of multidisciplinary care
- Provide instruction to learners on how to incorporate evidenced based medical therapies into the care of critically ill patients
- Develop skills in leading and presenting effectively during multi-disciplinary rounds

Objectives:

By the end of this educational block, learners in this rotation will be able to:

Patient Care

- Identify core cardiovascular problems via history, physical examination, laboratory, and ancillary studies while demonstrating sensitivity and responsiveness to a diverse patient population, including but not limited to diversity on gender, age, culture, race, religion, disabilities, and sexual orientation.
- Perform accurate assessments of patient vascular volume status and understand how it is related to vascular pressure in individual patients and disease states
- Consistently recognize, prioritize, and address the daily care tasks of managing critically ill patients
- Recognize the indications for pulmonary artery catheter or arterial line placement and to perform the procedures under direct supervision
- Interpret electrocardiograms and incorporate findings into patient care management
- Interpret findings from left/right heart catheterizations and pulmonary artery catheters while incorporating these data into patient care management
- Interpret findings from advanced studies (cardiac imaging, exercise studies, etc...) and incorporate these data into patient care management
- Institute therapies for cardiogenic shock and recognize timing of cessation and transition of these therapies
- Recognize and select management strategies for patients with acute life-threatening arrhythmias

Medical Knowledge

- Prescribe evidenced-based pharmacologic therapies for patients present with acute coronary syndrome

Interpersonal and Communication Skills

- Direct goals of care conversations in patients with critically ill cardiovascular disease

Professionalism

Systems based practice

- Leverage the combined resources of a multidisciplinary care team to provide effective and efficient care to a complex patient

Practice-based learning and improvement

Educational Strategies:

Educational Strategy	Skills (taught and/or assessed)
<i>For example:</i> Bed side rounds	Clinical Reasoning Presentation skills Cardiac auscultation
<i>For example:</i> Didactic lecture	Reading EKGs Interpreting acid base disorders

Required Reading:

<https://www.vumc.org/cvicu/welcome-cvicu-website> (Clinical Resources)

Suggested Reading and/or Resources:

https://catalog.library.vanderbilt.edu/permalink/01VAN_INST/a050da/alma991043522254203276

Acute Cardiovascular Care Textbooks (escardio.org)

DeFilippis AP, Chapman AR, Mills NL, de Lemos JA, Arbab-Zadeh A, Newby KL, Morrow DA. Assessment and Treatment of Patients with Type 2 Myocardial Infarction and Acute Non-Ischemic Myocardial Injury. Invited White Paper. Circulation. 2019 Nov 12;140(20):1661-1678. doi: 10.1161/CIRCULATIONAHA.119.040631. Epub 2019 Aug 16]

Loughran J, Puthawala T, Sutton BS, Brown LE, Pronovost PJ, DeFilippis AP. The Cardiovascular Intensive Care Unit-An Evolving Model for Health Care Delivery. J Intensive Care Med. 2017 Feb;32(2):116-123. PMID: 26768424

Evaluation:

(Ideally, the evaluation items below resemble the learning objectives above)

Assessment Form (items 3 to 12 are evaluated in a 1-5 [or 'not observed'] scale)

1. Please list 3 skills you observed the resident do well
2. Please list 3 skills the resident should do different, and HOW they should do them.

(Ideally, limit to 8-10 skills that you ask your faculty to assess)

For the remaining items, please rate 1-5 (or did not observe):

1 = cannot do this skill

2 = can do this skill only with direct supervision (some needs to be there to supervise)

3 = can do this skill with indirect supervision (an attending or fellow is close by or available by phone)

4 = can do this skill unsupervised (they are ready to graduate for this skill)

5 = has achieved mastery of this skill (They can teach others how to do this skill well)

3. Prescribe evidenced-based pharmacologic treatment to patients with acute coronary syndrome. PC-4, MK-3, PBLI-1
4. Assess vascular pressure and volume status in patients with acute decompensated heart failure. PC-3 and 4, MK-2 and 3
5. Recognize and manage patients with acute decompensated heart failure (including the use of hemodynamic data to assist in management strategies) PC-4, MK-2 and 3
6. Manage the care of patients with life-threatening arrhythmias. PC-4, MK-2
7. Consistently recognize, prioritize, and address the daily care tasks of managing critically ill patients. PC-4, SBP-2, MK-2, Prof-3
8. Lead and present effectively during multi-disciplinary rounds. ICS-2
9. Demonstrate effective communication with patients and families by using shared decision making and closed loop communication skills in developing care plans. ICS- 1, PROF-1
10. Appraise one article (original research or a review paper pertinent to cardiovascular medicine) and incorporate knowledge into patient care. PBLI-1, PC-4, MK-3

11. Demonstrate sensitivity and respect for the privacy, autonomy, and diversity (including but not limited to diversity on gender, age, culture, race, religion, disabilities and sexual orientation) of patients and families during procedures, daily updates and discussions regarding goals of care. PROF-1 and 2, ICS-1