Magpas

Magpas Operational Base

Quality Report

RAF Wyton
Wyton
Cambridgeshire
PE28 2EA
Tel: 01480 371060
Website: www.magpas.org.uk

Date of inspection visit: 27 February 2018
Date of publication: 17/05/2018

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

Summary of findings

Letter from the Chief Inspector of Hospitals

Magpas Operational Base is operated by Magpas and is a registered charity. The service provides a helicopter emergency medical service (HEMS) and rapid response vehicle from an air base in Cambridgeshire. The service responds to demands from two local NHS ambulance trusts through the control rooms, who liaise directly with Magpas to deploy the most appropriate resource.

We inspected this service using our comprehensive inspection methodology. We carried out the announced part of the inspection on 27 February 2018, along with an unannounced visit to the service on 12 March 2018.

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

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

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

Services we do not rate

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

We found the following areas of good practice:

- The service had processes in place to keep people safe from avoidable harm and promoted a culture of learning development. The service promoted high standards of clinical knowledge in pre-hospital care.
- Staff maintained vehicles, equipment, consumable items, and medicines to a high standard ready for rapid deployment.
- The service had enough staff with the right skills to meet the needs of local people.
- The service had up-to-date policies and standard operating procedures, in line with legislation, national guidance, and best practice.
- Managers had effective systems in place to monitor service delivery and improve performance. The service formed part of a regional network to share performance data and adopt innovation.
- The service had established governance systems to monitor incidents, risk, and quality. Staff at all levels took ownership of risk appropriately, with documented actions and time scales to mitigate adverse impact to the service, staff, and patients.
- Patient feedback was consistently positive and staff spoke passionately about providing high quality care to their patients.
- The service had a clear mission, vision, and five-year development strategy. The management team promoted quality improvement that was at the heart of the service.
- The service promoted the health and welfare of staff. Staff described managers as highly approachable, supportive, and caring. This culture extended to patients and relatives, who received invites to visit the base and learn more about the care and treatment they had previously received.

Heidi Smoult
Deputy Chief Inspector of Hospitals, on behalf of the Chief Inspector of Hospitals

Summary of findings

Our judgements about each of the main services

Service	Rating	Why have we given this rating?
Emergency and urgent care services		The main service we inspected was urgent and emergency services. We inspected the service but we have not applied ratings, however we found: • The service had processes in place to keep people safe from avoidable harm • The service promoted a culture of learning development. The service promoted high standards of clinical knowledge in pre-hospital care. • Staff maintained vehicles, equipment, consumable items and medicines to a high standard. • The service had enough staff with the right skills to meet the needs of local people. • The service had up-to-date policies and standard operating procedures. • Managers had effective systems in place to monitor service delivery and improve performance. • The service had established governance systems to monitor incidents, risk, and quality. • Patient feedback was consistently positive and staff spoke passionately about providing high quality care to their patients. • The service had a clear mission, vision, and five-year development strategy. The service promoted the health and welfare of staff.

Magpas Operational Base

Detailed findings

Services we looked at
Emergency and urgent care

Detailed findings

Contents

Detailed findings from this inspection	Page
Background to Magpas Operational Base	5
Our inspection team	5
How we carried out this inspection	5
Facts and data about Magpas Operational Base	5
Findings by main service	7

Background to Magpas Operational Base

Magpas Air Ambulance charity was established in 1971 by two GPs from Cambridgeshire who recruited a network of over 100 doctors around Cambridgeshire who could respond to treat patients at the scene of road traffic collisions. Since 2003 the service has provided a dedicated, trained medical team which combines the skills of a senior doctor and critical care paramedic together on every shift bringing specialist emergency care to the scene of an incident. The focus of the service is providing critical care services to the most seriously ill or injured patients.

Our inspection team

The team that inspected the service comprised a CQC lead inspector,two other CQC inspectors. Fiona Allinson, Head of Hospital Inspection, oversaw the team.

How we carried out this inspection

The announced inspection took place on 27 February 2018, with an unannounced inspection on 12 March 2018.

Facts and data about Magpas Operational Base

Magpas Operational Base is an independent air ambulance service and registered charity specialising in providing a helicopter emergency medical service (HEMS) and rapid response vehicle to severely ill or injured patients. The service operates from Wyton air base in Cambridgeshire. The service primarily serves the communities of East Anglia and the East Midlands. The service employed critical paramedics, consultants and doctors either on a permanent or voluntary basis.

The service has had a registered manager in post since April 2014.

