Critical Care Medicine & Trauma

Program Highlights

Educational program

The program is a demanding 24 months in length and is divided into 12 “core” clinical Intensive Care rotations and 12 months devoted to primarily to trauma fellowship training and appropriate electives. Our program aims to develop leaders in Critical Care Medicine and Trauma, whether they intend to pursue an academic career in research or education, or a community-hospital based practice. The candidate will be exposed to a broad spectrum of critical illness and gain experience in the management of patients with medical, surgical, neurological illness, neurotrauma, transplantation, and trauma. The trainee will rotate through five different Intensive Care Units, each with emphasis on different patient populations and trauma fellowship training based at a Level 1 trauma center. During the trauma fellowship, the candidate is expected to be able to coordinate acute care between multiple services. The candidate should also be familiar with the operative and non-operative management of life and limb-threatening injuries and acquire decision-making skills for complex multiply-injured patients. In addition, s/he will also be responsible for the ongoing care and co-ordination with other specialties in management of the trauma patients in ICU, the wards, as well as involvement in the organization of appropriate rehabilitation. A model template is attached at the end of the document.

The Core Adult Critical Care Program takes place in the Intensive Care Units of the Royal Victoria Hospital (RVH), Montreal General Hospital (MGH), Jewish General Hospital (JGH), Montreal Neurological Institute (MNI), and the Montreal Chest Hospital. All candidates rotate through each of these centers. There will be an emphasis on training at the MGH site which is a Level 1 trauma center. In addition, the candidate will do trauma fellowship training at the MGH site. During rotations at the MGH ICU, with the exception of the junior month, the trainee will take trauma call and assist in the operative management of appropriate cases. The elective pediatric component takes place at the Montreal Children's Hospital. The units at the RVH, MGH and JGH are multi-disciplinary with Attendings from surgery, medicine, respirology, cardiology, emergency medicine, and anaesthesia. These ICU’s are "closed" units in that all aspects of patient care are managed by the Intensivist and the Intensive Care Unit Team. In addition to clinical rotations the academic component of the program includes:

- Medical simulation education at the McGill Medical Simulation Centre.
- 4 academic half days per period, consisting of didactic, article review, case discussions and exam preparation.
- Program-wide journal clubs four to six times per year.
- Research requirements with opportunities in bench, translational, and clinical research.
- A required Quality Improvement project.
- A required technology assessment project.
- Considerable flexibility in planning and adapting the 12 non-core rotations to optimize future career goals of the resident.
Available Electives:

Pulmonary ICU and Bronchoscopy, Trauma, Echocardiography, Epidemiology, Burns, Paediatric Critical Care, Research, Anaesthesia, CCU, Echocardiography, Cardiology consults, Respirology, Infectious Diseases, Hepatology, Nephrology, Nutrition, Toxicology, Transport Medicine, Community ICU, High-Risk Pregnancy, Interventional Radiology.

In addition to clinical rotations in critical care, trauma and electives, the following rotations and activities are mandatory:

“Fundamentals of CCM” Rotation

All incoming CCM Residents are scheduled for a one-month rotation called “Fundamentals of CCM” during the third period. This month is completely educationally orientated with no daytime clinical responsibilities or night call duties. The objectives of this rotation are to develop and increase the knowledge base and clinical skills to the level required of a CCM Resident in a “front-loaded manner” and impart a solid foundation on which to add more advanced knowledge throughout the year. During this month the CCM resident will be given assigned reading, theoretical lectures from ICU Attendings, and practical sessions from Nutritionists, Pharmacists, Respiratory Technicians, and ICU Nursing. Topics include Respiratory and Cardiovascular Physiology, Mechanical Ventilation, ICU Monitoring, Continuous Renal Replacement Therapy, Common ICU Procedures including Ultrasound Guided procedures, Crisis Resource Management, Advanced trauma Life Support, Epidemiology and Clinical Research.

Ultrasound:

All incoming residents are enrolled in an intensive 2 day POCUS course. In addition, all residents have regularly scheduled chest, cardiac and vascular ultrasound sessions with certified sonographers. In addition, residents can do electives in echocardiography.

Academic Activities:

Residents are relieved of all clinical duties one day per month for the program-wide “Academic Full-day” where an organized curriculum based on a major Critical Care Medicine textbook (Hall, Schmidt, Wood) is followed over a two-year period. Written exams are given at the end of each session. There are also combined critical care rounds weekly where CCM residents are expected to present one topic per year. In addition each hospital ICU site has multiple academic sessions each week. CCM Residents are expected to give a series of lectures covering basic ICU topics to rotating junior residents throughout the year. All are expected to become instructors in the Fundamentals of Critical Care Support Course. The McGill Medical Simulation Centre is used for multiple sessions and program-wide journal clubs are held several times each academic year. They are also expected to complete a research project and submit at least one manuscript. The trauma fellowship training component also involves research and an expectation of at least 2 manuscripts to be submitted. It is anticipated that the candidate’s major area of research will be focused on areas of interest in critical care and trauma.
On-call Duties of Residents

The program adheres completely to the present contract agreed to between the Federation of Medical Residents of Quebec (FMRQ) and the Minister of Health and Social Services. During their core rotations in the ICU, residents are on call from home every third night in accordance with the resident contract in Quebec, for a total of nine on call periods per 28-day period. There are no ‘in-house” call requirements for CCM Residents, nor are there any call requirements during the twelve elective or research months.
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YEAR 1:
- ICU: 6
- TRAUMA: 5
- ELECTIVE: 2
- RESEARCH

YEAR 2:
- ICU: 7 4 MONTHS TRAUMA ICU
- TRAUMA: 1
- ELECTIVE: 5
- RESEARCH