RAF Benson

Quality Report

Thames Valley Air Ambulance
RAF Benson
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This report describes our judgement of the quality of care at this location. It is based on a combination of what we found when we inspected and a review of all information available to CQC including information given to us from patients, the public and other organisations

Ratings

Overall rating for this location	Outstanding ☆
Are services safe?	Outstanding ☆
Are services effective?	Good ●
Are services caring?	Outstanding ☆
Are services responsive?	Good ●
Are services well-led?	Outstanding ☆

Mental Health Act responsibilities and Mental Capacity Act and Deprivation of Liberty Safeguards

We include our assessment of the provider's compliance with the Mental Capacity Act and, where relevant, Mental Health Act in our overall inspection of the service.

We do not give a rating for Mental Capacity Act or Mental Health Act, however we do use our findings to determine the overall rating for the service.

Further information about findings in relation to the Mental Capacity Act and Mental Health Act can be found later in this report.

Summary of findings

Letter from the Chief Inspector of Hospitals

Thames Valley Air Ambulance is a registered charity and operates from RAF Benson. The service provides emergency and urgent care by air ambulance and critical care response vehicles.

We inspected this service using our comprehensive inspection methodology. We carried out an announced inspection on 8 and 9 January 2020.

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.

This was the first time this service had been inspected and rated. We rated it as **Outstanding** overall.

We found outstanding practice in relation to:

- There were comprehensive systems to keep people safe. The whole team was engaged in reviewing and improving safety and safeguarding. The service had a proactive approach to anticipating and managing risk.
- The service had enough highly trained and qualified staff with relevant skills and experience to keep patients safe from avoidable harm and to provide the right care and treatment.
- Innovative systems supported accurate and personalised information sharing. Staff kept detailed records of patients' care and treatment.
- The provider had a track record of safety supported by accurate information. The service managed patient safety incidents well. Staff recognised incidents and near misses and reported them appropriately.
- The continual development of staff skills, competence and knowledge was recognised as being integral to ensuring high quality care. Staff were proactively supported and encouraged to acquire new skills, use their transferable skills and share best practice.
- Leaders and staff were committed to working collaboratively and had found innovative ways to provide joined up care for those who needed the service. All those responsible for delivering care were committed to work together as a team to benefit patients.
- People were truly respected and valued as individuals. Staff treated patients and their families with compassion and kindness, respected their dignity and privacy, and went above and beyond expectations to meet their individual needs and wishes.
- People's emotional and social needs were highly valued by staff and were embedded in their care and treatment. Staff highly valued the patient's relatives and those close to them including them as partners in care.
- Leaders had an inspiring shared purpose to deliver and motivate staff to succeed. Leaders at all levels demonstrated high levels of integrity, skills and abilities to run the service. They were fully focused on sustainability of services and aligned to local plans within the wider health economy.
- There was a strong organisational commitment to equality and inclusion across the service. Staff were proud to work for the service and felt truly respected, supported and valued.
- There was a systemic approach to working with partner organisations to improve care outcomes.
- The service had invested in innovative and best practice information systems and processes. The service collected reliable data and analysed it.
- There were consistently high levels of constructive engagement with staff and people who used the services. Leaders and staff welcomed challenge and actively and openly engaged with patients, staff, equality groups, the public and local organisations to plan and manage services.
- All staff were committed to continually learning and improving services and sharing knowledge with services outside of the organisation.

Summary of findings

Nigel Acheson

Deputy Chief Inspector of Hospitals (London and South), on behalf of the Chief Inspector of Hospitals

Summary of findings

Our judgements about each of the main services

Service	Rating	Summary of each main service
Emergency and urgent care	**Outstanding** ☆	Thames Valley Air Ambulance is an independent ambulance service and is based at RAF Benson, Oxfordshire. The service is a registered charity. The service primarily serves the communities of the Berkshire, Oxfordshire, Buckinghamshire. The Thames Valley Air Ambulance is a critical care Helicopter Emergency Medical Service providing critical care services to both local NHS ambulance trusts and mutual aid to neighbouring NHS ambulance services and NHS trusts. We found the service to be outstanding in safe, caring and well-led domains. We found good practice in the effective and responsive domains. We have rated this service as outstanding overall.

Summary of findings

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Outstanding ☆

RAF Benson

Services we looked at
Emergency and urgent care

Summary of this inspection

Background to RAF Benson

Thames Valley Air Ambulance is an independent ambulance service and is based at RAF Benson, Oxfordshire. The service is a registered charity. The service primarily serves the communities of the Berkshire, Oxfordshire, Buckinghamshire.

The Thames Valley Air Ambulance is a critical care Helicopter Emergency Medical Service. Thames Valley Air Ambulance became an independently regulated provider and began operations in October 2018 providing critical care services to both local NHS ambulance trusts and mutual aid to neighbouring NHS ambulance services and NHS trusts. Prior to October 2018 the HEMS and critical care service was operated by the local NHS ambulance service.

The service operates one aircraft between 9am and 7pm, seven days a week and works with another air ambulance provider to provide regional air ambulance provision between 7am and 9am and 7pm and 2am through fortnightly rotation.

The service has four critical care response vehicles (CCR) in its fleet. The service also provides at least one CCR from 7am to 2am, seven days a week, both to support the air ambulance and also out of hours. The CCR is available when the aircraft is off-line, for example due to poor flying conditions.

The service has had a registered manager in post since October 2018.

Our inspection team

The team that inspected the service comprised a CQC lead inspector and a specialist advisor with expertise in emergency and urgent care. The inspection team was overseen by Catherine Campbell, Head of Hospital Inspection.

Information about RAF Benson

The main service provided by this ambulance service was emergency and urgent care by air ambulance and critical care rapid response vehicle.

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 their offices in Stokenchuch and their base at RAF Benson. We spoke with 12 members of staff including; registered paramedics, pilots, the chaplain and management. We spoke with six patients and we reviewed four sets of patients records.

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 was registered in October 2018 and this was the first inspection since registration.

Activity (October 2018 to September 2019)

- In the reporting period, from October 2018 to September 2019, the service dispatched resources to 2,670 jobs involving 1,667 patients. The most common type of call was cardiac arrest, closely followed by road traffic collisions. The most common injury was a head injury.

Summary of this inspection

- The provider employed 24 registered paramedics and managers. Pilots were contracted from an aviation company who also supplied the aircraft. The service also had a pool of temporary or contracted staff it could use. The pool of temporary staff included 23 doctors. The registered manager has executive accountability for controlled drugs (CDs).

Track record on safety (October 2018 to September 2019)

- The service had not reported any never events, during the reporting period, from October 2018 to September 2019. Never events are serious, wholly preventable, patient safety incidents that should not occur if a service has implemented the available preventative measures. The occurrence of a never event could indicate unsafe practice.
- The service had not reported any serious injuries during the reporting period, from October 2018 to September 2019.
- The service reported 341 patient related clinical incidents. Of these, 320 were classed as no harm, and 21 as low harm, minor harm and moderate harm. No incidents during the reporting period resulted in severe harm or death.
- The service had reported one complaint relating to clinical care and three complaints relating to operational issues, during the reporting period from October 2018 to September 2019.

Detailed findings from this inspection

Overview of ratings

Our ratings for this location are:

	Safe	Effective	Caring	Responsive	Well-led	Overall
Emergency and urgent care	Outstanding	Good	Outstanding	Good	Outstanding	Outstanding
Overall	Outstanding	Good	Outstanding	Good	Outstanding	Outstanding

Outstanding ☆

Emergency and urgent care

Safe	Outstanding ☆
Effective	Good ●
Caring	Outstanding ☆
Responsive	Good ●
Well-led	Outstanding ☆

Are emergency and urgent care services safe?

Outstanding ☆

We rated it as **outstanding**.

Mandatory training

The service provided mandatory training in key skills including the highest level of life support training to all staff. Managers monitored and reported on compliance with training rates, ensuring there were plans in place to ensure everyone completed it.

The service had effective systems to monitor staff compliance with mandatory training. Staff received up-to-date training in all safety systems, processes and practices. All Critical Care Paramedics (CCP) had received advanced training in critical care and held recognised qualifications.

Staff working for the service predominately completed mandatory training online using E-learning. The online training system linked with electronic staff records. When a module was completed, the staff records were automatically updated to reflect this.

Staff received mandatory training in safe systems, practices, and processes. There were 12 identified mandatory modules. Topics included consent, fire safety, infection prevention and control, health and safety, information governance and mental capacity.

The service provided compliance rates for three staff groups, doctors, paramedics and dispatchers. The overall compliance rate for the service was 91%, with doctors achieving 91%, paramedics 96% and dispatchers 85%. The service did not set itself a compliance target.

The service required evidence from doctors' current NHS role of their compliance with mandatory training. This information was then recorded in the individuals' staff file.

Staff were suitably trained to carry out manual handling activities. Mandatory and statutory training included manual handling training for both clinical and non-clinical staff. The electronic training record showed that 89% of staff had completed and were up to date with this training. The split by staff group was; doctors 92%, paramedics 100% and dispatchers 57%.

The service ensured CCPs were trained to drive under blue lights. Only TVAA paramedics were approved to drive the critical care response units on blue lights. All paramedics had received advanced emergency response driver training from an approved external provider. The service had oversight of driver training compliance.

Safeguarding

There were comprehensive systems to keep people safe. The whole team was engaged in reviewing and improving safety and safeguarding. Staff understood how to protect patients from abuse and the service worked well with other agencies to do so. Staff had training on how to recognise and report abuse and they knew how to apply it.

There were systems, processes and standard operating procedures to keep people safe and safeguarded from

abuse. The service had safeguarding policies for both adults and children. They were both in date and had review dates. The policies clearly defined the roles and responsibilities of staff relating to safeguarding and the reporting procedure.

Training for safeguarding vulnerable adults, children and young people was effective and up to date. All paramedics were trained to level three in safeguarding adults and children. 21 out of 25 doctors were also trained to level three. The the remaining four were trained to level two. However, all doctors always work with a level three trained paramedic. This was in line with the intercollegiate documents: Safeguarding Children and Young People: Roles and Competencies for Healthcare Staff Fourth edition: January 2019, and Adult Safeguarding: Roles and Competencies for Health Care Staff First edition: August 2018.

The service had a safeguarding lead who was awaiting level four training which had been booked for April 2020. The named professional and director of operations for the service were trained to level four.

The service and staff took a proactive approach to safeguarding and we saw staff discussed safeguarding in clinical governance and executive team meetings. Every job attended by TVAA was reviewed by the safeguarding lead.

The service completed 85 safeguarding referrals to the commissioning NHS ambulance trust during the reporting period, from October 2018 to September 2019. Staff told us the importance of flagging those concerns, so the relevant authorities could build a comprehensive picture of risk to the patient.

There were effective systems to raise safeguarding concerns. Safeguarding forms were available online and staff knew how to access and use them. When staff completed a patient clinical record, and before closing the form, the system would prompt the user to consider any safeguarding concerns and would not let them proceed until they had acknowledged the prompt.