The medical director was the responsible officer for controlled drugs and the registered manager was the authorised witness for the destruction of controlled drugs.

The service is registered to provide the following activities:

- Diagnostic and screening procedures

Detailed findings

- Surgical procedures
- Transport services, triage and medical advice provided remotely
- Treatment of disease, disorder or injury

During the inspection, we visited the Magpas operational base. We spoke with 13 staff including registered paramedics, doctors, consultants, administrative staff, the medical director, clinical director, Caldicott Guardian, trustees and the director of operations.

We spoke with one patient who had previously used the service that visited the operational base during our inspection.

During our inspection, we reviewed 14 sets of patient records and reviewed key policies, procedures and standard operating procedures.

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 last inspected in February 2013, which found that the service was meeting all standards of quality and safety it was inspected against.

Activity (January 2017 to December 2017)

- There were 1603 missions and the service treated 892 patients. The service transported 78 patients by air to hospital. The service averaged four missions in a 24 hour period either by air or by rapid response vehicle.

Track record on safety

- The service recorded 72 incidents (clinical and non-clinical)
- No Never events
- No serious injuries
- 3 complaints (none of these related to the regulated activities)

Emergency and urgent care services

Safe	
Effective	
Caring	
Responsive	
Well-led	
Overall	

Information about the service

The main service provided was the provision of urgent and emergency care by air ambulance or rapid response vehicle.

Summary of findings

We found the following areas of good practice:

- The service had processes in place to keep people safe from avoidable harm and promoted a culture of learning development. The service promoted high standards of clinical knowledge in pre-hospital care.
- Staff maintained vehicles, equipment, consumable items, and medicines to a high standard ready for rapid deployment.
- The service had enough staff with the right skills to meet the needs of local people.
- The service had up-to-date policies and standard operating procedures, in line with legislation, national guidance, and best practice.
- Managers had effective systems in place to monitor service delivery and improve performance. The service formed part of a regional network to share performance data and adopt innovation.
- The service had established governance systems to monitor incidents, risk, and quality. Staff at all levels took ownership of risk appropriately, with actions within set time scales to mitigate adverse impact to the service, staff, and patients.
- Patient feedback was consistently positive and staff spoke passionately about providing high quality care to their patients.
- The service had a clear mission, vision, and five-year development strategy. The management team promoted quality improvement that was at the heart of the service.

Emergency and urgent care services

- The service promoted the health and welfare of staff. Staff described managers as highly approachable, supportive, and caring. This culture extended to patient, where patients or relatives were able to visit the base to discuss what happened.

Are emergency and urgent care services safe?

Incidents

- The service had effective processes in place to report, investigate, and share learning from incidents with staff and other services.
- Staff had access to a policy named 'Significant Event Reporting and Investigation'. This document provided clear guidance to staff on incident reporting processes and the management of investigations.
- The service had no never events from February 2017 to January 2018. Never events are serious incidents that are wholly preventable, where guidance or safety recommendations that provide strong systemic protective barriers are available at a national level, and should have been implemented by all healthcare services.
- We reviewed completed incident forms for incidents such as contamination of the helicopter. The service had taken appropriate action by immediately taking the helicopter out of service, to enable deep cleaning to take place.
- The service reported 72 incidents from January 2017 to December 2017 (clinical and non-clinical incidents). The two main themes of the incidents related to medicines damaged in transit. We saw that managers had taken actions to ensure they had equipment repaired or replaced following a reported issue. The service had limited actions they could take to mitigate the risk of medicines being damaged due to the nature of the work. However, we saw that medicine ampoules were stored appropriately in protective kit bags to minimise the risk of breakage.
- The service actively encouraged staff to report incidents for learning and service development. We saw that the management team had investigated all of these incidents and shared the leaning.
- The service used electronic significant event forms to report and capture incidents. The assistant medical director told us that the service had designed the form to capture the information to aid staff in the quick completion of the forms. Each incident had a severity grade assessed by the reporter and a further severity grade after the investigation.

- Staff knew and understood their responsibility for reporting incidents. Staff gave examples of the types of incidents they had raised. Staff demonstrated the process for reporting incidents.
- Administrative staff collated all submitted incident forms and assigned these to the most appropriate member of the management team to investigate. The management team aimed to complete investigations within 28 days.
- The service ensured that staff received feedback directly if they raised an incident. The whole team received wider learning through meeting or the internal staff briefing newsletter '66 update'.
- Staff and their managers knew their responsibilities in the duty of candour. Senior staff gave examples of two cases where the service used the duty of candour process. 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 a patient (or other relevant persons) of certain 'notifiable safety incidents' and provide reasonable support to that person. Staff had access to the significant event reporting and investigation policy for guidance on the application of the duty of candour.

