

The Air Ambulance Service

Derbyshire, Leicestershire & Rutland Air Ambulance

Quality Report

East Midlands Airport

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This report describes our judgement of the quality of care at this provider. It is based on a combination of what we found when we inspected, other information known to CQC and information given to us from patients, the public and other organisations.

Summary of findings

Letter from the Chief Inspector of Hospitals

Derbyshire, Leicestershire, and Rutland Air Ambulance is operated by The Air Ambulance Service (TAAS), a registered charity, which also operates the Warwickshire and Northamptonshire Air Ambulance and the Children's Air Ambulance. It provides a helicopter emergency medical service and a doctor/critical care paramedic service.

The service operates under a service level agreement with the local NHS ambulance trust, which activates the service based on emergency 999 calls.

We inspected this service using our comprehensive inspection methodology. We carried out the inspection on 15 and 16 January 2018.

To get to the heart of patients' experiences of care and treatment, we ask the same five questions of all services: are they safe, effective, caring, responsive to people's needs, and well-led?

Throughout the inspection, we took account of what people told us and how the provider understood and complied with the Mental Capacity Act 2005.

The main service provided by this service was emergency and urgent care.

Services we do not rate

We regulate independent ambulance services but we do not currently have a legal duty to rate them. We highlight good practice and issues that service providers need to improve and take regulatory action as necessary.

We found the following areas of good practice:

- Clinical staff were knowledgeable about incident reporting and there were robust processes to report, investigate and learn from incidents, and strong track record on safety
- The service was doctor lead and highly skilled. It had a high level of paramedic critical care expertise, supported by an effective personal development system, a range of clinical skills development opportunities and specialist clinical standard operating procedures
- Aircraft and rapid response vehicles were visibly clean and tidy, and there were systems in place to ensure that equipment was suitable and maintained on a timely basis
- Clinical staff could access specialist advice when they were on a mission from a designated team of specialists
- There were sufficient staff, and arrangements for short notice cover if needed
- The service cooperated with and supported other emergency services, and communicated well with other health providers
- Clinical staff audited their work in line with best practice
- Staff understood the relevant consent and decision making requirements of legislation and guidance, including the Mental Capacity Act 2005 (MCA)
- Staff were professional, caring and compassionate, and involved relatives in patient care. Care was tailored to the individual patient
- The service analysed unmet need to develop new services together with the NHS ambulance provider. They also worked with them to improve helicopter and rapid response vehicle dispatch arrangements
- There had been no complaints in the last 12 months. Historical complaint investigations were thorough.
- Leaders were respected and had the skills, knowledge, experience, and integrity they needed.
- Strategic planning processes were effective and staff were engaged in service planning
- There was an open and learning culture and an ethos of continuous improvement.

However, we also found the following issues that the service provider needs to improve:

Summary of findings

- The safeguarding adults' policy referenced out of date guidance. This was raised with the registered manager during the inspection who took immediate action to update the policy.
- Aircraft pilots had not had safeguarding training.
- The compliance with some mandatory training was low.

Following this inspection, we told the provider that it should make other improvements, even though a regulation had not been breached, to help the service improve. Details are at the end of the report.

Heidi Smoult

Deputy Chief Inspector of Hospitals (Central Region), on behalf of the Chief Inspector of Hospitals

Summary of findings

Our judgements about each of the main services

Service

Emergency and urgent care services

Rating Why have we given this rating?

The service was well led with experienced and capable leaders who drove improvements in the service with a focus on the best possible care in emergency situations for patients in need. The leaders promoted a positive staff culture and encouraged staff development to deliver the best possible care and treatment for all patients. Effective systems were in place to ensure patients received safe and high quality care and treatment at all times.

Derbyshire, Leicestershire & Rutland Air Ambulance

Detailed findings

Services we looked at

Emergency and urgent care.

Detailed findings

Contents

Detailed findings from this inspection

	Page
Background to Derbyshire, Leicestershire & Rutland Air Ambulance	6
Our inspection team	6
How we carried out this inspection	6
Findings by main service	8

Background to Derbyshire, Leicestershire & Rutland Air Ambulance

Derbyshire, Leicestershire, and Rutland Air Ambulance is operated by The Air Ambulance Service (TAAS). The service opened in 2003 with the Warwickshire and Northampton Air Ambulance Service and the Derbyshire, Leicestershire, and Rutland (DLR) Air Ambulance service was launched in 2008, based at East Midlands Airport, and offers a helicopter emergency medical service (HEMS). Together with the Warwickshire and Northamptonshire Air Ambulance, and the Children's Air Ambulance, the service provides a rapid response to

trauma and medical emergencies over an area of 3,850 square miles in central England. They cover road networks including the M1, M6, M69 and M42. With an average response of 13 minutes, between them they attend on average six missions a day. The service has been registered with the Care Quality Commission since 2011.

The service has had a registered manager in post since December 2015.

Our inspection team

The team that inspected the service comprised a CQC lead inspector, and another CQC inspector. The inspection team was overseen by Phil Terry, Inspection Manager.

How we carried out this inspection

The service directly employs six critical care paramedics, who have surgical skills in addition to the usual paramedic skills. It also employs one doctor, but is looking to employ an additional doctor in the near future. Other doctors work for the air ambulance as part of the work plan they agree with the hospital where they are based, or with their military organisation.

The Derbyshire, Leicestershire and Rutland Air Ambulance Helicopter Emergency Medical Service (HEMS) completed 809 missions in 2017. The paramedic cars completed 1,217 missions.

The service is registered to provide the following regulated activities:

- Treatment of disease, disorder, or injury.
- Surgical Procedures.
- Diagnostic and screening procedures.
- Transport service, triage and medical advice provided remotely.

During the inspection, we visited Coventry and East Midlands airbases. We spoke with 10 staff including two doctors, four senior managers, a critical care paramedic, an airbase manager, a pilot and a cleaning specialist. We reviewed 10 sets of patient records and five staff files.

Detailed findings

There were no special reviews or investigations of the service ongoing by the CQC at any time during the 12 months before this inspection. The service has been inspected twice, and the most recent inspection took place in February 2014, which found that the service was meeting all standards of quality and safety it was inspected against.

Activity (January 2017 to December 2017)

- In this reporting period, there were 809 emergency and urgent care patient journeys undertaken by helicopter and 1,217 journeys by rapid response vehicle.

The accountable officer for controlled drugs was the head of operations.

Track record on safety

- There were no reported never events.
- 17 incidents - no harm.
- No serious injuries
- No complaints
- There have been no liability claims in the last 12 months.

Emergency and urgent care services

Safe	
Effective	
Caring	
Responsive	
Well-led	
Overall	

Information about the service

The main service provided by this service was emergency and urgent care. Patient transport services were a small proportion of activity. Where arrangements were the same, we have reported findings in the emergency and urgent care section.

Summary of findings

We found the following areas of good practice:

Safe:

- There was an effective system and policy in place to report and respond appropriately to incidents. Learning was shared.
- The service had effective systems in place to monitor staff's compliance with mandatory training.
- There were generally effective systems and processes in place reflecting relevant safeguarding legislation to safeguard adults and children from abuse.
- There were effective systems and processes in place to protect people from the spread of infection and to ensure safe storage and administration of medicines.
- The maintenance and use of equipment kept patients safe from avoidable harm during treatment and transfer in the aircraft or vehicle.
- Patients' individual care records were written and managed appropriately.
- Appropriate protocols were in place to assess and respond to patient risk.
- Staffing levels and skill mix were planned and reviewed to ensure that patients received safe care and treatment at all times.
- The service planned for any anticipated risk and these were outlined in the business continuity policy. Staff understood their roles in a major incident.

Effective:

- The care and treatment of patients was based on nationally recognised guidance.

Emergency and urgent care services

- The service monitored compliance against its own key performance indicators (KPIs) to continue to drive improvements concerning patient outcomes.
- Staff had the skills, knowledge, and experience to deliver effective care and treatment.
- Care was delivered in a coordinated way with all other services involved.
- Effective and positive multi-disciplinary working was clearly evident.
- Staff had access to relevant information when needed.
- Staff understood the relevant consent and decision-making requirements of legislation and guidance, including the Mental Capacity Act 2005 (MCA).

