



## **DEPARTMENT OF OBSTETRICS & GYNAECOLOGY**

### Maternal-Fetal Medicine Fellowship Program

## Rotation Information – Year One Core

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- Core Maternal/Fetal Medicine (Mount Sinai Hospital)
  - Core Maternal/Fetal Medicine (Sunnybrook Health Sciences Centre)
  - Fetal Medicine
  - Medical Diseases of Pregnancy
  - Imaging Rotation
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### CORE MATERNAL/FETAL MEDICINE – MSH

#### **LIAISON**

Dr. Marie Czikk, Supervisor 7 South (Antenatal Ward), Department of Obstetrics and Gynaecology, Mount Sinai Hospital Email: [mczikk@mtsinai.on.ca](mailto:mczikk@mtsinai.on.ca)

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Room 3-910, Ontario Power Generation Building, 700 University Avenue

#### **LOCATION**

The rotation is based on the 7<sup>th</sup> floor high-risk obstetric unit at Mount Sinai Hospital.

#### **ORIENTATION**

You are encouraged to contact Dr. Czikk directly or through Basira Rahmani two weeks prior to starting this rotation. In the week prior to rotation you will meet with Dr. Czikk, and key members of the nursing staff together with the current Fellow to introduce yourself to the program and its environment.

If you do not have training in Power Chart or a Mount Sinai Hospital dictation number you must contact Charmaine Frater at [cfrater@mtsinai.on.ca](mailto:cfrater@mtsinai.on.ca) to arrange this for you.

In addition, you should discuss with Charmaine Frater and Dr. Czikk, at your earliest convenience, any requested annual vacation or academic leave during this three-month rotation. It is important that we ensure there is no overlap of away time between the MFM Fellow and the MFM Resident(s).

## **GOALS AND OBJECTIVES**

### **Medical Expert:**

During this rotation the fellow should demonstrate competence in:

1. In-depth assessment of obstetric complications of pregnancy requiring admission to hospital including; preterm labour, premature rupture of membranes, cervical incompetence, multi-fetal pregnancy complications, antepartum hemorrhage, intrauterine growth restriction.
2. In-depth knowledge of maternal and fetal infectious diseases or pregnancy, complications from substance abuse, evaluation of abdominal pain or abdominal mass in pregnancy.
3. In depth knowledge of placental complications of pregnancy, including invasive placentation, placenta previa, complications of twin pregnancy (selective IUGR, co-twin death, twin-twin transfusion syndrome), hypertensive disorders of pregnancy, mirror syndrome.
4. In depth theoretical and practical knowledge of the methods of acute and chronic fetal health assessment, including Doppler methods, fetal biophysical profile score, and fetal heart rate patterns. This includes logical approach to determining optimal timing and mode of delivery.
5. In depth knowledge of hematological complications of pregnancy, including anemia, thrombocytosis, thrombocytopenia, venous thrombo-embolism, thrombophilia disorders, hemoglobinopathies, sickle cell disease.
6. In depth knowledge of adult congenital and acquired maternal cardiac disease in pregnancy.
7. In depth of a range of common general medical complications of pregnancy, including renal tract, gastrointestinal tract, respiratory, neurological, dermatological, ocular, auto-immune and musculoskeletal diseases.
8. Appreciation of the planning role for antenatal anesthesia consultation of high-risk women.
9. In depth management of all forms of diabetes, and common endocrinology problems
10. Management of common maternal malignancies complicating pregnancy.
11. Appreciation of role of general obstetric medicine physician input to the MFM team vs. role of relevant subspecialty physicians.
12. Appreciation of the need to conduct individual patient-care conferences ahead of complications or delivery.

13. Undertake, directly supervise, or observe as appropriate, all relevant elective obstetrical surgical procedures planned for high-risk pregnant women under the fellow's supervision including: elective preterm Cesarean delivery and more complicated near-term elective Cesarean deliveries, elective and rescue/emergency cervical cerclage, laparoscopic cervico-isthmic cerclage, external cephalic version, management of preterm labour in twins, breech presentation.
14. Participate in all unusual medical or surgical interventions required in pregnancy, including: interventional radiology, surgical biopsy, laparotomy or laparoscopy in pregnancy, cardiac catheterization in pregnancy.
15. Participate in care of pregnant women admitted to hospital for psychiatric reasons.
16. Participate in the care of pregnant women admitted (antepartum or post-partum) to Intensive Care for any reason.
17. The fellow is expected to become competent in discussing the medical and surgical methods for termination of pregnancy with women and their families. The fellow is expected to become competent in recognizing and managing all medical and surgical complications that may arise from such procedures. The fellow is expected to examine delivered anomalous fetuses following delivery (usually in the presence of a clinical geneticist) to recognize common malformations and to appreciate the importance of external examination of the stillborn fetus.

**Participation in the active process of termination of pregnancy is entirely at the discretion of the individual fellow. This implies the writing of orders and administration of utero-tonic medications.**

All fellows are expected to ensure that women admitted to hospital for termination of pregnancy receive optimal multidisciplinary care, including input from genetics, liaison with perinatal pathology, and discharge planning. This responsibility includes assessment and management of emergencies such as bleeding, fever and retained placenta

**Communicator:**

1. Be able to establish an effective and empathetic physician/patient relationship with pregnant women facing challenging maternal and/or fetal complications of pregnancy.
2. Be able to communicate effectively with families of high-risk pregnant women, including appropriate use of cultural and language interpretation facilities.
3. Be able to deliver bad news to women and their families in a sensitive and humane manner
4. Be able to effectively involve social work and children's aid society services.
5. Be able to recognize stress and mental illness in pregnant women and effectively involve psychiatric services.
6. Be able to discuss relevant issues around timing of delivery preterm.
7. Be able to formulate and discuss plans for non-interventional / palliative care of the pregnancy.
8. Demonstrate sensitivity to the cultural, ethnic and religious backgrounds of patients.
9. Demonstrate ability to deliver bad news effectively with compassion and sensitivity.

10. Demonstrate an ability to assist families to deal with perinatal loss
11. Handle upset or abusive patients and/ or caretakers.

**Collaborator:**

1. Communicate and coordinate care with all members of the inpatient antepartum high-risk team. Specialist input will include: nurse practitioners, pharmacy, dietetics, sonography, medical imaging, medical and surgical consultations, social work, psychiatry, pediatrics.
2. To develop understanding of the Provincial referral systems, including effective telephone communication with CritiCall bed-service, referring physicians requesting advice, and logistics of patient transfer to and from the level III perinatal units, including HSC newborn transfers.
3. Demonstrate ability to overcome language and cultural barriers to effective multi-disciplinary care.

**Manager:**

1. Master the appropriate use of medical and surgical consultations for antenatal care of high-risk pregnant women, including follow-through to ensure effective care and communication.
2. Demonstrate appropriate documentation of inpatient patient management
3. Demonstrate ability to manage personal time efficiently.
4. Demonstrate an ability to motivate, inspire and educate more junior members of the inpatient health-care team.
5. Demonstrate ability to identify medico-legal risks and take steps to address them.
6. To gradually master the ability to manage a busy high-risk inpatient floor with gradually-reducing direct staff intervention, optimal prioritization patient flow and harmonious nurse-physician relationships.

**Health Advocate:**

1. Demonstrate an understanding of the determinants of health affecting patients pregnancy outcome including; family and social circumstances, smoking and substance abuse, nutrition and weight, co-existent medical disorders, patient understanding and compliance with care, psychiatric and emotional health of the pregnant women and her next of kin.
2. Demonstrate ability to act as an advocate for the individual patient to obtain effective and high-quality care.
3. Demonstrate knowledge of preventable causes of perinatal morbidity and mortality
4. Appreciate the principles of health policy development as applied to obstetrics.
5. Demonstrate knowledge of routine preventive health initiatives in pregnancy.
6. Demonstrate an understanding of the principles of identification and reporting of suspected domestic violence.
7. Demonstrate an awareness of legal, ethical, legal and professional obligations to protect women from suspicious circumstances.

**Scholar:**

1. Demonstrate ability to critically evaluate the literature as it pertains to individual patient care.
2. Demonstrate inquisitiveness around clinical cases and an ability to extract information and previous experience from more senior staff..
3. Demonstrate ability to apply the principles of evidence-based medicine.
4. Supervision and bedside teaching of residents and undergraduates

**Professional:**

1. Demonstrates honesty and integrity.
2. Demonstrates compassion and empathy.
3. Demonstrates respect for others and diversity.
4. Demonstrates reliability, punctuality, responsibility and conscientiousness.
5. Demonstrates an understanding of ethical practice and applies this to one's work.
6. Demonstrates self-awareness/knowledge.

**OPERATIONAL CONSIDERATIONS AND RESPONSIBILITIES**

In this rotation the Maternal-Fetal Medicine Fellow is responsible for the day-to-day management of all patients (antenatal and postnatal) in the respective high-risk inpatient unit at Mount Sinai Hospital. The rotation coordinator is Dr. Whittle. You are expected to be physically present in the unit throughout the working week between 8am and 5pm based upon the weekly timetable as shown below. The fellow is expected to follow this weekly timetable and to plan each week ahead carefully with the obstetric and gynaecology resident (one or two per three month blocks) for any vacation/academic leave.

The fellow will conduct rounds on a daily basis in accordance with daily arrangements of the nursing and Maternal/Fetal Medicine staff.

A member of the Maternal/Fetal Medicine staff will rotate every two weeks as the “physician-in-charge” and will conduct teaching rounds with you and the resident on Monday and Thursday mornings. Rotations are designed to provide the fellow with an environment in which to develop a broad range of skills beyond those of the medical experts. In particular, the roles of communicator, collaborator and manager will receive great emphasis. The fellow is therefore expected to be physically present in the unit throughout the working week in, order to lead and teach by example to the resident and undergraduates. The fellow is expected to delegate, supervise and follow-up on tasks for the allocated residents and undergraduates, according to their perceived abilities. The fellow is expected to liaise in the collaborative manner with the nurse practitioners in the ward (Mary Mowbray and Louise Glaude) and the Team Leader to enhance patient care.