Mandatory training

- The service had effective processes in place to schedule and deliver mandatory training. Training compliance was overseen by the management team and delivered through a variety of methods including face-to-face and e-Learning.
- The service had a mandatory training programme; all staff had access to the mandatory training workbook and staff undertook a quiz to demonstrate currency with professional skills and knowledge. The areas covered by mandatory training were infection prevention and control, information governance, safeguarding adults and children, manual handling, health and safety, the mental capacity act and fire safety.
- The mandatory training completion rate for clinical staff employed by the service was 97%. Staff working within the NHS completed this training in addition to training received within their primary place of work.
- Staff undertook regular training simulations as part of their ongoing learning. All staff received written feedback following the simulation to improve their performance.
- All clinical staff that drove on blue lights had completed a blue light training course prior to joining the service. The service had a retired police officer to provide advice and support with driving issues.
- The service held monthly forums for the team to review the patients the service had treated. The forum looked at all of the information captured on the electronic patient record and the readings from the patient monitoring equipment saved to the electronic patient record. The forums aided team learning by analysing all of the information and reviewed the outcomes of care. Staff had to attend the forum on a regular basis to remain in currency.

Safeguarding

- The service had systems and processes in place to protect people from abuse, neglect, harassment, and breaches of their dignity and respect.
- The service required all staff to complete level two safeguarding training, which included adults and children. Many of the doctors seconded from the NHS had completed safeguarding children training to level three. The safeguarding children and young people: roles and competencies for health care staff intercollegiate document 2014, states that; all non-clinical and clinical staff that have any contact with children, young people, and/or parents/carers should be level two trained. This trains the health care professional to recognise signs of abuse and appropriately refer to the relevant services.
- The safeguarding training completion rate was 100% for clinical staff. Pilots had not completed safeguarding training; however, they had no contact with patients at the scene or within the aircraft.
- The service's safeguarding lead had completed safeguarding training to level four. The safeguarding lead liaised with the local authority safeguarding team and the safeguarding teams from the local NHS ambulance trusts.
- The service had a comprehensive policy for staff to follow. The policy document set out the responsibilities of staff and the process for raising safeguarding concerns including the types of abuse including female genital mutilation FGM, physical abuse amongst others. The policy was up to date with a review date and referenced best practice guidance and legislation.

- Staff raised safeguarding concerns to the single point of contact of the NHS ambulance service they were assisting. The safeguarding lead for the service reviewed all safeguarding concerns raised by staff and gave feedback to staff.
- The service monitored safeguarding concerns raised by staff and these were included the monthly governance reports. A review of a monthly governance meeting minutes from September, October and November 2017 showed discussions taking place around safeguarding referral processes.

Cleanliness, infection control, and hygiene

- The service had effective processes in place to prevent and control the spread of infection.
- All of the areas used by the service were visibly clean and free from clutter. The area used to prepare equipment and medicines was visibly clean and tidy. All consumable equipment was raised off the floor on shelves to enable effective cleaning of all areas.
- Staff checked vehicles twice daily during handover, to monitor the cleanliness of the vehicles and equipment. The service did not convey patients to hospital in the rapid response vehicle.
- The service used an external company to clean the vehicles both externally and internally on a weekly basis. Crews carried out interim cleaning as required.
- The service displayed infection prevention and control (IPC) posters to provide guidance for staff. Additional IPC information was available to staff in other areas including the crew room and equipment storage areas. Staff we spoke with understood their responsibilities with infection prevention and control.
- The service conducted monthly cleanliness and infection control and prevention audits for all vehicles including the helicopter used by the service. We reviewed the audits undertaken from October to December 2017, these audits were complete, and we saw from the records 100% completion and compliance of these checks.
- The service completed daily infection control and prevention checks for the helicopter. We reviewed daily records from October 2017 to January 2018 and the daily checks were complete and compliant.
- The sluice had a washing machine to wash contaminated uniforms and any fabric kit bags. All contaminated items had to be placed in water-soluble washing bags to prevent any contamination spreading. Staff placed the bagged items in a plastic bin.
- Staff labelled all contaminated equipment that required cleaning; the service took all items out of service until the full cleaning process was complete.
- Staff had access to hand washing facilities at the base and carried hand-sanitising gel to use when away from the base. We saw staff used hand-sanitising gel appropriately and correctly, when they were away from the base.
- All vehicles had personal protective equipment (PPE) such as gloves, aprons and eye protection. We saw staff used PPE appropriately when attending a scene. Staff also demonstrated the use of personal hand gel during a training simulation at our inspection.
- Staff placed all contaminated reusable equipment used at a scene in a bag for cleaning and completed decontamination upon return to base.
- The service had processes in place to deep clean the helicopter. Senior staff gave us an example of when deep cleaning was undertaken in the aircraft following contamination at the scene of an emergency. The service removed the aircraft from service, stripped and deep cleaned and records confirmed this.
- The service had an infection prevention and control policy for staff to follow. The policy was available electronically and the service kept a hard copy of the policy in the operations room.
- Staff maintained their own uniforms in accordance with policy. Staff we spoke with understood their responsibilities in ensuring their uniforms were clean. During our inspection, we saw that staff uniform was clean and free from visible contamination.
- Due to the emergency nature of services provided, crews did not routinely have access to information regarding infection and hygiene risks for individual patients prior to arrival at the scene of an emergency.