Caring:

- Care was provided in a sensitive and dignified way, wherever possible. Feedback received from patients was very positive.
- Staff kept patients and families well informed regarding the treatment taking place on the scene and the plan ahead, including which hospital they would be transferred to.
- Staff we spoke with understood the impact that a person's care, treatment, or condition would have on their wellbeing and those close to them, both physically and emotionally.

Responsive:

- The service effectively planned and delivered services based on patient needs.
- Services were planned to take into account the different needs of the type of incidents and patients they responded to.
- Patients had access to timely care and critical care treatment.
- Effective procedures were in place to respond and learn from complaints.

Well led:

- Leaders had the skills, knowledge, experience, and integrity they needed to ensure the service met patient needs.

- The service had a clear vision and strategy, underpinned by holistic values that were embraced by all staff at every level.
- Governance and risk management systems were effective in maintaining a clear oversight of the safety and high quality of services delivered.
- The service had an open and learning culture, fully focused on safe and high quality patient care.
- Staff and public engagement was positive and designed to seek feedback to continue to improve the service.

However, we found the following issues that the service provider needs to improve:

Safe

- The safeguarding adults' policy referenced out of date guidance. This was raised with the registered manager during the inspection who took immediate action to update the policy.
- Aircraft pilots had not had safeguarding training.

Emergency and urgent care services

Are emergency and urgent care services safe?

Incidents

- There was an effective system and policy in place to report and respond appropriately to incidents. Derbyshire Leicestershire and Rutland Air Ambulance service (DLRAA) reported no serious incidents, deaths or never events between December 2016 and November 2017.
- Never events are serious incidents that are entirely preventable as guidance, or safety recommendations providing strong systemic protective barriers, are available at a national level, and should have been implemented by all healthcare providers.
- There was a clear process to report incidents. The service had a standard operating procedure for reporting them and kept a paper copy of the incident report form at the airbase. The incident was logged on the service's electronic system, stored at the base, reported to the local commissioners, and discussed at operations meetings. The base manager investigated first, and gave feedback to the individual who had reported the incident. The incidents and near misses were then reported to the director of operations for discussion at operations management and clinical governance meetings.
- Clinicians understood their responsibilities to raise concerns and record safety incidents and near misses. There had been 17 incidents reported from January 2017 to December 2017. We reviewed the incident report form database and found delayed handovers at hospitals, a drugs count error, a broken drug ampoule, delayed tasking and damage from storm Doris.
- Staff were able to identify changes to practice, which had occurred because of the incident reporting process. For example, in response to finding broken drug ampoules in the medicine bags during use in the helicopters, they placed the ampoules into a hardened protective case before going into the emergency response bag.
- The service worked with the local NHS ambulance service to investigate and learn from incidents. The director of operations would liaise with them to

determine responsibilities for investigation. If the service investigated, they would discuss the finding with the local NHS ambulance service before meeting the patient to discuss the findings.

- Clinicians told us about an incident, described in the 'Learning from Concerns and Complaints' section of this report. This dated from 2015 and was the last incident, which needed a full investigation. The service investigated fully and produced a comprehensive written report. They reported findings back to the complainant in a transparent manner in line with the Duty of Candour.
- Providers have to comply with the Duty of Candour Regulation 20 of the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014. The duty of candour is a regulatory duty that related to openness and transparency and requires providers of health and social care services to notify patients (or other relevant persons) of certain 'notifiable safety incidents' and provide reasonable support to that person. This regulation requires staff to be open, transparent and candid with patients and relatives when things go wrong. The service has a policy in place, which described their responsibilities under the duty of candour legislation. Staff we spoke with understood the requirements of duty of candour and their role involved
- Safety alerts were sent to the airbase manager at Coventry who sent the details to the East Midlands team for discussion at team meetings.

Mandatory training

- The service had effective systems in place to monitor staff's compliance with mandatory training.
- The Air Ambulance Service (TAAS) full time clinical staff kept up to date with mandatory training. When we inspected, compliance rates were 100% for infection prevention and control, safeguarding adults, safeguarding children, equality and diversity, data protection and information governance, and risk assessment.
- Compliance rates were slightly lower if bank staff were taken into account. In January 2018, over 85% of DLRAA paramedics had completed infection prevention and control, safeguarding adults, data protection, mental capacity, and information governance. Completion rates for paramedics were 75% for safeguarding children, equality and diversity, health and safety, female genital

Emergency and urgent care services

mutilation and Prevent. Managers told us that this was because bank paramedics were less available than full-time employed clinicians due to the nature of their role. Plans were in place to improve this.

- With the exception of health and safety and Mental Capacity Act training, which were 70% and 72% compliance respectively, mandatory training compliance for DLRAA contracting doctors was over 85%.
- Staff could access training easily. Critical care paramedics (CCPs) could find the specified mandatory training modules on the e-learning package online at home or at work. There was an allowance of half an hour a day for clinicians to access training.
- Doctors had to provide evidence from their NHS roles of how they complied with mandatory training. This information was then recorded in the individual's staff file.
- All paramedics had Institute of Healthcare and Development (IHCD) ambulance driving training. The head of operations kept a register of employees who were deemed competent to drive on emergency missions. Managers realised this there was a need for driver assessments and refresher training and planned additional 'blue light' driver training for 2018. They arranged for an instructor from the local NHS ambulance service to deliver the refresher courses to paramedics.

Safeguarding

- There were generally effective systems and processes in place reflecting relevant safeguarding legislation to safeguard adults and children from abuse. However, the safeguarding adults' policy referenced out of date guidance. This was raised with the registered manager during the inspection who took immediate action to update the policy.
- The policies were easily accessible in paper and electronic form. The policy outlined what safeguarding was, its importance and provided definitions to the different types of abuse. The policy also covered staff responsibilities regarding raising safeguarding concerns and the procedure by which to report these.
- The 'Safeguarding Adults: Roles and competences for healthcare staff – Intercollegiate Document' (2016), states that all non-clinical and clinical staff who have any contact with children, young people, and/or parents/carers should be level two trained. This trains

the health care professional to recognise signs of abuse and appropriately refer to the relevant services. We discussed the levels of training with the registered manager and looked at the national guidance from the National Ambulance Safeguarding Group. The service was meeting national guidance in that paramedics did not need level three training at this time, as they were not involved in the assessing, planning, evaluating, and contributing to the plans of children where safeguarding concerns are already known.

- Where a safeguarding concern was identified, it was referred on to the relevant tasking ambulance trust. A level four safeguarding lead then followed up and investigated. They then involved the local authorities and if needed the NHS hospitals.
- Staff we spoke with were knowledgeable about the processes for recognising and referring a safeguarding concern. A member of staff gave an example of a safeguarding referral they had made, and how they linked with the relevant NHS ambulance service to ensure the child was safe.
- We spoke with the requesting NHS ambulance trust and they told us that the systems and processes that were in place worked well in safeguarding children and both services communicated well together.
- We saw that the pilots had not received any formal safeguarding training. They were subcontracted from an external aviation company. Although they had not received formal training, they all had read the policy and knew the process for recognising and referring concerns. The registered manager told us that the service would include the pilots on mandatory safeguarding training.
- All staff had completed training in preventing radicalisation and extreme terrorism ('PREVENT' training). Female Genital Mutilation (FGM) was included in level two safeguarding training, which all clinical staff attended. Staff were aware that they have a mandatory reporting duty to report any cases of FGM in females under the age of 18 years of age, including those females who had given birth to a female infant. This awareness may come from physical examination or from a verbal disclosure. Staff knew their responsibility to report this to the Police within 24 hours ideally but certainly within 28 days after being made aware of the FGM.
- Child Sex Exploitation (CSE) was included in level two safeguarding training. CSE is a form of child abuse and

Emergency and urgent care services

reportable to children's social services in line with safeguarding procedures. Staff were aware of the potential indicators of abuse, and how to complete an interagency referral.