The fellow is expected to ensure that the electronic patient summary flow-sheet is maintained by the resident(s) on a daily basis. The fellow is expected to discuss all patients between 4:00 and 5:00 p.m. each day with the residents in order to create an up-to-date revision of the flow-sheet to be transferred to the on-call staff at sign-out on the labour floor at 5:00 p.m. The fellow is expected to communicate with attending Maternal/Fetal Medicine staff on-call at 5:00 p.m. regarding specific difficult problems that exist either on the 7<sup>th</sup> floor or in the intensive care unit (18<sup>th</sup> floor). During the daytime the fellow is expected to communicate with individual attending Maternal/Fetal Medicine physicians and the physician in charge as appropriate, regarding key decisions in management. However, the fellow is actually encouraged to make decisions regarding the diagnostic process, delivery and discharge planning of individual patients.

The fellow is expected to ensure that all new patients have an admission note done by undergraduate student or resident. This should be checked leading to a management plan and appropriate inpatients orders signed. Each woman admitted will therefore have an appropriate

care plan developed in conjunction with the nursing staff. The fellow is expected to participate directly in in-patient ultrasound examinations, including the performance of amniocentesis with appropriate supervision. The fellow is expected to be willing to see new emergency consultations via the Obstetrical Day Unit (ODU) and to assist unexpected patient-care problems in the ambulatory Obstetric Day Unit (ODU). The fellow is expected to initiate and plan individual patient care conferences as needed, in order to optimize the care of complex women requiring multidisciplinary care. These individual care conferences could take place on any day of the working week but may replace rounds on Wednesdays or Thursdays at noon. The fellow is also responsible for summarizing the results of such patient care conferences and dictating them into an electronically accessible format in PowerChart.

The fellow is expected to ensure that all patients leaving the unit have dictation done in PowerChart by themselves, the resident(s) or their attending staff.

### SCHEDULE

Monday	Tuesday	Wednesday	Thursday	Friday
0800 - 0900 FMU Rounds OPG, 8 <sup>th</sup> Floor Classroom  0900 7S Teaching Rounds	0800 rounds  7S	0800 rounds  7S	0800 rounds  7S Teaching Rounds	0800 Dept. lecture  7S Rounds
1200 - 1300 MFM Fellowship Teaching Rounds OPG, 3 <sup>rd</sup> Floor Classroom	1200 - 1300 Fetal Medicine Rounds, MSH 7 <sup>th</sup> Floor Classroom	1200 - 1300 Perinatal or OB Med Rounds MSH 7 <sup>th</sup> Floor Classroom	1200 - 1300 MCP Rounds OPG, 3 <sup>rd</sup> Floor Classroom	1300-1400 Sign-out rounds with F.O.W.
7S  1630 – Review with Resident for Sign-out	7S  NB: No resident on ward as at teaching	Resarch  1630 – Review with Resident for Sign-out	7S  1630 – Review with Resident for Sign- out	1500-1700 Academic Half Day Seminar OPG, 3 <sup>rd</sup> Floor Classroom  FMU when F.O.W.

### CALL RESPONSIBILITIES

The fellow is expected to have four calls per month which will be posted by Charmaine Frater on the electronic on-call schedule maintained by her.

Each month you will be rostered to do three weekday calls (Monday to Friday evening) and one weekend 24 hour call (Saturday or Sunday) and will function as the Maternal/Fetal Medicine staff physician supervising the resident in Obstetrics and Gynaecology for Team B. The Team B Maternal/Fetal Medicine staff will remain in-house during your time on-call and will be involved patient care to the extent that you require them to directly supervise you.

For each on call you are required to complete an evaluation card in CanMeds format. On the back of the card you are expected to write details including MSID number of up to three cases which you acted as a Maternal/Fetal Medicine consultant. This evaluation card should be co-signed by you and the MFM staff at the end of call and returned to Charmaine Frater

You are expected to continue in your clinical rotation in 7 South until 12 noon the following day, attend the relevant educational session from 12:00 to 1:00 p.m. and then at which point you are free to go home for the day.

### **POST CALL**

You are not expected to be at Mount Sinai Hospital after 0930 hrs. In the transition period 0800-0930 you are expected to identify and discuss the key patients with active clinical problems with both the resident(s) on duty on your post call day and if there are particular concerns these should be communicated by you to either the patients MFM Physician, the Attending General Obstetrician, Family Practice Staff Providing Co-Care or the Physician in Charge (PIC). If in any doubt, please ensure the Physician in Charge is aware of any active problems before you depart home.

### **FELLOW-OF-THE WEEK**

During rotations to Mount Sinai Hospital, individual fellows are also on-call from home with a pager as fellow-of-the-week. Responsibilities during this time include:

- a) Do rounds on all patients in the 7th level on Saturday and Sunday morning, including necessary ultrasound examinations, liaising with the in-house MFM staff covering labour and delivery.
- b) Liase informally each day during the working week with the "7<sup>th</sup> floor" MFM fellow and the ward MFM residents, to be familiar with the inpatient management issues.
- c) Attend "sign-out" rounds at 1:00 p.m. Fridays, to be familiar with the patients prior to weekend rounds.
- d) Be available by pager to evaluate transfers to MSH requiring ultrasound input, and/or assist the fetal therapy team for out-of-hours activity. Please note that the fellow-of-the-week system provides your share of invasive fetal medicine experience.
- e) Be available by pager to assist the on-call MFM staff with complex Labour/delivery high-risk cases.
- f) Be available to assess MFM consults at allied nearby hospitals (Toronto General [complex medical], Toronto Western [neurology/neurosurgery], and Princess Margaret [oncology] on behalf of "physician -in-charge for your week.

Please note that for all activities a-f you will have MFM staff back up, either in-house, or from home as appropriate.

Activity as fellow of the week takes priority over rostered sessional activities - in practice it is uncommon for these responsibilities to disrupt your normal training/working week. During the course of clinical training individual fellows are required to maintain logs of their clinical experience in POWER.

## **EDUCATION AND ROUNDS**

Mondays	0800 – Fetal Medicine Chart Rounds, OPG, Classroom B
	1200 – Maternal/Fetal Medicine Teaching Seminar or Prenatal Diagnosis Rounds, and Fetopathology Rounds, OPG, Classroom A
	1700 – Obstetric Anesthesia Rounds, Mount Sinai Hospital
Tuesdays	1200 – Fetal Medicine Rounds, Mount Sinai Hospital, 7 <sup>th</sup> Floor Classroom
Wednesdays	1200 – Rotating Rounds, Mount Sinai Hospital
Thursdays	1200 – Medical Complication Rounds, OPG, Classroom A
Fridays	1300 – Sign-out Rounds, 7 South
	1500 – Academic Half Day Seminar, OPG, Classroom A

The fellow is expected to attend and actively participate in the weekly rounds shown in the above timetable.

The fellow is expected to identify relevant cases for presentation at either the Tuesday, Wednesday or Thursday rounds and to mentor more junior trainees (residents, undergraduates) to undertake presentations at these rounds.

The fellow is expected to provide input to the Morbidity and Mortality rounds, which occur on two Wednesdays per month (co-ordinator Dr. E Lyons) together with the fellow in Advanced Labour & Delivery Obstetrics.

## **EVALUATION**

Both the ITER (manual form completed at six weeks in CanMeds format) and final evaluation (in POWER system) will be completed with the rotation coordinator, Dr. Czikk. Dr. Czikk will make this rotation evaluation together with feedback from his staff colleagues, who participated in the physician of the week rota at Mount Sinai Hospital.

## **RECOMMENDED READING**

1. Creasy R, Resnick R (Eds.), Maternal-Fetal Medicine: Principles and Practice. 6th Edition, 2007



2. Review articles in: American Journal of Obstetrics and Gynaecology, Obstetrics and Gynaecology, British Journal of Obstetrics and Gynaecology and related subspecialty medical journals.

# **DEPARTMENT OF OBSTETRICS & GYNECOLOGY**

## **MATERNAL-FETAL MEDICINE FELLOWSHIP PROGRAM**

### **ROTATION INFORMATION:**

#### **SUNNYBROOK HEALTH SCIENCES CENTRE MATERNAL AND FETAL MEDICINE CLINICS**

##### **Liaison:**

Dr. Dini Hui, Maternal & Fetal Medicine Specialist, Department of Obstetrics and Gynaecology

E-mail: [dini.hui@sunnybrook.ca](mailto:dini.hui@sunnybrook.ca)

Administrative Assistant: Ms. Cindy Yancu

E-mail: [cindy.yancu@sunnybrook.ca](mailto:cindy.yancu@sunnybrook.ca)

Address: 2075 Bayview Avenue, Suite M4-168, Toronto, ON M4N 3M5

Phone: 416-480-4920

##### **Location:**

Sunnybrook Health Sciences Centre

Women & Babies Clinic on M4

2075 Bayview Avenue, Toronto, ON M4N 3M5

##### **Orientation:**

You are encouraged to contact Dr. Hui directly at least two weeks prior to the start of the rotation. You will be expected to complete registration and computer training prior to the start of your rotation. You should discuss with Dr. Hui at your earliest convenience any requested annual vacation or academic leave during this 1-month rotation in order to coordinate your leave with other trainees in the clinic. During your rotation there will be exposure to both maternal and fetal clinics.

