



PEDS 605 Pediatric Cardiology

Elective Description

This elective will expose students to a variety of children with suspected or confirmed congenital or acquired heart disease. Emphasis will be on history-taking, physical examination, and interpretation of electrocardiograms and X-rays and may include exposure to echocardiography, cardiac catheterization, and electrophysiologic studies.

Credit: 4 semester credits

Prerequisites: PEDI 500

Course Structure: This elective will emphasize care of adolescent patients. There is variation between institutions and the ability to examine patients or perform procedures may not be the same. Students may wish to clarify what is permitted prior to the clerkship in order to find a site that best meets the student's interest.

Entrustable Professional Activities

As a fourth-year student, the focus of skills development are those tasks important for entering residency training:

- Gather a history and perform a physical exam
- Prioritize a differential diagnosis following a clinical encounter
- Recommend and interpret common diagnostic and screening tests
- Enter and discuss orders and prescriptions
- Document a clinical encounter in the patient record
- Provide an oral presentation of a clinical encounter
- Form clinical questions and retrieve evidence to advance patient care
- Give or receive a patient handover to transition care responsibility
- Collaborate as a member of an inter-professional team
- Recognize a patient requiring urgent or emergent care and initiate evaluation and management
- Obtain informed consent for tests and/or procedures
- Perform general procedures of a physician
- Identify systems failures and contribute to a culture of safety and improvement

General Course Objectives

Medical Knowledge

- Review the pathophysiology, usual treatment, and prognosis of common congenital heart diseases including the following;
 - Ventricular septal defect
 - Atrial septal defect
 - Tetralogy of Fallot
 - Transposition of the great arteries

- Aortic stenosis
- Pulmonic stenosis
- Mitral valve prolapse
- Review and be able to discuss the following:
 - Cardiogenic shock
 - Coarctation of the aorta
 - Congestive heart failure
 - Cyanotic congenital heart disease
 - Hypoplastic left heart syndrome
 - Hypoplastic right heart syndrome
 - The “innocent’ murmur
 - Patent ductus arteriosus
 - Post pericardiotomy syndrome
 - Pulmonary hypertension
 - Cardiomyopathy
- Describe the basic principles, uses, and limitations of echocardiography.
- Describe the diagnostic criteria for acquired heart disease such as rheumatic fever and Kawasaki disease.

Patient Care

- Observe or complete a complete cardiac history and demonstrate an understanding of the physiological significance of the signs and symptoms of heart disease.
- Interpret a standard electrocardiogram of a pediatric patient and demonstrate an understanding of developmental changes of electrocardiographic findings.
- Interpret a standard chest radiograph in the diagnosis of congenital heart disease.
- Recognize and understand the mechanisms of cyanosis in the newborn. Know the cardiac etiologies for cyanosis and the appropriate initial management.
- Describe the cardiac etiologies of low cardiac output in the neonate.
- Recognize common arrhythmias of childhood
- Recognize common pediatric emergencies including:
 - Supraventricular tachycardia
 - Cardiogenic shock
 - Hypercyanotic spells
- Describe the significance of infective endocarditis and its relationship to congenital heart disease.
- Describe the role of exercise and sports for the child with heart disease.

Professionalism

- Review physician-patient relationships during adolescence including confidentiality and consent.

Interpersonal and Communication Skills

- Understand the essentials of clearly and concisely recording findings of a physical exam and interview

REQUIRED TEXTBOOKS and Other Resource Material

Kliegman, RM, BMD Stanton, J St. Geme, NF Schor. 2016. *Nelson Textbook of Pediatrics*, 20th edition, Elsevier Health Sciences Publishing. [ISBN 978-1-4557-7566-8]

Additional Material

Yamamoto L. 2015. *Case Based Pediatrics for Medical Students and Residents*, 2nd edition:

<http://www.hawaii.edu/medicine/pediatrics/pedtext/>

Evaluation

The evaluation will include the entrustable professional activities. The clerkship preceptor will evaluate those relevant to this clerkship experience.

GRADES

This elective is graded Satisfactory/Unsatisfactory.

POLICIES

ACADEMIC DISHONESTY

The University holds its students to the highest standards of intellectual integrity. Therefore, the attempt of any student to pass any examination by improper means, present work which the student has not performed or aid and abet a student in any dishonest act may result in disciplinary action including immediate dismissal. Any student witnessing or observing a perceived violation of academic dishonesty is required to report it as outlined in the Guidelines. Students failing to report an observed violation may also receive disciplinary action.

ATTENDANCE POLICIES

Attendance of lectures and laboratories is based on the University's stated attendance policy. Refer to the Student handbook for more information.

CONDUCT

The University expects all students to be responsible individuals who possess the highest standards of integrity, honesty and personal conduct. These traits are prerequisites to independent learning, professional development, the successful performance of academic and clinical assignments, and the conduct of one's personal life. Accordingly, students are expected to adhere to a standard of behavior consistent with the University's high standards at all times off and on campus. Compliance with institutional rules and regulations, in addition to city, state and federal laws, is expected.

COPYRIGHT POLICY

Trinity Medical Sciences University must respect and observe the right and privileges of copyright holders, obey the United States Copyright Act and preserve the integrity of its internal network systems. All students must sign the technology and software use policy. A copy of this policy may be obtained from the Information and Technology Department.

DRESS CODE

All students are expected to maintain the highest standards of professional appearance at all times. During years one and two and while on campus. Medical students are required to wear scrubs or white coats with appropriate dress. Appropriate dress for clinical students includes business slacks with open-collar shirt for men, and business slacks or skirt with professional shirt or sweater for women.

Trinity School of Medicine Faculty Contact Information

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