Cleanliness, infection control and hygiene

- There were effective systems and processes in place to protect people from the spread of infection. The service was able to demonstrate how they assessed the risk of infection and took action to prevent, detect, and control the spread of infections.
- The service had an infection prevention and control (IPC) policy and the director of operations, as IPC lead, oversaw this and provided assurance to the board through audit results. The director and head of operations carried out quarterly spot checks of vehicles and clinical practices. Clinical supervisors also did observational spot checks of cleaning down in vehicles and aircraft and personal protective equipment. The local NHS ambulance trust worked with the director of operations on IPC policy and did spot checks in the service.
- The service did not have a formal quality dashboard but monitored their performance on their infection prevention and control audit by airbase, paramedic car and aircraft, and reported this to senior management team and the board. They were over 90% compliant on each of these indicators when we inspected.
- Critical care paramedics were responsible for the daily cleaning of their vehicles and there were appropriate clearing materials. All vehicles (ambulances and cars) had a weekly deep clean from a cleaning specialist who also cleaned both air bases. There were cleaning records for the aircraft and rapid response vehicles. We also saw records of regular 'deep cleaning' carried out regularly.
- A specialist contract was in place for collecting clinical waste, including sharps. This bin was locked and stored appropriately
- We checked the two DLRAA vehicles and aircraft and found the inside of the vehicles and passenger areas of the aircraft were visibly clean. The equipment stowed on the aircraft and vehicles was also visibly clean. Strict rules governed what could be used on the aircraft, and the aircraft owners advised on this. For example,

universal wipes could be used but not sporicidal wipes. The aircraft had a rear storage compartment where heavily contaminated items could be stored away from clinical activity until return to airbase.

- Crews cleaned down the helicopter or rapid response vehicle if it became seriously contaminated, and they told us they were given enough time to do this before they were tasked again. They had a post incident cleaning checklist they worked through.
- The service had a monthly base audit compliance tool to keep track of infection prevention and control checks in aircraft, rapid response vehicles, and toilet cleanliness. The service achieved over 90% compliance on all of these checks.
- Paramedics and doctors carried personal hand gel to ensure hand cleanliness. Clinical supervisors checked this was actively in use and researched the most effective products. Hand wipes were also available.
- Personal protective equipment (such as masks and aprons) was available on vehicles and aircraft. Uniforms were laundered onsite at correct temperatures and the linen used on stretchers was disposable.
- There were arrangements for managing waste and clinical waste. On the aircraft and vehicles was a selection of waste bags, including clinical waste bags and spillage kits. Once on the ground these were disposed of at the base in a clinical waste bin. A specialist contract was in place for collecting clinical waste, including sharps. This bin was locked and stored appropriately. There were colour-coded bins in place for both general and clinical waste. Clinical waste was stored on site at the service's office, and was collected at prearranged times when necessary.

Environment and equipment

- The service had effective systems in place to ensure the safety and maintenance of equipment. There was appropriate maintenance and use of equipment during treatment and transfer in the aircraft or vehicle.
- The DLRAA airbase at the East Midlands airport, was made up of four portable buildings and a car parking area. There was an external medical gas store. One portable building was a dedicated training area with training equipment. Another held medical supplies and medication in a lockable drugs fridge and cupboard.

Emergency and urgent care services

The remaining two portable buildings were used as office space, kitchen, and toilets. All of them had doors, which were key coded and lockable. There was a key safe for any keys, including vehicle keys.

- The aircraft was checked prior to being flown by a suitably trained pilot. Aircraft had to meet the requirements of the Civil Aviation Authority (CAA). A maintenance contract was in place for the maintenance and servicing of the aircraft. We saw evidence of these documents. The company the aircraft was leased from would supply another helicopter when it was being serviced.
- We saw that both road vehicles had valid and appropriate vehicle insurance and evidence of regular service and maintenance. The service was compliant with Ministry of Transport (MOT) testing and servicing of the vehicles. Cars were serviced and insured by the local NHS ambulance service. The helicopter operator also had a schedule for maintaining the helicopters and ensuring they were safe, and monitored this on a maintenance spreadsheet. The back-up rapid response vehicle was used when the main paramedic car had to be repaired or serviced.
- The manufacturer maintained equipment such as defibrillators. The local NHS hospital trust maintained items such as suction units and ventilation kits. The airbase manager monitored these items and their maintenance dates, marked red or green on a spreadsheet. Red meant that the item was no longer in use or was on loan elsewhere. All maintenance was up to date.
- Faulty equipment was immediately withdrawn and tagged with red labels so it was easily identifiable as out of use.
- The service had a system for replenishing supplies. If they returned to base, they replaced medical supplies they had used. If they were required on another mission immediately, they used pre-assembled kits to save time.
- We checked the medical supplies and the items we checked were all within expiry date, with packaging still intact. All equipment and medical supplies seen were fit for use. Appropriate storage facilities were available and secure.
- Staff were trained on all the equipment used by the service to ensure they were competent to use it. This observed practice was documented in the staff's competency checklist and kept in staff files.

Medicines

- The service had effective systems in place to ensure the safe storage and management of medicines.
- The service had a medicines' policy in place, which reflected current practices in medicine, such as, ordering, storage, and disposal. It referenced up to date information from the most recent legislation and guidance. The policy gave guidance on the safe handling, storage, and disposal of medicines, including gases.
- The service had processes to ensure that medicine stock was appropriately and safely ordered, stored, receipted, and issued. They had standard operating procedures, which covered medicines management, controlled drugs, and medical gases. The head of operations had overall responsibility for medicines management.
- A local NHS hospital trust supplied the medicines and any medicines related incident, for example, broken ampoules, was shared with them.
- The service held a stock of controlled drugs (medicines that require extra checks and special storage arrangements because of their potential for misuse). The Home Office controlled drug licence was on display. Controlled drugs were kept securely in accordance to the legislation. The controlled drug register showed the transfer of controlled drugs with the aircraft and regular stock checks were completed. Records seen evidenced this. During the mission, controlled drugs were stored in a locked box and access limited to clinical staff only. There was a designated policy for the management of controlled drugs.
- Stock issue and return was clearly recorded in logbooks in the drugs storage building. Controlled drugs had a separate logbook for each type of drug and certain drugs had to be used within a month of being taken out of the fridge. We observed clinicians recording the date the drugs were removed from the fridge, and booking drugs out in logbooks where they were taken out of storage. Clinicians used a red pen in the logbook if the medication was a month near to its expiry date.
- The airbase disposed of out of date or partially used drugs in a neutralising solution.
- The service had a system of daily stock checks to ensure that medicine pack contents matched the content list. There were weekly stock checks on medicines held in stores. This was a minimum requirement for controlled drugs.

Emergency and urgent care services

- Drugs were kept in a locked fridge or locked metal safe. We check the fridge temperature and we noted that readings for every day of January were between 2C and 5C, which was within the 2C to 8C agreed safe tolerance. The service noticed an increase in fridge temperature in the summer and put reflective covering on the store windows to reduce the ambient temperature, which resolved the problem.
- Medicines taken on missions were standardised and stored in specific bags. Two members of clinical staff checked out the medicines at the start of a shift and checked back in after each mission. Medicine administration was documented in the patient's record.
- Drugs were removed from the car or helicopter at the end of working shifts.
- The service carried out drugs audits. These showed a very high level of compliance. There had been one or two occasions when records did not tally with the actual numbers of drugs. After investigating, the service found this to be due to administrative error and in one case, a pre-drawn product had fallen out of the cupboard. The service also audited the effectiveness of drugs in certain procedures, for example before intubation.
- Only medicines agreed by the clinical governance group were ordered. The clinical governance group also organised medicines management training if needed. The service had clear arrangements about who could give medicines to patients. There were specific patient group directions in place which specified when paramedics rather than doctors could administer drugs. Paramedics are allowed to purchase and possess a number of controlled and prescription only medicines for parenteral administration, in accordance with schedule 17 of The Human Medicines Regulations 2012, 'schedule 17'. For medications that were not on schedule 17, for example, antibiotics and medication to treat or prevent excessive blood loss, the service had appropriate patient group directives (PGDs). These were detailed and had been reviewed regularly.
- Medical gases used in the aircraft had to be specialist aviation medical gases. They were stored in a secure external container. The supplier checked and changed the cylinders every month. The gases were all well within their expiry date.
- Patients' individual care records (patients' record forms or PRFs) were written and managed appropriately. We found patients records to be accurate, complete, legible, up to date and stored securely.
- Due to the service responding to trauma and medical emergencies, not all patient information was available before crews were dispatched; therefore, they started the patient record at the scene and brought it back to the base. A copy of the patient's record was provided to the NHS ambulance service that tasked the mission. Appropriate processes were in place for the destruction of patient records.
- We observed the helicopter's emergency medical doctor completing the patient record on scene. This was a thorough process, carried out with the ground ambulance staff. They made sure all medications were signed for and the patient's details were correct.
- Crews ensured that they passed medical records to the receiving hospital. They kept paper records and passed the bottom copy to the receiving doctor for signature. The retained paper record was used to generate the service's medical record. After a month, the top copies were passed to the local NHS ambulance service.
- Staff had completed training in data protection and information governance as part of their mandatory training. Compliance was 100% for these modules.