### **GOALS AND OBJECTIVES:**

#### **Medical Expert:**

During this rotation, the fellow should demonstrate:

- Comprehensive understanding of all options open to a pregnant woman with regard to prenatal fetal testing and diagnosis
- Competence in counseling pregnant women about prenatal diagnosis options. This competence should include an ability to explore the relative merits and disadvantages of all options and to help the patient choose testing most appropriate for her
- Competence in carrying out each of the following:
  - o Nuchal translucency measurement
  - o Nasal bone evaluation in 1<sup>st</sup> and 2<sup>nd</sup> trimester
  - o Limited first trimester fetal anatomic review

- Competence in counseling patients about the risks, benefits, and roles of invasive and non-invasive fetal testing (Amniocentesis, NIPT, CVS, fetal blood sampling)
- When prenatal diagnosis testing has been completed, the fellow should demonstrate proficiency in assimilating the results into the patient's care as follows:
  - o Fetal testing normal – communication of results to the patient, acknowledgement of test limitations (false negative etc), appropriate follow up, communication of results to referring obstetric caregiver
  - o Fetal testing abnormal – sensitive communication of test results, comprehensive knowledge of options open to patient, multidisciplinary involvement to aid management, meticulous organization of subsequent care and follow up
- The fellow will demonstrate competence in the diagnosis and management of common fetal complications including understanding of HDFN, fetal anatomic anomalies (including but not limited to anomalies of the CVS, chest, lungs, abdomen, genitourinary tract, face and neck and limbs), fetal minor anatomic variations (e.g. choroid plexus cysts, echogenic foci in cardiac ventricles, echogenic bowel etc.), fetal health assessment (BPP, Doppler of UA, MCA, DV), placental complications, fetal macrosomia, multiple pregnancies.
- The fellow will demonstrate skill and expertise in management of complex multiple pregnancies including but not limited to higher order multiples, growth discordance, discordant anomalies.
- The fellow will demonstrate competence in identifying patients at risk for diabetes, develop expertise in managing diabetes in pregnancy both from maternal and fetal aspects, develop expertise in minimizing risks from a maternal and fetal perspective, develop expertise in pre-conception counseling, antenatal management of women with Type 1 and Type 2 diabetes as well as gestational diabetes in pregnancy.
- The fellow will demonstrate competence in management of maternal medical diseases in pregnancy (including but not limited to renal disease, neurologic illness, infectious disease, hematologic issues, maternal disabilities and endocrinologic issues etc.) including management of these pregnancies from both maternal and fetal perspectives.
- The fellow will demonstrate skill in management of pregnancies determined to be at risk based on previous obstetric or current history (e.g. preterm birth, IUGR).
- The fellow will be able to conduct a thorough investigation in cases of fetal growth restriction to determine the most likely etiology
- The fellow will become familiar with tools for stratification of the risk of placental dysfunction in low-risk and high-risk patients
- The fellow will have an in depth understanding of the Doppler changes in the IUGR fetus and their implications for fetal monitoring
- The fellow will become skillful in conducting a full Doppler assessment of the IUGR fetus and the common pitfalls in Doppler assessment

- The fellow will become familiar with key concepts in placental pathology including the pathogenetic mechanisms underlying these pathologies and their prognostic implications
- The fellow will be able to carry out consultation with couples with a history of pregnancy complicated by severe placental dysfunction
- The fellow will demonstrate skill in preconception counseling of women potentially at risk for complications in pregnancy based on prior obstetric history and/or preexisting medical disease.

**Communicator:**

Fellows should demonstrate competence in the following:

1. Communication of test results in a sensitive easily understood manner to the patient and her partner
2. Explain the implications of the test results and further follow up and options, again in a sensitive and easily understood manner
3. Communication of risks of maternal disease in pregnancy both from maternal and fetal perspectives, to communicate effect of maternal disease on pregnancy and effect of pregnancy on maternal disease, as well as the effect of maternal and fetal conditions in terms of labour and delivery risks and other considerations including mode of delivery.
4. Involvement of ancillary services, as indicated, in order to optimize the patient understanding of her options, e.g.:
  - Translation services
  - Family support members
  - Social work
  - Pastoral care
  - Patient peer support groups
  - Internet websites
  - Patient information documents/publications
  - Psychology/psychiatry
5. Communicate test results and subsequent follow-up plan to the referring obstetric caregiver
6. Communicate effectively with allied health profession where appropriate – including nursing, neonatology, sub-specialist pediatrics, genetics, social work, psychiatry and administration, medical ethics, laboratory staff.
7. Where necessary, convene and chair multi-disciplinary patient care conference

8. Documentation, and appropriate discrimination of documentation, following all patient care events.

**Collaborator:**

Fellows will demonstrate confident and considerate collaborative skills in the following areas:

1. Understanding of this referral system for fetal complications of pregnancy – locally and provincially. They will understand pressures of timeline and resources on referring caregivers and make appropriate adjustments in the triaging of referrals.
2. In the optimal management of complex cases, fellow will collaborate with allied caregivers to optimize counseling and care for the patient. Fellows will obtain input from genetics, pediatrics, diagnostic imaging as necessary and oversee synthesis of these inputs in order to provide effective patient care.

**Manager:**

By the end of their rotation, Fellows should demonstrate competence in the following management areas:

1. Manage of the team  
Fellows will be aware of their roles as junior staff and trainees. Roles will include supervision of patient care, education, research mentoring and role modeling.
2. Triage of referrals  
Knowledge of the appropriate timelines for seeing patients after consultation requests concerning possible fetal complications. Fellows will also demonstrate an understanding of reasonable workloads for clinics and support staff. Organization of feedback to referring caregivers and patients after consultation requests.
3. Conduct of antenatal clinics  
Fellows will demonstrate confidence in the management of patient flow in clinics, appropriate utilization of ultrasound machine time and appropriate recommendation for additional visits as they impact on clinical workload and patient care.
4. Admission  
Fellows will demonstrate independence in decision-making regarding need for admission to hospital.
5. Discharge  
Fellows will confidently make decisions regarding discharge of care back to referring caregivers, if there is no further role for the MFM service.
6. Documentation

Fellows will demonstrate an understanding of the need for clear contemporaneous documentation and/or dictation of all patients of care encounters. They will demonstrate diligence in surveillance for medical-legal risk and appropriate precautions/preventative measures.

7. Fellow will manage their own time, balancing the agendas of clinical commitments, research, teaching, personal health and family commitment.

**Health Advocate:**

1. Demonstrate an understanding of the determinants of health affecting patients pregnancy outcome including; family and social circumstances, smoking and substance abuse, nutrition and weight, co-existent medical disorders, patient understanding and compliance with care, psychiatric and emotional health of the pregnant women and her next of kin.
2. Demonstrate ability to act as an advocate for the individual patient to obtain effective and high-quality care.
3. Demonstrate knowledge of preventable causes of perinatal morbidity and mortality
4. Demonstrate knowledge of routine preventive health initiatives in pregnancy.
5. Demonstrate an understanding of the principles of identification and reporting of suspected domestic violence.
6. Demonstrate an awareness of legal, ethical, legal and professional obligations to protect women from suspicious circumstances.

**Scholar:**

1. Demonstrate ability to critically evaluate the literature as it pertains to individual patient care.
2. Demonstrate inquisitiveness around clinical cases and an ability to extract information and previous experience from more senior staff.
3. Demonstrate ability to apply the principles of evidence-based medicine.
4. Supervision and bedside teaching of residents and undergraduates
5. Demonstrate interest in contributing experience to the literature with case reports/service
6. Demonstrate awareness of potential benefits to the patient of active clinical trials appropriate to her case and demonstrate support for enrollment of the patient wishes.
7. Demonstrate openness to asking clinical questions and initiating research in areas of interest

**Professional:**

1. Demonstrates honesty and integrity.
2. Demonstrates compassion and empathy.
3. Demonstrates respect for others and diversity.
4. Demonstrates reliability, punctuality, responsibility and conscientiousness.
5. Demonstrates an understanding of ethical practice and applies this to one's work.
6. Demonstrates self-awareness/knowledge.

## **OPERATIONAL CONSIDERATIONS AND RESPONSIBILITIES:**

The clinic fellow at Sunnybrook Health Sciences Centre will be responsible for the week-to-week administrative management of all the complex patients identified during the rotation.

The fellow will be expected to follow the weekly timetable as shown below and to plan ahead with Dr. Hui for any intended vacation/academic leave during the rotation. The fellow is expected to be present in the clinic unless assigned to other specific responsibilities or if the fellow is post-call.

The fellow will be expected to see patients in the clinics and to be involved in communication with referring physicians, and also to organize case conferences if required with specific complex-care patients.

The fellow will be expected to be involved in presentations of complex cases at the MFM Rounds, which occur approximately every second Wednesday morning.

The fellow is encouraged to follow through with relevant subspecialty consultants following an initial assessment as well as follow up assessments.

## SCHEDULE

Monday	Tuesday	Wednesday	Thursday	Friday
0900 Maternal Clinic (Renal) Dr. Dini Hui	0900 Multiples Clinic Dr. Jon Barrett	0800 MFM/Diabetes Rounds M4-118	First 2 weeks 0800 Fetal Clinic Dr. Ori Nevo	0800 Grand Rounds
		0900 Maternal Clinic (Endocrine) Dr. Howard Cohen	Last 2 weeks 0900 Maternal Clinic (ID/Neuro) Dr. Noor Ladhani	First 2 weeks 0900h Placenta/IUGR Dr. Nir Melamed  Last 2 weeks 0900h Maternal disabilities/Preterm Birth Dr. Anne Berndl
	1200 Fetal Medicine Rounds M4-331A			
1300 Maternal Clinic Dr. Dini Hui	1300 Multiples Clinic Dr. Jon Barrett	Research Half Day	First 2 weeks 1300 Fetal Clinic Dr. Ori Nevo  Last 2 weeks 1300 Maternal Clinic Dr. Noor Ladhani	Academic Half Day

### POST CALL:

You are not expected to be at the hospital after 0930 hrs. In the transition period 0800-0930 you are expected to identify and discuss the key patients with active clinical problems with both the resident(s) on duty on your post call day and if there are particular concerns these should be communicated by you to either the patients MFM Physician, the Attending General Obstetrician, Family Practice Staff Providing Co-Care or the Physician in Charge. If in any doubt, please ensure the Physician in Charge is aware of any active problems before you depart home.

