MASSACHUSETTS EYE AND EAR INFIRMARY

Anesthesia Elective 2017-2018

This elective is for residents who desire experience in anesthesia for adult and pediatric Ophthalmic and Otorhinolaryngologic (ENT) surgery. It can be tailored as a senior or junior elective but the resident would need to have a minimum of 6 months prior experience, including pediatric cases, in order to maximize their learning experiences.

The Massachusetts Eye and Ear Infirmary (MEEI) is a specialty hospital delivering medical care to adults and children with ophthalmic and ENT problems. The MEEI is a Harvard Medical School teaching hospital and is affiliated with Massachusetts General Hospital. At the present, the MEEI performs approximately 17,000 procedures in the operating room annually, including well over 6,000 pediatric surgeries per year.

Ophthalmic procedures include the following:

- Cataract excision and IOL placement
- Vitrectomy
- Open globe repair
- Ocular muscle surgery
- Blepharoplasty (including Cosmetic)
- Lid repairs and reconstructions
- Nasolacrimal duct surgery
- Scleral buckles and retinal detachment surgery
- Glaucoma valve surgery
- Pediatric eye exams

Residents will have the opportunity to learn and master Peribulbar (PBBB) blocks for eye surgery. This is a unique regional anesthetic technique that is not routinely taught in other training programs. The resident can expect to perform 20 to 25 blocks during the rotation. In addition, they will experience and learn to perform in a highly efficient and safe manner with surgeons doing 10 to 20 cases per day. For Otorhinolaryngology we offer the following procedures:

- Myringotomy with or without tube placement
- Tympanoplasty and ossicular chain repair
- Tympanomastoidectomy
- Endoscopic sinus surgery
- Septorhinoplasty
- Tonsillectomy with or without adenoidectomy
- Vocal cord surgery
- Laser surgery of the airway
- Laryngoplasty and/or laryngectomy
- Laryngotracheal reconstruction
- Radical neck dissection with free flap
- Thyroidectomy with nerve monitoring
- Parathyroidectomy with nerve monitoring
- Facial plastic cosmetic surgery
- ORIF facial fracture repair
- Facial paralysis repair

This is an exceptional opportunity for residents to 'share' the airway with surgeons, learn anesthesia for outpatient pediatric and adult ENT cases, and learn the practice of management of 'difficult' pediatric and adult airways. They will have the opportunity to use a variety of airway devices including flexible LMAs, fiberoptic laryngoscope, Glidescope and McGrath scope for visualization of the glottis.

Faculty

The Chairman of Anesthesia is Dr. Sunil Eappen. Dr. Bil Ragan is the Director of Medical Education, responsible for education, supervision, and evaluation of the residents. Mrs. Julia Moretti is the Office Manager and Administrative Coordinator responsible for credentialing, scheduling and other needs as necessary. Dr. Ragan along with the resident and other staff will tailor the curriculum during the one-month rotation. Our goal is to expose residents to a variety of teaching styles and techniques to enhance their education. We have a diverse staff, the majority of whom have trained at local Harvard Anesthesia programs, and many with specialty training in pediatric anesthesiology:

Teresa Bean	Lina Bolanos
Maria Bortkiewicz	Kathrin Bourdeu
Stephen Campo	Makara Cayer
Ivanya Choumanova	Martha Cordoba
Susan Darrah	Sunil Eappen
Ililu Fat	Nancy Gessner
Jeremy Goldfarb	Arezou Goli
Artem Grush	Lida Hammond
Holly Happe	Martin Hortaleza
Yuka Kiyota	Yana Levin
Alvaro Macias	Ben Mizell
Suzannah Panistsas	Bil Ragan
Roger Russell	Nita Sahani
Anthony Sordillo	Peng Xiao
Dongdong Yao	

Primary Areas of Clinical Practice and Technique

A. Pediatric Anesthesia

1. Maintenance of adequate airway in unusual positions (e.g. anesthesia machine on left, standing to side)
2. Assessment and management of obstructive sleep apnea
3. Proper sizing and placement of pediatric endotracheal tubes, flexible laryngeal mask airways, and laser tubes
4. Use of spontaneous ventilation during airway and eye surgery
5. Assessment of risks and management of deep extubations
6. Care of infants/children with a history of prematurity or unusual syndromes (e.g.