Assessing and responding to patient risk

- Appropriate protocols were in place to assess and respond to patient risk. The service provided a doctor-led model, which took critical care to the patient. Due to the emergency service they provided, they could not carry out individual risk assessments of patients. Instead, the service designed specific learning scenarios, which would look at all risks involved in, responding to a drowned patient, diving accidents, and multi-car road traffic accidents. These scenarios looked at all risk including, access and equipment needed.
- Critical care paramedics (CCPs) and doctors risk assessed patients against relevant protocols, using, for example, a stroke tool or trauma tool based on best practice models.
- Crews assessed wider risks on the way to the patient, based on the information given by the NHS ambulance provider (the tasking agent). We saw clinicians completing informal risk assessments during the flight about landing sites and the impact on patients, especially if the helicopter had to land slightly further

Records

- There was a policy in place for the storage, transport and destruction of patient's records.

Emergency and urgent care services

away from the patient. There was also informal risk assessing of potential scenes they were going to, for example, road traffic accidents and addresses where there had been a history of violence. The service already knew about some of the risks because they were contained on more formal risk assessments and registers. All crews had conflict resolution training.

- If the patient was likely to panic or become delirious during flight, the clinicians risk assessed this. If they could reduce the risk by making the patient calm and comfortable through medication, they would take them, especially if clinically they required urgent transfer, or if they were in a remote area.
- Due to the nature of their work, the patients were sedated and/or intubated once in transit on the aircraft. Violent or behaviourally challenging patients were not permitted to be transferred in the aircraft, so treatment was carried out on scene. Police, with the land ambulances, transferred the patient to hospital.
- All patients were monitored during the mission to help detect deterioration in any condition. All paramedics had a critical care qualification, or were working towards their critical care qualification, and doctors were at a level of ST5 (speciality training). The PRFs showed that all patients were monitored appropriately and deterioration was recognised and treated.
- The service used the Joint Royal Colleges Ambulance Committee (JRCALC) guidance and National Institute for Health and Care Excellence (NICE) guidelines for sepsis and the management of the deteriorating patient.

Staffing

- The service planned and reviewed staffing levels and skill mix to ensure that people received safe care and treatment at all times. Staffing levels met patients' needs at the time of the inspection. The service directly employed six critical care paramedics (CCPs), who had surgical skills in addition to the usual paramedic skills.
- The service employed and trained its own CCPs. The doctors were subcontracted from NHS trusts. The service paid the NHS for the doctors. The doctors worked one day a week and were also seconded for a year to work for the service. From the rotas we looked at, there was always a doctor and one critical care paramedic on each shift. This meant that all missions

were covered with the appropriate staff. The pilots were subcontracted from an aviation company. There was one pilot on each shift. They had received an appropriate induction and were experienced pilots.

- We spoke with the airbase manager and the CCP who was responsible for the rotas, and they told us they had sufficient staff to enable them to roster the required number of staff for each shift.
- Bank paramedics provided cover for holiday or sickness absence if needed. They were inducted to the service using the formal induction process. They were always rostered onto the shift with either a doctor or full time critical care paramedic. This was not a regular occurrence. An induction process was in place for temporary staff.
- There were no formal scheduled breaks during a shift; however, this was not an issue. The staff had enough 'down time' in between each mission.
- We observed the staff have a handover at the beginning of the shift. This included the doctor, critical care paramedic and the pilot. This included a safety briefing, aircraft, and equipment check. They would see on the data system what missions had been carried out on the previous shift.

Anticipated resource and capacity risks

- The service planned ahead for any resource or capacity risks and these were outlined in the business continuity policy.
- Poor weather conditions posed a risk to delaying and disrupting missions. The service had access to a live electronic system, which provided updates about the weather forecast every 30 minutes. This was checked prior to each mission to ensure it was safe to fly. The pilot made the final decision. In the event they could not fly the aircraft, the team were dispatched in the rapid response vehicle. The pilots told us it was rare for weather to disrupt flights.
- The helicopter was able to operate with two critical care paramedics in the event of no doctor being available. The rapid response car was available if the aircraft became unserviceable due to maintenance/servicing.
- The crew alerted the hospital about the inbound patient once they had stabilised and transferred the patient into the aircraft. They had lists of hospital trauma centres, which were the first choice in cases of trauma, but also had a secondary list in case these were inaccessible. All staff knew the hospitals, and which specialised in

Emergency and urgent care services

specific areas, for example, cardiothoracic surgery, neurosurgery or had the right services for the patients with a stroke or myocardial infarction (heart attack). The service had not had any issues with receiving hospitals not able to take their patients.

Response to major incidents

- Staff understood their role in a major incident. The service had a standard operating procedure (SOP) for major incidents. The SOP outlined the service's expected role if a major incident. It applied to major incidents affecting their requesting NHS ambulance trusts. A business continuity plan and policy outlined the approach to internal major incidents raised by the service.
- If the service responded to a major incident declared by the NHS ambulance services, there was a clear plan of initial actions, roles on scene, internal escalation and roles of off duty staff. The SOP went into further detail for specific incidents, for example, CRBN (chemical, biological, radiological and nuclear incidents). The service's role regarding the media was also included. The SOP had been reviewed and changed in February 2017 and was due for review in 2019.
- All critical care paramedics received Joint Emergency Services Interoperability Programme (JESIP) training for major incidents. This course promoted joint working practices between emergency services at the scene of major incidents.
- The service reviewed and updated their policies regarding responding to major incidents. For example, two DLRAA doctors were involved in treating victims in a significant terrorist attack in England in 2017. This highlighted ways in which a large number of victims could be treated at the same time.
- The service tested their response to major incidents. They did joint training exercises with the airport fire service, the local NHS ambulance service and the police force. Every two years they participated in a major incident training exercise with the local mountain rescue service.
- Local NHS ambulance trusts invited DLRAA to any major incident planning they initiated, included scenario planning or simulations. They were only be involved in a major incident if the NHS ambulance provider was involved.

- The service had a business continuity policy and process. This included how they would activate plans and outlined roles and responsibilities.

Are emergency and urgent care services effective?

Evidence-based care and treatment

- The care and treatment of patients was based on nationally recognised guidance.
- The service had a number of detailed and relevant standard operating procedures (SOPs), including, clinical supervision, medical appraisal and use of Joint Royal Colleges Ambulance Committee (JRCALC) guidance and National Institute for Health and Care Excellence (NICE) guidelines. These were all evidence based. Many of the doctors subcontracted to the service, were contributors to journals and all were specialists in the field of pre-hospital emergency medicine (PHEM) and helped develop and review the policies and SOPs to keep them current. We saw a drive and passion in the clinical and senior management teams in providing the best clinical practice to their patients and leading the way in this field.
- Care was planned in line with current legislation and best practice. Doctors who worked for the service as part of their work plan were involved in research and contributed to journals. They updated any relevant standard operating procedure in line with what they found, and submitted a change form to agree the change. Doctors and critical care paramedics showed a drive to ensure the care they provided was leading the way in pre hospital emergency treatment.
- The service analysed and reviewed any proposed change to clinical practice before implementing it. The service had 'proposed change forms' which gave the rationale for change and the proposed cost. We saw examples relating to the use of intranasal analgesia and intravenous magnesium, which justified the changes proposed.
- The service monitored who had seen the new standard operating procedure or agreed change. They had a red/green monitoring system and clinicians changed to green once they had read and understood the procedure.