Innovation was encouraged to achieve sustained improvements in safety and continual reductions in harm. For instance, pilots working for the service were subcontracted from an external specialist aviation company and were not required to receive any formal safeguarding training. However, the service had requested they did complete training and, although pilots did not have direct contact with patients, they completed safeguarding overview training for both adults and children.

Cleanliness, infection control and hygiene

The service controlled infection risk well. Staff used equipment and control measures to protect patients, themselves and others from infection. They kept equipment, vehicles and premises visibly clean.

The service had an infection, prevention, and control (IPC) policy that was within review date. The policy cross referenced other associated policies such as the uniform policy and included advice and guidance for staff to follow including, hand hygiene, the use of person protective equipment (PPE), vehicle and aircraft cleaning, sharps injuries and managing patients with specific infections.

There were reliable systems to protect people from infections. Staff had access to PPE as both personal issue and PPE was located on both the aircraft and vehicles. PPE included a variety of infection control items such as facemasks and eye protection.

Hand hygiene was prioritised and maintained to ensure patients were protected from the risk of infection. Hand sanitisers were readily available, and staff told us they used them before and after every episode of direct patient contact or care. During our inspection, we did not observe any patient journeys, so we were unable to observe if staff were compliant with hand hygiene. However, records provided by the service confirmed 100% of paramedics had had their hand hygiene technique assessed during the reporting period.

The service demonstrated how they assessed the risk of infection and acted to prevent, detect, and control the spread of infections. Staff told us they used wipes for disinfection and cleaning of medical devices and surfaces. These wipes were effective against most bacteria and viruses.

All vehicles, aircraft and equipment were cleaned after each patient use and deep cleaning of all vehicles was scheduled both weekly and monthly. We saw evidence of cleaning schedules which were completed adherence to the cleaning programme. We looked at the aircraft and

rapid response vehicles and they were visibly clean and tidy. Vehicle and aircraft interior surfaces and equipment were visibly clean, and records of daily checks had been completed.

Cleaning audits were carried out monthly using swabbing meaning equipment and vehicle cleanliness was monitored. Testing was carried out by an external provider who provided a report which presented a score that showed the level of organic matter present in the swab. An area of a vehicle or equipment was swabbed both before and after cleaning. We saw evidence of these reports confirming the scores and outcomes.

Staff received effective training in infection and prevention control and knew their responsibilities in relation to it. This training was delivered and tailored to both clinical and non-clinical staff. The modules covered the varying infection risks to patients and the ways those risks could be reduced. This training had been completed by 100% of paramedics and by 92% of doctors.

Due to the types of jobs staff attended, crews were not always able to get specific information about infection and hygiene risks associated with individual patients. Patients were usually suffering from severe injuries or critical illnesses and were often unconscious or in significant pain. These patients were not able to tell crews specific infection information. Any ability to communicate was used to gain information that enabled time critical interventions to save life or limb. However, staff told us they routinely used full PPE including eye protection and facemasks, and these were incorporated into checklists to ensure they were being used.

Sterile consumables were stored correctly and safely. We checked a random sample of sterile consumables and all were sealed and within the manufacture's expiry date.

Uniforms and flight suits could be laundered onsite and the linen used on stretchers were disposable.

The operations support manager completed monthly audits of infection prevention and control. These consisted of checks of the cleaning records for the aircraft and vehicles, temperature checks of the refrigerators and toilet cleaning.

The service had an infection control lead for the organisation, who staff could access for advice and support.

The service informed us that no incidents relating to infection control had been reported in the past year.

Environment and equipment

The design, maintenance and use of facilities, premises, vehicles and equipment kept people safe. Staff were trained to use them. Staff managed clinical waste well.

The operations base was situated within an operational RAF base. Access to the base was subject to the authority of the Ministry of Defence and all visitors were escorted onto and off the site. The aircraft was kept in a locked hanger overnight. Access to the service premises and facilities was via an identification 'swipe card' and fingerprint ID locks. CCTV was also in operation.

The service ensured that all vehicles had current insurance certificates and were serviced. The service had four rapid response vehicles in it's fleet. Each vehicle was less than three years old and therefore did not require Ministry of Transport (MOT) testing. The maintenance and servicing of the rapid response vehicles was carried out by a local car dealership. We saw that all vehicles had valid vehicle insurance and evidence of regular service and maintenance. Staff told us that they were contacted by the dealership when a service was due. The service also kept a record to ensure the vehicles were called for service in a timely manner. We saw regular maintenance and servicing had been carried out and that all vehicles were fit for use.

The service ensured their aircraft were suitably serviced and checked in line with the Civil Aviation Authority regulations. The Civil Aviation Authority regulates all aspects of aviation. The aircraft was checked prior to being flown by a suitably trained technician. The service had a maintenance contract for the maintenance and servicing of the aircraft. We saw evidence of these documents. The company the aircraft was loaned from supplied another helicopter when it was being serviced.

The arrangements for managing waste and clinical specimens kept people safe. Waste segregation and the disposal of sharps was covered in the infection prevention and control standard operating procedure. On the aircraft and vehicles were 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. The area where clinical waste was stored was clean, tidy and secure. An external contractor was responsible for the final collection of clinical waste.

Equipment stores were visibly clean, tidy and well organised. The storeroom was well lit, and the floor was clear of any obstruction. There was no clutter or equipment out of place. All equipment was stored on labelled shelves within labelled boxes. This made it easy and clear for the crew or operational support team to select and restock bags or vehicles. We also saw that labels on boxes clearly displayed the expiry dates of equipment so that operational support staff could easily keep track of stock expiry dates.

The service effectively managed replenishment of vehicles, equipment and supplies. These were part of the operational support staff daily checks. Staff completed a checklist on an electronic tablet so there was a record that all checks had been completed. We saw the operational support staff checking kit bags to ensure they were replenished effectively; this was completed methodically and meticulously using an agreed checklist.

Vehicles keys were securely stored. They were kept in a locked safe secured by a key code. Only operational staff and service support staff knew this code. This was closed and locked during our inspection.

The maintenance and use of equipment kept people safe. The service held up-to-date records of equipment maintenance and schedules. Records listed the servicing logs and due dates for maintenance, servicing, serial numbers and expiry dates of warranty. We reviewed these logs, which showed all servicing was up-to-date. The system alerted the operational support team when equipment servicing was due.

All equipment and medical supplies seen were fit for use. Suitable storage facilities were available and secure. Clinical staff checked the medical equipment daily. This ensured the equipment was working and whether additional equipment was needed.

Equipment for children and babies was also stored safely and checked ready for use. This included safety harnesses to secure children within the aircraft and medical equipment designed for use with children.

Staff told us, and we saw, each week kit bags were opened, checked, and re-sealed to make sure all equipment was available and consumables were in date. We saw schedules and checklists to confirm these checks took place.

Equipment was available to safely secure patients while they were being conveyed. We saw seatbelts were present with a pull extension to fit around patients of varying sizes, including children. The safety restraint of patients within the aircraft was a requirement of the Civil Aviation Authority. Adult harnesses could be adjusted to accommodate children as young as two years old. The service had waist belts for children below the age of two, would then travel in the arms of an adult who was also harnessed. Patients were not transported in response cars.

The service had access to advanced technical equipment. The service used night vision goggles, so the crew could effectively respond to calls, by air, between dusk and 2am when lighting was restricted. The night vision goggles were a technically advanced piece of equipment. Before each use, the crew used a device that enabled the goggles to be adjusted to personally suit the wearers own eyes.

The service used equipment effectively to ensure the safety of patients. Night vision goggles had a battery life of 16 to 20 hours. Service policy was to use the night vision goggles for a maximum of six hours before replacing the battery. This was to ensure that crews were not at risk of being on a long job with night vision goggles nearing the end of their battery life.

Storage for equipment was effective and suitable. There were enough storage facilities for these high security items. The night vision goggles were protected by the International Traffic in Arms Regulations, so the service had to secure them safely on the premises. The security arrangements were robust and in line with required guidance.

Faulty equipment was efficiently and effectively managed. Staff reported faulty equipment to the operational support team who assigned the task to the servicing team responsible for that item. When vehicles presented a fault during the vehicle daily inspections, staff would attempt to rectify the fault immediately. For example, if a lightbulb was not working the team would

replace it. If there was a fault that could not be immediately rectified, the service held a spare vehicle that was maintained and checked along with all other vehicles. This could be used to avoid any interruption to the service in the event of a faulty vehicle.

Stretchers used to transfer patients had pressure-relieving qualities within the mattress. It also had a weight limit of 20 stone. Due to the small environment inside the aircraft and weight limits due to fuel consumption, some heavier patients could not fly. The HEMS crew would continue to provide care and treatment at the incident site, but the patient would then be transferred to a NHS hospital via a land ambulance, accompanied by a clinician from the service if the patient required on-going critical care support.

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.

Assessing and responding to patient risk

The service had a proactive approach to anticipating and managing risk. Staff completed risk assessments for each patient swiftly. They removed or minimised risks and updated the assessments. Staff identified and quickly acted upon patients at risk of deterioration.

Staff carried out comprehensive risk assessments in line with service policy and national guidance. The service had standard operating procedures for the treatment of specific illness and injuries. This ensured that all staff had a clear process to follow.

The service had a proactive approach to anticipating and managing risks to people. This was embedded and recognised as being the responsibility of all staff. Clinical staff assessed risks at scenes when attending patients. These included risks to the patients and staff such as environmental as well as clinical risks. Before any high-risk intervention, staff could rapidly sedate and manage the airway of the patient. This meant crews could intervene in a controlled manner.

The crew had access to specialist clinical advice when on scene or during transit. Crews had access to a consultant who provided clinical support and advice via telephone. Staff told us this service was very effective.

There was a safe and effective escalation process for the deteriorating or seriously ill patient. Additional resources could be requested via the service dispatchers who were co-located in the local NHS ambulance trust operations centre. The dispatchers could call in support from other services. Usually, in most circumstances, TVAA were the most competent team to manage the seriously ill patient in the pre-hospital environment. Additional resources were requested if the number of patients was too high for a single TVAA team to manage safely.

Staff identified and responded to the changing risks to people who used the services. Vital observations were continuously monitored so the crew could quickly detect the deteriorating patient. Patient clinical observations such as blood pressure, pulse rate, and respiratory rate were recorded on the electronic monitors used at scene to allow for early detection of deterioration in a patient's condition. This monitoring was constant throughout episodes of care and removed the risk of missing significant observations during intervals.

Staff used the Glasgow Coma Scale to assess impairment in consciousness levels and a variety of clinical protocols for specific conditions to ensure all clinical risks were considered. The GCS is and assessment of consciousness using a set of four quick assessments that are standardised nationally. This allows all staff from the service and any partner services at the scene to understand the patient's condition and the significance of any deterioration. Records we looked at showed staff had used the tool in line with national guidance. Staff we spoke to were confident in identifying deteriorating patients. Where the service did not use recognised triage tools, they had extensive research and data to support alternative methods.

Risks were managed positively. Two clinicians routinely performed a 'challenge and check' risk assessment. One challenged the other by asking if equipment was prepared or present and the other checked that it was. This challenge and check created calm and control during often busy environments and thereby helped reduce the risk of human error. This ensured that everything had been considered before performing a procedure or before departing a scene.

