



Surgical Critical Care:
A Subinternship at Brigham and Women's Hospital
Boston, USA



Dylan James Mac Lochlainn

Surgical Critical Care, Trauma, and Burn Management is a Harvard Medical School (HMS) elective course that is open to both home and visiting students. It is four weeks long, and I completed it in May 2015 as part of my final year elective.



The course is based at Brigham and Women's Hospital (BWH), one of the largest teaching hospitals affiliated with HMS. While a national and international leader in multiple areas of medicine today, BWH and its predecessor hospitals, have been the site of many medical milestones, including the first successful human organ transplant (kidney; 1954).

For the duration of the course, I was attached to the team serving 8D, one of two eighth floor wards, which together comprise the surgical intensive care unit (SICU). The team is composed of an attending surgeon or anaesthetist, residents in surgery, anaesthesia, and obstetrics and gynaecology, and interns in anaesthesia, nurses (1:1 ratio of nurses:patients), pharmacists, and a physician assistant. Given the complexity of the patients admitted to the SICU, many other clinical teams and professionals were involved in each patient's care on a consultant basis.

An average day of the rotation consisted of arriving at BWH before 6 a.m., changing into scrubs, and going to 8D, where I would see any patients I had been assigned and examine them. I would also talk to the on-duty nurse, the on-call physician, and any other specialist consultants who were conducting their rounds about the patient's progress overnight and any actions or discussions required. At 7 a.m. the team would gather for a lecture on a ICU-relevant topic given by an attending. The ward round started at 8 a.m. and as part of this, I would present the patients. All members of the team listed about would be present.

The presenting format used is as follows: patient details; a brief summary of history including injuries and operative history (more detailed if a new admission); events the previous day and overnight; basic observations for the same period as recorded on an A3 page (known as "running the board"); medication; laboratory results and imaging; physical examination findings for all major systems; a brief

summary and management plan by system. This would stop at various stages for discussion, particularly in relation to the management plan. When the presentation was concluded, the nurse on duty would read back an action list for the day, which would be displayed on the patient's door.

Although the number of patients on the ward rarely exceed six or seven, at least fifteen to twenty minutes would be spent presenting and discussing each patient. While some patients were admitted for routine observation following an elective surgical procedure, the majority were trauma or complex surgical patients, most of whom had multiple co-morbidities. Presenting such cases proved the most significant challenge of the rotation.

Initially, I thought the challenge was learning the format and delivering the presentation to the team, but the greater challenge was coming up with a complex management plan independently and defending in front of them. During my time at medical school, I had not gained much experience with many of the treatment modalities that are commonplace on the SICU, such as ventilation, and learning how to monitor and make daily adjustments to a patient's ventilator settings formed a large part of my learning.

After the ward round, there would often be a brief presentation on a recently published study or paper on an aspect on ICU care. I presented several such NEJM papers during my time, most of which were on sepsis. After this, most of the administrative tasks arising from the ward round were carried out. For me, this meant contacting a specialist service for a consultation or to clarify a management plan. I was issued with a pager, and I became adept at using the BWH on-line paging system. My most frequently contacted service was neurosurgery, as many of the trauma patients required different modalities of brain imaging and intracranial pressure monitoring.

The rest of the afternoon was dedicated to practical procedures, during which I had the opportunity to observe and on occasion participate. Most of this was the insertion or withdrawal of endotracheal tubes, chest drain, and arterial lines (radial and femoral). I also had the opportunity to use the bronchoscope on a few intubated patients. At around 6.30 – 7 p.m., I would be sent home.

Reflecting on the rotation, it was an excellent opportunity to learn about a field of medicine of which I had no previous experience in a different country with a different healthcare system. I am grateful to the Renal Association for helping to permit this, and I am certain the experience will serve me well during the foundation programme and beyond.