Emergency and urgent care services

- Clinicians audited each other's work in line with best practice. They reviewed all cases where pre-hospital anaesthetic drugs were given to patients to ease endotracheal intubation.
- Records of any invasive procedures were sent out for external specialists to review. For example, records of a patient who had required a thoracotomy were sent to a surgeon who was a recognised expert, for comment. Specialists had not suggested any changes to these procedures over the last 18 months, and learning point had been of a minor nature.

Assessment and planning of care

- The assessment and planning of patients' care made sure they received the correct interventions to maintain their safety and wellbeing.
- Specialist clinical advice was available to doctors and critical care paramedics. At the DLRAA airbase, there was a rota displayed showing which senior clinician was available to give advice. Staff were aware of who was immediately available to give advice and who was available by text. This was also confirmed in the morning briefing session before any missions. However, if staff needed to confirm their treatment options, they felt comfortable in approaching any colleague regardless of if they were on a rota.
- The paramedics had a private communication group which they regularly used to discuss cases and choices they had made in the treatment provided. Although they did not necessarily use this for immediate advice, it was useful to confirm the choices made were correct.
- The service ensured that patients went to the most appropriate hospital in the most appropriate transport. They had a list of primary and secondary trauma care providers with information about the location of the helicopter landing pad. They used a trauma tool to determine whether patients would benefit from a helicopter transfer to hospital or be transferred by road.
- Clinicians assessed the risk of transporting patients with a mental health condition. They received training on dementia and mental health conditions. They were careful to choose appropriate transport, because for example, if a patient had previously attempted to take their own life, they might attempt to do it again, endangering the crew and potentially, other aircraft.
- The service used technology and equipment to enhance the delivery of effective care and treatment. We heard how, while transporting the patient. The service sent

pictures of injuries (burns for example) directly to the receiving consultant. This enabled them to prepare the team and equipment needed, and if necessary to provide any specialist advice.

- The service had protocols in place for patients who had a suspected stroke or heart attack. In addition, there was an updated protocol for spinal injury.

Response times and patient outcomes

- The service monitored compliance against its own key performance indicators (KPIs) to continue to drive improvements in patient outcomes. There was no mandatory requirement; however, the service had devised their own indicators to measure their own performance.
- The service monitored its response times, activation times, flight times and return times for individual patients on the service's computer system and through the pilot's log. These were also analysed on a case by case basis by the head of operations together with the local NHS ambulance service.
- The NHS ambulance service worked with DLRAA to analyse how response times could have been improved. They jointly identified that speed of task allocation was an issue. The Air Ambulance services needed the helicopter or rapid response vehicle to be on the way to an emergency with the right information, immediately. The services were working together to improve this.
- Response times were not reported to senior management team or board. There were no nationally specified key performance indicators for this type of service. The service also lacked mechanisms to track what happened to patients after they transferred them to hospital, and the eventual outcome. They recognised this, and obtaining more clinical information about patient outcomes, was an ongoing project.
- The service benchmarked its practices with other air ambulances.
- The service held monthly morbidity and mortality meetings. We saw discussions of patients' care were recorded in detail. The clinical lead for the service attended these meetings. Staff said there was considerable learning gained through these meetings.

Competent staff

Emergency and urgent care services

- Staff had the skills, knowledge, and experience to deliver effective care and treatment. The service had systems in place to manage an effective staff recruitment process.
- Recruitment processes for critical care paramedics were rigorous. They included psychometric testing and role-play in challenging situations individually and as a team member to test their responses. This was assessed by an ex-police officer who was a specialist in this area
- In depth induction followed. Induction included two shifts with the clinical supervision doctor and the paramedic. The inducted clinician had to complete a competency pack and then a deputy clinical lead or the clinical lead supervised them. The induction process took about three months.
- All staff had a comprehensive competency booklet they completed. This was assessed at regular intervals to manage the progress of that member of staff.
- Appraisal rates were 100% and staff monthly one to one meetings reviewed progress against objectives and skills development. Non-clinical staff had a one to one every six weeks. Then all one to one meetings were consolidated in an 'end of year' review.
- The permanent clinical staff received monthly 1:1 meetings. Non-clinical staff received 1:1 meetings quarterly. These were then consolidated at the end of the year in a performance and development review (PDR). We saw evidence that these had been completed for all clinical staff and were relevant and individual to the specific member of staff. The doctors received their appraisals through the NHS hospital where they were employed. The service kept a record of these.
- The clinical supervisor completed a review of their practice annually and provided feedback on a full range of practice, with areas of strength and areas for development with an action plan. This formed part of the PDR.
- The service encouraged the paramedics to develop as much as possible. They had to keep a portfolio which included mandatory training, competency based training, external training, annual observed practice, and their personal development review and development plan.
- Paramedics were critically care trained. They also had surgical skills training from an NHS teaching hospital. The service made this course mandatory for CCPs on a bi-annual basis to maintain competencies. Plans were in place for a local NHS teaching hospital to provide an anaesthetic and airway management course to the CCPs. This was not routinely offered to paramedics. However, due to the nature of the service's work it was deemed important to provide the CCPs with this extended clinical skill.
- Critical care paramedics maintained and improved their skills outside of missions. Doctors developed 50 to 100 different types of scenario which clinicians rehearsed in the pilots brief 'the clinical emergency of the day' and in between missions.
- There was a surgical skills debrief for clinicians after complex missions. This included completing a specific surgical skills debrief form which captured the details of the case, learning points, technical and non-technical issues, any clinical complications and feedback from hospital or pre-hospital colleagues.
- Learning was shared through monthly team meetings and on a dedicated page on their intranet. The service was also developing a shared learning platform. Staff had 30 minutes each day for aviation and medical briefings.
- Training from a senior pilot completed the aviation side of training for all medical staff. This included an initial training for all new employees, which was an intensive course for the paramedics. This was because they needed to complete an aviation navigation competency, as they were involved in selecting appropriate landing sites for any missions they completed. All staff that flew in the helicopter completed annual checks. Although there were no specific requirements for doctors, they had the same assessment as paramedics, in line with best practice. If any staff did not have up to date training, they could not fly with the air ambulance. The senior pilot monitored this on an aviation training database.

Coordination with other providers

- There were clear lines of responsibility and accountability for the service. Care was delivered in a coordinated way with the other services involved. We saw evidence of this working effectively whilst the service were on a mission.
- There were agreed pathways with other providers and arrangements for escalating issues with the NHS ambulance trusts. Escalation went through the chief executives for matters relating to complaints and operational escalation was through the head of operations of each service, involving the base manager.

Emergency and urgent care services

- The service had a service level agreement with the local NHS ambulance provider, which outlined their joint working arrangements. They met regularly to discuss aspects of their work and to improve tasking and dispatch time. Together they developed a proposal for a paramedic staffed helicopter emergency medical service dispatch desk. This proposal aimed to improve dispatch decisions so these were based on a better knowledge of clinical need. The services were also planning mutual feedback arrangements to improve knowledge of patient outcomes.

Multi-disciplinary working

- Effective and positive multi-disciplinary working was clearly evident. We saw that the aviation and clinical team working closely together to during the flight and whilst on the scene. They worked closely to coordinate their individual elements of the mission to enable the most direct, efficient and seamless service for the patient. We also saw effective and supportive working relationships between the air ambulance crews and the NHS ambulance staff on scene.
- Staff told us it was important to work as a team between themselves, as well as with the land ambulance crews and other services such as, police and fire and rescue. This enabled them to overcome any challenges or obstacles to ensure the best service for the patient, both on the ground and when airborne.
- We did not see a handover between the air ambulance staff and the hospital during our inspection. However, we spoke with a consultant from one of the receiving hospitals and the feedback was positive. All handovers were delivered professionally and in a recognised clinical format for patients with traumatic injuries or medical emergencies.