TVAA crews were well equipped to manage the septic patient. Sepsis is the body's life-threatening response to infection and can progress rapidly to multi-organ failure.

Emergency and urgent care

Patients with sepsis need to be transferred to hospital for treatment as soon as possible. The crew offered full sepsis treatment in the pre-hospital environment. This meant intervention could take place on scene, this reduced risk to the patient and increased the likelihood of survival. This is in line with NICE guideline 51 Sepsis: recognition, diagnosis and early management which states, 'Ensure … ambulance services have mechanisms in place to give antibiotics to people with high risk criteria in pre-hospital settings.

Staff received conflict resolution training as part of their mandatory training and regularly practised scenario-based training when not on active missions which allowed them to encounter and plan for unexpected risks in a safe learning environment.

Staff assessed, identified and responded to challenging patient behaviour in line with the service policy. The TVAA crews often attended patients with severe injuries following major trauma. The body's response to trauma, in some cases, can affect a patient's behaviour. For example, a significant head injury can mean that patients become more irritable and aggressive. Staff we spoke with told us the importance of being able to manage this behaviour to avoid further injury to the patient but also to enable the team to quickly assess and treat the patient.

The service had effective procedures to manage the disturbed patient. The TVAA crew were able to perform conscious sedation. Conscious sedation could be used when crews needed to perform particularly complex or painful procedures, if the patient was assessed as having capacity then consent to be consciously sedated was obtained before-hand.

When conscious sedation was used to manage the disturbed patient, this was made as a best interest decision. A best interest decision is when staff make informed decisions for a patient's best interest when they lack capacity to make decisions for them self.

Clinical staff performed a verbal risk analysis before leaving a scene to ensure that any risks to a patient were considered for their on-going transport.

Staffing

The service had enough highly trained and qualified staff with relevant skills and experience to keep patients safe from avoidable harm and to provide the right care and treatment. Managers regularly reviewed and adjusted staffing levels and skill mix and gave bank and agency staff a full induction.

The service had enough staff to keep patients safe. They had enough paramedics, doctors and pilots to cover shifts that supplied one aircraft and critical care response vehicles as required for the region between 7am and 2am.

Managers accurately calculated and reviewed the number and grade of staff needed for each shift in accordance with national guidance. Staffing levels were planned, implemented and reviewed to keep people safe at all times.

The service employed five whole-time equivalent emergency medical dispatchers and 24 whole-time equivalent HEMS paramedics. The service also had available 25 part-time HEMS doctors through a variety of contracts and agreements. For example, four of the doctors are seconded from the military

Rotas and shift patterns were aligned to demand. Shift times overlapped to ensure resources were available to meet demand. The overlap meant there was not a period where crews were handing over without another crew available to respond to calls.

The service placed emphasis on ensuring staff were competent at carrying out dual roles. The service employed three whole time equivalent critical care paramedics who undertook dual roles as clinical managers. The use of dual roles meant that the service had access to competent staff at short notice to cover shifts. Service data showed that shifts were 100% covered during the reporting period.

Staff had adequate time off between shifts. Staff had a minimum of 11 hours rest between shifts. If a shift late finish resulted in less than 11 hours rest, then management would arrange cover for the beginning of their next shift to ensure they had adequate rest. The service operated on four days on and four days off rota. This meant staff had adequate rest days between a run of shifts.

Pilots and staff had adequate breaks during shifts. Both pilots and staff were able to take their rest breaks as and

when they had free time between jobs. If staff experienced a busy shift they were encouraged to notify the duty manager, so the manager could stand them down for adequate rest.

A team of pilots employed by an external aviation company operated the helicopters. A pilot crewed each flight with support from the clinical staff who had received specific HEMS training to enable them to perform navigational roles on the aircraft and assess safe landing sites.

All staff had a full induction that prepared them to support safe care for patients. We spoke with, and received feedback from, staff who had recently joined the service and they reported having a though induction and had the opportunity to gain experience of other the roles and responsibilities of other people within the organisation.

Records

The service had systems to manage and share information needed to deliver effective care and treatment. Innovative systems supported accurate and personalised information sharing. Staff kept detailed records of patients' care and treatment. Records were clear, up-to-date, stored securely and easily available to all staff providing care.

Staff used specially designed electronic patient report forms (PRFs) to record patients' clinical details. The service had adopted the system which had been developed by another air ambulance provider. TVAA described how the PRF system was versatile, password protected and accessible by tablet or computer. TVAA could also suggest revisions or updates to the system. For example, they had included a question regarding safeguarding for clinicians to consider prior to completing the PRF. This had been implemented by the system developer.

Patient individual care records were accurate, complete, legible and stored securely. Records were saved securely onto the system and only management and the clinician who completed the report had access to them.

Staff completed the PRF and provided a printed copy along with the clinical observations, including clinical output such as cardiac readings, to receiving hospitals at the time of admission.

Arrangements for recording triage decisions were clear. Transport locations were clearly noted in the patient clinical record. The crew detailed the location and rationale behind decision-making in the free text area of the patient clinical record.

Records were monitored effectively. The chair of the clinical governance group reviewed all PRFs where advanced interventions had been carried out to ensure consistency and accuracy of data recorded. The chair of the clinical governance group was unable to review their own records, these were all reviewed by clinical governance group.

Records were effectively used to promote learning and discussion. We saw the electronic system automatically flagged jobs that could be used or reviewed at governance days. They were flagged because they had key areas that would benefit reviewing and learning from as a team, for example, all children and all cardiac arrests. Additional to this, the relevant crew member or the duty manager could flag jobs that were not automatically flagged by the system. Records used for learning at governance days were anonymised to protect patient confidentiality.

The record keeping system enabled management to extract trend analysis. This could show what type of jobs staff were undertaking. If managers or colleagues identified an over exposure to particularly distressing jobs they could offer support to staff where needed.

We reviewed four copies of recent PRFs and saw that staff completed them fully and they contained information pertinent to the episode of patient care.

Staff told us they did not routinely have access to advanced notification of do not attempt cardio pulmonary resuscitation (DNACPR) or special notes unless there was information at the scene. This was due to the nature of the emergency work and often treating patients away from their homes. Should any details become available the dispatcher would notify the crew with any information available.

Medicines

Emergency and urgent care

The service used systems and processes to safely prescribe, administer, record and store medicines. Compliance with medicines policy and procedure was routinely monitored and action plans always implemented promptly.

The service had a medicines management standard operating procedure and policy. This was in date and had a review date. The service had a Home Office licence which enabled them to hold controlled drugs. The policy clearly described the controlled drugs procedure, audit scheduling and the principle for obtaining, administering and recording medicines.

The service engaged an external pharmacist who carried out monthly medicines audits. We reviewed audit logs and checklists from November 2018 to September 2019. The audit measured the service against an set of criteria relating to the safe management of medicines. Audit logs showed compliance scores in the range 95% to 100% against criteria set.

Medicines were securely stored in the locked clinical room in locked cupboards and a locked medication fridge. Staff checked the fridge temperature and high/ low ranges daily and recorded electronically. In addition, the medicines store room temperature was monitored to ensure safe storage of medicines in cupboards. The room was air-conditioned and had a maximum temperature range that was also monitored daily. The clinical manager audited these and where there were anomalies we saw action was taken such as contacting the local external pharmacist advisor for advice. If anomalies related to a controlled drug incident the service contacted NHS England.

The service ensured that medicines were managed. The operational support team checked stock levels on a weekly basis. A local NHS hospital service supplied the medicines under a service level agreement (SLA) and the service shared any medicines related incident with them.

The service ensured medicines were only accessible by authorised personnel. Medicines were kept in a room only accessible using the authorised person's fingerprint. This room could only be accessed via the store room which was swipe-card access. Controlled drugs (CDs) are medicines that can be misused. They therefore need special management and secure storage to prevent any unauthorised access. CDs were kept in a locked cabinet within the secure medicines room. The keys were kept in a safe, secured by a pin entry system.

Medicines in kit bags, in response vehicles, were kept in a locked boot. Drug bags that were not in use were held in a locked cabinet within the medicine's storeroom. The clinical crew kept the CD pouch with them at all times and stored it securely within the aircraft and rapid response vehicle when in transit.

Staff checked CDs daily at the start of every shift to ensure that CD pouches contents matched the content list and that CDs in the storage cabinet were reconciled with the controlled drug registers.

We reviewed the CD registers and saw that two staff members had signed to confirm all CDs had been checked consistently daily. We checked three CDs against the register and all were recorded and stored in line with the service policy.

The service ensured that medicines were disposed of safely and in line with the service policy. Tablets were disposed of in sharps containers and other medicines were disposed of into pots of de-naturing compound. De-naturing compound is a substance used for the irreversible disposal of medicines. This compound ensures liquid medicines are disposed of and remain unusable.

The removal of medicines from stores was correctly recorded in the record books which were locked away in the key safe. Both record books were clearly filled out and the current stock level in the record reflected the actual stock level in the store. We checked a random sample of medicines and found that the quantities were all correct. We also saw that any errors were corrected and signed in line with the service policy.

When medicines were administered, the clinician was responsible for recording the amount administered and the amount wasted. The clinician was also responsible for reporting the use of the medicine on their electronic reporting system. This ensured that stock levels in kit bags were accurately and routinely documented. This meant there was effective and accurate replenishment of medicines.

There was a system to action medicine safety alerts and recalls, so patients received their medicines safely. The service had an electronic system to share vital updates and this then recorded which staff had read the update.

Medical gases were securely stored in a locked cage outside the aircraft hangar, with separate labelled shelves for empty and full cylinders. There was signage to warn staff of combustible gases. All medical gases were in date. Medical gases were secured safely for transport in both the helicopter and CCR.

Incidents

The provider had a track record of safety supported by accurate information. The service managed patient safety incidents well. Staff recognised incidents and near misses and reported them appropriately. Managers investigated incidents and shared lessons learned with the whole team, the wider service and partner organisations. When things went wrong, staff apologised and gave patients honest information and suitable support. Managers ensured that actions from patient safety alerts were implemented and monitored.

The service had a comprehensive incident reporting and investigation standard operating procedure. This was in date and had a review date. The policy described the varying levels of incidents and the importance of reporting all of them. The policy made specific reference to preserving safety, embedding a positive reporting culture and a response to incidents of organisational learning rather than blame.

The service used an electronic reporting system for staff to report incidents. This an internet-based system that allowed faster processing and quicker feedback to all levels of the clinical operation. Staff had password-protected access, remotely from any device.

TVAA reported no serious incidents, or never events from October 2018 to September 2019. 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.

For the period October 2018 to September 2019, the service reported 341 incidents (both clinical and operational). Of these 320 resulted in no harm or were classed as near misses. There were 21 incidents that resulted in moderate, minor or low harm. There were seven incidents related to staff, such as needle-stick injury or blood splash. There were 11 incidents that related to equipment or process failure. The remaining three incidents resulted in patient harm and had been classed as minor. We saw evidence that all three incidents had been investigated and where required apologies had been given to the patient. We saw learning from the incident had been shared within the service.

Records we saw showed TVAA liaised with the local NHS ambulance service to investigate and learn from incidents. The service investigated any incident that involved both services and then the two organisations liaised to share reports and learning.

