

## **Royal College Emergency Medicine Residency Program**

Postgraduate clinical fellowship in Emergency Medicine Ultrasound

### **Program Information**

Number of Positions: 1 per year  
Fellowship Duration: 12 months  
Academic Affiliation: McGill University  
Fellowship Director: Dr. Joel Turner  
Hospital Involved: Jewish General Hospital

**Candidates must secure [funding](#) in order to apply for this Fellowship**

### **Goals and Objectives - Program Highlights**

The McGill emergency ultrasound fellowship is an intensive 1-year program, dedicated to teaching core and advanced point of care ultrasound applications. The goal is to develop future national and international leaders in both clinical and academic point of care ultrasound. Using POCUS findings in clinical decision making, recognizing critical findings that affect management as well as the limitations of POCUS is a paramount objective in the education of every fellow.

Based at the Jewish General hospital, the busiest adult ED in the province of Quebec, the fellow will have access to his/her own ultrasound unit (Philips Sparq) for both clinical as well as teaching responsibilities. In 2019, over 19,000 POCUS exams were performed in the ED. Along with a very high acuity and varied pathology, the fellow is guaranteed to have a significant exposure to POCUS.

The fellow will be responsible for one-on-one teaching of both basic and advanced ultrasound techniques to residents and students rotating at the JGH ED. He/She will be act as instructor for ePOCUS courses given to EM, Family Medicine, and Intensive Care residents and faculty. The fellow will also be responsible for presenting cutting edge material both during academic half day as well as journal club.

Finally, it is expected that the fellow will supervise residents undertaking POCUS electives and research at the JGH.

With a dedicated and active research department in the ED, there is a strong emphasis on performing, presenting and publishing POCUS-based research by the end of the year.

## Current Research

1. Alsaleh M, Alshathri, Xue X, Robichaud L, Turner J. The Role of  $\beta$ -hCG and Point of Care Ultrasound in the diagnosis of Suspected Ectopic Pregnancy in the Emergency Department
2. Abdelhamid K, Turner J. The Use of the Erector Spinae Plane Block to Decrease Pain and Opioid Consumption in the Emergency Department: A Literature Review.”
3. Robichaud L, Desjardins MP, Albina A, Paquin H, Turner J. The Use of Point-of-Care Ultrasound in the Diagnosis of Acute Infectious Mononucleosis in the Emergency Department
4. Marton G, Turner J. Point-of-Care Ultrasound vs Computer Tomography in the Emergency Department for Uncomplicated Renal Colic: A Retrospective Length-of-Stay and Cost Analysis Study

## Publications:

1. Turner J. DVT EDE, in The EDE Book - Point of care ultrasound for Emergency Physicians, 2012 Turner J. Ocular EDE, in The EDE Book - Point of care ultrasound for Emergency Physicians, 2012
2. Turner J, Dankoff J. Thoracic Ultrasound. Emerg Med Clin North Am. 2012
3. [David Lewis](#), [Louise Rang](#), ... [Laurie Robichaud](#), ... [Joel Turner](#),... et al: [Recommendations for the use of point-of-care ultrasound \(POCUS\) by emergency physicians in Canada](#). CAEP Position Statement, CJEM. 2019, Vol 21.6
4. Alqaydi K, Turner J, Robichaud L, Hamad D. Age-adjusted D-dimer and two-site compression point of care ultrasonography to rule out acute deep vein thrombosis - a pilot study. CJEM. 2018, Vol 20. Supplement S1

## Teaching Faculty:

- Joel Turner. FRCP, CSPQ, specialist in Emergency Medicine. Attending physician at the JGH ED since 2002. CPoCUS Master Instructor. EDE-2, co-founding instructor and author. EDE-3 lecturer. Director of ED ultrasound program for FRCP EM residents. Director of ePOCUS Essentials course. Graduate of Ultrasound Leadership Academy
- Dr. Laurie Robichaud, FRCP, CSPQ, specialist in Emergency Medicine. Attending Physician at the JGH ED since 2016. CPoCUS Master Instructor. Graduate of Ultrasound Leadership Academy. Special focus on cardiac POCUS, ED TEE

- Dr. Jerrald Dankoff, CSPQ, specialist in Emergency Medicine. Attending Physician at the JGH ED since 1981. CPoCUS Master Instructor. Special focus on thoracic and cardiac POCUS.
- Dr. Paul Brisebois, CCFP-em. Attending Physician at the JGH ED since 2016, CPoCUS Master Instructor.
- Dr. Jerome Stasiak, CSPQ, specialist in Emergency Medicine. Attending Physician at the JGH ED since 1983, CPoCUS Master Instructor. Special Focus on Musculoskeletal ultrasound.
- Over 95% of emergency Department staff at the Jewish General Hospital are I.P. certified in the core applications of POCUS.

