

CAFC @ MMC SENIOR ELECTIVE - OBSTETRIC IMAGING & OUTPATIENT CONSULTATION PGY8

Rotation Specific Goals and Objectives with Progressive Changes in Responsibility and Criteria for Advancement

1. OVERVIEW

- 1.1. The *ACGME Program Requirements for Graduate Medical Education in Maternal-Fetal Medicine*, 2016, provides the format required for approval of an MFM fellowship and serves as the basis for the organization of the fellowship.
- 1.2. *The Guide to Learning in Maternal-Fetal Medicine*, ABOG 2015 outlines the full breadth and depth of knowledge required of the MFM fellow and serves as the basis for all goals and objective listed below

2. GENERAL CONSIDERATIONS

The practice of obstetrics and gynecology and maternal-fetal medicine requires a commitment to professional as well as personal growth. In addition to practicing technical skills, physicians should cultivate the ability to expand and apply those skills. Knowledge of ethical principles, communication skills, and the ability to acquire and continually update information are important components of professional development. The Accreditation Council on Graduate Medical Education (ACGME) identified six core competencies that should be incorporated into residency and subspecialty fellowship programs.

3. COMPETANCY BASED OBJECTIVES

3.1. PATIENT CARE & PROCEDURAL SKILLS

- 3.1.1. 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.
- 3.1.2. Fellows must be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the area of practice.
- 3.1.3. Fellows must demonstrate competence in the management of complicated pregnancies, including: the treatment of medical and surgical complications of pregnancy; care of pregnant women with medical co- morbidities; fetal evaluation; genetic evaluation of women, families, and fetuses; ultrasound and prenatal diagnosis; critical care of pregnant women; interpretation of perinatal pathology; and, care for patients requiring cesarean hysterectomy.
- 3.1.4. Fellows must demonstrate competence in performing the following procedures; cervical cerclage; antepartum fetal assessment (biophysical profile, non-stress test (NST), etc.); amniocentesis at fewer than 24 weeks gestation; targeted maternal and fetal imaging using ultrasonography; external cephalic version; intrapartum management of multiple gestations, including internal version of the second twin; non-vertex vaginal delivery; and, operative vaginal delivery.
- 3.1.5. Fellows must demonstrate competence in obstetrical critical care, which must include training in the management of acute peripartum medical and surgical complications;
- 3.1.6. Fellows must demonstrate competence in infectious disease as it relates to pregnancy and the puerperium, including the effects of maternal infection on the fetus and newborn

3.2. MEDICAL KNOWLEDGE

- 3.2.1. 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.
- 3.2.2. Fellows must demonstrate knowledge of: the physiology and pathophysiology of diseases occurring in pregnancy; both normal and abnormal newborn physiology; genetics (including prenatal screening and diagnosis), genomics, teratology, and dysmorphology.
- 3.2.3. Fellows must demonstrate knowledge of -the indications, techniques, complications, and follow-up of the following procedures: cesarean hysterectomy; cervical cerclage; antepartum fetal assessment (biophysical profile, NST, etc.); targeted maternal and fetal imaging using ultrasonography; -pregnancy termination; invasive fetal diagnostic and therapeutic procedures, including amniocentesis at fewer than 24 weeks gestation; chorionic villus sampling; umbilical cord blood sampling; fetal transfusion; and fetal shunt placement; external cephalic version; intrapartum management of multiple gestations – internal version of second twin; non-vertex vaginal delivery; and operative vaginal delivery.
- 3.2.4. Fellows must demonstrate knowledge of obstetrical critical care, including the management of acute peripartum medical and surgical complications;
- 3.2.5. Fellows must demonstrate knowledge of infectious diseases as they relate to pregnancy and the puerperium, including the effects of maternal infection on the fetus and newborn

3.3. PRACTICE-BASED LEARNING AND IMPROVEMENT

- 3.3.1. 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.
- 3.3.2. Fellows are expected to develop skills and habits to be able to identify strengths, deficiencies, and limits in one's knowledge and expertise; set learning and improvement goals; identify and perform appropriate learning activities; systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; 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; participate in multidisciplinary inter-professional conferences devoted to care of the at-risk mother, fetus, and newborn

3.4. INTERPERSONAL AND COMMUNICATION SKILLS

- 3.4.1. Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
- 3.4.2. Fellows are expected to; communicate effectively with patients, families, and the public, as appropriate, 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 or leader of a health care team or other professional group; act in a consultative role to other physicians and health professionals; and, maintain comprehensive, timely, and legible medical records

3.5. PROFESSIONALISM

- 3.5.1. Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

3.5.2. Fellows are expected to demonstrate 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.

3.6. SYSTEMS-BASED PRACTICE

3.6.1. 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.