Mitochondrial dysfunction, Goldenhaar's, CHARGE, etc.)

B. Deep Extubations - *Anesthesia for 'rapid-turnover' cases*

(E.g. Myringotomy and tube placement, adenotonsillectomy, Cataract removal, etc.)

1. Safe delivery of a sleeping patient to the PACU
2. Vigilance for laryngospasm and preparation for treatment
3. Rapid room turnover with minimal assistance

C. Difficult Airways - *Indirect laryngoscopy*

1. Proper assessment and planning for the difficult airway
2. Use of Fiberoptic scopes, Glidescopes, C-Mac scopes, or McGrath scopes, with or without Bougies
3. Laryngology Clinic – One day will be spent with a laryngologist observing office examinations of patients with known airway pathology.

D. Regional Ophthalmic Anesthesia - *Eye surgery*

1. Preparation and placement of Peribulbar blocks (PBBB)
2. Placement of flexible laryngeal mask airways
3. Recognition and management of the oculocardiac reflex
4. Induction and maintenance of anesthesia for open globe cases

E. Nerve Monitoring under Anesthesia

1. Use of short-acting muscle relaxants on a routine basis
2. Performing intubations without muscle relaxation

F. Postoperative Care

1. Assessment of oxygenation in the PACU
2. Assessment and management of agitation
3. Pain control
4. Nausea control

Primary Cognitive Objectives

A. Preoperative Anesthesia Consultation - *Anesthetic risk assessment*

1. Thorough chart review, paper and digital
2. Focused patient history and physical
3. Identification of need for subspecialty consultation

B. Explanation of Anesthesia to the Patient

1. Utilization of interpreter services when indicated
2. Be a patient advocate, e.g., provide appropriate advice such as smoking cessation in a pediatric patient's home

C. Obtain Informed Consent for Anesthesia - *Including response to questions and concerns of the patient*

D. Clear Presentation of Anesthetic Plan

1. Address patient's health concerns
2. Understand the surgical procedure and needs of the surgeon
3. Be aware and have contingency plans prepared

E. Documentation of Perioperative Events

F. Conduct Journal, Textbook, and Internet Review - *As indicated by the patient's medical condition*

Primary Development Objectives

A. Maintenance of Patient Confidentiality

1. Compassionate and respectful treatment of patients and their Families
2. Cultural sensitivity to patients and colleagues

B. Respectful and Appropriate Behavior to Nursing, Surgical, Support and Anesthesia Personnel

C. Confidence in trying New or Different Anesthesia Plans

1. Acceptance of adequate assistance or supervision while attempting new techniques
2. Recognition of when increased supervision is necessary

D. Acknowledgement of Error and Misunderstanding

1. Acceptance of criticism with maturity

E. Give thoughtful Assessment of your Experience at the MEEI

1. Solutions can be made if awareness of the problem is known

Logistics

A. Arrival and Daily Schedule

1. *Arrival* - The resident is expected to arrive at the Anesthesia Department Office on the 7th floor, just before 7AM on the first day. There the resident will receive the following items:

MEEI Anesthesia Notebook
ID Badge with Scrub Machine Access (to be returned at rotation end)
Pharmacy Pyxis password form

After receiving these items the resident will proceed down the rear stairwell behind the cafeteria to the 6th floor and enter the appropriate locker room. After changing into scrubs, the resident will proceed down the stairwell located in the lounge area and go to the 'S' floor. This is our main OR floor and upon arrival one will see the Main OR Desk. Then proceed past the desk and go down the OR hallway on the right. The first door on the left opens into our Anesthesia Work Office. The Schedule Runner (Floor Runner) will inform the resident of his assignment, his attending staff and the essential locations of pharmaceuticals and supplies. The first day controlled substances will be provided by the staff. By mid-morning a Pyxis

password will be assigned for the resident's use the remainder of the rotation. Please note all controlled substances must be accounted for by the end of each day. An assignment cannot be given for the following day until this is done.