Access to information

- Staff had access to relevant information when needed. The requesting NHS ambulance service had the access to information such as, do not attempt cardiopulmonary resuscitation forms (DNACPR) and advanced care plans. They carried out regular checks of these formal documents to make sure all information that was passed on to the air ambulance staff was relevant and up to date and to ensure that they were followed by staff.

- The tasking NHS ambulance service also notified the air ambulance crews if there were any know safeguarding children or vulnerable adult concerns.
- The rapid response vehicles had up to date satellite navigation systems in place and had been no incidents or concerns reported relating to these. The aircraft were all equipped with the appropriate navigation systems as advised by the Civil Aviation Authority.

Consent, Mental Capacity Act and Deprivation of Liberty Safeguards

- Staff understood the relevant consent and decision making requirements of legislation and guidance, including the Mental Capacity Act 2005 (MCA). The service had a policy available for staff regarding capacity to consent.
- Staff told us they asked for the patient's consent where possible. In emergencies, patients were often unresponsive, so clinicians considered their duty of care and the patient's best interests instead of formal consent.
- Staff were knowledgeable regarding the implications of the Mental Capacity Act 2005. They were able to describe how they would assess a patient's capacity to make decisions about their care and treatment and the best interest decision making process.
- The patient record forms (PRFs) enabled staff to record whether the patient had capacity to consent. Where this was not completed, this meant the patient was unconscious.
- Paramedics received training on the Mental Capacity Act through the online training system. When we inspected, this was approximately 88% complete, with some bank staff still to do the training. Doctors either used the online system or completed mandatory subjects as part of their NHS training.
- Staff told us that asked for the patient's consent where possible. Due to the nature of the patients they attended, they were often unresponsive or trapped in vehicles. Then the patients' best interest and the staffs' duty of care was taken into consideration. Staff also had knowledge in gaining consent of patients under the age of 16. They could tell us about Gillick competence and how this related to their treatment of children without a parent or guardian on scene.
- DNACPR notices were rarely provided due to the nature of the work. The requesting service (NHS ambulance service) normally held these, and carried out checks to

Emergency and urgent care services

ensure they were enforced. When air ambulance clinicians arrived on scene, patients were often unconscious, so clinicians acted in the best interests of the patient, but informed the patient if possible or practical.

- The service did not transport patients with a section 136 in place (an emergency power which allows people to be taken to place of safety from a public place if a police officer considers them to be suffering from a mental illness and need care), or who would need physical restraint. This is due to the safety of the staff and patient in the aircraft. They would still provide the care and treatment on the scene.

Are emergency and urgent care services caring?

Compassionate care

- Care was provided in a sensitive and dignified way, wherever possible. The service provided critical care in emergencies and often the patient was unconscious when the crew arrived. In these situations clinicians were not able to interact verbally with the patient.
- Clinicians ensured that patient dignity was maintained in public places. We observed a mission where both staff ensured the dignity of the patient was maintained at all times during the treatment. The ambulance staff had already moved the patient into the back of the ambulance on their arrival rather than to provide care outside where members of the public were.
- Clinicians were respectful and caring to the patient and relatives, and dealt sensitively with the deteriorating patient's condition in the presence of relatives. We saw clinicians making best interest decisions together with a relative, and breaking bad news gently and compassionately, but in easily understood language.
- We observed that staff had caring attitudes and were respectful to patient's relatives or anyone else on scene.
- The service displayed 'thank you' cards and letters sent by patients and relatives who used the service. They referred to their kindness and professionalism of the staff. Comments included; "your dedicated crew on site within minutes, they were kind, caring and efficient to both my relative and me". Other patients wrote; "I was treated like royalty and experienced a pain free flight", "thank you for the prompt and caring help you provided."

Understanding and involvement of patients and those close to them

- Staff kept patients and families well informed regarding the treatment taking place on the scene and the plan ahead, including which hospital they would be transferred to. The staff would liaise with police on scene if needed, regarding them needing to contact and inform patient's next of kin.
- Crews immediately involved any relatives who were present. We observed a mission where the doctor attended to the patient straight away while the paramedic comforted the relative. The paramedic asked them about the patient's medical history and the events leading up to their collapse. This was important for treatment decisions. The paramedic explained to the relative what the doctor was doing, before helping the doctor to treat the patient.
- The service communicated clearly with relatives about decisions about whether to fly the patient to hospital or not. They had learnt the value of clear communication from a complaint by a by-standing member of the public early in 2017. The director of operations investigated and found that the crew's decision to take the patient by road was correct, because it was more important for the patient to have a smooth rather than rapid journey. However, the member of the public had not understood this. The service learned from this about the importance of clear communication with all concerned. Crews ensured that they communicated fully with relatives and the public nearby.
- Crews involved relatives in decisions about their loved one's care and treatment. We observed a clinician asking a relative in a sensitive manner about a patient's wishes, and enquiring whether a do not attempt cardiopulmonary resuscitation order was in place.
- The service could not always offer relatives the chance to accompany the patient. This was sometimes because of weight restrictions in the aircraft, but also because the clinicians needed room to treat the patient in the fuselage on the way to the hospital. If they deemed the relative or patient could not be transferred in a helicopter, they would arrange alternate transport for them, via the police service or land ambulance, or other transport. Staff explained to parents and relatives the reasons why and what the risks were.
- The crew listened and acted on the patient's wishes if they preferred a suitable hospital near to their home. If

Emergency and urgent care services

the patient had capacity and was not undergoing lifesaving treatment that needed to be transferred to a specific specialist hospital, the crew took into account where the patient lived and which hospital was local to them.

Emotional support

- Staff we spoke with understood the impact that a person's care, treatment, or condition would have on their wellbeing and those close to them, both physically and emotionally. They told us of examples where they had provided emotional support to relatives or people close to patient that had died and were on the scene.
- Clinicians supported relatives during distressing events. We observed a paramedic sensitively and compassionately telling a relative that a patient had died, while the doctor covered and prepared the patient to preserve their dignity. When this was done, the paramedic brought the relative into the land ambulance on scene, so that they could sit with the patient and say goodbye in a peaceful setting. The doctor then sat with the relative and explained in a kind and unhurried manner why they had stopped treating the patient, and then tried to phone one of the relative's friends who could offer support.

Are emergency and urgent care services responsive to people's needs?

Service planning and delivery to meet the needs of local people

- The service effectively planned and delivered services based on patient needs. For example, they analysed how to meet the trauma needs of their communities during the evening and night times. They worked closely with their NHS providers, and looked at research and assessed flying the aircraft at night. There were reduced missions numbers during the night shifts and using the aircraft for these would have been ineffectual for a variety of operational reasons. They concluded that rapid response vehicles at night, with the same specialist clinical team, would enable the service to reach more patients, more effectively, given TAAS's geographical location. This gave the NHS ambulance services an additional resource and the public the same specialist clinical care, whether they had an accident or medical emergency during the day or night.
- The service responded to on average six missions a day. The requesting NHS ambulance service requested missions and the air ambulance responded to these in sequential order. If they were on scene and needed to be dispatched to another incident before returning to base, the pilot and the critical care practitioner (CCP) reviewed how much fuel they had and any equipment which needed replacing.
- The service worked cooperatively with other providers to review service provision and to meet the needs of the community as a whole. For example, local hospitals could overcome staffing shortages by offering pre-hospital emergency work to incoming doctors, and the air ambulance offered this opportunity.
- Facilities and premises were mostly appropriate for the services that were planned and delivered. The air ambulance flew from the East Midlands airport. Staff accommodation was basic and in four portable buildings. One building was for kit storage and training purposes, and another was a store for medication and consumables. The other portable buildings were dedicated to office space, kitchen, and toilets, so accommodation to receive visitors in comfort was limited.
- The service planned to extend their critical care operating hours in 2018. The evening shift was 4pm until 2am and they submitted a business case to extend this to 24 hours, seven days a week. This had been identified as an unmet need, because no specialist trauma care was available between these hours.
- The provider, The Air Ambulance Service (TAAS), was one of the first air ambulance Helicopter Emergency Medical Services (HEMS) providers in the country to fly with doctors on board, effectively bringing the emergency department to the patient's side. TAAS had continued to recruit and develop its' future doctors for both helicopters and rapid response vehicles and was being registered with the Health Education England's West Midlands Deanery as a 'Local Education Provider' (LEPs) for pre-hospital emergency medicine trainees. TAAS was also committed to developing its critical care paramedic team with higher education and surgical practice opportunities to facilitate autonomous practice to improve clinical outcomes for patients.
- TAAS was responsive to change to improve services to patients. This was evidenced by the significant

Emergency and urgent care services

investment being made to both the helicopter emergency medical services during 2018 with extended operating hours, new equipment, new aircraft all aimed at improving patient outcomes/experience.