3.6.2. Fellows are expected to work effectively in various health care delivery settings and systems relevant to MFM; coordinate patient care within the health care system relevant to MFM; incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population based care as appropriate; advocate for quality patient care and optimal patient care systems; work in inter-professional teams to enhance patient safety and improve patient care quality; participate in identifying system errors and implementing potential systems solutions.

4. ROTATION SPECIFIC GOALS – OBSTETRIC IMAGING & OUTPATIENT CONSULTATION

4.1. The clinical portion of the MFM fellowship is designed so that each fellow, under the direction of members of the Division of Maternal Fetal Medicine, is exposed to the full breadth and depth of the subspecialty and thereby fulfilling

4.1.1. The educational objectives of *Guide to Learning in Fetal-Fetal Medicine, ABOG 2015, Sec XIV, XII & XVII* “The fellow should be able to diagnose and outline a plan of management for obstetrical complications” and “The fellow should be able to diagnose and manage medical and surgical complications of pregnancy which may affect the mother, fetus and neonate”, and “Demonstrate a base of knowledge including, indications, contraindications, risks and principles, and experience sufficient to perform ultrasound examination(s).” and “The fellow should have sufficient knowledge of basic human genetics and diagnostic techniques to provide genetic counseling for some of the commonly recognized disorders”, and

4.1.2. the relevant competencies as described in the “*ACGME Program Requirements for Graduate Medical Education in Maternal-Fetal Medicine, 2016, (IV.A.5.)*”

4.2. During the course of training, the fellow shall participate in the care of complex and high-risk obstetric patients seen by the MFM consultant at the CAFC @ MMC.

4.3. This includes MFM consults, and prenatal diagnosis and treatment in the Center for Advanced Fetal Care as well as antepartum inpatient service, intrapartum patients, complicated postpartum patients, and inpatients on other services within the MMC for whom perinatal consultation in the CAFC is sought.

4.4. The fellow, under supervision of the MFM attending, shall function as teaching faculty (non-billing) and serve as a source of consultation and interaction with the resident house staff and medical students. The fellowship training and resident training shall complement and enrich one another and not compete with each other.

4.5. The fellow shall also attend one or more 4 hour session per week (averaged over four week) of the High Risk Obstetric Clinic (HROB). This clinical experience will serve to complete the continuity requirement of the fellow’s training. Outpatient experience is particularly important and will be carefully supervised by the MFM clinical faculty attending the clinic. The fellow may also serve as a source of consultation and interaction with the resident house staff and medical students on the HROB clinic team.

- 4.6. In compliance with The Centers for Medicare & Medicaid Services (CMS), ACGME and CREOG regulations the MFM attending shall be present or available for consultation and supervision at all times. It is anticipated that the fellow play a major role in decisions affecting patient management and that this role progress commensurate with the fellows experience.
- 4.7. During the rotation the fellow shall be present in the L&D conference room or other designated meeting place for sign in AM rounds, along with residents and MFM attending staff at such time as determined by division or departmental policy. Unless otherwise scheduled to be in didactics (lectures, grand rounds, conferences, simulation, graduate courses, seminars etc), research or clinical activity (high-risk clinic, etc) fellows shall be present in the CAFC @ MMC or be readily available.
- 4.8. The experience on the rotation shall be designed to provide the fellow the increased skill and advanced knowledge of obstetric imaging and antenatal diagnostic techniques so that the fellow will be able to demonstrate expertise in these areas. thereby fulfilling the learning objectives of Guide to Learning in Maternal-Fetal Medicine, ABOG 2013, Sec X, XI and XVII, and relevant competencies as described in the *“ACGME Program Requirements for Graduate Medical Education in Maternal-Fetal Medicine, 2016.*
- 4.9. The fellow shall demonstrate advanced understanding of the principles and techniques of cytogenetics, cell free fetal DNA and maternal and fetal karyotyping such as: chromosome nomenclature, mechanisms leading to aneuploidy, chromosomal structural abnormalities and mosaicism and be able to use this knowledge, under supervision of MFM faculty and Certified Genetic Counselor in providing genetic counseling to patients.
- 4.10. The fellow shall be able to demonstrate advanced understanding and ability to explain and interpret chromosomal abnormalities including: the common aneuploidies, effects of deletions and microdeletions, translocations, sex chromosome abnormalities, chromosome anomalies in abortions. The fellow shall be able to demonstrate advanced understanding of the various techniques of molecular genetic analysis including, gene structure, genetic probes, linkage and recombination direct detection of mutations and deletions. The fellow, under supervision of MFM faculty and Certified Genetic Counselor faculty, shall be able to use this knowledge to provide genetic counseling to patients with respect to expected phenotypic finding, recurrence risks, prognosis, and diagnosis and possible therapy.
- 4.11. The fellow shall demonstrate advanced understanding of normal embryology, the general principles of teratology and the mechanisms of teratogenesis leading to abnormal embryogenesis. The fellow shall be able to define the effect on the fetus and newborn of suspected teratogenic agents, such as drugs, viruses and other infectious agents, radiation and other physical agents, nutritional deficiencies and excesses, environmental agents and work place exposure. The fellow, under supervision of MFM faculty and Certified Genetic Counselor faculty, shall be able to investigate and counsel a pregnant woman or her spouse exposed to teratogenic agents and is able to explain possible effects on the fetus at various stages of gestation and specific effects, syndromes or target organs at risk.
- 4.12. The fellow shall demonstrate advanced understanding of the various patterns of Inheritance such as Mendelian patterns of inheritance, incomplete penetrance, variable expression, multifactorial inheritance, mitochondrial inheritance, and uniparental disomy, etc. The fellow, under supervision of MFM faculty and Certified Genetic Counselor faculty shall be able to use this knowledge to provide genetic counseling to patients.
- 4.13. The fellow shall be able to discuss prenatal diagnostic procedures such as: amniocentesis and chorionic villous sampling, fetoscopy, fetal biopsy and blood sampling and prenatal genetic screening programs such as multiple serum markers, NIPT, ultrasound screening, cystic fibrosis screening with respect to technique, risks, limitations and pitfalls, ethical considerations and