### EVALUATION

Both the ITER (manual form completed at six weeks in CanMeds format) and final evaluation (in POWER system) will be completed with the rotation coordinator, Dr. Hui. Dr. Hui will take this rotation evaluation together with feedback from staff colleagues, with whom the fellow worked in clinic.



# **DEPARTMENT OF OBSTETRICS & GYNAECOLOGY**

## Maternal-Fetal Medicine Fellowship Program

### Rotation Information – Year One Core

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#### **FETAL MEDICINE**

##### **LIAISON**

Dr. Rory Windrim, Maternal/Fetal Medicine Specialist, Department of Obstetrics and Gynaecology Email: [rwindrim@mtsinai.on.ca](mailto:rwindrim@mtsinai.on.ca)

Administrative Assistant: Anastasia Angelo

Email: [aangelo@mtsinai.on.ca](mailto:aangelo@mtsinai.on.ca)

Telephone: (416) 586-8725

Fax: (416) 586-8617

Address: Ontario Power Generation Building, 700 University Avenue, Room 3-905

##### **LOCATION**

Ontario Power Generation Building, 700 University Avenue, 3<sup>rd</sup> Floor, Special Pregnancy Unit in the Fetal Medicine Unit

##### **ORIENTATION**

You are encouraged to contact Dr. Windrim directly two weeks prior to starting this rotation. In the week prior to rotation you will meet with Dr. Windrim, and key members of the nursing staff together with the current Fellow to introduce yourself to the program and its environment.

During this time Charmaine Frater will arrange for any administrative details. You must have training in PowerChart and ensure that you have a Mount Sinai Hospital dictation number. If you do not have this please contact Charmaine Frater at [cfrater@mtsinai.on.ca](mailto:cfrater@mtsinai.on.ca).

In addition, you should discuss with Charmaine and Dr. Windrim, at your earliest convenience, with any requested annual vacation or academic leave during this three-month rotation. It is important that we ensure there is no overlap of away time between the MFM Fellow and the MFM Resident(s).

##### **GOALS AND OBJECTIVES**

###### **Medical Expert:**

During this rotation the Fellow should demonstrate:

1. Comprehensive understandings of all the options open to a pregnancy woman with regard to prenatal fetal testing and diagnosis.

2. Competence in counseling pregnant women about prenatal diagnosis options. This competence to include an ability to explore the relative merits and disadvantages of all options and help the patient to choose the testing most appropriate for her.
3. Competence in carrying out each of the prenatal diagnosis ultrasound tests:
  - Nuchal translucency measurement
  - Nasal bone evaluation in 1<sup>st</sup> and 2<sup>nd</sup> trimester
  - Limited first trimester fetal anatomic review
4. Competence in counseling patients about the risks, benefits and roles of invasive fetal testing. If these should be independently competent in:
  - Amniocentesis
  - Chorionic villous sampling
  - Fetal blood sampling

The Fellow should also be familiar with fetal blood sampling and be a competent assistant for this procedure.

5. When prenatal diagnosis testing has been completed, the Fellow should demonstrate proficiency in assimilating the results into the patients care as follows:
  - a. Fetal testing normal
    - Communication of results to patient
    - Acknowledgment of test limitations (false negative etc.)
    - Appropriate follow-up
    - Communication of results to referring obstetric caregiver
  - b. Fetal testing abnormal
    - Sensitive communication of test results (see section on communication)
    - Comprehensive knowledge of options open to patient
    - Multidiscipline involvement to aid management
    - Meticulous arrangement of subsequent care and follow-up (see next section)
6. The Fellow will demonstrate competence in the diagnosis and management of all common fetal complications:
  - In-depth theoretical and practical understanding of fetal alloimmune anemia (“Rhesus disease”) including antibody titres, Doppler studies, ultrasound appearance amniocentesis and cordocentesis. This knowledge includes formulation of a surveillance plan for pregnancy, response to abnormal results and timing of delivery.

- The Fellow will also demonstrate competence in the diagnosis and management of alloimmune fetal thrombocytopenia.
- Fetal anatomic anomalies. The Fellow will demonstrate independent competence in the diagnosis and management of the common frequent fetal structural anomalies including, but not limited to:

CNS - open neural tube defect  
 - holoprosencephaly  
 - Ventriculomegaly  
 - Intracranial hemorrhage  
 - Dandy Walker variations

Chest            Cardiac – AS / VSD  
 - Cardiomyopathy  
 - hypoplastic left or right heart  
 - anomalies of the great vessels  
 - tachy or brady arrhythmia  
 - non-immune hydrops congenital

Lungs            - cystic adenomatous malformation (CCAM)  
 - bronchogenic cyst  
 - diaphragmatic hernia

Abdomen        - gastroschisis  
 - omphalocele  
 - meconium peritonitis  
 - echogenic bowel  
 - bowel obstruction/perforation

Genitourinary - bladder obstruction (LVTO)  
 - lower or upper tract obstructions  
 - Renal anomaly/dysplasia/absence  
 - Abnormal/ambiguous genitalia

Neck & Face    - cleft lip or palate  
 - ocular anomalies  
 - retrognathia  
 - goiters/neck mass  
 - cystic hygroma

Limbs            - limb anomaly/absence  
 - movement disorders  
 - positional anomalies – talipes etc  
 - digit anomalies

## 7. Fetal minor anatomic variations

Fellows will demonstrate competence in the evaluation of minor fetal anatomic variations such as choroid plexus cysts, echogenic foci in the cardiac ventricles and echogenic bowel. They will be indepthly competent to counsel patients regarding the significance of these findings.

8. Fetal health assessment – as # 4 four in the perinatology and high risk ob section

9. Placental complications – as for # 3 in the perinatology and high risk ob section (John Kingdom)

10. Fetal Macrosomia

Fellows will be competent in reviewing ultrasound estimations of suspected fetal macrosomia and counseling patients about the implications of the results.

11. Multiple pregnancy

Fellows should demonstrate competence in accurate diagnosis of the number and chorionicity of multiple gestation. They will also be knowledgeable in surveillance for complications including discordant twin growths/well-being; twin-to-twin transfusion syndrome; co-twin death. Knowledge of the issues in fetal reduction will also be acquired by all Fellows.

12. Cervix

Fellow will gain proficiency in measurement of the cervix with transabdominal and transvaginal ultrasound. They will be able to assimilate these findings into the patient counseling with regard to preterm birth risk and use ultrasound to guide cervical cerclage.

13. Fetal procedures

Fellows will develop competence in the knowledge required for counseling regarding the following fetal interventions and assisting in their conducts:

- Fetal blood sampling
- Fetal blood transfusion
- Therapeutic amnioreduction
- Fetal fluid aspiration – pleural, pericardial, abdominal
- Fetal cavity to amniotic fluid shunting: chest, bladder
- Selective umbilical cord ligation in anomalous multiple gestation
- Fetal reduction in high-order multi-fetal pregnancy
- Laser coagulation of placenta in twin-to-twin transfusion syndrome
- Fetal skin/muscle biopsy
- Fetal or placental endoscopy

**Communicator:**

Fellows should demonstrate competence in the following:

1. Communication of test results in a sensitive easily understood manner to the patient and her partner

2. Explain the implications of the test results and further follow up and options, again in a sensitive and easily understood manner
3. Involvement of ancillary services, as indicated, in order to optimize the patient understanding of her options, e.g.:
  - Translation services
  - Family support members
  - Social work
  - Pastoral care
  - Patient peer support groups
  - Internet websites
  - Patient information documents/publications
  - Psychology/psychiatry
4. Communicate test results and subsequent follow-up to the referring obstetric caregiver
5. Communicate effectively with allied health profession where appropriate – including nursing, neonatology, sub-specialist pediatrics, genetics, social work, psychiatry and administration, medical ethics, laboratory staff.
6. Where necessary, convene and chair multi-disciplinary patient care conference
7. Documentation, and appropriate discrimination of documentation, following all patient care events.

**Collaborator:**

Fellows will demonstrate confident and considerate collaborative skills in the following areas:

1. Understanding of this referral system for fetal complications of pregnancy – locally, provincially and rationally. They will understand pressures of timeline and resources on referring caregivers and make appropriate adjustments in the triaging of referrals.
2. In the optimal management of complex cases, Fellow will collaborate with allied caregivers to optimize counseling and care for the patient. Fellows will obtain input from genetics, pediatrics, diagnostic imaging as accessory and oversee synthesis of these inputs to ovid the patients care.
3. Where appropriate, Fellows will collaborate with active research with the patients with alloimmune fetal thrombocytopenia would be offered enrollment in international randomised trial of steroids versus intravenous immunoglobulin.
4. Fellows will collaborate with all quality assurance programs in order to optimize patient care.

**Manager:**

By the end of their rotation, Fellows should demonstrate competence in the following management areas:

1. Management of the team  
Fellows will be aware of their roles as of junior staff and trainees – both medical and allied professions. These roles will include supervision of patient care, education, research mentoring and role modeling.
2. Triage of referrals  
Knowledge of the appropriate timelines for seeing patients after consultation requests concerning possible fetal complications. Fellows will also demonstrate an understanding of reasonable workloads for clinics and support staff. Organization of feedback to referring caregivers and patients after consultation requests.
3. Conduct of antenatal clinics  
Fellows will demonstrate confidence in the management of patient flow in clinics, appropriate utilization of ultrasound machine time and appropriate recommendation for additional visits as they impact on clinical workload and patient care.
4. Admission  
Fellows will demonstrate independence in decision making regarding need for admission to hospital.
5. Discharge  
Fellows will confidently make decisions regarding discharge of care back to referring caregivers, if there is no further role for the MFM service.
6. Documentation  
Fellows will demonstrate an understanding of the need for clear contemporaneous documentation and/or dictation of all patients of care encounters. They will demonstrate diligence in surveillance for medical-legal risk and appropriate precautions/preventative measures.
7. Fellow will manage their own time, balancing the agendas of clinical commitments, research, teaching, personal health and family commitment.

