



FACULTY OF
**PRE-HOSPITAL
CARE**



FPHC HEMS Elective Report

East Anglian Air Ambulance

June 2025



EAAA

Elizabeth Gay

Final Year Medical Student, University of Nottingham



FPHC Facilitated HEMS Elective Report: East Anglian Air Ambulance (EAAA), Helimed House, Norwich

I was absolutely delighted to undertake my HEMS elective with East Anglian Air Ambulance (EAAA) in June 2025 during my final year of medical school. This was something I had dreamed about for many years, and the placement far exceeded my expectations. Over five weeks, I split my time between clinical observer shifts on the helicopter and critical care car, and working with the RAID (Research, Audit, Innovation and Development) team on an audit project examining out-of-hospital cardiac arrests and time to defibrillation. The combination of clinical exposure, academic learning, and team integration provided an unforgettable, career-defining experience.



About EAAA

EAAA delivers advanced pre-hospital critical care across Norfolk, Suffolk, Cambridgeshire and Bedfordshire, covering a vast area with two Airbus H145 helicopters and critical care cars, operating day and night. Each patient mission involves a doctor, a critical care paramedic (CCP), and two highly skilled pilots, dispatched via the East of England Ambulance Service (EEAST) Critical Care Desk (CCD). The seamless coordination between aircrew, clinicians, and dispatchers is essential for maximum efficiency when seconds and minutes matter the most.

Clinical Shifts & Learning Experience

Cardiac Arrests

Cardiac arrests made up a significant proportion of cases I observed. These highlighted the time-critical nature of HEMS involvement and the impact of early advanced interventions.

In several cases, patients achieved return of spontaneous circulation (ROSC) following pre-hospital advanced life support. Post-ROSC care was a key learning point: targeted oxygen therapy, haemodynamic stabilisation with fluid and vasopressor support, advanced airway management, and early consideration of coronary reperfusion pathways. I was struck by how quickly priorities shifted from resuscitation to neuroprotection and critical care transfer once ROSC was achieved.

In contrast, attending the cardiac arrest of a younger patient who sadly did not survive underscored the emotional and human challenges of this specialty. The





team modelled professionalism and compassion in breaking bad news and supporting relatives — an equally vital skill in pre-hospital medicine.

Trauma & Major Haemorrhage

One memorable case involved a dog bite to the arm with significant haemorrhage. I observed the CCP apply a tourniquet followed by haemostatic dressings, with rapid IV analgesia administered for pain control. The speed and clarity of decision-making in controlling catastrophic bleeding were powerful learning points.

Road Traffic Collision – Motorbike

I attended the scene of a motorbike RTC where the rider had sustained multi-system injuries, including suspected chest trauma and limb fractures. The crew performed advanced airway management, thoracic assessment for pneumothorax, IV access, opioid analgesia, and splinting. Rapid triage decisions were made, and the patient was conveyed under HEMS escort to the nearest major trauma centre. Watching the crew balance scene safety, rapid assessment, and complex clinical interventions was invaluable.

Traumatic Brain Injury

Another significant case involved a teenage patient with a traumatic brain injury (TBI). The clinical team carefully managed airway and breathing, controlled seizures with IV medication, and used hyperosmolar therapy to reduce intracranial pressure. Careful attention to blood pressure and oxygenation reinforced the importance of avoiding secondary brain injury in the pre-hospital phase. Witnessing the structured application of TBI guidelines in the field brought textbook principles to life.

Medical Emergencies

Alongside trauma and cardiac arrests, I also observed high-acuity medical presentations, including status epilepticus. Here, rapid benzodiazepine administration and airway protection were critical, with smooth teamwork between the CCP and the doctor ensuring timely care.

Control Desk & Simulation Training

When not on active missions, I spent time in the Critical Care Desk at EEAST control, observing how cases were triaged and HEMS assets deployed. This highlighted the strategic decision-making required to allocate scarce specialist resources effectively.





At base, I participated in high-fidelity simulation training using the state-of-the-art suite at Helimed House. These scenarios mirrored real cases, including airway management and paediatric resuscitation, and provided safe opportunities to discuss human factors, leadership, and debriefing techniques.

Research & RAID Team Experience

Half of my elective was spent with the RAID team, contributing to an audit investigating the time to defibrillation in out-of-hospital cardiac arrest. My role included data extraction, case reviews, and preliminary analysis. This not only deepened my understanding of the evidence base behind clinical practice, but also gave me an appreciation of how HEMS charities like EAAA continually evaluate and improve their care.

Team Spirit & Culture

Beyond the clinical exposure, what stood out most was the culture of openness, inclusivity, and camaraderie. From consultants and CCPs to pilots and RAID staff, I was welcomed as part of the team. Sharing endless coffee, pastries, and even sunset pizza in the hangar fostered a sense of belonging and reinforced the importance of morale in such a demanding field.



Reflection & Personal Insights

This elective was one of the most formative experiences of my training. Key takeaways included:

- The importance of early interventions (airway, haemorrhage control, post-ROSC care) in determining patient outcomes.
- The role of human factors, leadership, and communication in ensuring safe, coordinated care in chaotic environments.
- The value of debriefing and reflection in processing difficult cases and maintaining team wellbeing.
- A reinforced passion for pursuing a career in emergency and pre-hospital medicine, inspired by the professionalism and dedication of the EAAA team.

Advice for Future Students

- Say yes to every opportunity — clinical shifts, simulations, RAID projects, or control desk observation — each offers unique insights.





- Engage with the team; their knowledge and willingness to teach is unparalleled.
- Look after yourself — some cases are emotionally challenging, but open conversations and debriefs make a real difference.

Conclusion

My five weeks with EAAA were nothing short of transformative. The combination of high-acuity clinical exposure, innovative research, and a welcoming team culture made this elective the highlight of my training to date. I leave inspired, motivated, and even more determined to pursue a career in pre-hospital and emergency medicine.

I am deeply grateful to all the pilots, doctors, CCPs, RAID colleagues, volunteers, and staff at EAAA for sharing their time, expertise, and kindness.

Thank you as well to the Faculty of Pre-Hospital Care Student and Trainee Group for facilitating this amazing opportunity for my medical elective so I could experience an area of medicine we don't have much exposure to during medical training.