indications. The fellow, under supervision of MFM faculty and Certified Genetic Counselor faculty shall be able to use this knowledge to provide genetic counseling to patients.

4.14. It is anticipated that the fellow upon completing the rotation shall have demonstrated competence in the techniques of amniocentesis, and be able to demonstrate sufficient knowledge of the indications, techniques, complications, and follow-up of chorionic villus sampling, or fetal blood sampling. The rotation will provide the tools with which the fellow can assure the correct utilization and application of these technical skills.

5. **COMPETENCY BASED CRITERIA for ADVANCEMENT and PROGRESIVE CHANGES in RESPONSIBILITY**

5.1. **Patient Care & Procedural Skills (PC)**

5.1.1. **PC 1 –Labor and Delivery Procedures**

5.1.1.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives.

5.1.1.1. The advancing second year fellow with supervision is expected to; identify appropriate procedures for complex obstetrical patients; perform complex obstetrical procedures; manage surgical complications; collaborate with and provides subspecialty-specific consultation to other members of the health care team, with supervision

5.1.1.2. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.1.2. **PC 2: Sonographic Diagnosis**

5.1.2.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives.

5.1.2.2. The advancing second year fellow with supervision is expected to; perform detailed fetal assessment; perform appropriate procedures for prenatal diagnosis or therapy; anticipate, diagnose, and manage complications associated with prenatal diagnostic procedures; collaborate with and provide subspecialty-specific consultation to other members of the health care team.

5.1.2.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.1.2.4. .

5.1.3. **PC 3: Medical Complications of Pregnancy**

5.1.3.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives

5.1.3.2. The advancing second year fellow with supervision is expected to; manage complex medical comorbidities in pregnancy; co-manage patients in critical care settings; collaborate with and provides evidence-based subspecialty-specific consultation to other members of the health care team.

5.1.3.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.1.4. **PC 4: Obstetrical Complications**

- 5.1.4.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.1.4.2. The advancing second year fellow with supervision is expected to; manage complex obstetrical complications; collaborate with and provides evidence-based subspecialty-specific consultation to other members of the health care team.
- 5.1.4.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.2. Medical Knowledge (MK)

5.2.1.MK 1: Pathology, Anatomy, and Physiology

- 5.2.1.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.2.1.2. The advancing second year fellow is expected to; demonstrate knowledge of metabolic and endocrine functions of the placenta; demonstrates knowledge of clinicopathologic correlation between adverse perinatal outcome and specific etiologies; demonstrates advanced knowledge of newborn adaptation.
- 5.2.1.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.2.2.MK 2: Medical Complications of Pregnancy

- 5.2.2.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.2.2.2. The advancing second year fellow is expected to; demonstrate knowledge of treatment modalities of complex medical comorbidities in pregnancy; demonstrate knowledge of critical care management.
- 5.2.2.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.2.3.MK 3: Obstetrical Complications

- 5.2.3.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.2.3.2. The advancing second year fellow is expected to; demonstrate knowledge of treatment modalities of complex obstetrical complications; demonstrate knowledge of obstetric anesthesia principles and complications; demonstrates knowledge of neonatology principles and complications,
- 5.2.3.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.2.4.MK 4: Genetic Principles