2. *Daily Schedule* – The resident is expected to be at the MEEI by 7AM, and the patient should be in the OR by 7:30AM. Should the resident need more time for his morning setup he is free to come earlier. Sometime from 8:30AM to 11:30AM a 15 minute morning break will be offered. Beginning at 11:30AM we start providing 30 minute lunch breaks. In the afternoon another 15 minute break will be offered. More than likely, the clinical day will finish between 4 and 5PM. If the resident is on call they will be relieved by 3PM so that they can have additional rest before beginning their evening shift. Of course, the resident is not expected to work post-call.

3. Likewise, the resident is encouraged to attend the regularly scheduled Resident Conferences at MGH on Thursday mornings between 7 – 9 AM. We will need to know the resident's expected call days or other scheduled absences at the beginning of the rotation.

4. Around 2PM every day the OR schedule for the next day is released. The resident is encouraged to consider the cases offered and speak with Dr. Peng Xiao, our Clinical Director, to be assigned to desired rooms. This is the resident's rotation and they can determine the types of experiences they need.

Evaluation

A. Observations and Examinations

1. *Staff Observation* - Performance review will be based on a written assessment by the staff that worked with the resident during the rotation. Feedback on the resident's performance should be given on a daily basis by the assigned attending. If not volunteered the resident is encouraged to initiate the discussion. This is the primary evaluation.

2. *Pre- and Post- Test* - There will also be a brief written pretest given early in the rotation. This will be followed by another brief written test given at the end of the rotation. The purpose of these tests is to demonstrate where learning has occurred and where further review is needed. They are a cognitive measure.

3. *Demonstration of Clinical Skills (DCS)* - In addition, for this academic year we are conducting a DCS (Demonstration of Clinical Skills) evaluation. This will be done during the last week of the rotation and will focus upon the resident's ability to provide a safe anesthetic to healthy pediatric patients undergoing either myringotomy and tube placement or tonsillectomy. *The resident will be expected to perform these anesthetics in a safe, professional manner with minimal assistance from the attending. The purpose is to demonstrate that the resident has developed the skill set to independently provide anesthetic care for these routine pediatric cases. The attending will be in the room observing during the DCS and be available if assistance is needed.* Both verbal and written feedback will be given to the resident at the conclusion of the DCS. Prior to the day scheduled for the evaluation the resident will be provided with a set of 'Performance Objectives (PO)'. This is a methodical list of preparation and practice activities that will be assessed by the assigned attending during the conduct of the DCS. This is provided to give guidance to the resident in preparation for the evaluation. The resident must meet the Performance Objectives (PO) to the satisfaction of the evaluating attending in order to achieve a pass. The DCS functions as practical examination of the residents developed, clinical skills.

At the conclusion of the rotation evaluations will be forwarded from the MEEI to the respective Residency Directors of the participating institutions. Likewise, we will ask that the residents provide an evaluation of the MEEI so that we can improve the rotation for future participants. Should there be any concerns or other issues involving the residents the Residency Directors will be contacted as needed. We have been pleased with the quality and professionalism of the residents who attend the MEEI in the past, and have not had any significant issues.

MGH Addendum

A. Residents

1. MGH will provide 12 residents per year with each resident serving one month at the MEEI. These 12 residents will compose 1 full-time equivalent staff member (FTE) and will be granted the same rights and privileges as a full-time staff member.
2. At the present each MGH resident has 20 vacation days and 5 personal days available for their use per year. Thus there are a total 25 days available for use by these 12 residents per year. Should these days be taken early in the year, additional days beyond 25 will not be granted to residents requesting days later in the year.
3. Under extraordinary circumstances where residents are absent beyond the 25 days, the MEEI will be compensated on a prorated basis from MGH to provide coverage for these absences. Post-call days are excluded from the given 25 days.

B. MEEI Contacts

MEEI Education Director –
Dr. Bil Ragan – Bil_Ragan@meei.harvard.edu

MEEI Rotation Coordinator –
Julia Moretti – Julia_Moretti@meei.harvard.edu
(617) 573-3380
Mrs. Moretti will ensure that all necessary credentials are present, and is responsible for other administrative duties.

MEEI Clinical Director –
Dr. Peng Xiao – Peng_Xiao@meei.harvard.edu

MEEI Anesthesia Chairman –
Dr. Sunil Eappen – Sunil_Eappen@meei.harvard.edu