**Health Advocate:**

1. Demonstrate an understanding of the determinants of health affecting patients pregnancy outcome including; family and social circumstances, smoking and substance abuse, nutrition and weight, co-existent medical disorders, patient understanding and compliance with care, psychiatric and emotional health of the pregnant women and her next of kin.
2. Demonstrate ability to act as an advocate for the individual patient to obtain effective and high-quality care.
3. Demonstrate knowledge of preventable causes of perinatal morbidity and mortality
4. Appreciate the principles of health policy development as applied to obstetrics.

5. Demonstrate knowledge of routine preventive health initiatives in pregnancy.
6. Demonstrate an understanding of the principles of identification and reporting of suspected domestic violence.
7. Demonstrate an awareness of legal, ethical, legal and professional obligations to protect women from suspicious circumstances.

**Scholar:**

1. Demonstrate ability to critically evaluate the literature as it pertains to individual patient care.
2. Demonstrate inquisitiveness around clinical cases and an ability to extract information and previous experience from more senior staff.
3. Demonstrate ability to apply the principles of evidence-based medicine.
4. Supervision and bedside teaching of residents and undergraduates
5. Demonstrate interest in contributing experience to the literature with case reports/service
6. Demonstrate awareness of potential benefits to the patient of active clinical trials appropriate to her case and demonstrate support for enrollment of the patient wishes.
7. Demonstrate openness to asking clinical questions and initiating research in areas of

**Professional:**

1. Demonstrates honesty and integrity.
2. Demonstrates compassion and empathy.
3. Demonstrates respect for others and diversity.
4. Demonstrates reliability, punctuality, responsibility and conscientiousness.
5. Demonstrates an understanding of ethical practice and applies this to one's work.
6. Demonstrates self-awareness/knowledge.

**OPERATIONAL CONSIDERATIONS AND RESPONSIBILITIES**

The Maternal/Fetal Medicine Fellow is responsible for the week-to-week administrative management of all the complex patients identified in the Fetal Medicine Unit at Mount Sinai Hospital.

The Fellow will be expected to follow the weekly timetable shown below and to plan ahead with Dr. Windrim and the Fetal Medicine Unit administrative staff for any intended vacation/academic leave during the rotation. The Fellow is expected to be present in the Fetal Medicine Unit unless assigned to other specific responsibilities are shown in the weekly timetable. Specifically the Fellow will be expected to be in the Fetal Medicine Unit by 0800 and to liaise ahead of time to meet each day for new consultants arriving in according to their triaged level of acuity by the nurse coordinator (Joyce Telford).

The Fellow will be expected to work with nurse coordinator and administrative staff towards the end of the working week to prepare the charts for the operational meeting on the following Monday morning at 0800. At this meeting the Fellow is expected to take a coordinating role for discussion of outstanding management issues for new consultations and to ensure that all patients have dictation done in a timely manner (by the appropriate Fellow or staff).

The Fellow is expected to prepare a short list of cases to be discussed on the Tuesday 1200 noon rounds with Dr. Greg Ryan and to ensure that all cases for presentation have an assigned trainee (Maternal/Fetal Medicine Fellow, resident, resident from another service, or medical student attached to the Fetal Medicine Unit) for presentation.

The Fellow is expected to undertake diagnostic amniocentesis as required on any patients seen in the Fetal Medicine Unit.

The Fellow is encouraged to follow through with relevant subspecialty consultants following an initial assessment, in particular where fetal therapeutic procedures are required at the hospital.

**SCHEDULE**

Monday	Tuesday	Wednesday	Thursday	Friday
<b>0800 – 0900 - FMU Rounds, OPG 8<sup>th</sup> Floor Classroom</b> <hr/> <b>FMU Clinic Drs. Keunen/ Seaward/Ryan</b>	<b>0800 -start</b>  <b>FMU Clinic Drs. Kingdom/ Windrim</b>	<b>0800 start</b>  <b>FMU Clinic Drs. Seaward/Keunen/ Ryan</b>	<b>0800 AMNIO</b>  <b>FMU Clinic Drs. Whittle/ Czikk/Windrim</b>	<b>0800 Ob/Gyn Rounds, MSH, 18<sup>th</sup> Floor</b>  <b>FMU Clinic Drs. Ryan/Windrim/ Keunen</b>
<b>12 - 1:00 p.m. MFM Fellowship F-P rounds</b>	<b>12 - 1:00 p.m. Fetal Medicine Rounds, MSH 7<sup>th</sup> Floor Classroom</b>	<b>12 - 1:00 p.m. Perinatal or OB Med Rounds, MSH 7<sup>th</sup> Floor Classroom</b>	<b>12 - 1:00 p.m. MCP or PCC Rounds OPG, Classroom A</b>	<b>1300-1400 Sign-out rounds when F.O.W.</b>
<b>FMU Clinic Drs. Keunen/ Seaward/Ryan</b>	<b>FMU Clinic Drs. Kingdom/ Windrim</b>  <hr/> <b>CALL 50%</b>	<b>FMU Clinic Drs. Ryan/Seaward/ Keunen</b>	<b>FMU Clinic Drs. Whittle/ Czikk/ Windrim</b>	<b>General Surgery/Urology when F.O.W.</b>  <b>1500-1700 Education Teaching/ MFM Journal Club</b>

**CALL RESPONSIBILITIES**

The Fellow is expected to have four calls per month and these will be posted on the electronic on-call schedule.

Each month the Fellow is expected to do three weekday calls (Monday to Friday evening) and one weekend 24 hour call (Saturday or Sunday) and they will function as the Maternal/Fetal Medicine staff physician supervising the resident in Obstetrics and Gynaecology for Team B. The Team B Maternal/Fetal Medicine staff will remain in-house during your time on-call and will be involved patient care to the extent that you require them to directly supervise you.



For each on call you are required to complete an evaluation card in CanMeds format. On the back of the card you are expected to write details including MSID number of up to three cases which you acted as a Maternal/Fetal Medicine consultant.

This evaluation card should be co-signed by you and the MFM staff at the end of your call and returned to Program Assistant.

You are expected to continue in your clinical rotation in 7 South until 12 noon the following day, attend the relevant educational session from 12:00 to 1:00 p.m. and then at which point you are free to go home for the day.

### **POST CALL**

You are not expected to be at Mount Sinai Hospital after 0900 hrs. In the transition period 0800-0900 you are expected to identify and discuss the key patients with active clinical problems with both the resident(s) on duty on your post call day and if there are particular concerns these should be communicated by you to either the patients MFM Physician, the Attending General Obstetrician, Family Practice Staff Providing Co-Care or the Physician in Charge. If in any doubt, please ensure the Physician in Charge is aware of any active problems before you depart home.

Specifically, you are not expected to conduct a full ward round on your post call day.

### **FELLOW-OF-THE WEEK**

During rotations to Mount Sinai Hospital, individual Fellows are also on-call from home with a pager as Fellow-of-the-week. Responsibilities during this time include:

- a) Do rounds on all patients in the 7th level on Saturday and Sunday morning, including necessary ultrasound examinations, liaising with the in-house MFM staff covering labour and delivery.
- b) Liase informally each day during the working week with the "7<sup>th</sup> floor" MFM Fellow and the ward MFM residents, to be familiar with the inpatient management issues.
- c) Attend "sign-out" rounds at 1:00 p.m. Fridays, to be familiar with the patients prior to weekend rounds.
- d) Be available by pager to evaluate transfers to MSH requiring ultrasound input, and/or assist the fetal therapy team for out-of-hours activity. Please note that the Fellow-of-the-week system provides your share of invasive fetal medicine experience.
- e) Be available by pager to assist the on-call MFM staff with complex Labour/delivery high-risk cases.
- f) Be available to assess MFM consults at allied nearby hospitals (Toronto General [complex medical], Toronto Western [neurology/neurosurgery], and Princess Margaret [oncology] on behalf of "physician -in-charge for your week.

Please note that for all activities a-f you will have MFM staff back up, either in-house, or from home as appropriate.

Activity a-f takes priority over rostered sessional activities - in practice it is uncommon for these responsibilities to disrupt your normal training/working week.

During the course of clinical training individual Fellows are required to maintain logs of their clinical experience in POWER.

## **EDUCATION AND ROUNDS**

Mondays	0800 – Fetal Medicine Chart Rounds, OPG Classroom B
	1200 – Maternal/Fetal Medicine Teaching Seminar or Prenatal Diagnosis Rounds, and Fetopathology Rounds, OPG Classroom A
	1700 – Obstetric Anesthesia Rounds, Mount Sinai Hospital
Tuesdays	07300 – HSC Fetal Echo Rounds
	1200 – Fetal Medicine Rounds, Mount Sinai Hospital, 7 <sup>th</sup> Floor Classroom
Wednesdays	1200 – Rotating Rounds, Mount Sinai Hospital, Women’s College Hospital or Maternal Infant and Reproductive Health Research Unit Rounds
Thursdays	1200 – Medical Complication Rounds, OPG Classroom A
Fridays	1300 – Sign-out Rounds, 7 South
	1500 – Academic Half Day Seminar, OPG Classroom A

The Fellow is expected to attend and actively participate in the weekly rounds shown in the above timetable.

The Fellow is expected to identify relevant cases for presentation at either the Tuesday, Wednesday or Thursday rounds and to mentor more junior trainees (residents, undergraduates) to undertake presentations at these rounds.

## **EVALUATION**

Both the ITER (manual form completed at six weeks in CanMeds format) and final evaluation (in POWER system) will be completed with the rotation coordinator, Dr. Windrim. Dr. Windrim will take this rotation evaluation together with feedback from his staff colleagues, who participated in the physician of the week rota at Mount Sinai Hospital.