Staff met to discuss the feedback and look at improvements to patient care. Staff discussed all incidents at their governance day. These days involve discussion of all incidents that have occurred since the last governance day and updates on any unresolved incidents from the previous meeting. These days also consisted of simulation training relating to a recent hot topic or an incident that had occurred and would be focused on the learning that had arisen from these. Staff told us these days were very valuable to learning about how to improve from incidents. The service also used information about incidents that had occurred at other organisations to inform these training simulations.

The service clearly reported, managed and identified learning from incidents. We reviewed two incident reports. These clearly showed the service had carried out thorough investigations using an established methodology. In addition, the service could demonstrate how it was developing its methodology and adapting it for future investigations, based on learning from ongoing investigations.

During our inspection we attended a monthly executive update meeting, the clinical governance meeting and a clinical governance group and saw incidents formed part of regular discussion. We saw a broad range of attendance from clinical staff to senior managers within the service and all staff were genuinely committed to sharing experiences and identifying incidents together.

It was evident all staff were encouraged to participate in learning to improve safety as much as possible. Incidents were a standing agenda item at the clinical governance group meeting where staff discussed all incidents recently reported. Staff talked through all incidents and identified learning together as a team. Governance leads shared learning using team meeting minutes and emails.

The service encouraged cross provider incident reporting. If the service raised any incidents relating to the NHS ambulance trust, they would share this incident with them and request learning and actions to be communicated back. The service also arranged and took part in joint debriefs of complex jobs with all services involved, including fire service, NHS hospitals and ambulance trusts. Learning was cascaded to staff that were not present.

Other external organisations were actively engaged in assessing and sharing learning from incidents. The service shared learning widely within the trauma network. The service had links with multiple major trauma centres across the South East of the UK. A major trauma centre is a specialist hospital with consultants who have expertise in the treatment of the most severely injured patients.

Openness and transparency about safety was encouraged. Staff described the principles and their responsibilities relating to duty of candour, Regulation 20 of the Health and Social Care Act 2008. The duty of candour is a regulatory duty that relates 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 them with reasonable support.

The service had reported no incidents that required the application of duty of candour, during the reporting period October 2018 to September 2019.

At the time of our inspection the service had a policy for duty of candour. Staff received training on duty of candour through the incident reporting training. Specific duty of candour training was being developed and there was a plan to rollout and deliver the training during 2020 across all relevant staff groups.

However, the incident reporting and investigation policy clearly explained the service commitment to duty of candour. The policy also referenced the National Patient Safety Agency (NPSA) document, Being Open: Communicating patient safety incidents with patients and their carers (2009).

Major Incidents

The service had effective arrangements to respond to major incidents. The service had commenced in October 2018 and had a major incident standard operating procedure and policy. The policy had been written to be read in conjunction with the local NHS ambulance trust incident response plan.

The draft policy clearly described staff responsibilities and the varying levels of incidents, these were, major incidents, mass casualty and catastrophic incidents. The policy detailed the three phases of major incident management; preparation, response and recovery. It also reflected national professional guidance, for example, the NHS England document "concept of operations for managing mass casualties" (2017) and the National Ambulance Resilience Unit document "clinical guidance: medical support minimum requirements for a mass casualty incident" (2014).

Crews understood their responsibilities in major incidents and staff could tell us essential actions. For example, staff told us the importance of a windscreen review which is an initial assessment of the scene passed to the control desk. This enabled the commissioning NHS trust's emergency operations centre to task resources to the job in line with the agreed criteria. A windscreen review was handed over before the crew became too involved in the scene to be able to give a good overview. Without a windscreen review the emergency operations centre may not have been able to dispatch the most effective support and resource.

Staff understood their roles and how to react to a major incident being declared. Staff we asked told us they had a major incident card, and all knew where their card was. These cards included basic information about that person's role during the incident and staff would use these to guide them in their initial actions. Staff knew how their roles fitted in with the wider team and believed in a team response.

Crews were involved in planning and rehearsals of major incidents. The service was developing major incident training scenarios with other blue light agencies.

Outstanding ☆

Emergency and urgent care

Managers also took part in table top scenarios to work through a multi-agency response to much larger major incidents than would be practical to organise a live simulation.

The service had a current effective and comprehensive business continuity policy. The policy clearly described the varying levels of incidents and the importance of reporting all of them. The policy detailed an activation and escalation flow chart and contact numbers for all key members of staff including site security.

The helicopter base was located within an operational RAF base. The service had developed contingency arrangements should the RAF base become inaccessible or need to be evacuated for security reasons. This included business continuity for both aircraft and critical care response vehicle operations. For example, the aircraft could be safely operated from another aerodrome with relevant facilities from the aircraft service company. The CCV could operate from the service office headquarters and from various sites provided by the local NHS ambulance trust.

Are emergency and urgent care services effective?

(for example, treatment is effective)

Good

We rated it as **good.**

Evidence-based care and treatment

The service provided care and treatment based on national guidance and evidence-based practice. The service continually reviewed their practice and took a proactive approach to introducing best practice and guidance. Managers checked to make sure staff followed guidance. Staff protected the rights of patients subject to the Mental Health Act 1983.

People's care and treatment was planned and delivered in line with current evidence-based guidance, standards, best practice and legislation. The service had a broad range of clinical guidelines based on National Institute for Health and Care Excellence (NICE) or Joint Royal Colleges Ambulance Liaison Committee (JRCALC) good practice. The protocols were available to view in the airbase and on line from mobile devices.

We reviewed a selection of policies and clinical guidelines and saw that they were version controlled, were within review date and contained up to date referencing.

The service provided various clinical guidelines for differing treatments and procedures. We reviewed a variety of clinical guidelines and saw all of these were up to date and had set review dates.

The service was assured that new staff had read and understood policies and procedures. On induction, the service sent out all clinical guidelines and policies to new staff.

The service was assured that staff had read and understood updates and changes to policies and procedures. If there were any updates or changes to clinical guidelines or policies, then this was sent to all staff through the electronic system. Staff acknowledged receipt, electronically, to show they had received and read the changes.

Staff who were working remotely had access to guidelines and protocols on a tablet device. This had internet access to the service drives that held all standard operating procedures and service policies.

Care was regularly monitored to ensure it was in line with evidence based, guidance, standards and best practice. This was monitored through document reviews, supervision and through discussion at clinical governance review meetings. Duty managers reviewed all patient clinical records and completed supervisory attendance on jobs to ensure that care was being performed in line with guidance and legislation.

The service carried both packed red blood cells and fresh frozen plasma on all its assets. This enabled clinicians to give transfusions in the pre-hospital, emergency setting. The service were one of the first air ambulance providers to carry both these blood products and was an example of best practice.

Clinical guidelines were discussed clinical governance meetings. During our inspection, we saw an in-depth and

open group discussion of a clinical guidelines. This meant guidelines were reviewed and aligned with real life scenarios and the practicalities of dealing with traumatic events.

The doctors and critical care paramedics (CCPs) showed a drive to ensure the care they provided was leading the way in pre-hospital emergency treatment. The service encouraged staff who joined the service to develop a research project as part of their work plan and contribute to journals and conferences. Research was presented to the clinical teams and shared in the wider forum at medical conferences.

For example, TVAA Medical Directorate were focussed on developing the clinical care provision known as 'silver trauma'. Recognising that elderly and frail patients are at an increased risk of morbidity and that practice needs to be adjusted for this age group. In the year prior to the inspection a clinical guideline on silver trauma had been developed and released for clinicians to use remotely. This included frailty scoring, using images and descriptions integrated into their tablet device. It was planned that data captured would be used to develop research into this area.

Pain relief

Staff assessed and monitored patients regularly to see if they were in pain and gave pain relief in a timely way. They supported those unable to communicate using suitable assessment tools and gave additional pain relief to ease pain.

Staff assessed patients' pain using a recognised tool and gave pain relief in line with individual needs and best practice. Staff told us that they used a pain scale of one to ten one being very little pain and ten being the worse pain possible. However, they also told us that most patients were unable to communicate their pain due to being seriously injured.

Staff supported patients that were unable to communicate their pain levels. Staff assessed these patients by looking at the quality and nature of pain by assessing the type of injury, body language and physiological signs, for example, increased blood pressure, respiratory rate and heart rate. Crews held strong pain-relieving medicines that a standard ambulance was unable to offer. This ensured patients were as comfortable as possible.

Patient we spoke with, who had suffered significant injury, told us they had been given pain relief and could not recall being in pain while being treated by the air ambulance crew.

Staff prescribed, administered and recorded pain relief accurately. The three patient records we looked at showed that patient pain was monitored, and medication was given to prevent patients being in pain.

Response times

The service recognised the need to monitor their service delivery. To achieve this they developed, monitored, and improved response times so that they could facilitate good outcomes for patients. They used the findings to make improvements.

There are no nationally specified key performance indicators for air ambulance services. The service had developed and monitored a number of clinical and non-clinical indicators. These included indicators such as helicopter launch time (target less than eight minutes) and mobilisation time for the critical care vehicle (target less than two minutes).

Information provided by the service for the period October 2018 to September 2019 showed that, for the critical care vehicle, the target of 75% had been met in all months except one when it dropped to 73%. Helicopter launch times were recorded as better than the 75% target three times during the same period, with the remaining nine months achieving between 58% and 71%.

Response, on scene and turnaround times were effectively monitored. Response targets were not set because safe departure, without additional pressure, took priority. The service monitored on-scene times and turnaround times, but crews were not pressured to meet a target. This was to ensure that teams carried out procedures and any critical intervention safely without being pressured by time. The data collected around response times was used purely as monitoring and learning.

Patient outcomes

Emergency and urgent care

The service understood the importance of good patient outcomes, The service had developed its own scorecard and monitored the effectiveness of care and treatment. They consistently reviewed the findings and used them to make improvements and achieved good outcomes for patients.

Information about people's care and treatment, and their outcomes, was routinely collected and monitored. This information was used to improve care. The service used this follow up data to assess the effectiveness of care given on scene and how that care influenced patient outcomes.

The service had also developed its own scorecard and monitored a series of internal outcomes such as surgical procedures, blood administration and the number of rapid sequence intubations (RSIs) it performed as well as missions by type, call sign, time of day and crewmember. This enabled them to tailor their service to the times most required and the equipment needed.

The service reported difficulty in reporting patient outcomes once patients had been received at a hospital, as they often were unable to access on going patient data from receiving hospitals. The patient liaison manager was able to provide some qualitative feedback and acted as a conduit to patients to allow more formal feedback and research in the future.

Measuring the outcome of patients was challenging, however outcomes for people who used services were positive and consistent. Data showed that the intended outcomes for patients were being achieved. HEMS crews attended patients with life threatening illnesses and injuries and the strategic objectives of the service were to ensure patients had an appropriate response, were taken to the most appropriate hospital for their needs and the services provided should be as safe and effective as possible.

Trends in follow-up information were used to improve patient outcomes. For example, follow up information showed that patients had abdominal injuries that the HEMS crew had not always identified at the scene. Analysing trends of abdomen injuries enabled the team to recognise which incidents would most benefit from an ultrasound. This also helped guide training scenarios, so the team were able to recognise the incidents that required further abdominal assessments.

