SENIOR ELECTIVE LISTING: Obstetrics and Gynecology

Course: Clinical Genetics & Prenatal Diagnosis (OBG 4811)

Department: Obstetrics and Gynecology
Course: Clinical Genetics & Prenatal Diagnosis (4811)
Faculty Coordinator: Jodi Dashe, M.D.
Hospital: Parkland Health & Hospital System, St. Paul Maternal-Fetal Medicine Office
Periods offered: 1-9 only
Length: 4 weeks
Max. No. of students: 1
First Day Contact: Sandraf.davis@utsouthwestern.edu, 214-648-6862
First Day Time: 8:00 a.m.
First Day Place: G6.244
Prerequisites: Completion of junior year

I. Course Objectives:
Following completion of this rotation, the student will be able to:

A. Be familiar with the general principles of clinical genetics as they apply to the clinician practicing in obstetrics.
B. Be familiar with and be able to list the common indications for prenatal diagnosis.
C. Be able to list and have an understanding of the various techniques utilized in prenatal diagnosis to include amniocentesis, chronic villus sampling, fetal blood sampling, and sonography.
D. Be able to list and be familiar with the indications for genetic counseling.
E. Be able to take a family history and construct a genetic pedigree.

II. Method of instruction:
A. Didactic (schedule, topic, faculty)
   OB/GYN Ultrasound, Prenatal Diagnosis, and Genetics Grand Rounds are held on the second and fourth Friday of each month at noon in the G6200 conference room. During this conference we review abnormal sonogram findings, discuss indications and techniques for prenatal diagnosis, and review genetic abnormalities in detail.
B. Clinical (schedule, faculty teaching, housestaff teaching)
   Students receive instruction in 4 settings:
   1. In the Parkland OB/GYN ultrasound unit by observing and participating in ultrasound examinations and observing amniocenteses
   2. Working directly with the Parkland Genetic Counselors in the OB/GYN ultrasound unit to learn how to construct a pedigree and provide counseling for common conditions;
   3. In the Parkland OB Complications clinic which meets on Tuesday and is dedicated to genetics and fetal anomalies; and
   4. At the St. Paul MFM office, where students also participate in counseling and observe ultrasound and prenatal diagnosis procedures on referred patients.
A weekly schedule is shown below:

**Monday**
- am: Parkland OB/GYN ultrasound unit (“twin day”)
- pm: St. Paul Medical Center MFM office

**Tuesday**
- am: Parkland OB/GYN ultrasound (“anomaly day”)
- pm: Parkland OB Complications Clinic for genetic disorders and fetal anomalies

**Wednesday**
- am: Attend didactic OB/GYN conferences with residents
- pm: Parkland OB/GYN ultrasound unit and Genetic Counseling

**Thursday**
- am & pm Parkland OB/GYN ultrasound unit
  (“amniocentesis and targeted ultrasound day”)

**Friday**
- Time to work on end-of-rotation presentation

C. **Student responsibilities and to whom accountable**

Students receive and are expected to read a packet of articles about prenatal screening and diagnosis of common chromosomal abnormalities and genetic conditions, obstetrical ultrasound, teratology, and genetic counseling for selected indications (e.g. advanced maternal age, abnormal serum screening, diabetes, and epilepsy). Students are expected to attend and participate in all of the activities listed in the clinical schedule above and to prepare a short presentation on a genetic or prenatal diagnosis topic of their choice by the end of the rotation. Any anticipated absences should be reported to Dr. Dashe in advance.

III. **Method of evaluation of students**

Student performance is evaluated informally through daily contact with faculty in the ultrasound unit and clinic setting. For example, when students see patients in the Genetics and fetal anomalies clinic, they are directly observed by a dedicated genetic counselor while taking a genetic history (pedigree) and counseling the patient, and then they present the clinical information and their management plan to the attending in clinic. Students are also evaluated during ultrasound teaching sessions. At the end of the rotation, the student is asked to give a short presentation on a topic of their choice that involves a genetic condition or ultrasound anomaly. This presentation is given to the attending(s), fellow, residents, and genetic counselors and entails a detailed review of pertinent literature.