## **RECOMMENDED READING**

1. Ultrasonography in Obstetrics and Gynaecology by Callen, 4<sup>th</sup> Edition

2. Structural Fetal Abnormalities by Sanders 2<sup>nd</sup> Edition
3. Fetal in Medicine Basic Science and Clinical Practice by Rodeck and Whittle

# **DEPARTMENT OF OBSTETRICS & GYNAECOLOGY**

## **Maternal-Fetal Medicine Fellowship Program**

### **Rotation Information – Year One Core**

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#### **MEDICAL DISEASES OF PREGNANCY**

##### **LIAISON**

Dr. Mathew Sermer, Chief of Obstetrics and Gynaecology; Head, Maternal Fetal Medicine, Department of Obstetrics and Gynaecology, Mount Sinai Hospital Email: [msermer@mtsinai.on.ca](mailto:msermer@mtsinai.on.ca)

Administrative Assistant: Erin Stott

Email: [estott@mtsinai.on.ca](mailto:estott@mtsinai.on.ca)

Telephone: (416) 586-8411

Fax: (416) 586-4494

Room 19-111, Mount Sinai Hospital, 600 University Avenue

##### **LOCATION**

The Medical Disease Program in the Special Pregnancy Unit

##### **ORIENTATION**

You are encouraged to contact Dr. Sermer directly or through Erin Stott two weeks prior to starting this rotation. In the week prior to rotation you will meet with Dr. Sermer, and key members of the nursing staff together with the current Fellow to introduce yourself to the program and its environment.

In addition, you should discuss with Charmaine Frater and Dr. Sermer, at your earliest convenience, any requested annual vacation or academic leave during this three-month rotation. It is important that we ensure there is no overlap of away time between the MFM Fellow and the MFM Resident(s).

##### **GOALS AND OBJECTIVES**

###### **Medical Expert:**

During this rotation the fellow should demonstrate:

1. Comprehensive understandings of maternal and fetal implications encountered in women whose gestation is complicated by medical disorders.

2. Competence in counseling pregnant women whose gestation is complicated by medical disorders.
3. Competence in carrying out and interpreting pertinent investigations necessary to maintain optimal health of a gravid female (and that of her unborn child) whose pregnancy is complicated by medical disorders.
4. Understanding when surgical intervention is necessary when encountering gravidas with surgical conditions in which surgical intervention will optimize the overall maternal and fetal well being
5. Understanding and indications for invasive intrapartum monitoring in females whose pregnancy is complicated by complex and advanced medical disorders.
6. Competence in counseling patients about the fetal risks of inheritance of medical conditions associated increased risk of inheritance. The candidate will understand the role of invasive and non invasive diagnostic options. The candidate should be independently competent in:
  - Amniocentesis
  - Chorionic villous sampling
7. When testing has been completed, the fellow should demonstrate proficiency in assimilating the results into the patients care as follows:
  - Communication of results to patient
  - Acknowledgment of test limitations (false negative etc.)
  - Appropriate follow-up
  - Communication of results to referring obstetric caregiver
  - Sensitive communication of test results
  - Comprehensive knowledge of options open to patient
  - Multidiscipline involvement to aid management
  - Meticulous arrangement of subsequent care and follow-up
8. The fellow will demonstrate understanding of cardiovascular adaptations to pregnancy. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by cardiovascular disorders. The knowledge will extend to but be not exclusive to:
  - Rheumatic heart disease; valvular disease; prosthetic heart valves; cardiomyopathies; arrhythmias; congenital heart disease such T of F, ASD, VSD, Epstein anomaly, PDA and others; surgical repairs such as Mustard repair, Fontan procedure and others.
9. The fellow will demonstrate understanding of pulmonary adaptations to pregnancy. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas

whose pregnancy is complicated by pulmonary disorders. The knowledge will extend to but be not exclusive to:

- Asthma, pneumonia, primary pulmonary hypertension, cystic fibrosis and others.

10. The fellow will demonstrate understanding of gastrointestinal adaptations to pregnancy. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by gastrointestinal disorders. The knowledge will extend to but be not exclusive to:

- Crohns disease, ulcerative colitis, appendicitis, and others

11. The fellow will demonstrate understanding of hepatologic adaptations to pregnancy. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by hepatologic disorders. The knowledge will extend to but be not exclusive to:

- Cirrhosis and esophageal varices, hepatitis, liver transplant, cholestasis, cholelythiasis and others.

12. The fellow will demonstrate understanding of hematological adaptations to pregnancy. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by hematological disorders. The knowledge will extend to but be not exclusive to:

- Anemia, thrombophilia, thrombosis, coagulation disorders and others.

13. The fellow will demonstrate understanding of MSK and autoimmune adaptations to pregnancy. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by MSK and autoimmune disorders. The knowledge will extend to but be not exclusive to:

- SLE, sarcoidosis, arthritis, antiphospholipid antibody syndrome and others.

14. The fellow will demonstrate understanding of hypertensive adaptations to pregnancy. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by hypertensive disorders. The knowledge will extend to but be not exclusive to:

- Chronic hypertension, PET and others.

15. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by malignancy. The knowledge will extend to but be not exclusive to:

- Breast, hematological malignancy, neurological malignancy, GTN and others.

16. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by neurological disorders. The knowledge will extend to but be not exclusive to:

- Epilepsy, AVM, aneurisms and others.

17. The fellow will demonstrate understanding of endocrine adaptations to pregnancy. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by endocrine disorders. The knowledge will extend to but be not exclusive to:

- Diabetes, thyroid disorders, pituitary disorders, adrenal disorders and others.

18. The fellow will demonstrate understanding of renal adaptations to pregnancy. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by renal disorders. The knowledge will extend to but be not exclusive to:

- Nephropathy, nephrotic syndrome, renal transplant, pyelonephritis, nephrolythiasis, dialysis, renal failure and others.

19. The fellow will demonstrate competence in medical, obstetrical and fetal management of gravidas whose pregnancy is complicated by morbid obesity.

**Communicator:**

Fellows should demonstrate competence in the following:

1. Communication of test results in a sensitive easily understood manner to the patient and her partner
2. Explain the implications of the test results and further follow up and options, again in a sensitive and easily understood manner
3. Involvement of ancillary services, as indicated, in order to optimize the patient understanding of her options, e.g.:
  - Translation services
  - Family support members
  - Social work
  - Pastoral care
  - Patient peer support groups
  - Internet websites
  - Patient information documents/publications
  - Psychology/psychiatry

4. Communicate test results and subsequent follow-up to the referring obstetric caregiver
5. Communicate effectively with allied health profession where appropriate – including nursing, neonatology, sub-specialist pediatrics, genetics, social work, psychiatry and administration, medical ethics, laboratory staff.
6. Where necessary, convene and chair multi-disciplinary patient care conference
7. Documentation, and appropriate discrimination of documentation, following all patient care events.

**Collaborator:**

Fellows will demonstrate confident and considerate collaborative skills in the following areas:

1. Understanding of this referral system for maternal complications of pregnancy – locally, provincially and rationally. They will understand pressures of timeline and resources on referring caregivers and make appropriate adjustments in the triaging of referrals.
2. In the optimal management of complex cases, fellow will collaborate with allied caregivers to optimize counseling and care for the patient. The fellow will initiate patient care conferences as appropriate
3. Where appropriate, fellows will collaborate in active research activity within the field of medical disorders of pregnancy.
4. Fellows will collaborate with all quality assurance programs in order to optimize patient care.

**Manager:**

By the end of their rotation, Fellow should demonstrate competence in the following management areas:

1. Management of the team

Fellows will be aware of their roles as of junior staff and trainees – both medical and allied professions. These roles will include supervision of patient care, education, research mentoring and role modeling.

2. Triage of referrals

Knowledge of the appropriate timelines for seeing patients after consultation requests concerning possible medical complications. Fellows will also demonstrate an understanding of reasonable workloads for clinics and support staff. Fellow will provide feedback to referring caregivers and patients after consultation requests.

3. Conduct of antenatal clinics

Fellows will demonstrate confidence in the management of patient flow in clinics, and will provide recommendation for additional visits as they impact on clinical workload and patient care.



4. Admission

Fellows will demonstrate independence in decision making regarding need for admission to hospital.

5. Discharge

Fellows will confidently make decisions regarding discharge of care back to referring caregivers, if there is no further role for the MFM service.

6. Documentation

Fellows will demonstrate an understanding of the need for clear contemporaneous documentation and/or dictation of all patient encounters. Fellow will demonstrate diligence in surveillance for medical-legal risk and appropriate precautions/preventative measures.

7. Fellow will manage their own time, balancing the agendas of clinical commitments, research, teaching, personal health and family commitment.

8. The fellow will manage and organize Thursday MCP rounds.

**Health Advocate:**

1. Demonstrate an understanding of the determinants of health affecting patients pregnancy outcome including; family and social circumstances, smoking and substance abuse, nutrition and weight, co-existent medical disorders, patient understanding and compliance with care, psychiatric and emotional health of the pregnant women and her next of kin.
2. Demonstrate ability to act as an advocate for the individual patient to obtain effective and high-quality care.
3. Demonstrate knowledge of preventable causes of perinatal morbidity and mortality
4. Appreciate the principles of health policy development as applied to obstetrics.
5. Demonstrate knowledge of routine preventive health initiatives in pregnancy.
6. Demonstrate an understanding of the principles of identification and reporting of suspected domestic violence.
7. Demonstrate an awareness of legal, ethical, legal and professional obligations to protect women from suspicious circumstances.

**Scholar:**

1. Demonstrate ability to critically evaluate the literature as it pertains to individual patient care.
2. Demonstrate inquisitiveness around clinical cases and an ability to extract information and previous experience from more senior staff.
3. Demonstrate ability to apply the principles of evidence-based medicine.

4. Supervision and bedside teaching of residents and undergraduates
5. Demonstrate interest in contributing experience to the literature with case reports/service
6. Demonstrate awareness of potential benefits to the patient of active clinical trials appropriate to her case and demonstrate support for enrollment of the patient wishes.
7. Demonstrate openness to asking clinical questions and initiating research in areas of clinical uncertainty, if opportunities arise.