The service had strong links with other providers and bodies who monitored and compared patient outcome data. The service engaged with the Trauma Audit and Research Network and had information sharing agreements with the major trauma centres to monitor patient outcomes.

Competent staff

The continual development of staff skills, competence and knowledge was recognised as being integral to ensuring high quality care. Staff were proactively supported and encouraged to acquire new skills, use their transferable skills and share best practice.

Staff had the right qualifications, skills, knowledge and experience to do their job when they started their employment and on a continual basis. The human resources department required suitable references. These were held in electronic staff files by HR. Staff selection took place through a number of assessments. This meant that staff were selected based on an assessment of different areas of competence, skill and experience required for the role.

The service ensured that staff had the required disclosure and barring (DBS) checks. DBS checks were processed by HR before staff started induction. These checks were completed every three years and held in their electronic staff file. All staff files had up to date and suitable (DBS) checks.

Driving licenses were checked before induction. These checks were recorded on the individual electronic staff record and repeated annually. Staff also had a duty to report any reason that may disqualify them from driving trust vehicles.

All staff were able to attend a governance day every month depending their availability. This was not mandatory, but all staff were encouraged to attend if they were able and did not have leave or other clinical commitments. This day included case reviews, shared learning, skills sessions, training scenarios, simulation and topic teaching. Staff attendance was logged, and this contributed to their continued professional development.

The learning needs and aspirations of staff were identified, and training plans were developed to meet them. Staff were encouraged to speak openly about any

learning needs and told us they felt able to suggest learning areas for upcoming governance days. Staff clearly felt passionate about the level of care and treatment they provided and told us they were committed to addressing any gaps in knowledge and developing their practice.

The service had arrangements for supporting and managing staff. This included one-to-one meetings, clinical supervision and appraisals. For example, staff competence in delivering patient care was assessed through direct consultant supervision of their practice.

Yearly appraisal rates for the CCPs directly employed TVAA by was 100%. Appraisal rates for the emergency medical dispatchers was lower, at 40%, this was due to staff sickness and operational pressures. The service had a plan to complete the outstanding appraisals before the end of the appraisal year. Staff we spoke with said that appraisals were meaningful and that they found them useful in developing their careers. They also reported that the service was supportive of accessing courses and training needs as identified.

The service had oversight of seconded doctor's appraisals with information sent from the parent organisation. At the time of inspection, the 23 of 25 doctors working part-time for TVAA had all received appraisals within the previous 12 months. To support doctor appraisals, the service had developed an additional form to document their practice conducted with TVAA. This was sent to the doctor's responsible officer for inclusion in their hospital appraisal.

All new employees and crew received a service induction. This was normally carried out on day one, or at least within a month of them starting. We reviewed the induction procedure and saw that it was comprehensive included introduction and briefing with the relevant teams within TVAA, communication, operations, clinical, IT systems, health, and safety. There were also key sections relating to helicopter base with was located within an operational RAF base.

Experienced critical care paramedics supervised all new members of staff and pre-hospital emergency medicine trained doctors and were supernumerary during their induction period. Then they were supervised to complete their clinical competencies. The induction process was reported as being comprehensive and took around eight weeks, induction would be extended if needed to enable the staff to develop the skills required for the role.

The service checked all driving licenses on induction and yearly thereafter. As well as the NHS blue light training which they received prior to commencing with the service the CCPs and clinical managers all undertook advanced emergency responder driving provided by an external provider.

The clinical teams maintained and improved their skills outside of missions via a range of practical scenario sessions, which they rehearsed between missions. The service provided equipment that could be used for training and these items were made available at the helicopter base. We observed doctors and paramedics discussing, at the beginning of shifts, various training scenarios and situations they wished to practise during that day.

Coordination with other providers

Leaders and staff were committed to working collaboratively and had found innovative ways to provided joined up care for those who needed the service.

Care was delivered in a coordinated way with the other services involved. There were clear lines of responsibility and accountability between HEMS staff and the local NHS ambulance trust staff.

The service had contracts with their tasking NHS ambulance service. They also had coordination arrangements with the local NHS hospitals, fire and rescue and police services. There were agreed care pathways with other providers to ensure patients were treated in a way to achieve the best outcome and the service worked with local hospitals to improve care pathways.

The service's electronic system was able to provide data that showed how many trauma patients they had attended. The service provided this information to trauma contacts, at the receiving hospitals, every month. Providing hospitals with this data gave them the evidence and support to provide extra services and develop new care pathways.

Emergency and urgent care

There were arrangements to escalate issues with the local NHS ambulance and hospital trusts. The Director of Operations told us they had good links with leadership at varying levels within the NHS ambulance trust and the local NHS hospitals they served. In fact, many of the clinicians who worked for the service were employed at the local NHS hospitals. This meant that any concerns could be addressed at the appropriate level. The service also encouraged any concerns the NHS trusts may have be raised in reverse.

Partnerships had been developed with a local NHS hospital trust and the hospital provided blood to the service for use on its assets. The service had employed two operations support assistants who carried out daily collection and return of blood products from the hospital to the base.

The service also had good connections with other air ambulance trusts and this enabled them to routinely share and cross-reference good practice.

Procedures were had been developed and instigated for joint investigation and learning with other providers. For example. the service coordinated well with coroners in the local area and actively sought coroner reports to enhance their learning.

Where complaints involved other providers the Director of Operations would communicate and work with them to achieve the best outcome possible.

The service coordinated and planned training events with a variety of other providers to enhance lines of communication. Staff took part in training scenarios with the police and fire service, so they could have experience of effectively working as a team during a large-scale incident.

Multidisciplinary working

All those responsible for delivering care were committed to work together as a team to benefit patients. They supported each other to provide high quality care and communicated effectively with other agencies.

We did not see a handover between the air ambulance staff, road crews or hospital staff during our inspection. However, feedback received from hospital staff and the NHS ambulance trust commented that handovers were effective. Crews handed over patients using a standard set of prompts; this meant staff handed over using a consistent approach.

The service was committed to working collaboratively and found efficient ways to deliver more joined-up care to people who used services. Staff recognised the need to respect the road crews they worked with and the need to act as support and guidance when on scene.

Staff told us they worked collaboratively to understand and meet the range and complexity of people's needs. Staff we spoke with told us that when they arrived on scene, they made a note of their resources and skill levels then delegated everyone a role to suit. The team were encouraged to include all members of staff on scene, this ensured that the HEMS staff had good oversight of the scene and used the variety of skill levels to the patient's advantage. Staff recognised this varied from person to person but placed high importance on recognising these difference as well as managing the patient.

Staff worked together and agreed plans to transport the patient. Before transporting the patient, the staff communicated with the other teams on scene to discuss the best method of extraction. The HEMS crew assigned roles and tasked clinicians to retrieve the necessary equipment to aid treatment. Staff communicated where the patient would be transported to, the method of transport and then confirmed that all involved were happy with that decision.

Staff recognised it was important to work as part of a team and not to take over if it was not necessary. Staff told us that it was equally important to recognise when a road crew was in control and managing the scene and patient effectively. Staff acknowledged that arriving on scene and taking over when the situation was already being well managed was not effective team working. In these situations, they left management with the clinician and offered support and guidance where required.

Staff included the local NHS ambulance road crews as part of their governance days and scenario training. For example, staff told us they met and engaged with road crews from the NHS ambulance trust, so they could better understand and recognise how they could work better together for the needs of the patient.

Emergency and urgent care

The service was a member of the Air Ambulance Association. This gave the service an opportunity to share best practice and guidance with other similar services.

Consent, Mental Capacity Act and Deprivation of Liberty Safeguards

Staff supported patients to make informed decisions about their care and treatment. They followed national guidance to gain patients' consent. They knew how to support patients who lacked capacity to make their own decisions or were experiencing mental ill health. They used agreed personalised measures that limit patients' liberty.

Staff understood the relevant consent and decision-making requirements of legislation and guidance. Staff had access to the consent to examination or treatment policy This was in date and had a review date. The policy clearly described the procedure for obtaining consent and detailed what to do in the event staff could not gain consent. The policy made specific reference to children and young people, Deprivation of Liberty Safeguards (DoLS) and mental health. The policy reflected national professional guidance. For example, the Human Rights Act 1998 and the Mental Capacity Act.

Consent to care and treatment was obtained in line with legislation and guidance, including the Mental Capacity Act 2005 and the Children's Acts 1989 and 2004. All staff we spoke with were familiar with and could assess a child under the age of 16 for Gillick competence. Gillick competence is used to determine that children under 16 can consent if they have sufficient understanding and intelligence to fully understand what is involved in a proposed treatment. This was the statutory process for assessing children under the age of 16 who were competent to make decisions about their own care and treatment.

Staff recorded consent on the patient report forms (PRFs), they also recorded if the patient was unable to consent due to illness or injury. Reasons for best interest decisions were recorded in the PRF and all the records that we reviewed indicated the level of patient consent.

People were supported to make decisions and the clinical crews sought verbal consent for treatment. When patients were conscious, staff discussed their treatment options with them. Staff and patients told us they clearly explained both the positives and negatives of any treatment or action. This enabled patients to make informed decisions.

However, staff made best interest decisions for patients unable to make decisions due to lack of consciousness or lack of mental capacity in accordance with legislation. Staff supported each other by discussing the best interest of the patient together. If family members were present, staff told us they involved them as much as possible.

The use of restraint of people who lack capacity was clearly monitored for its necessity and proportionality and action was taken to minimise its use. Staff understood the difference between lawful and unlawful restraint practices. Staff knew it was illegal for staff to restrain patients against their will. Staff told us they would provide limited restraint, for a short period only, to prevent harm to the patient.

Staff completed comprehensive training in capacity and consent. At the time of our inspection, 80% of doctors and 92% of paramedics had completed this training. Refresher training took place annually.

The consent policy clearly detailed the process to be taken in the event of an advance decision to refuse treatment or a do not attempt cardio-pulmonary resuscitation (DNACPR) order. Staff understood their responsibility to comply to advance decisions. Policy stated staff would not withhold lifesaving treatment if there was not clear evidence the order existed and was relevant.

The service did not regularly attend and did not transport patients detained under section 136 of the Mental Health Act. This was due to the safety considerations of air transport. Section 136 is 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. However, care and treatment would still be provided on the scene.

Outstanding ☆

Emergency and urgent care

Are emergency and urgent care services caring?

Outstanding ☆

We rated it as **outstanding.**

Compassionate care

People were truly respected and valued as individuals. Feedback from people who use the service, those who were close to them and stakeholders was continually positive about the way staff treat people. People think that staff go the extra mile and the care they receive exceeds their expectations. Staff were highly motivated and inspired to offer care that was kind and promotes people's dignity.

There was a strong, visible person-centred culture. Staff we spoke with were highly motivated and inspired to offer care that was kind and promoted people's dignity. For example, we observed how staff talked about patients with respect and compassion during governance meetings and debriefs.

We spoke with six people who had used the service to get their feedback. People told us that they thought that staff at TVAA go "above and beyond". They were overwhelming positive about the way staff treated themselves, their families and their friends. They told us the care they received exceeded their expectations. When describing their feelings about the way the crew looked after them one patient told us "I received amazing care", another said "fantastic care, second to none. I believe I wouldn't be here if it wasn't for them".

