**Ultrasound rotation objectives**

**Medical Expert**

1.Demonstrate technical competence in the following ultrasound procedures :

1.1 Calculation of the fetal heart rate (M Mode )

1.2 Biophysical Profile

1.3 Fetal Biometry

1.4Amniotic Fluid volume estimation

1.5Determination of fetal position

1.6Determination of Placental position

1.7 Determination of Gestational age in the first trimester

1.8 Identification of intrauterine pregnancy in first trimester

2. Understand the limitations of Ob ultrasound in prenatal screening and Diagnosis

3. Demonstrates understanding of ultrasound physics and instrumentation .

· 3.1 Transducer choice and frequency: 2D, grey scale/Doppler

· 3.2Display: grey scale, M mode, colour and pulsed wave Doppler

· 3.3Image orientation, image optimization, TGC, gain, focus

· 3.4Artifacts: identification and compensation, 2D, colour and spectral display

4. Obtains a history from the patient relevant to the specific type of ultrasound being planned

**Communicator**

1.Communicate ultrasound findings in a timely manner to patients care provider

2.Communicate ultrasound findings clearly and in a compassionate manner to patients.

3.Document ultrasound findings as part of the patient’s medical record

**Collaborator**

1. Work with ultrasound technologists to learn best practices in image optimization and image acquisition
2. Collaborate with other specialists as it relates to applying results of ultrasound findings for managing patient care plan.

**Health Advocate**

1.Understand and apply the ALARA (As low as reasonably achievable) principle when performing Ob Gyn ultrasound

2.Demonstrate understanding of Ultrasound safety as it relates to Bioeffects of Mechanical and thermal energy .

2.1Define thermal index and Mechanical index

2.2 Optimizes ultrasound settings to maintain appropriate Thermal and Mechanical Index when scanning Obstetrical Patients.

3.Practice choosing wisely to minimize unnecessary ultrasounds for Ob Gyn patients

4.Understand that ultrasound is a medical test and not to be used for entertainment or gender determination (unless clinically indicated )

**Leader**

1.Recognize sand applies quality assurance checks with ultrasound imaging.

2.Demonstrate understanding of the requirements necessary to have an ultrasound unit.

3. Manage time effectively in the performance of ultrasound exams.

**Health Advocate**

1.Understand and apply the ALARA (As low as reasonably achievable) principle when performing Ob Gyn ultrasound

2.Demonstrate understanding of Ultrasound safety as it relates to Bioeffects of Mechanical and thermal energy .

2.1Define thermal index and Mechanical index

2.1Optimizes ultrasound settings to maintain appropriate Thermal and Mechanical Index when scanning Obstetrical Patients.

3.Practice choosing wisely to minimize unnecessary ultrasounds for Ob Gyn patients

4.Understand that ultrasound is a medical test and not to be used for entertainment or gender determination (unless clinically indicated )

**Scholar**

1.Understand physics of ultrasound

2.Complete the following modules on the ultrasound simulator :

2.1Environment(Amniotic fluid volume, fetal position , placental position, cervical length)

2.1First trimester (dating ) scan

2.3Fetal Biometry

3.Basic Gyne imaging

4.Critically appraise the literature to understand best practices in Ob Gyn Ultrasound

5.Contribute to teaching other learners including nurses and medical students , junior residents around principles and practice of ultrasound, focusing on Point of Care Ultrasound

5. Developing a personal learning strategy to develop and maintain technical skills as it relates to ultrasound

**Professional**

1.Understand Ethical principles as it relates to Gender determination on Obstetrical Ultrasound (Autonomy)

2.Maintain Patient confidentiality as it relates to :

2.1 Discussing ultrasound imaging findings as part of patient’s care plan

2.2.when using patient imaging as part of educational presentations (removing identifiers)

3.Maintain patient autonomy as it relates to the performance of ultrasound exams.