**Professional:**

1. Demonstrates honesty and integrity.
2. Demonstrates compassion and empathy.
3. Demonstrates respect for others and diversity.
4. Demonstrates reliability, punctuality, responsibility and conscientiousness.
5. Demonstrates an understanding of ethical practice and applies this to one's work.
6. Demonstrates self-awareness/knowledge.

**Academic:**

**For fellow to successfully complete this rotation the fellow will need to complete a minimum of two standard letters. In order to successfully complete this rotation the fellow will need to complete a structured review for the International Society of Obstetric Medicine (ISOM) peer review electronic publication.**

**OPERATIONAL CONSIDERATIONS AND RESPONSIBILITIES**

The Medical Diseases Fellow is responsible for the day-to-day management of the most challenging medical consultations in pregnancy in the clinics as shown in the schedule below. In addition, the Fellow is responsible for the week-to-week planning of the educational activities in the Thursday 1200 noon medical diseases of pregnancy lectures, cases presentations or special pregnancy conferences.

The Fellow is expected to take time to plan and write detailed dictation notes on new consultations, incorporating these standardised patients' letters in the medical diseases of pregnancy database. A key competency in the rotation is the ability to formulate a clear plan for management of women with medical disease of pregnancy, in particular collaboration with key medical subspecialties and anaesthesia.

Consultation letters will be reviewed in detail with Dr. Sermer on an ongoing basis.

Thursday 1200 noon rounds are a central weekly focus of the medical diseases of pregnancy program and the fellow is expected to plan these sessions carefully ahead of time with Dr. Sermer. It is for this reason that contact with him one month prior to commencing the rotation is important so that these educational activities run smoothly.

The fellow is expected to contribute to the in-patient care of women admitted from the medical disease of pregnancy, thereby assisting his/her fellow colleague in the 7<sup>th</sup> floor at Mount Sinai Hospital and the associated resident. In particular, the Fellow is expected to work closely with

the hospital residents as should be the 7<sup>th</sup> floor Maternal/Fetal Medicine Fellow be away on annual leave or conference leave.

In addition to the sessional activities shown, the Fellow is expected to plan and write a standardised patient letter on a suitable topic for inclusion in the database of standardised letters with Dr. Sermer.

The Fellow is also expected to write a mini review on a topic within maternal medicine for the International Society of Obstetrics Medicine (ISOM) website under the direction of Dr. Sermer. Satisfactory completion of both a standardised patient letter and the ISOM topic are required for successful completion of this module.

## SCHEDULE

Monday	Tuesday	Wednesday	Thursday	Friday
0800 - 0900 FMU Rounds, OPG Classroom B	0800 start MDP Clinic Dr. Murphy	0800 MDP Clinic Dr. Keunen	0800 start MDP Clinic Dr. Sermer	0745 – 0845 start Ob/Gyn Rounds MSH 18 <sup>th</sup> Floor
MDP Clinic Dr. Maxwell				Maternal Hematology Clinic Dr. Malinowski
1200 - 1300 MFM Fellowship Teaching Rounds OPG Classroom A	1200 - 1300 Fetal Medicine Rounds, MSH 7 <sup>th</sup> Floor Classroom	1200 - 1300 Perinatal or OB Med Rounds, MSH 7 <sup>th</sup> Floor Classroom	1200 - 1300 MCP or PCC Rounds OPG Classroom A	1300-1400 Sign-out rounds when F.O.W.
MDP Clinic Dr. Maxwell	FMU Clinic Dr. Murphy	Dr. Malinowski Diabetes/Endocrine 60 Murray Street Denise Feig	MDP Clinic Dr. Sermer	1500-1700 Academic Half Day Seminar OPG, Classroom A  FMU when F.O.W.

## CALL RESPONSIBILITIES

You are not expected to be at Mount Sinai Hospital after 0930 hrs. In the transition period 0800-0930 you are expected to identify and discuss the key patients with active clinical problems with both the resident(s) on duty on your post call day and if there are particular concerns these should be communicated by you to either the patients MFM Physician, the Attending General Obstetrician, Family Practice Staff Providing Co-Care or the Physician in Charge. If in any doubt, please ensure the Physician in Charge is aware of any active problems before you depart home. Specifically, you are not expected to conduct a full ward round on your post call day.

## POST CALL

You are not expected to be at Mount Sinai Hospital after 0930 hrs. In the transition period 0800-0930 you are expected to identify and discuss the key patients with active clinical problems with both the resident(s) on duty on your post call day and if there are particular concerns these should be communicated by you to either the patients MFM Physician, the Attending General Obstetrician, Family Practice Staff Providing Co-Care or the Physician in Charge. If in any

doubt, please ensure the Physician in Charge is aware of any active problems before you depart home. Specifically, you are not expected to conduct a full ward round on your post call day.

### **FELLOW-OF-THE WEEK**

During rotations to Mount Sinai Hospital, individual fellows are also on-call from home with a pager as fellow-of-the-week. Responsibilities during this time include:

- a) Do rounds on all patients in the 7th level on Saturday and Sunday morning, including necessary ultrasound examinations, liaising with the in-house MFM staff covering labour and delivery.
- b) Liase informally each day during the working week with the "7<sup>th</sup> floor" MFM fellow and the ward MFM residents, to be familiar with the inpatient management issues.
- c) Attend "sign-out" rounds at 1:00 p.m. Fridays, to be familiar with the patients prior to weekend rounds.
- d) Be available by pager to evaluate transfers to MSH requiring ultrasound input, and/or assist the fetal therapy team for out-of-hours activity. Please note that the fellow-of-the-week system provides your share of invasive fetal medicine experience.
- e) Be available by pager to assist the on-call MFM staff with complex Labour/delivery high-risk cases.
- f) Be available to assess MFM consults at allied nearby hospitals (Toronto General [complex medical], Toronto Western [neurology/neurosurgery], and Princess Margaret [oncology] on behalf of "physician -in-charge for your week.

Please note that for all activities a-f you will have MFM staff back up, either in-house, or from home as appropriate.

Activity a-f takes priority over rostered sessional activities - in practice it is uncommon for these responsibilities to disrupt your normal training/working week.

During the course of clinical training individual fellows are required to maintain logs of their clinical experience in POWER.

### **EDUCATION AND ROUNDS**

Mondays      0800 – Fetal Medicine Chart Rounds, OPG Classroom B

1200 – Maternal/Fetal Medicine Teaching Seminar or Prenatal Diagnosis Rounds, and Fetopathology Rounds, OPG Classroom A

	1700 – Obstetric Anesthesia Rounds, Mount Sinai Hospital
Tuesdays	1200 – Fetal Medicine Rounds, Mount Sinai Hospital, 7 <sup>th</sup> Floor Classroom
Wednesdays	1200 – Rotating Rounds, Mount Sinai Hospital, Women’s College Hospital or Maternal Infant and Reproductive Health Research Unit Rounds
Thursdays	1200 – Medical Complication Rounds, OPG Classroom A
Fridays	1300 – Sign-out Rounds, 7 South
	1400 – Academic Half Day Seminars

The fellow is expected to attend and actively participate in the weekly rounds shown in the above timetable.

The fellow is expected to identify relevant cases for presentation at either the Tuesday, Wednesday or Thursday rounds and to mentor more junior trainees (residents, undergraduates) to undertake presentations at these rounds.

The fellow is expected to provide input to the Morbidity and Mortality rounds, which occur on two Wednesdays per month (co-ordinator Dr. E Lyons) together with the fellow in Advanced Labour & Delivery Obstetrics.

## **EVALUATION**

Both the ITER (manual form completed at six weeks in CanMeds format) and final evaluation (in POWER system) will be completed with the rotation coordinator, Dr. Mathew Sermer. Dr. Mathew Sermer will liaise with his colleagues in the medical disease of pregnancy program (Drs. Maxwell, Murphy, Ritchie, and Windrim) prior to the final evaluations.

## **RECOMMENDED READING**

1. Medical Disorders in Obstetric Practice, 4<sup>th</sup> Edition
2. Reviews in Obstetrics and Gynaecology Journals and General Medical Journals (NEJM, Lancet, JAMA, BMJ) pertinent to Medical Disorders of Pregnancy.

# DEPARTMENT OF OBSTETRICS & GYNAECOLOGY

## Maternal-Fetal Medicine Fellowship Program

### Rotation Information – Year One Core

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#### MFM IMAGING ROTATION

##### LIAISON

Dr. Howard Berger, Head, High Risk Pregnancy Unit and Obstetric Ultrasound, St. Michael's Hospital. Email: [bergerh@smh.toronto.on.ca](mailto:bergerh@smh.toronto.on.ca) Pager: (416) 685-5272

##### LOCATION

This is a three site rotation. There is a local coordinator for each site:

- **Mount Sinai Hospital**  
Dr Nan Okun [nokun@mtsinai.on.ca](mailto:nokun@mtsinai.on.ca)
- **Sunnybrook**  
Dr Phyllis Glanc [Phyllis.Glanc@sunnybrook.ca](mailto:Phyllis.Glanc@sunnybrook.ca)
- **St. Michael's Hospital**  
Dr. Howard Berger (see contact info above)

##### ORIENTATION

You are encouraged to contact Dr. Berger directly two weeks prior to starting this rotation. In the week prior to rotation you will meet with Dr. Berger who will orient you to the 12 week multi-site schedule and discuss the goals and objectives of this rotation.

In addition, you should notify us of any requested annual vacation or academic leave during this three-month rotation.

