

## Going behind the scenes at The London Air Ambulance Service

I was privileged to be invited to the headquarters of the London Air Ambulance at the Royal London Hospital as a freeman of the Guild of Nurses.



### **A typical day**

By the time we arrived at 11am the crew of the air ambulance had already been called out three times – to a cyclist, to a child hit by a car and to an accident on a construction site. It was just a typical day for this hard-working charity. Working 24 hours a day, serving the 10 million people within the boundaries of the M25, the team of the London Air Ambulance has saved thousands of lives.

### **The Air Ambulance Service in numbers**

The total number of patients treated since the service was founded 30 years ago is 39,535. The number of patients treated last year was 1656, with an average of five patients being treated every day. The average flight time is 7.5 minutes



## **The London Air Ambulance**

Most of us have seen the bright red helicopter whizzing overhead to treat and rescue seriously hurt casualties in medical emergencies. It was fascinating to meet the people behind these rescues and learn more about the skills, expertise and logistics involved.

### **Operates as a charity**

The London Air Ambulance crew are all based at the Royal London Hospital in Whitechapel, east London. The whole service is entirely funded by charitable donations, which enables it to operate independently from the NHS and so not bound by NHS protocol.

### **Leading the way in trauma healthcare**

Operating independently from the NHS means the LAA crew are free to push boundaries and operate state of the art interventions, leading the way in trauma healthcare worldwide.



### **Sharing their knowledge**

They frequently publish papers on their findings and working within their team is one of the most sought-after jobs for medics and paramedics. They have specialist doctors from all over the world, coming to learn and contribute to this expertise.

### **Operational hours**

The helicopter operates during daylight hours throughout the year. After dark and in poor flying conditions, they operate in the PRU – Physician Response Unit - a specially modified blue light response vehicle enabling them to get their expert team to the casualty as quickly as possible.



### **The crew**

Each crew consists of one doctor and two paramedics (seconded from the Ambulance Service on a prestigious 12-month placement). Once they arrive on-site, they work closely with the other emergency services professionals to do their very best for the casualty.

### **Fly in, drive out**

Interestingly, they rarely transport patients to hospital in the helicopter, it is all about getting the crew to the incident as fast as possible. Most casualties are then transported to the most appropriate hospital unit by road.



### **What kit do they carry?**

The helicopter or PRU contain most elements you would find within an A&E department – and more. They carry units of O negative blood and everything needed to give the casualty the very best chance of on-scene survival.

### **Pioneering process**

They have developed a pioneering balloon procedure – known as REBOA (Resuscitative Endovascular Balloon Occlusion of the Aorta) – where they insert a canula into the femoral artery and up into the lower aorta, here they inflate it to cut off all the blood supply below this level. Through this they have been able to save people with catastrophic bleeding from a pelvis, who previously would have died.

### **Cardiac support**

They are also shortly to be able to start using Extracorporeal membrane oxygenation (ECMO), also known as extracorporeal life support (ECLS), a way of providing prolonged external cardiac and respiratory support to someone whose heart and lungs are unable to function sufficiently to provide an adequate amount of gas exchange or perfusion to sustain life.

### **State of the art techniques**

In addition, in time they will be able to chill people at the roadside. Slowing down the metabolic needs, protecting their organs, preventing brain damage and potentially saving even more people in some of the most extreme situations.

### **Learning experience**

Every operation is a learning experience and an opportunity to further learn and improve for next time. Each time the team return from a mission, they instantly restock and check the kit and then group for a hot debrief. They go through the minutiae of each event and see when something went well, why it was good, and if something could have gone better to ensure they learn for next time. Later they will also meet to discuss the events in even more detail, looking further at the progress of the patients and how their intervention has impacted upon the patient's recovery and prognosis.

Pre-hospital medicine is fast paced and spontaneous, all outcomes can be learnt from.

### **Benefitting future casualties**

Sadly, not all missions are successful, and the team receive reviews following post mortems to ensure they continue to learn and see if in hindsight there would have been anything further they could have done – for the benefit of future casualties.

### **Following up with patients**

Frank is the Patient Liaison Officer – he is a highly qualified A&E nurse and integral member of the team. He is responsible for following up all patients who have been treated by the Air Ambulance crew.

### **Casualties unaware they've been treated by the LAA crew**

Frank's role is pivotal to their ongoing research and the innate sense of caring from the whole team. Many of the casualties are unaware that they were treated at the scene by one of the Air Ambulance crew. Frank liaises with the patients, offer them ongoing support,

referring them to relevant rehabilitation units and linking them to other patients for peer to peer support – particularly when they have experienced life-changing injuries.

### **Case studies**

Their stories help the London Air Ambulance with case studies to help with their continual research and fundraising. These studies illustrate the reason for the air ambulance's existence and how lucky we are to them. There are so many people who previously may well not have survived, have been given the chance to rebuild their lives and return to their families.

### **Royal Patron**

Founded in 1989, the Duke of Cambridge became Patron of the Air Ambulance's 30<sup>th</sup> anniversary campaign which aims to highlight the charity's vital work across the capital.

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[www.firstaidforlife.org.uk](http://www.firstaidforlife.org.uk)