Patients said staff treated them well and with kindness. Most patients told us they didn't recall much of their care due to the nature of their injuries however, one said they recalled the crew being "kind and calm", another said they were "massively calm", which reassured them.

Stakeholders, for example the local NHS ambulance trust, were also very positive about the care provided by the crews. In addition, we were told TVAA staff on the dispatch desk played an essential part in the dispatcher of critical care resources and enhancing the care provided to patients.

Emotional support

People's emotional and social needs were highly valued by staff and were embedded in their care and treatment. Staff provided emotional support to patients, families and carers to minimise their distress.

Staff understood the emotional and social impact that a person's care, treatment or condition had on their wellbeing and on those close to them.

TVAA had developed the role of Patient Liaison Manager (PLM). Specifically, the PLM provided support and guidance to patients and their families, if they wanted to, as part of an aftercare service and in the community. TVAA were the first to provide this support in the community, although they report this is now being replicated by other air ambulances. The current PLM for service had extensive experience as a paramedic but was no longer working operationally.

Staff described how they gave patients and those close to them help, emotional support and advice during their episode of care. However, once the patient had been discharged from hospital the PLM would get involved.

One of the patients we spoke to when talking about their experience of the PLM said the support provided was "beyond expectation". One relative described how she had carried our CPR on her husband while waiting for the TVAA crew to arrive. When the crew arrived, they took over the scene but treated the relative as a part of the team and took a debrief from her regarding the situation.

All six of the patients we spoke with told us that after making a recovery they visited the service and met some of the crew who helped with their care. This had been facilitated by the PLM and they all reported this has helped them emotionally with their recovery. Patients told us about meeting crew that had provided them with care on the day of their injuries. They explained this had helped them fill in the gaps in their memory of the events of the day.

Clinicians sometimes met patients in their own homes rather than at the service base. Feedback from patients was that it can be quite daunting to visit the base, so staff would visit them at home where the felt more comfortable.

Staff understood the needs of parents and their children. When treating a child, staff told us they involved the parents as much as possible and considered their needs as well.

The service had created links with bereavement charities, so they could signpost families to them for help. Also, the service arranged for their staff to receive training on how to break bad news.

The service welcomed patients and their relatives to volunteer to raise money for the charity. Patients found this experience highly rewarding. A patient we spoke with told us how they were planning to run the London marathon to raise funds for the service to so thank you.

Understanding and involvement of patients and those close to them

People who use services were active partners in their care. Staff were fully committed to working in partnership with people and making this a reality for each person. Staff always empowered people who use the service to have a voice and to realize their potential. Staff highly valued the patient's relatives and those close to them including them as partners in care.

Staff made sure patients and those close to them understood their care and treatment. Patients and relatives told us they had been kept as informed as possible of the treatment being given. However, staff told us the often their patients were unconscious. Three of the patients we spoke with could remember they felt involved in choices about their care and treatment. For example, they recalled being offered pain relief.

Patients and their families could give feedback on the service and their treatment and staff supported them to do this. Staff told us they gave out aftercare cards to patients and relatives with their contact details on and that they had leaflets for any patients that wanted to give feedback.

The service took positive action to feedback from patients. The service told us that one patient that visited the service told them that their only memory of their care was not that their injuries hurt, but that they were cold. The service has shared this with staff to make them more aware of this in the future. This included bringing the patient to talk with staff about their experience and revising training regarding keeping patients warm while providing care.

One patient told us that, because of seeing TVAA crews in action, they had decided to join the local NHS ambulance trust. TVAA provided support and guidance to that person to enable them to fulfil their goal.

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

(for example, to feedback?)

Good ●

We rated it as **good.**

Service delivery to meet the needs of local people

The service planned and provided care in a way that met the needs of local people and the communities served. It also worked with others in the wider system and local organisations to plan care.

The service planned their service around the needs of the local population and was operational seven days per week. The hours of operation for the air ambulance and critical care response vehicles (CCRs) were from 7am to 2am each day. The CCRs gave the NHS ambulance service additional specialist critical care delivery, particularly within urban areas, during identified busy periods.

The service had a good working relationship with the local NHS ambulance service and met with them regularly to review service provision to ensure needs were met. The service worked with other providers to support them to meet demand. The helicopter emergency medical service (HEMS) dispatch desk sat within the local NHS ambulance control room and worked closely with them. This meant each had timely access to resources and clinical advice.

TVAA worked closely with air ambulances bordering its area of operation to ensure full coverage of the areas where all services operate. Should a major incident be

declared, such as an explosion or train crash all the HEMS teams worked together with the local NHS ambulance services to help manage the triage and transport of multiple patients.

Staff told us they worked in collaboration with road crews from the NHS ambulance trust to care for and treat patients. When transporting patients by air was not an option, road crews transported patients in ambulance vehicles while HEMS staff travelled in the ambulance to continue patient care. The staff we spoke with were dedicated and proud of their collaborative delivery of care with local NHS ambulance trust crews.

The services provided and reflected the needs of the population served. The service regularly monitored any trends in calls assigned to HEMS and they also monitored missed calls. Missed calls were classified as calls the service could have attended but did not have available resource to send. This enabled them to analyse when demand was at its peak. The service had used this information to change where rapid response vehicles were held on stand-by, waiting for a job. From this, they were able to determine locations which would allow for a more timely arrival at incidents.

The service promoted the use of a smartphone app through its connections with the local community. The app utilised a service which could identify a person's location down to within a 3m by 3m square. This was useful for people in rural areas where a standard post-code might not be specific for the service to locate them. This app was also used by other blue light services.

The service worked with providers to review the quality of care provided, ensure patient's needs were met and identify areas for improvement. The service maintained regular communication with the local NHS ambulance trust and planned the delivery of services together. The Director of Operations attended regular meetings with representatives from the local NHS ambulance trust.

The facilities and premises were appropriate for the services that were planned and delivered. The base for the aircraft was clean with suitable storage areas for the equipment used. The hanger for the aircraft was purpose built for aircraft storage and they were able to fuel the aircraft after each mission at the base. The service had plans to expand the footprint of the office space, crew rooms and store rooms.

Meeting people's individual needs

The service was inclusive and took account of patients' individual needs and preferences. The service made reasonable adjustments to help patients access services.

The service did not always know what specific individual needs of a patient they would be responding to. The tasking NHS ambulance service would not always have detailed information. Clinical staff assessed patients on missions according to individual need and provided the care that was relevant and met their needs.

Staff were competent and understood the importance of considering the differing needs of patients. The service provided equality and diversity training as part of its mandatory training programme. The training focused on staff understanding the importance of equality and inclusion. At the time of our inspection, 100% of doctors and 96% of paramedics had completed this training.

Staff told us it was important for them to know the patients usual cognitive and physical state, so they could assess them effectively. Staff described the importance of establishing a medical history as soon as possible so they could assess the patient's normal level of function. Staff told us they adjusted their interaction with patients to suit the needs of that patient, for example, they would change the way they spoke with patients who were hard of hearing, partially sighted and patients living with dementia.

The service had access to a telephone translation service for patients whose first language was not English, although staff confirmed that this was rarely used due to the urgent nature of their work. The clinical crews were all experienced in the various forms of verbal and non-verbal communication. They would initially try to communicate using these methods or using friends and family if they were unable to communicate directly with the patient. Staff also commented that they would use an online or mobile translation app on their smartphone if available and it was appropriate to do so.

The service aimed to provide access to all in emergency critical care situations. However, there were some safety-related exceptions. In the case of bariatric patients, the service could not always transport them by air due to weight restrictions. In these circumstances the patient

travelled by road ambulance with the clinical crew providing care. The clinical crew performed dynamic risk assessments for all patients transferred and there were no specific exclusions.

Support was available for patients experiencing a mental health crisis. The crew had access to community mental health teams via the NHS ambulance trust emergency operations centre. Staff told us they would also raise a safeguarding alert if they had a concern.

Staff considered people's needs when they visited the service. The service had several patients and relatives ask to visit the service to ask questions or offer their thanks. The service created a relative and patient room at the head office for them to sit and talk to staff about any concerns, questions or feedback they had. This room was welcoming and comfortable and showed that the patient was at the heart of everything they did.

Access and flow

People could access the service when they needed it, in line with national standards, and received the right care in a timely way.

Access to the HEMS service was via the 999 NHS ambulance trust emergency operations centre. Within that centre, the HEMS desk sat alongside the NHS ambulance trust's dispatchers and was managed by the TVAA paramedics and dispatchers. The TVAA staff screened all calls that came into the centre and assigned the HEMS team to jobs that fitted their criteria for tasking.

The service effectively measured tasking efficiency by monitoring the number of jobs they classified as missed. Missed jobs were incidents identified as where one of the services resources was not immediately available to respond because of already being committed to another incident. Any job that was flagged as a miss was reviewed by the duty manager.

The service was dispatched to 2,670 jobs in the reporting period, from October 2018 to September 2019. During the same period 201 jobs were classed as missed.

The service used this data and action was taken to minimise the time people had to wait for treatment. For example, CCRs were located at strategic standby points throughout the region. If the location of an incident was close to a standby point, and it would be quicker to respond byCCR, then crews would choose to deploy using the response vehicle.

The TVAA dispatch team prioritised care and treatment for people with the most urgent needs using a dispatch criteria. The service used a 'tier' based system which enabled the dispatch team to assign crews effectively. The 'tier' based system had been created around a criteria list of key triggers, such as mechanism of injury and additional information gained through listening to the call, calling back the person who had made the call or receiving a request directly from a 999 ambulance crew.

Ambulance crews were provided with the direct phone number of the HEMS Desk to request critical care support when they are on scene or en route.

The service worked efficiently as a team once they had identified HEMS dispatch criteria and identified the most suitable asset to attend (based on distance, type of location and skill level). This process meant that dispatch was carried out as quickly as possible to reduce any delays in the crews reaching the patient. TVAA encouraged early dispatch of assets and then, if further information is received that critical care was no longer required, the asset were stood down en route.

The dispatch team worked alongside the NHS ambulance trust's dispatch team. A TVAA paramedic, as part of the team, provided specialist clinical judgement dispatch decision making. The TVAA Clinical Shift Manager and Senior Manager on Call were available throughout their shifts to ask for any advice or any tasking concerns or queries.

Tracking of assets was possible on the desk through the radios issued to staff and additionally through a tracking system installed in all vehicles. The electronic log and patient record system used by the HEMS desk team provided real time data to show approximate journey time by land to assist in decision making regarding which asset to deploy.

Aviation rules and regulations require commercial aircraft to adhere to certain flight rules. A HEMS exemption can be claimed to enable the HEMS aircraft to be released from certain requirements of those rules. The aircraft captain's decision to claim an exemption can only be made if a clinician first deems the patient requires

emergency, rapid, essential and immediate response or transport. A HEMS exemption is much like the road exemptions applied to an emergency ambulance when using blue lights.