Meeting people's individual needs

- Services were planned to take into account the different needs of the type of incidents and patients they responded to.
- The service facilitated communication for patients who could not speak English, or who had other communication difficulties. They had access to an on-line interpreting service, via the NHS ambulance service. Air Ambulances and rapid response vehicles also contained the multilingual emergency phrase book, which included pictorial guides to explain things to patients in a visual way.
- The CCPs had received training in dementia, learning disabilities and mental health conditions. They risk assessed, and took appropriate actions, when responding to a patient with a mental health illness. This was important to avoid putting the crew and patient at risk mid-flight.
- The service aimed to provide access to all in emergency critical care situations. However, there were some safety-related exceptions. In the case of obese patients, the service could not transport them by air due to weight restrictions. The service did not always know about this beforehand. They still provided the care and treatment at the incident site, but the patient would then be transferred to the appropriate NHS hospital via a land ambulance accompanied by a TAAS clinician if the patient required on-going critical care support.
- They did not generally take pregnant women who were near to giving birth and did not take patients with communicable diseases. Any patient who had been poisoned and/or had been subjected to a chemical/biological incident were not flown due to the potential for the crew to be contaminated. Again, a TAAS clinician would accompany the patient if they required on-going critical care support.

Access and flow

- Patients had access to timely care and critical care treatment. The DLRAA helicopter and rapid response vehicle provided timely access to urgent treatment. The average response time for the service was 13 minutes.

- The service aimed to minimise dispatch delays by working on improvements with the local NHS ambulance provider, which was the requesting agent. The requesting agent prioritised the emergency calls, so DLRAA attended calls on a sequential basis.
- The service communicated any delays due to weather conditions or other unforeseen circumstances to the NHS tasking ambulance service at the point of the alert call. The head of operations reviewed all calls together with the tasking NHS ambulance service. The service had a direct electronic link to their tasking NHS ambulance service, this showed them the status of the aircraft, whether it was 'online' and ready for flight.
- The helicopter crew kept the receiving hospital informed. While they were in flight, they communicated any travel delays or developments in the patient's condition to the awaiting medical team.
- The service could review turnaround and response times through the requesting system, although there were no nationally defined targets for response. 'On scene' turnaround times and response times were not measured by the service, as this was not a requirement. The service did review its own response times.

Learning from complaints and concerns

- Effective procedures were in place to respond and learn from complaints. People who used the service were aware of how to make a complaint or raise a concern. The service advised patients of how to make a complaint: this was done through their website. We saw that this was easy to navigate and use. We reviewed the on line compliment and complaint pages, which were easy to use. Patients could also complain to the NHS ambulance service or hospital and the service could receive complaint via this route.
- Complaints were handled effectively and confidentially. The director of operations investigated fully and in a timely manner. The service had no recent complaints when we inspected. They showed us their process through a complaint from late December 2015. The patient stated that it was not a complaint but wished to receive clarification about the choice of land ambulance over air ambulance. The service investigated in depth within a month of receiving the complaint, reporting their findings back to the patient. This was in line with NHS timescales.
- The service shared complaints, their investigation and learning with the local NHS Ambulance trust. They

Emergency and urgent care services

routinely notified them of the incident, involved NHS ambulance staff in the investigation and sent them a summary of findings. The organisations investigated jointly if a patient complained to the NHS ambulance trust patient advisory and liaison service about an event where both services were present.

- Learning from the complaint was shared with the wider organisation. Leaders reviewed findings with the team involved and presented the findings as a case review at the Mortality and Morbidity group meetings and operational group meetings.
- The service did not benchmark its complaints with other air ambulance services. It had very few complaints, however.

Are emergency and urgent care services well-led?

Leadership of service

- Leaders had the skills, knowledge, experience, and integrity they needed to be effective. The director of operations, who was also the registered manager, led the service. The head of operations oversaw organisational arrangements at the airbases. Both of the airbases had a site manager. There was also a clinical lead and two deputy clinical leads who were experienced doctors.
- The director of operations had project management qualifications, and other senior managers demonstrated a high level of strategic planning and people management skills. The clinical leads were highly qualified.
- Leaders understood the challenges to good quality care in their service. They told us these were the timeliness of tasking, stand down rates, management capacity for expanding the service, developing dashboards and databases, and improving patient follow up.
- Critical care paramedics working at both sites told us leaders were visible and approachable. They knew what senior leaders were responsible for. They told us their leaders were supportive, and respected their leadership skills and specialist knowledge.
- The paramedics worked in a matrix structure. In addition to their paramedic responsibilities, some staff acted as champions for organisational initiatives such as transporting blood or procuring equipment. The provider had ongoing projects such as the children's air

ambulance (provided by the provider's other air ambulance service) to develop service delivery, and staff also contributed to these. As a result, the service was able to develop its offer and continuously improve.

- The service did not have a Freedom to Speak Up champion, as the service was not an NHS provider. However, the director of operations told us that they had an open culture and any concerns that were raised by staff were responded to in the spirit of openness and candour. If staff did not want to speak to a member of leadership team, they could raise issues with the local NHS ambulance services or other members of the charity's senior leadership team. Staff said that they had not needed these routes of escalation.

Vision and strategy

- The service had a clear vision and strategy, underpinned by holistic values that were embraced by all staff.
- The service's mission statement was to:
 - 'Save lives and improve patient outcomes by providing a rapid response to trauma and medical emergencies'.
 - 'To be free of charge to patient and to the NHS'.
 - 'To provide services whenever and wherever we can'.
- There was a detailed strategy for achieving strategic aims and priorities, with clinical quality and safety the top priorities. These were outlined in the charity's strategic plan 2015 to 2020. The first strategic aim was to 'continuously advance rapid response critical care services to patients.' This was translated into an annual operational strategy, supported by implementation plans, which focused on continuously upgrading rapid response provision, and a three-year air ambulance clinical strategy. The clinical strategy focused on training, key performance indicators, audit, equipment, research, and recruitment. These strategies were supported by clear action plans that were monitored by leaders.
- The service was clear on its priorities for 2018, which included extending operating hours for critical care cars, evaluating the use of pre-hospital ultrasound, developing cardiac care strategy with NHS ambulance services and carrying out clinical research.
- The service allocated resources to match its aim of continuously advancing rapid response critical care, showing that quality and safety were the top priority. Managers and clinicians explained how the service always funded clinical needs such as specialist training

Emergency and urgent care services

or equipment. The service prioritised funding by looking at how best potential plans would benefit the patient.

The budget for learning was separate so the service was able to prioritise developing a high level of clinical skills.

- The service's values were 'compassion, courage, and creativity.' The vision, values, and strategy were developed with partner organisations, such as the NHS ambulance service.
- Staff fully demonstrated the values. We observed them on an emergency mission and they showed by their passion and commitment to the work and to the organisational values.
- Staff also knew and understood the strategy and their role in achieving it. The service held quarterly strategy meetings, which could include staff at all levels. Twice a year the whole clinical team attended. Staff and managers monitored and reviewed progress against the strategy at these meetings, giving them a clear understanding of the vision and strategy.
- These strategy meetings resulted in some changes to implementation plans, which were reviewed at operational team monthly. For example, in response to a pilot's suggestion to look at the feasibility of night flying, leaders researched the business case for this. They involved the local NHS ambulance services.

