# FPHC Elective Report

Christopher Coverdale - University of Birmingham


I was fortunate to be awarded a HEMS elective placement with The Air Ambulance Service (TAAS). TAAS is solely charity-funded and attends the most critically unwell patients across five counties. They operate two HELIMED bases, one in Coventry and one in Nottingham. I began my elective with an induction at their Coventry base, learning about the operations, how the charity is funded, and having a look around the aircraft.

My clinical attachment began with shadowing the dual-crewed ambulances at West Midlands Ambulance Service Coventry hub. I observed the variety of cases ambulance crews see. There were some acutely unwell patients, including one patient with shortness of breath and another who likely had sepsis, whilst also elderly patients with minor falls, and patients with social care needs. I initially anticipated a higher volume of emergency category 1 calls; however, I now understand that a large proportion of a paramedic's role involves patients with chronic illness, falls, frailty and social care needs rather than solely life-threatening emergencies.

I then had my first shift with the air ambulance, which was very eventful. Shortly after arriving and meeting the team, we were called to an incident. The helicopter was offline due to the early time, so we travelled in blue lights via the critical care car. We arrived at a significant head injury, and paramedics were on scene. It was fascinating to observe the crew perform advanced techniques such as endotracheal intubation and the insertion of an arterial line in the prehospital environment. I soon learned the

challenges of performing these skills outside of the hospital. In hospital, patient positioning, lighting and the location of equipment are optimised, whereas in the prehospital setting procedures are often performed on the ground or in an ambulance with limited space and fewer people available to assist. It is also very easy to lose track of equipment, and it was impressive to see the team overcome these challenges. The intubated patient was supported by the air ambulance team on the way to the hospital, and then after handover we returned to base.

Shortly after returning, we were called to another incident and this time the air ambulance was utilised. We were stood down upon arrival; however, during our flight back to base, another call came in. This time it was for a traumatic cardiac arrest. We landed on a nearby field and made our way to the scene with our equipment. This was the first time I saw the collaboration between services, with members of the fire service present. In addition to extricating the patient, they also provided important hands-on assistance with CPR. With paramedics, the fire service and our crew involved in the care of this patient, it could easily become quite hectic, and this is where the leadership skills of the air ambulance helped to maintain a calm, controlled environment. The team performed advanced techniques such as a thoracostomy, intubation and an arterial line on the ground. After achieving ROSC, the patient was conveyed via air ambulance.


We would go on to receive two more callouts that day, with a less than 30-minute gap between them. Unfortunately, they were both road traffic collisions involving multiple casualties. It was impressive to see the versatility of the air ambulance to land in different environments, using both fields and roads, and the way the Critical Care Paramedic (CCP) supports the pilot during flight, such as looking for hazards. I was also able to see another important aspect of the air ambulance team: having the knowledge and experience to know when to stop interventions, most notably CPR. Sadly, working in

the prehospital emergency medicine field inevitably means you see major trauma and death much more frequently. After the end of the shift, the team were exceptional in making sure I was okay.

My second shift with the air ambulance was not as busy and we went to one incident – a medical cardiac arrest. I learned and observed some more of the advanced techniques critical care teams offer during cardiac arrest, such as intubation, point-of-care ultrasound and double sequential defibrillation. My night shifts with the air ambulance were quiet and we did not receive any callouts. This is the varied nature of pre-hospital emergency care. Some days may be extremely busy, some may be quiet and the majority lie somewhere in between.

On this placement, I also had a shift with the medical emergency response team (MERIT), a critical care car run by the ambulance service consisting of a doctor and CCP. We also attended a medical cardiac arrest that day, and a young patient with shortness of breath, who was later stepped down to regular paramedic care.

I also visited the ambulance control centre, where I observed how 999 calls are handled, and how ambulances, critical care cars and helicopters are dispatched to a scene. The control room has many important roles such as call handlers, dispatch teams and clinical advisors. It was fascinating to see a different side of the ambulance service and much of the work that goes on behind the scenes.

I assisted with a recruitment day for the air ambulance service, where I was able to observe the mock scenarios encountered by the candidates. The scenarios required fitness, communication and teamwork skills, resource management and excellent clinical knowledge, mirroring the pre-hospital setting. I was impressed by the high calibre of the candidates.

A key area of learning throughout the elective was the importance of human factors in pre-hospital emergency care, particularly leadership. Three characteristics which stood out to me were effective communication, decision-making and remaining calm under

pressure. Clear and concise communication enabled critical care teams to adopt a ‘hands-on’ or ‘hands-off’ approach where appropriate. Delegation and shared decision making were often utilised, particularly at complex multi-casualty incidents. The ability to remain calm under pressure was a consistent feature throughout the team, due to their extensive experience, preparation and planning.

Overall, this was a fantastic experience, which has really broadened my perspective of prehospital emergency medicine. Prior to this elective, I had limited exposure to major trauma and cardiac arrests; this experience will be invaluable as I begin my career as a doctor.

I would like to thank Dr Caroline Leech and the Faculty of Pre-Hospital Care for organising my placement, as well as the teams at The Air Ambulance Service and WMAS for having me and making me feel welcome.