The service had an effective system to respond to a request from the NHS ambulance trust's ground crew. When a crew arrived with a patient who they felt would benefit from a HEMS response, they contacted the critical care desk and requested HEMS attendance. The critical care desk would notify the HEMS desk dispatcher who would then follow the 'crew request' process, which included immediate dispatch.

The NHS ambulance trust was informed of the availability of crews. The HEMS desk was notified when a crew returned to base and were available for deployment. They shared this information with the NHS ambulance trust critical care desk.

The service communicated any delays to the local Ambulance NHS Trust. If deployment was delayed this would be reported as an incident through the incident reporting system and would be shared with the NHS ambulance trust.

Patients had timely access to urgent treatment. The staff, management team and directorate placed high importance in ensuring calls were quickly assessed and dispatched. The Director of Operations told us they would rather crews were stood down after dispatch than delay critical intervention to a patient while criteria were debated. This was why all calls deemed to trigger HEMS were dispatched and deployed until told otherwise.

Learning from complaints and concerns

It was easy for people to give feedback and raise concerns about care received. The service treated concerns and complaints seriously, investigated them and shared lessons learned with all staff, including those in partner organisations.

The service had effective processes to investigate and learn from complaints. The service had an in-date complaints policy. The policy clearly described the complaints procedure. The policy made specific reference to timelines and response deadlines to ensure staff kept the complainant informed. The policy reflected national professional guidance, for example, Health and Social Care Act 2008 (Regulated Activities) Regulations 2014: Regulation 16: Receiving and acting on complaints.

The service reported one clinical care complaint during the reporting period October 2018 to September 2019. They also reported on feedback received from healthcare professionals (HCP), such as NHS road crew or emergency department staff. During the same reporting period the service reported receiving eight HCP feedbacks. These related to procedural and pathway queries, for example the different agencies understanding of TVAA and NHS hospital clinical care pathways. The service evidenced how they had engaged with different services to improve understanding across their own and other services.

Patients were encouraged to make a complaint or raise concerns and the system was easy to use. We reviewed the service website, this clearly displayed the service complaints procedure and detailed how to make a complaint or raise a concern. Contact details were clearly displayed and easy to navigate to, with a dedicated concerns email address, postal address as well as a phone number. The service was also easily contactable via a variety of social media platforms.

The service welcomed complaints and feedback as an opportunity to learn and develop. This gave people, who wanted to raise a concern, confidence that they would be supported. The service also displayed contact information for an advocacy service to signpost people to independent organisations who could assist them with raising a complaint.

Lessons were effectively shared internally. All complaints from patients and feedback from healthcare professionals were investigated and reviewed at the clinical governance group. Feedback was shared with the staff involved and learning was shared to the rest of the staff through emails, minutes and discussion at governance days. All staff we spoke with could tell us the learning feedback.

Emergency and urgent care

Are emergency and urgent care services well-led?

Outstanding ☆

We rated it as **outstanding.**

Leadership

Leaders had an inspiring shared purpose to deliver and motivate staff to succeed. Leaders at all levels demonstrated high levels of integrity, skills and abilities to run the service. They understood and managed the priorities and issues the service faced. They were visible and approachable in the service for patients and staff. They supported staff to develop their skills and take on more senior roles.

TVAA was led by a chief executive who was accountable to a board of trustees. An operational director who was also the registered manager, medical director, finance director and fundraising formed the rest of the executive manangement team. There was a patient liaison manager and there were critical care paramedics (CCPs) who also performed operational management roles.

The board of trustees was made up of an experienced range of clinical and non-clinical staff that had significant experience in senior roles in both charitable and healthcare organisations.

The leaders had the skills, knowledge, experience, and integrity they needed for their roles. The executive team demonstrated a high level of strategic planning, and people management skills, they were very visible and approachable. The clinical leads all held the relevant trauma and pre-hospital emergency medicine qualifications and experience. Leaders were passionate about their roles and executed them with care and commitment to their staff. All staff could identify the different leads along with their roles and responsibilities. All staff had a visibly supportive and positive working relationship with the leadership.

We saw that leaders encouraged appreciative and supportive relationships between staff. Leaders took on dual roles, which meant they were able to understand challenges from within and address them. In addition to their paramedic duties, clinicians worked in a matrix structure and some staff acted as champions for organisational initiatives such as the patient liaison service, roster management and overseeing of procurement of supplies and equipment.

The service valued all grades of the staff and worked hard to ensure that all staff felt part of the team. For example, dispatchers who were based with the local NHS ambulance operations centre were included in governance training days at the head office. All staff spoke very positively about the senior management team and their leadership. They told us that all the senior management team were approachable, and they felt well supported. One staff member commented that the chief executive regularly attended the airbase.

Vision and strategy

The service had a vision for what it wanted to achieve with a systematic approach and strategy to turn it into action, developed with all relevant stakeholders. Leaders and staff were fully focused on sustainability of services and aligned to local plans within the wider health economy.

Following the transition to an independent provider in October 2018, the service had been developing a realistic strategy for achieving the priorities and delivering good quality care. The document we saw clearly laid out and identified well-defined objectives, staff responsibilities and measurements against them.

While the strategy was being further developed, their mission statement was to be able to deliver highly trained staff, with the right equipment, to the right patient, at the right time.

The service had a set of values to support their vision which were: Care, Excellence, Passion, Respect.

Staff knew and understood the values. For example, all staff we spoke with showed an overwhelming commitment to providing the best possible care. They stated they would 'provide the best possible care to everyone who needs' them. All staff we observed during our inspection focused all their discussions around the needs of their patients. All discussions were well thought out, challenged and debated to offer the best conclusion for their patients.

Staff we spoke with were relaxed, comfortable, and open and transparent about the service and the way it operated.

Culture

There was a strong organisational commitment equality and inclusion across the service. Staff were proud to work for the service and felt truly respected, supported and valued. There was strong collaboration and team-working across the organisation, and all were focused on the needs of patients receiving care. The service encouraged openness and proactively developed a culture where patients, their families and staff could raise concerns without fear.

The culture within the organisation was overwhelmingly supportive and positive. There was a genuine culture of wanting to provide the best care for patients and desire to improve services. Staff from the most senior, to the most junior posts were passionate about the service provided.

Staff were proud of the organisation as a place to work and spoke highly of the culture. There were consistently high levels of constructive engagement with staff. In the most recent staff survey (October 2019), there was an overall participation rate of 86%. 100% of staff said they wanted to give their best and 95% of staff said they were proud to work for TVAA.

Staff told us they felt valued and another told us they felt proud to be part of an organisation that encourages progression. The most recent staff survey showed that 89% of operational and medical staff agreed or strongly agreed that they were trusted to do their job. In addition, 93% of operational and medical staff agreed or strongly agreed that they take the initiative to help others.

Staff spoke of an open-door culture of the organisation and leaders. All the staff told us they felt comfortable reporting any concerns and always felt supported. Staff told us the senior management team dealt with any problems quickly and described the environment as proactive to work in.

The culture encouraged candour, openness and honesty. The organisation and staff were driven by the desire to learn and improve. All staff we spoke with were extremely passionate about being open and honest, so they could identify learning and improve the quality of care they gave. The relationship with leaders was open and positive and staff told us they felt supported to be honest and open about any aspect of their roles.

There was no evidence of a blame culture, and staff were eager to seek support and advice in any areas they felt uncertain in. We saw evidence of this interaction between staff during our observations of governance meetings, debriefs and daily planning meetings. They openly discussed their decision on a job and asked their colleagues, including leadership, if they had alternative ways they would have managed the scenario.

The organisational culture promoted staff wellbeing. Colleagues or managers debriefed clinicians after their missions and we saw evidence of peer support. TVAA recognised that that some missions could be distressing for staff and it was obvious that staff supported each other. There was a strongly supportive culture from the most senior level down and staff had access to both the chaplain and an independent counselling service.

Staff were trained in trauma risk management (TRiM). This is a peer-developed psychological support system designed to enable colleagues to provide support to each other following exposure to a traumatic incident. TRiM was a method of preventing post-traumatic stress disorder (PTSD). This showed that the service took proactive action to look after the mental and emotional wellbeing of their staff.

Staff supported each other to ensure their colleagues' workload did not overwhelm them. Stress is a human factor that affects judgement. The service trained staff to be able to recognise when a colleague's workload was too high so that they could offer support. This ensured colleagues were able to make accurate decisions when in a challenging environment.

Crews knew their individual roles and worked well within their teams. We observed a crew debriefing on a job at a governance training day. During this debrief the team discussed the importance of knowing how each other were feeling during the course of the job.

Staff and teams worked collaboratively and shared responsibility to deliver good quality care. Staff were encouraged to work as a team and make decisions

together. The service encouraged paramedics to lead on a variety of jobs and this further reinforced the collaborative relationship between the paramedic and doctor crew.

Staff were very positive about their level of involvement in decision making and said they felt involved and listened to. Senior managers encouraged staff to develop ideas for improvements.

The learning culture was embedded and supported by monthly clinical governance meetings. The service also hosted learning events and there was an open invite to external clinicians with an interest to attend. All staff told us they had access to learning opportunities.

Governance

Leaders proactively reviewed and operated effective governance processes, throughout the service. There was a systemic approach to working with partner organisations to improve care outcomes. Staff at all levels were clear about their roles and accountabilities and had regular opportunities to meet, discuss and learn from the performance of the service.

There was an effective governance framework to support high quality care. Governance arrangments were proactively reviewed and reflected best practice. There was a systematic approach taken when working with other organisations to improve care outcomes.

The board of trustees had overall responsibility for the service. The framework showed strong lines of reporting information both up and down the organisation. Medical, clinical, service delivery and risk management meetings all fed into the senior management team, who filtered key information to the board through sub committees.

The service held monthly medical and clinical services executive meetings both attended by the Director of Operations and, on an ad-hoc basis, by the CEO. This ensured the executive team were informed of information regarding achievements and incidents from the frontline level.

The clinical governance group held meetings monthly and had clear terms of reference. Managers and clinical leads also reviewed clinical learning at clinical governance group meetings, which were held monthly. This ensured that clinical practice continuously improved.

Meetings were effective and delegated responsibility efficiently. The structure was well understood, and meetings were held routinely and regularly. Minutes we reviewed showed that adequate time was given to each meeting, with each meeting having an action log. Each action log identified the action to be taken, the named owner, the current status and any updates.

Staff were clear about their roles and understood what they were accountable for. Every standard operating procedure we reviewed detailed responsibilities of staff in varying roles. All staff we spoke with understood their role and could tell us what their responsibilities were including the responsibilities of each committee and meeting. The most recent staff survey showed that 92% of staff agreed or strongly agreed that they always knew what their work responsibilities were.

The service ensured that clinical staff declared working arrangements, outside of the service, and monitored this to make sure staff were not working excessive hours. Where possible, the service collaborated with other employers to ensure staff did not work excessive hours.

The governance framework and management systems were regularly reviewed and improved. The service reviewed the effectiveness and suitability of the governance structure regularly at board level.

There was a complete understanding of performance. The governance structure was set out to review and monitor a wide variety of areas to have sufficient understanding of performance using the views of people, safety, quality, activity and financial information. We reviewed meeting minutes. The service had oversight of these areas and they were discussed throughout the governance structure in relevant meetings. The board was given a report of performance at every meeting and had a full and thorough understanding of performance. The staff we spoke with felt they were adequately challenged at board level.