#### **Academic and Clinical Facilities:**

- Emergency department, Jewish General Hospital (JGH)
- Dedicated Emergency Medicine ultrasound simulation/training room in the Pavilion K emergency department with ultrasound phantoms, and CAE Vimedix simulator including cardiac, abdominal, and TEE probes and pathology.
- Research Department, JGH, ED
- McGill Simulation Centre

#### **Fellow Duties, Responsibilities, and Curriculum**

The curriculum is based on 13 four-week rotations:

- 12 rotations in the JGH ED. Approximately 8 clinical shifts per rotation. The fellow will act as a senior supervisor to residents rotating in the ED. The fellow will be scheduled to work alongside teaching faculty who are CPoCUS Independent Practitioners (formerly CEUS).
- Fellows will be required to log all scans and will be expected to have performed at least 800 scans and be eligible and encouraged to obtain the American Registered Diagnostic Medical Sonographer (RDMS) certification.
- It is expected that the fellow obtain level one proficiency as defined by the Canadian Society of Echocardiography.
- 1 elective (Pediatric, TEE, research, Admin).

### *Example Curriculum*

**Period 1:** Core POCUS, basic physics and knobology, Quality assurance

**Period 2:** Cardiac-1 (Gross LV function), lung-1 (Pneumothorax, Pleural effusion, Interstitial Syndrome), ePOCUS course

**Period 3:** Biliary, Renal, Cardiac-2 (pericardial effusion, tamponade)

**Period 4:** Advanced knobology, Procedures (central, peripheral lines), DVT, Lung-2 (pneumonia, Blue Protocol)

**Period 5:** Cardiac-3 (Diastology), Procedures-2 (Thoracentesis, Paracentesis, LP), MSK-I (Joints)

**Period 6:** Cardiac-4 (Right Ventricle), MSK-2 (Fractures, tears), Abdomen-1 (SBO)

**Period 7:** Cardiac-5 (Valvulopathy), Soft Tissue, RUSH

**Period 8:** Cardiac-6 (Wall Motion), Nerve Blocks-1 (Basics), Airway

**Period 9:** Regional Nerve Block-2, Ocular, MSK-3 (Shoulder)

**Period 10:** Abdomen-2 (Appendicitis, Diverticulitis), Fluid responsiveness, Testicular

**Period 11:** Elective (Pediatrics, TEE)

**Period 12:** Cardiac-7 (Review), Quality Assurance review, Research completion

**Period 13:** Admin, Wrap-up, Evaluation

### **There will be additional academic/scholarly responsibilities.**

- Attain CPoCUS Core IP status in the first month (if not already obtained)
- Monthly review of the ultrasound literature with the Fellowship Director. The fellow will present a landmark article at one of the monthly EM journal clubs
- Weekly Quality Assurance review of ultrasound images generated in the ED by staff and residents. Review M+M cases dealing with POCUS use
- Help coordinate annual resident McGill ePOCUS course emergency medicine, family medicine, and critical care residents
- Help with certification training for FRCP EM residents during ED/ultrasound rotation. This is done with the Fellowship Director in coordination with the Canadian Point of Care ultrasound society (CPoCUS)
- Research project: Develop and conduct at least one research project suitable for publication; Present at least one research project either at McGill RRD and/or at national or international meeting.
- Coordinate 1 morning of Academic half-day in the residency program. This may include Simulation sessions, Grand Rounds presentations, Literature Review, etc...

### **Intended Case Load.**

- The emergency department at the Jewish General Hospital is the busiest adult emergency department in Quebec, with over 96,000 visits annually. Furthermore, there is a massive variety of pathology seen in the ED, with particular focus on oncology, cardiology, sepsis, and geriatric cases; all of which lend themselves to bedside assessment with POCUS
  
- Regular reading materials. The fellow will be expected to keep up with the latest literature in peer review journals (eg: AEM, Annals of EM, CJEM, J of US in Med), all of which are accessible online. In addition, the fellow will be provided with a copy of the Essentials of *Point of care ultrasound for Emergency Physicians*. Finally, there are numerous very high quality online blogs providing cutting edge video and literature reviews that the fellow will be expected to keep up with.