

Facilitated Elective in Pre-Hospital Emergency Medicine

By Lucy Pangbourne

I was delighted to win one of two places awarded by the FPHC to undertake a six-week facilitated elective in pre-hospital emergency medicine with London Ambulance Service (LAS).

Exploring Edinburgh

Before starting my elective, I spent a week at the FPHC in Edinburgh assisting the delivery of the FIMC and DIMC examinations. This was an excellent opportunity to meet students from across the country interested in pre-hospital care, share learning, network and meet my elective supervisor prior to starting my placement in London. For the majority of the week, I acted as an OSCE patient for a range of scenarios. This was useful for gaining familiarity with the format of the OSCE stations and marking criteria, as I hope to sit the exams in the future. Each station also had an examiner who currently works within pre-hospital care so it was a great opportunity to ask questions and learn some practical skills. In the evenings there was a pizza night, an opportunity to explore Edinburgh and attend a faculty CPD event. This provided further opportunity to network and it was thoroughly enjoyable to be surrounded by the passion of faculty staff, and to be involved in discussions on current research.

Background



LAS geographical area sectors and ambulance stations

LAS is an NHS ambulance trust providing 24-hour emergency care services to 8.6 million residents across Greater London. I undertook a range of shifts at a number of the Trust's 70 ambulance stations across the region and in the Trust headquarters/ Emergency Operations Centre (EOC). I was fortunate to have exposure to the fantastic breadth of services offered by LAS including working on double crewed ambulances (DCA), fast response units (FRU) and with a range of specialist resources such as advanced paramedic practitioners (APPs), incident response officers (IRO) and the Hazardous Area Response Team (HART).

I also undertook shifts with London Air Ambulance (LAA) which operates 24 hours a day to bring an advanced trauma team to patients across London by helicopter or rapid response vehicles (RRV). The team has extended training to bring advanced interventions normally only delivered in a hospital to patients in the community.

Aims and Objectives

My elective aimed to build on my enjoyment and knowledge of prehospital care I have developed whilst volunteering as a community first responder and working as a 999-call taker. I aimed to raise my

awareness of the pre-hospital journey so that I can better empathise with patients, alongside developing my own understanding of the various scopes of practice delivered by different prehospital personnel.

Clinically, I aimed to develop my initial assessment of acutely unwell patients and to enhance my communication skills, particularly when handing over a patient's care to other healthcare professionals. I also sought to network and build unique connections that I can use to drive my own career ambitions.

Nature of the Placement

I completed 21 shifts and attended over 80 emergency calls, providing the opportunity to be involved in a mixture of patient cases, ranging from urgent care to significant medical and traumatic incidents requiring advanced surgical procedures to be performed at the roadside.

Initially, I completed a series of shifts on a double-crewed ambulance, which provided broad exposure to the range of medical emergencies that patients experience in the community. I then spent the remainder of my LAS placement completing clinical shifts with a range of specialist teams, many of which are only available in London, to maximise my exposure to pre-hospital care. This included shifts with the mental health car, HART, IROs, APP's in urgent and critical care, HEMS and the Physician Response Unit (PRU). I also attended clinical governance days and continuing professional development events which provided the opportunity to review recent research trials and best practices through a series of case presentations.

Maternity CPD Event

I thoroughly enjoyed participating in an interprofessional midwifery CPD event led by the LAS midwife team, which involved both hospital midwives and LAS staff working together in a series of simulations. In small groups, I worked alongside midwives and ambulance responders to participate in simulations on postpartum haemorrhage, cord prolapse, and a breech delivery. It was intriguing to explore the varying scopes of hospital midwives and ambulance responders, including varying indications for drug administration and the drugs that are carried. An ambulance orientation session and going through the equipment carried by the home midwife teams further fuelled reflection and aided the development of a common understanding of a patient's maternity journey when the ambulance service is involved in their care. I really enjoyed the interprofessional approach which created a fantastic learning environment with lots of fun, practical learning and opportunities that will inform my future practice.



Maternity interprofessional learning CPD event

Specialist Ambulance Teams

I was fortunate to have the opportunity to explore several of the specialist services at LAS. This included observational shifts in the Tactical Operations Centre, and shifts with HART, IRO's and Tactical response unit. This provided a unique insight into the operational and clinical challenges that may be faced in the prehospital environment, such as the difficulties of reaching patients in complex environments and managing major incidents.