There were no national standards or targets for an air ambulance service of this type. The service had therefore developed its own key performance indicators (KPI)

which it used to monitor performance and improve its services. In the absence of targets, the service was able to use these KPIs to recognise when metrics required improvement.

Service metrics were improved according to patient need and not to reach targets. Most of these metrics did not have a target because the service reviewed them regularly as a team and discussed ways and reasons to improve them. Staff told us, and we observed, they discussed what the benefit to improving metrics were, so they had a good understanding of why they were driving improvement. This, ultimately, was always to improve patient outcomes. For example, staff recognised that there was benefit to patient outcomes if rapid sequence intubation was completed as soon as possible. The service looked at how they could improve their deployment times and make marginal gains to benefit the patient.

Staff were actively involved in driving improvement. All staff discussed their data as a team to understand improvement and learn from each other's strengths. This was to engage staff, so they understood how they personally contributed to the strategic direction of the service.

All the policies we reviewed were in date, current and ratified. All policies had clearly been written and individualised for TVAA. The policies had been carefully written, researched and clearly presented and here was also evidence of regular updates to standard operating procedures and any changes were effectively communicated to staff.

The service had set up working groups for areas such as equipment reviews, medications and clinical guidelines. Staff were encouraged to participate in these working groups and lead with service development and improvement. For example. performance improvement on the mobilisation time metric was staff led by a senior paramedic through a quality improvement plan.

The service used an external team of advisors and an experienced team of pre-hospital consultants and professors to provide clinical governance and on-call telephone advice when required. They reviewed and audited activities in depth, discussed clinical effectiveness and shared ideas to improve the service and ensure the critical care team continued to provide best practice and safe patient care. In addition, the pre-hospital care consultants flew with the HEMS team regularly to supervise practice and ensure their own competencies, and this included the medical director.

Management of risks, issues and performance

Leaders and teams used systems to manage performance effectively. They identified and escalated relevant risks and issues and identified actions to reduce their impact. They had plans to cope with unexpected events. Staff contributed to decision-making to help avoid financial pressures compromising the quality of care.

There were established and understood arrangements to identify, understand, monitor and address current and future risks. There was a systematic programme of clinical and internal audit and this was used to monitor quality and identify where action should be taken.

Meeting minutes for the clinical services and regulated activity meeting group showed a clear and well-managed meeting that covered a variety of issues and addressed each standing agenda item. Incidents, aviation and facility risks were standing agenda items.

The service had a risk register that staff regularly reviewed and effectively identified the risks to the service. The service used a risk matrix to assess the likelihood and severity of possible risks. We saw that staff reviewed the risk register at the clinical services and regulated activity meeting group as a standing agenda. Staff also updated risk scores at these meetings and all risks had clear ownership. This meant that there was effective oversight to the changing impact of risks throughout and beyond the reporting period.

There was alignment between recorded risks and what staff told us the service risks were. The senior staff we spoke with all knew what the service risks were and knew what actions were being taken to mitigate those risks.

The clinical services and regulated activity meeting group reviewed all incidents at this meeting. The group reviewed investigation progress, identified trends and could close incidents once they were resolved. This group could also included members of the senior management team, who had authority to make decisions on behalf of the medical executive committee, if required.

Emergency and urgent care

We reviewed three sets of meeting minutes for the clinical services and regulated activity meeting group. Incidents and risk register were standing agenda items and the minutes showed clear discussion of all incidents and actions arising from them.

Information management

The service had invested in innovative and best practice information systems and processes. The service collected reliable data and analysed it. Staff could easily find the data they needed, in easily accessible formats, to understand performance, make decisions and improvements. The information systems were integrated and secure. Data or notifications were consistently submitted to external organisations as required.

The service used an operational scorecard to report against a series of internal key performance indicators (KPIs) which it used to monitor targets. This enabled the service to monitor operational activity such as; training compliance, audit results, available shifts covered, number of aircraft stand-downs, aircraft and CCR mobilisation, number of missions per month, serious incidents, duty of candour incidents and operational and clinical complaints. Senior staff monitored and presented information about the KPIs in the monthly executive summary report, along with a range of information about the months' missions.

All relevant information needed to deliver effective care and treatment was available in a timely way. The local NHS ambulance trust held details of patient care plans and special notes regarding patients. Crews were made aware of special notes to notify them of any advance information known about the patient and the crew could contact the emergency operations centre to retrieve detailed information. For example, if the tasking service held information regarding DNACPRs or any safeguarding children or vulnerable adult issues, they informed the service providing there was a note on the address.

The rapid response vehicles used a regularly updated mobile mapping system and there were no incidents or concerns reported relating to these. The aircraft were all equipped with navigation systems as advised and required by the Civil Aviation Authority.

The service shared all recorded information about a patient with the receiving hospital at the time of handover to ensure effective care and treatment.

Ambulance Clinical Quality Indicator (ACQI) submissions are part of an NHS England National process to assess quality of emergency service unplanned care for specific conditions. Guidance for data submission is produced by the National Ambulance Service Clinical Quality Group for Ambulance Services to ensure consistent data collection. They include care, outcome and time-based reporting.

ACQI submissions include care bundles for Stroke, Sepsis, STEMI and Return of Spontaneous Circulation which are collected one month each quarter. In addition, details all cardiac arrest calls attended are collected as part of monthly clinical outcome submissions.

Although TVAA are not required to submit this data independently, the service provided data from their patient reporting system to their commissioning NHS ambulance trust to ensure they have a complete set of data for their submissions where TVAA have attended.

Public and staff engagement

There were consistently high levels of constructive engagement with staff and people who used the services. Leaders and staff welcomed challenge and actively and openly engaged with patients, staff, equality groups, the public and local organisations to plan and manage services. They collaborated with partner organisations to help improve services for patients.

The service routinely requested feedback from all patients they transported and left an aftercare card with patients and relatives with the patient liaison manger contact details. The service had developed an online patient feedback form, which patients could access via the service website. At the time of the inspection this was new and so there was limited data for the service to analyse and determine if any improvements could be made.

The service website provided a large variety of information for the public. Recent missions were publicised, so the public could understand and see examples of the critical lifesaving treatment the HEMS

teams provided. The website also showed a variety of ways to get involved and displayed latest news and updates of interest to the public such as fundraising events and achievements.

The service managed and kept social media pages up to date, current and relevant. We reviewed the social media pages which showed recent fundraising activities, real life stories, interesting facts and a variety of photos taken of crews. These pages engaged the public and contained interesting and well thought out information. We also saw impactful stories and achievements from relatives who were supporting the service following the loss of their family members.

Staff views and experiences were gathered and learnt from to shape and improve culture. We reviewed the most recent staff survey. This was a comprehensive and thorough survey that covered a variety of key findings and a variety of questions that helped the service to understand their staff better. At the time of the inspection the service were analysing the results to determine if there any opportunities to develop and shape the service.

The service had a team of dedicated volunteers with varied roles that included talks and presentations, community tin collections, event attendance and helping in service the office. The volunteers were considered an integrated part of the service without which the service would not be able to operate.

The service was supported by a team of fundraisers from the charity side of the organisation who were proactive in seeking engagement opportunities with the public.

Staff encouraged local groups to learn more about the service they provided, and we saw multiple examples of where patients and their families were invited to meet the clinical and aircrews involved in their care at the airbase.

The service and charity produced a regular magazine entitled Frontline. This contained updates on various activities within the charity and service, including; what was happening in the organisation, charity fundraising, recent events, new staff, volunteer activity, and personal stories from grateful patients and relatives.

Innovation, improvement and sustainability

There was an embedded and systematic approach to improvement across the organisation. All staff were committed to continually learning and improving services and sharing knowledge with services outside of the organisation. Staff were empowered to use developed quality improvement methods to improve services. Leaders actively encouraged innovation and participation in research.

The service was committed to ongoing development, improvement and sustainability. Since registering in October 2018 they had undertaken a number of initiatives and projects.

The service used recognised quality improvement (QIP) methods for service development and improvement. Projects included increased monitoring of mobilisation times for both the aircraft and rapid response vehicles. This was paired with the 'Sub30' development, which aimed to get assets away from the scene within 30 minutes of arrival. QIP projects were led by TVAA staff, both doctors and paramedics.

The service had developed links with a local NHS hospital to be provided with blood products. These were now available on all assets within the service. The service had also employed two operations support assistants to carry out daily collections and returns to and from the hospital.

The service had employed a patient liaison manager to provide aftercare services for patients once they had been transferred to hospital or after they had been discharged. Patients reported this was an amazing service that added real value to their recovery process. The service was also using feedback from patients, via the patient liaison manager, to improve their practice.

The service had customised their electronic patient reporting system to ensure clinicians captured the correct information so that safeguarding opportunities were not missed. It also captured meaningful data which they analysed and allowed them to understand their service provision better.

We saw that staff training and development was a key area for the service. We were told, and staff confirmed, all CCPs have paid post graduate university training with additional study leave. All CCPs are undertaking further development and training including: Advanced Life Support, Advanced Paediatric Life Support, ultrasound training and surgical skills courses.

Additionally, the service had introduced a series of competencies for critical skills. This came from staff feedback because, due to the nature of the service, not all staff will encounter the wide variety of cases seen by the service.

The service had hosted a regional learning event, run by TVAA clinicians in partnership with the College of Paramedics. Delegates had been invited to attend and take part in a series of scenario based training and presentations from internal and guest speakers. Feedback seen from the event was positive.

Outstanding practice and areas for improvement

Outstanding practice

- The service and staff took a proactive approach to safeguarding. Every job attended by TVAA was reviewed by the safeguarding lead. The EPR system would prompt the user to consider any safeguarding concerns and would not let them proceed until they had acknowledged the prompt.
- Records were effectively used to promote learning and discussion. We saw the electronic system automatically flagged jobs that could be used or reviewed at governance days. They were flagged because they had key areas that would benefit reviewing and learning from as a team, for example, all children and all cardiac arrests.
- The service carried both packed red blood cells and fresh frozen plasma on all its assets. This enabled clinicians to give transfusions in the pre-hospital, emergency setting.
- The service had developed a clinical care provision known as 'silver trauma'. This recognised that elderly and frail patients are at an increased risk of morbidity. The service had developed clinical guidelines that could be accessed remotely by staff. Additionally, the service planned to use the data captured for research purposes in this area.
- There are no nationally specified key performance indicators for air ambulance services. The service had developed its own scorecard and monitored a series of internal outcomes such as surgical procedures, blood administration and the number of rapid sequence intubations (RSIs) it performed as well as missions by type, call sign, time of day and crew member. This enabled them to tailor their service to the times most required and the equipment needed.
- The service had developed links with a local NHS hospital to be provided with blood products. These were now available on all assets within the service. The service had also employed two operations support assistants to carry out daily collections and returns to and from the hospital.
- The service had employed a patient liaison manager to provide aftercare services for patients once they had been transferred to hospital or after they had been discharged. Patients reported this was an amazing service that added real value to their recovery process. The service was also using feedback from patients, via the patient liaison manager, to improve their practice.