Governance, risk management and quality measurement

- There was an effective governance framework to support good quality care. The service held regular senior management team meetings, which monitored progress on achieving strategic aims. Monthly operational group meetings monitored progress on the operational strategy. The director of operations fed any information from front line level such as achievements or incidents to the senior management team meetings and cascaded information from the meeting to the operational group.
- The clinical governance group held meetings quarterly. They had clear terms of reference, which included reviewing the operational risk register, monitoring the clinical governance work plan, reviewing national clinical guidance, and sharing learning. Managers and clinicians also reviewed clinical learning at morbidity and mortality meetings, which were held monthly at alternate airbases. This ensured that clinical practice continuously improved.
- There was a range of policies and standard operating procedures, which underpinned the governance structure. This was supported by a red/green monitoring system which showed who had read and who had yet to read the standard operating procedure or policy update. The service introduced new procedures to reflect good practice and national guidance and when necessary and when we inspected the service was implementing a new protocol for spinal injury.
- Policies were reviewed every two years and covered key issues such as raising and responding to concerns, adverse incident investigation, complaints, driving policy, consent, medicines management, management of controlled drugs, medicines' management and infection prevention and control. This ensured patient safety as much as possible, and promoted a consistency of approach in day-to-day working.
- The service actively reviewed their risk register, which was comprehensive, at the clinical governance group and operational management group. There was a clinical risk register and an organisational risk register. This included risks such as poor dispatch decision making, use of non-approved equipment, and failure to maintain paramedic cover. The grading system matched that of the NHS ambulance service. They took action to mitigate risks, for example, in developing a plan for a doctor-led air desk in the local NHS trust ambulance service.
- Managers reviewed risks monthly and reported them to the senior management team. They supplied an action plan to mitigate each risk and this included actions such as developing a doctor recruitment plan to ensure doctor cover on all shifts. There were monthly risk register meetings and risks were reported to the senior management team monthly, then to the board on a quarterly basis. This ensured senior management and trustee board oversight.
- The service had clear working arrangements with partners. They based service delivery for the Air Ambulances on a service level agreement developed with local NHS ambulance providers. The service level agreement was reviewed six monthly. Local NHS ambulance providers informed us the director and head of operations attended weekly and monthly meetings with them, and spoke highly of the service. The local NHS ambulance service boards also monitored activity reports from the service.

Emergency and urgent care services

- Clinical staff were clear about their roles and what they were accountable for. They completed a self-assessment for their annual appraisal (personal development and review) process. They measured two sets of competencies; behavioural and professional. Each team had defined competencies for their roles. Personal objectives were clearly linked to strategic objectives, ensuring a focused approach throughout the organisation.
- The service had a system of giving staff time off in lieu if they worked over their hours due to operational demands. They also had four bank paramedics to offer cover in case of absence or holidays.
- The service was continuously improving the personal development and review (PDR) process. From the 2017 audit of the process, they modified the structure of PDRs, to make them more user-friendly and formed the basis for an annual review of responsibilities. We reviewed five staff files and found that appraisals were complete and up to date, and included up to date Disclosure and Barring Scheme (DBS) checks. Clinicians we spoke with found their one-to-one meetings very useful.
- There was a programme of clinical audits linked to training. PHEM (pre hospital emergency medicine) trainees completed emergency medicines audits, and full time doctors audited work at both airbases.
- Quality and performance monitoring arrangements were in development. Service activity levels and stand-downs with staffing level information were reported at trustee board level. They used this information to solve operational issues such as night cover or planning sufficient doctors for shifts. The service lacked a dashboard to monitor response times, clinical outcomes and other quality indicators. They reviewed response times with the local NHS ambulance providers (tasking agents) and monitored some clinical indicators at clinical governance group.

Culture within the service

- The service had an open and learning culture, focused on patient care. Clinicians worked with a mutual respect, candour and honesty. The same staff worked across the two air ambulance services, at both airbases, and this ensured a consistency of approach.
- Staff turnover was low and staff sickness compared favourably with the NHS. In October 2017, November 2017 and December 2017 respectively, 1.9%, 3.8% and

1.9% of operational staff took sickness absence. In the NHS, the latest available statistics, the period July 2017 to September 2017 showed a provisional absence figure of 4%.

- Staff shared learning through monthly team meetings and their intranet. The service was also developing a shared learning platform for doctors. Clinical staff had 30 minutes each day for aviation/medical briefings, either through e-learning or simulation. They could access the e-learning system at home if they needed to.
- The learning culture was supported by learning events. One of the quarterly strategy review meetings was also a learning conference. All staff were invited from across the charity and up to 300 people attended. All staff participated in a 'skills swap' to gain a better understanding of the wider charity
- The service managed organisational change through a project management approach but also through bringing in experts such as procurement consultants for one-off projects.
- The organisational culture promoted staff wellbeing. Colleagues or managers debriefed the crew after their missions and we saw evidence of peer support. The last staff survey identified that the service needed to do more to support staff wellbeing. The service responded by working with a mental health charity on a programme to help blue light emergency staff to manage stress and mental health. The service also contracted with an occupational health company to provide private counselling and psychological support to staff, in response to the staff survey.

Public and staff engagement

- Staff and public engagement was positive and designed to seek feedback to continue to improve the service. The 2017 annual staff survey showed a high level of job satisfaction in the Air Ambulance Service. Although it was unclear how many respondents were clinicians, the survey had a 79% response rate, of which 98% of respondents believed the charity set the standard of excellence in patient care, and 97% of respondents were proud to work for the charity.
- Staff were engaged in strategic working through the quarterly conferences. These meetings included a question and answer session, so that everyone could ask senior managers questions if they wished. Managers recognised staff achievements with awards at the Christmas conference. Clinicians were also recognised

Emergency and urgent care services

for their work by various organisations in the community, including the local NHS ambulance service. One of the operational managers was also developing a policy for recognition at airbase level

- Critical care paramedics were proactive in making suggestions for improvement. They suggested most of the patient group directions (PGDs), which specified who could give medication without a doctor present.
- Clinical staff participated in public events where possible, to raise the profile of the service. Some of the staff (including the base manager) were involved with fund raising for the charity. All the staff we met were passionate about the charity and providing care for patients.
- The service had very positive public feedback. We saw many thank you cards posted on the walls of the airbase, which grateful patients and relatives had sent to the service. Owing to the nature of the service, it was difficult to obtain patient feedback at the time of the emergency. Instead, clinicians invited patients to feedback through the air ambulance website.
- Patient satisfaction was received via various sources: NHS ambulance service Patient Advice Liaison Service departments, direct contacts via charity website (patient feedback section), and direct contacts by email/letters/cards to airbases and fundraising teams. Patient satisfaction was monitored via monthly operations team meetings and quarterly clinical governance and trustee board meetings. The provider was also looking to introduce a Patient Liaison Officer role in 2018.

Innovation, improvement and sustainability

- The service had developed an innovative system of recruiting its own paramedics and offering them a high level of pre hospital emergency care training. All but four of its paramedics were employed directly by the Air Ambulance Service and benefit from a high level of skills development.
- Staff told us they were encouraged to identify improvements for the service and leaders considered their suggestions. For example, the service was assessing the potential benefits of carrying portable ultrasound equipment and a video laryngoscope.
- The service worked with local NHS hospitals to provide clinical governance and training events. One of the air ambulance doctors developed a joint clinical governance day, which was held at a local East Midlands NHS hospital. Its purpose was to bring the major pre-hospital providers together in one room to present cases and learn from each of them. This day was very successful and the service and its partners planned to repeat it on a six monthly basis.
- There was an ethos of continuous improvement, and contracted doctors contributed actively to this. They developed tools to help in their day-to-day working, for example, a pocket size aide memoire of treatment plans and drug dose levels, for clinicians to take in the aircraft with them. They also helped identify how the service could better respond to patients, by developing a report with analysis of tasking issues and delays. This enabled the service and their NHS ambulance provider partner to work towards resolving delays associated with response times.

Outstanding practice and areas for improvement

Areas for improvement

Action the hospital SHOULD take to improve

Action the provider SHOULD take to improve

- Review processes for maintaining safeguarding policies in line with national legislation and guidance.
- Consider formal safeguarding training for pilots.
- Review mandatory training levels and increase compliance with some modules.