CHW Adult Congenital Heart Disease Rotation Curriculum

Description of Rotation or Educational Experience
The Adult Congenital Heart Disease rotation provides trainees the opportunity to develop skills in clinical care and judgment in the management of adults with congenital heart disease. The rotation consists of a minimum one formal month during a typical three year cardiology fellowship. This month ordinarily occur during the second year of cardiology fellowship. The structure of the curriculum with limited time spent on the ACHD service does not lend itself to specific goals according to year of training, and will instead be outlined as educational objectives to be achieved during the span of cardiology fellowship training.

Patient Care
Goal
Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows are expected to:

Objectives
- Understand typical presentation and management of late complications of repaired and palliated congenital heart disease.
- Understand typical presentation and management of late presentation of congenital heart disease.
- Understand the long term management of patients with congenital heart disease.
- Gain proficiency in evaluation and management of patients with repaired or palliated congenital heart disease.
- Understand the appropriate preoperative evaluation and management of patients scheduled to undergo surgery and gain proficiency in their postoperative management, including the recognition and management of post surgical complications.
- Demonstrate skill in doing a thorough cardiovascular examination and understanding in applying these findings appropriately in patient management.
- Understand the appropriate evaluation of a pregnant adult with congenital heart disease.
- Become familiar with the care of inpatients with adult congenital heart disease.

Medical Knowledge
Goal
Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care. Fellows are expected to:

Objectives
- Understand the late complications of repaired or palliated heart disease.
- Demonstrate an investigatory and analytic approach to clinical situations.
- Recognize the patterns of signs and symptoms of common problems and diseases.
that present in adults with congenital heart disease.

- Explain the physiology and pathophysiology of common problems and diseases in patients with adult congenital heart disease.
- Explain the indications and limitations of laboratory/diagnostic tests and monitoring systems commonly used to assess adult congenital heart disease.
- Discuss concepts of left-to-right intracardiac shunts, obstructive heart lesions, cyanotic heart disease, and single ventricle physiology.
- Recognize and describe criteria present for congestive heart failure/ventricular dysfunction.

**Practice-Based Learning and Improvement**

**Goal**

Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life long learning. Fellows are expected to develop skills and habits to be able to:

**Objectives**

- Identify strengths, deficiencies and limits in one’s knowledge and expertise.
- Set learning and improvement goals.
- Incorporate formative evaluation feedback into daily practice.
- Locate, appraise and assimilate evidence from scientific studies related to their patients’ health problems.
- Use information technology to optimize learning.
- Participate in the education of patients, families, students, residents and other health professionals, as documented by evaluations of the fellow’s teaching abilities by faculty and/or learners.
- Learn the resources available to obtain information necessary for optimal patient care under the direction of faculty. This will include but is not limited to technological support for implantable devices, and understanding how to access remote transmissions for implantable devices, and remote access for ambulatory monitoring transmissions.
- Become familiar with the key literature important in the practice of Adult Congenital Heart Disease.
- Set learning and improvement goals at the beginning of the month.
- Independently use available resources to quickly and efficiently obtain critical information vital to optimal patient care.

**Systems Based Practice**

**Goal**

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Fellows are expected to:

**Objectives**

- Work effectively in various health care delivery settings and systems relevant to cardiovascular medicine.
- Coordinate patient care within the health care system relevant to cardiovascular medicine.
- Incorporate considerations of cost awareness and risk-benefit analysis in patient care.
- Advocate for quality patient care and optimal patient care systems.
- Work in interprofessional teams to enhance patient safety and improve patient care quality.
- Coordinate with ACHD nurses, nurse practitioners, and in-house services (respiratory, pharmacy, consult services) for optimal delivery of care and patient safety.
- Understand the continuous quality improvement process as it pertains to delivery of ACHD services.
- Coordinate clear communication between the ACHD team and consulting services to enhance patient care and safety.

### Professionalism

**Goal**
Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Fellows are expected to demonstrate:

**Objectives**
- Compassion, integrity, and respect for others.
- Responsiveness to patient needs that supersedes self-interest.
- Respect for patient privacy and autonomy.
- Accountability to patients, society, and the profession.
- Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
- Demonstrate sound judgment in clinical decision-making.
- Fellows will demonstrate high ethical standards when managing patients.
- Practice sound evidence based medicine.
- Continue to treat patients and peers with the utmost respect.

### Interpersonal and Communication Skills

**Goal**
Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and teaming with patients, their families, and professional associates. Fellows are expected to:

**Objectives**
- Communicate effectively with patients and families across a broad range of socioeconomic and cultural backgrounds.
- Communicate effectively with physicians, other health professionals, and health related agencies.
- Work effectively as a member of leader of a health care team or other professional group.
- Maintain comprehensive, timely, and legible medical records.
• Fellows will communicate effectively with faculty.
• Fellows will communicate effectively with patients and families.
• Fellows will develop teaching skills through contact with residents and students, and preparation of formal presentations.

**Teaching Methods**

Fellows will on a daily basis interact with attendings, nurse practitioners and nursing staff on the Adult Congenital Heart Disease service. This interaction will provide the primary modality of teaching for the fellows. Faculty will supervise the cardiology fellow assigned to the service in the performance of inpatient consultation and outpatient clinics. The fellow will have primary responsibility for evaluating and following patients on the consultation service, and will assess patients and formulate a management plan prior to faculty evaluation, with the management plan then finalized by the faculty. In emergency cases, the fellow will contact the faculty immediately for input regarding initial management.

The fellow will be expected to practice sound evidence based medicine and will be given access to resources to be utilized to enhance this practice. Resources include citations of important literature and use of hospital and MCW-based information technology.

**Assessment Method (Fellows)**

Fellows are given verbal feedback on their performance by the faculty throughout the rotation. Final evaluations by each attending will be based on the general ACGME competencies of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, systems-based practice, and professionalism. A formal written evaluation will be entered by the faculty. It will then be reviewed and signed by the fellow.

Fellows are also evaluated through use of the 360 evaluation system, where feedback from nursing, social work, case management, patients, EP lab staff and others can be used to assess and refine performance. Specifically communication, systems-based practice, and professionalism can be further assessed.

**Assessment Method (Program Evaluation)**

Fellows will assess the rotation overall as well as their attending physicians. These will be written evaluations which will be shared with the Chair of the Division as well as the Fellowship Program Director. Feedback from the fellows will allow for correction of any perceived deficiencies in learning opportunities on this rotation.

**Level of Supervision**

Fellows will on a daily basis interact with 1 to 2 attendings on the ACHD service. These attendings will supervise the cardiology fellow assigned to the service in the performance of inpatient consultation and outpatient clinics.

**Educational Resources**
The fellow will be expected to practice sound evidence based medicine and will be given access to resources to be utilized to enhance this practice. Resources include citations of important literature and use of hospital and MCW-based information technology.

**Suggested Reading**

*Diagnosis and Management of Adult Congenital Heart Disease.* MA Gatzoulis.