During a shift with HART (a team of paramedics trained to enter complex environments), I experienced the challenges of working in confined spaces in a simulated exercise rescuing a patient trapped under an underground train. Although I anticipated the space to be challenging physically, I was surprised at how difficult it was to accurately communicate and relay information – including to non-medical emergency services – using a radio, which at times suffered from a loss of signal due to the environment. It was also great fun going through the equipment on the HART incident response vehicles, which included additional equipment for swift water rescue, working at height and hazmat incidents.

The underground training sessions also complemented a shift where I worked alongside an IRO, a non-clinical role focusing on scene management and safety. It was fascinating exploring the components of managing a major incident including managing access and egress, selecting appropriate casualty clearing areas, managing the public, designating roles, and establishing effective communication. I also learnt about the mass casualty triage tool in a major incident simulation. IRO's also work closely with the tactical response unit who have additional training to attend higher risk incidents, such as firearm incidents.



*Visiting Chiswick RNLI base
Simulation training on London underground*

Exploring Urgent Care

LAS have developed a number of new innovative teams to expand urgent care provision subsequent to a rising demand for non-emergency care from the public. These include APP's in Urgent Care, mental health joint response teams and the LAA PRU, whom I was fortunate to complete shifts with. These teams aim to utilise alternative care pathways which better support patients. The PRU brings an emergency medicine doctor, nurse, and ambulance clinician to the patient's home aiming to avoid hospital attendance for the most vulnerable patients. For example, a patient presented with a fever that was currently undergoing chemotherapy treatment and the team was able to deliver a sepsis bundle of care to the patient home. This included taking blood cultures, a FBC, and providing antibiotic therapy. The patient was then

telephoned if the blood results were abnormal to arrange hospital admission, avoiding unnecessary conveyance to the emergency department.

Exploring Critical Care

I completed three shifts on the APP (Critical Care) rapid response vehicle, where advanced paramedics attend the most seriously unwell and injured patients. I attended a number of cardiac arrests and peri-arrest patients where the paramedics had an extended scope of practice that included intubation, an extended drug range and access to a ventilator. APP's can also assist emergency ambulance crews - for example, the APP was asked by an ambulance crew on scene to attend a patient who had sustained an open fracture dislocation. The APP performed a procedural sedation to reduce the joint and apply a temporary cast, which significantly improved the patient's comfort, aided extraction, and aimed to improve their outcome from the injury. It was interesting to discuss the indications for procedural sedation, adverse side effects, and be involved in planning and location to perform the procedure. This was a unique consideration that is not experienced in the hospital environment as multiple factors such as the direction of the sun and difficulty obtaining 360 degree access had to be taken into account.

In the final week of my elective, I joined LAA and completed a shift with the HEMS team that consisted of a critical care paramedic and doctor. Before being dispatched to our first incident I participated in several simulation exercises alongside students on the trauma science masters summer school - this was great to gain familiarity with the teams extended kit and practice some practical skills such as applying a pelvic binder and traction splint. After a quick visit to the HEMS dispatch desk in EOC, I attended two incidents for a patient who had fallen from height followed by a potential stabbing. I was surprised at the thoroughness of the teams debrief after each incident, and I really the enjoyed focus on continuous learning and reviewing cases in light of the most current research.



London Air Ambulance, The Royal London Hospital

Conclusion and the Impact on Future Practice

My elective placement provided a thoroughly enjoyable opportunity to experience prehospital care in its entirety, from the initial 999 call and ambulance dispatch through to attending patients and transporting to definitive care. Working at 16 different ambulance stations exemplified varying population demographics, landscapes and consequently demands of service provision.

Through completing a range of shifts I experienced the varying scopes of practice of prehospital personnel and developed my understanding of the care a patient may receive prior to their arrival in hospital. This is an insight I can use in all areas of my future practice to better communicate with prehospital staff. My awareness of the unfamiliarity of the prehospital journey for patients has also been heightened, an insight I can use to drive my own delivery of patient centred care.

Clinically, my elective provided numerous opportunities to perform an initial assessment of patients with traumatic injuries or suffering from medical events. The LAS team were fantastic at sharing their knowledge in order to assist me to develop and adapt the A-E approach I have learned at medical school to the prehospital environment and to perform a focussed examination, as well as present these findings to other clinicians.

My elective experience has reaffirmed my career aspirations to work in a prehospital environment and I have formed connections to further drive my own career ambitions. Overall, my elective placement with LAS provided an outstanding insight to the breadth of prehospital care and I would highly recommend the elective to all students. A big thank you to all the teams I was fortunate to work alongside at LAS and the Faculty of Pre-Hospital Care for making this opportunity possible.