##### GOALS AND OBJECTIVES

###### Medical Expert

#### 1. Establish and maintain clinical knowledge, skills and attitudes appropriate to their practice

1.1. Apply knowledge of the clinical and fundamental biomedical sciences relevant to performing an obstetric ultrasound including:

- Normal fetal and placental development
- Normal embryonic growth, fetal growth and development and transition from fetal to neonatal life
- Fetal cardiovascular physiology, autonomic control of the fetal heart and fetal arrhythmia
- Dynamics and disorders of amniotic fluid volume

- Multiple gestation
- Prenatal diagnosis, sonographic markers of aneuploidy and management of fetal growth aberrations
- Principles of ultrasound physics and instrumentation

### **3. Perform a complete and appropriate assessment of a patient**

- Elicit a history that is relevant, concise and accurate to context and preferences
- Demonstrate effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

### **4. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic**

Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to Maternal-Fetal Medicine, including:

- First trimester ultrasound. Includes but is not limited to :
  - Confirmation of viability ,gestational age and basic structural integrity
  - Determination of chorionicity in multiple gestation
  - Nuchal translucency and nasal bone measurement
- Second trimester ultrasound, including fetal anomaly screening
  - The resident will be able to independently perform a detailed 2<sup>nd</sup> trimester anatomy scan by organ system in a systematic manner
  - Fetal cardiac screen including situs, axis, 4 chamber view, ventricular outflow tracts, 3 vessel view, aortic and ductal arches. M-mode and pulsed wave Doppler assessment of cardiac rhythm.
  - CNS: Identification of CSP, lateral ventricles including posterior and anterior horn measurements. Evaluation of posterior fossa with measurement of trans-cerebellar diameter, cisterna magna, & nuchal fold. Identify CNS structures in the various planes (axial, saggital and coronal).
  - GI: Identify fetal stomach, liver, spleen, bowel and understand the pathologies that can affect these structures. Imaging of the abdominal wall and understand the findings in abdominal wall defects.
  - GU: Identify and measure kidneys/bladder. Identify pelviectasis and understand its clinical significanceand pathophysiology. Reliably identify gender.
  - Musculo-skeletal: Reliably identify and measure the fetal long bones. Perform detailed scans of fetal spine in all three planes. Be able to image the fetal extremities in detail.
  - Respiratory/chest: Identify the anatomy of the normal fetal chest. Be able to explain the common fetal lung pathologies and the sonographic findings in diaphragmatic hernia.
- Third trimester ultrasound including assessment of fetal growth and fetal health in singleton and multifetal gestation
- Endovaginal ultrasound: assessment of cervical length, cerclage position and placental location.

- Ultrasound assessment of multifetal pregnancies: chorionicity, anatomy, growth and identification of the unique structural and functional complications of multifetal pregnancies.
- Fetal Doppler studies to assess placental function and fetal anemia including uterine artery, umbilical artery and vein, middle cerebral artery and ductus venosus

4.1 Appropriately document and disseminate the ultrasound report.

4.2 Ensure adequate follow-up is arranged if needed.

## **5. Seek appropriate consultation from other health professionals, recognizing the limits of their expertise**

5.1. Demonstrate insight into their own limitations of expertise via self-assessment

5.2. Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal patient care

5.3. Arrange appropriate follow-up care services for a patient and their family

## **Communicator**

### ***Definition:***

As *Communicators*, physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

***Key and Enabling Competencies: Maternal-Fetal Medicine subspecialists are able to...***

### **1. Develop rapport, trust, and ethical therapeutic relationships with patients and families**

- Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy
- Respect patient confidentiality, privacy and autonomy
- Listen effectively and be aware and responsive to nonverbal cues

### **2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals**

- When relevant to the obstetric ultrasound exam, gather information about a disease, but also about a patient's beliefs, concerns, expectations and illness experience
- Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers and other professionals

### **3. Accurately convey relevant information and explanations to patients and families, colleagues and other professionals**

- Provides counseling to patients and families in an empathetic and supportive manner and provides clear and thorough explanations of diagnosis, investigation and management.
- Deliver information on, obstetrical ultrasound and fetal Doppler results to the patient and family in a humane manner and in such a way that it is understandable, encourages discussion and promotes patient's participation in decision-making to the degree that they wish.



#### **4. Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care**

- Effectively identify and explore problems to be addressed from a patient encounter, including the patient's context, responses, concerns, and preferences
- Respect diversity and difference, including but not limited to the impact of gender, religion and cultural beliefs on decision-making
- Encourage discussion, questions, and interaction in the encounter
- Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care
- Effectively address challenging communication issues such as obtaining informed consent, delivering bad news, and addressing anger, confusion and misunderstanding

#### **5. Convey effective oral and written information about a medical encounter**

- Maintain clear, accurate, and appropriate records (e.g., written or electronic) of clinical encounters and plans
- Effectively present verbal reports of clinical encounters and plans

#### **Collaborator**

##### ***Definition:***

As *Collaborators*, physicians effectively work within a healthcare team to achieve optimal patient care

***Key and Enabling Competencies: Maternal-Fetal Medicine subspecialists are able to...***

#### **1. Participate effectively and appropriately in an interprofessional healthcare team**

- Clearly describe their roles and responsibilities to other professionals
- Describe the roles and responsibilities of other professionals within the health care team. Recognize and respect the diversity of roles, responsibilities and competences of other professionals in relation to their own.
- Understand and demonstrate effective working relationships with all other professionals within the healthcare team including but not limited to the referring physician /midwife, the radiologist, sonographer/US technician, clerical and nursing staff and maternal fetal medicine specialist.

Work with others to assess, plan, provide and integrate care for individual patients (or groups of patients)

- Understand and demonstrate the importance of cooperation and communication among health professionals involved in the care of individual patients such that the roles of these professionals are delineated and consistent messages are delivered to patients and their families.
- Where appropriate, work with others to assess, plan, provide and review other tasks, such as research problems, educational work, program review or administrative responsibilities

## **2. Effectively work with other health professionals to prevent, negotiate, and resolve interprofessional conflict**

- Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team
- Demonstrate the ability to accept, consider and respect the opinions of other team members, while contributing specialty-specific expertise him/herself. This will include the ability to communicate effectively with the members of the Maternal-Fetal Medicine interdisciplinary team in the resolution of conflicts, as well as the provision of feedback
- Work with other professionals to prevent and resolve conflicts
- Respect differences, misunderstandings and limitations in other professionals
- Recognize one's own differences, misunderstanding and limitations that may contribute to interprofessional tension

### **Manager**

#### ***Definition:***

As *Managers*, physicians are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

***Key and Enabling Competencies: Maternal-Fetal Medicine subspecialists are able to...***

1.1. Work collaboratively with others in their organizations

1.2. Manage the workflow in an ultrasound unit, recognizing the importance of adhering to a booking schedule but also taking into account the need to prioritize cases according to medical urgency.

1.3. Describe principles of healthcare financing as it pertains to obstetric ultrasound including physician remuneration, budgeting and organizational funding

### **Scholar**

#### ***Definition:***

As *Scholars*, physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

***Key and Enabling Competencies: Maternal-Fetal Medicine subspecialists are able to...***

#### **1. Maintain and enhance professional activities through ongoing learning.**

- Demonstrate self-directed learning of the theoretical and practical components of advanced obstetric ultrasound competencies. Identify personal areas for targeted knowledge enhancement.
- Recognize and reflect learning issues in practice
- Demonstrate an effective lecture or presentation

### **Professional**

#### ***Definition:***

As *Professionals*, physicians are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

***Key and Enabling Competencies: Maternal-Fetal Medicine subspecialists are able to...***

**1. Demonstrate a commitment to their patients, profession, and society through ethical practice**

- Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism
- Demonstrate a commitment to delivering the highest quality care and maintenance of competence
- Recognize and appropriately respond to ethical issues encountered in practice
- Understand the complex ethical issues relating to maternal-fetal medicine and the ability to use this understanding in facilitating appropriate patient care (e.g. multiple gestation with assisted reproductive technologies, fetal therapies, breaking bad news)
- Use appropriate strategies to maintain and advance professional competence
- Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law
- Maintain appropriate relations with patients.

**SCHEDULE**

**Maternal Fetal Medicine Residency – Ultrasound rotation  
University of Toronto  
2011-2012**

Monday	Tuesday	Wednesday	Thursday	Friday
0800 start	0800 start	0800 start	0800 start	07:45 - 0900 Grand Rounds Academic half day
SMH or Sunnybrook	SMH or Sunnybrook	SMH or Sunnybrook	SMH or Sunnybrook	
12:00 - 1:00 p.m. MFM Fellowship Teaching Rounds OPG, Classroom A	12:00 - 1:00 p.m. Fetal Medicine Rounds, (Teleconference)	12:00 - 1:00pm	12:00 - 1:00 p.m. MCP Rounds (Teleconference)	1:00-2:00 p.m. "Sign-out" Rounds if FOW
SMH or Sunnybrook  <i>Last 4 weeks- MSH 1<sup>st</sup> trimester US with Dr Okun</i>	SMH or Sunnybrook	SMH or Sunnybrook)  <i>Last 4 weeks [MRI Imaging Cases and Review with Dr. Susan Blaser- 4-8pm, Hospital for Sick Children]</i>	SMH or Sunnybrook	1500-1700 Education Teaching/ MFM Journal Club

**CALL RESPONSIBILITIES**

During the imaging rotation the fellow will continue to participate in the fellow in-house call schedule. The fellow is expected to have his/her four calls per month which will be posted by Charmaine Frater on the electronic on-call schedule maintained by her. It is preferable that the weekday call will not be a fixed day so that you do not always miss the same imaging session. In addition weekend call should not be scheduled on the Sunday's preceeding Dr Okun's teaching sessions at MSH (4 Mondays during the rotation).

You are not required to participate in imaging rotation activities post call.

**FELLOW-OF-THE WEEK**

During the imaging rotation you will continue to participate in a fellow-of –the- week (FOW) call schedule. The imaging fellow will continue to provide nighttime and weekend FOW coverage and will be expected to participate in Friday sign-out rounds at MSH at 1pm before the 2-4pm academic half day..

**EVALUATION**

Both the ITER (manual form completed at six weeks in CanMeds format) and final evaluation (in POWER system) will be completed with the rotation coordinator, Dr. Howard Berger and Dr. Phyllis Glanc. Dr Berger will liaise with the site coordinators to obtain individualized site-specific feedback and evaluations.

**RECOMMENDED READING**

TBA