- 5.2.4.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.2.4.2. The advancing second year fellow is expected to; demonstrate knowledge of advanced genetic principles and uncommon hereditary syndromes; demonstrate knowledge of advanced genetic testing.
- 5.2.4.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.2.5.MK 5: Prenatal Imaging and Diagnosis

- 5.2.5.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.2.5.2. The advancing second year fellow is expected to; apply knowledge of imaging modalities and diagnostic techniques for prenatal diagnosis; demonstrate knowledge of prognosis for specific fetal anomalies and management options, including pregnancy termination; applies knowledge of abnormal fetal growth and placentation.
- 5.2.5.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.3. System Based Practice

5.3.1.SBP 1: Computer Systems

- 5.3.1.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.3.1.2. The second year fellow, having completed the first year, is expected to expand and develop the proficiencies and competencies listed above, and to begin to use the EMR to its full potential, and facilitate integration of computer-based communication with the patient care team
- 5.3.1.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.3.2.SBP 2: Value-based Patient Care

- 5.3.2.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.3.2.2. The advancing second year fellow, with supervision, is expected to; apply knowledge of maternal-fetal medicine guideline-based care; incorporate cost-awareness into the development of diagnostic and treatment plans; coordinate personnel and resources to facilitate value-based care.
- 5.3.2.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.4. Practice-Based Learning and Improvement

5.4.1.PBLI 1: Scholarly Activity

- 5.4.1.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.4.1.2. The advancing second year fellow is expected to; execute a hypothesis-driven or hypothesis-generating scholarly thesis, under the direction of a research mentor; apply knowledge of advanced study design and statistical methodology to thesis and other research; comply with research oversight regulations.
- 5.4.1.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.4.2.PBLI 2: Quality Improvement (QI)

- 5.4.2.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.4.2.2. The advancing second year fellow with supervision is expected to; continue to develop a QI project, employing methods to measure and analyze the data.
- 5.4.2.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.4.3.PBLI 3: Education of Team Members

- 5.4.3.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.4.3.2. The advancing second year fellow with supervision is expected to; teach residents, medical students, and other health care professionals in a formal didactic setting; organize didactic educational activities, including determination of educational content.
- 5.4.3.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.5. Professionalism

5.5.1.PROF 1: Professional Ethics and Accountability

- 5.5.1.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.5.1.2. The advancing second year fellow is expected to; acknowledge errors with program director, faculty members, and/or patients; respond well to constructive criticism; take on responsibility related to learning, coordination of care, patient care, Continuous Quality Improvement (CQI), and compliance issues.
- 5.5.1.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.5.2.PROF 2: Compassion, Integrity, and Respect for Others

- 5.5.2.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.5.2.2. The advancing second year fellow is expected to; consistently shows compassion, integrity, and respect for patients who decline medical advice, request un-indicated tests or treatments, or have psychiatric comorbidities, and, for team members experiencing conflict or high stress; modify his/her own behavior based on feedback to improve his/her ability to demonstrate compassion, integrity, and respect for others.
- 5.5.2.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.6. Interpersonal and Communication Skills

5.6.1.ICS 1: Teamwork and Communication with Physicians & Other Health Professionals

- 5.6.1.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives
- 5.6.1.2. The advancing second year fellow is expected to; works effectively in interprofessional and interdisciplinary health care teams; participates in effective

transitions of care and team debriefing; communicate effectively with physicians and other health care professionals regarding patient care.

5.6.1.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

5.6.1.4. .

5.6.2.ICS 2: Communication with Patients and Families

5.6.2.1. The starting second year fellow, having completed the first year is expected to expand and develop the proficiencies and competencies listed in the **Intro to Perinatal Genetics & Perinatal Genetics Research Rotations** Goals & Objectives

5.6.2.2. The advancing second year fellow is expected to; communicate effectively with patients and families across a broad range of socio-economic and cultural backgrounds; communicate effectively when counseling patients and families in stressful, emergent, and complex situations.

5.6.2.3. The second year fellow, as he or she approaches the end of the year may begin to advance to the level of the third year fellow as listed in the **Fetal Echocardiography Rotation** Goals & Objectives.

Recommended textbooks

<http://www.fetalmedicine.com/synced/fmf/FMF-English.pdf>

<https://fetalmedicine.org/var/uploads/Doppler-in-Obstetrics.pdf>

https://fetalmedicine.org/var/uploads/18-23_Weeks_Scan.pdf

Supplemental

-Genetic Disorders and the Fetus: Diagnosis, Prevention, and Treatment, Aubrey Milunsky Ed, 7th ed, 2015.

-Sanders' Structural Fetal Abnormalities, Hogge Ed, McGraw Hill 3rd Ed

-Callen's Ultrasonography in Obstetrics and Gynecology, 6th ed, Norton, Ed

This list is by no means exclusive and should form the nucleus of a far more extensive library.