Environment and equipment

- The design, maintenance, use of facilities and equipment kept people safe.
- The service was located on an airbase with a hangar and offices. The buildings had secure entry for staff and

remained locked when not in use. The service kept keys for vehicles in a keypad entry safe for staff to access. The service stored all vehicles including the helicopter in the secure hangar when they were not in use.

- The service had processes in place for the replacement of equipment. We saw an example of the replacement of crew kit bags. The service had reviewed the requirements of the crew and the equipment they used, before the implementing a full replacement of the kit bags.
- The electrical equipment used by the service had asset tags, and records demonstrated that this equipment was up to date with servicing and safety testing. We reviewed equipment such as ventilators and patient monitoring equipment.
- The service had effective processes in place to check and restock kit bags. Staff checked kit bags after use and followed a checklist to ensure that all the required equipment was correct before sealing the bag with a security tag. Staff logged the security tag and the kit bag number on a white board. Staff used the kit bags in order with the oldest check date first. The senior leadership team told us this reduced waste of out of date consumables or consumables being out of date when staff used the bag. We observed the comprehensive process of checking and restocking kit bags ready for deployment.
- The service stored sterile single use equipment appropriately. We checked a selection of single use items such as needles and syringes, all of these items were within their expiry date.
- The service had equipment in various sizes, for example airways. This meant the service had equipment suitable for the safe care of children. The service clearly defined consumable equipment according to age/size.
- The service procured single use items through the local NHS ambulance service with the exception of the specialist items for the advanced life support equipment. The service purchased these specialist items directly.
- The service had standardised equipment. Staff were expected to read the user manuals to familiarise themselves with all the functions and required checks for each piece of equipment. Staff we spoke with told us that the process of reading the equipment manuals had enhanced their knowledge of the equipment and troubleshooting any problems with the equipment.
- Staff completed comprehensive daily checks and shift change checks on the road vehicles and the helicopter to ensure all the required equipment was in place and stored correctly. Staff also checked the tyres, lights, fluid, and fuel levels. Staff recorded the checks through a hand held device. We saw the comprehensive process and staff worked systematically through the process. Managers audited the daily checks and we saw that they took appropriate action when staff did not complete the checks correctly.
- The service procured new rapid response vehicles in September 2017 through local corporate sponsorship. This meant that they had standardisation of the rapid response vehicles within their own service.
- The service had up to date records of insurance, servicing and road tax for the vehicles and had dates for the next service. The service used a local garage for road vehicle servicing and maintenance.
- We checked one of the rapid response vehicles, saw it was visibly clean, in good working order, and contained a fire extinguisher.
- The service leased the helicopter. An outside organisation supplied the pilot and co-pilot through a service level agreement. The leasing contract included the maintenance and servicing of the helicopter.
- The service did not convey bariatric (heavier) patients in the helicopter due to weight restrictions within the aircraft. However, crews supported local NHS ambulance crews to convey these patients by road when required.
- The service did not convey patients detained under the Mental Health Act by air. Crews supported the NHS ambulance service to convey these patients by road when their support was required.
- The service had a contract with the local NHS ambulance service to dispose of clinical waste and sharps (needles). The service used sharps boxes to safely store and dispose of used sharps.
- Clinical waste and sharps were securely stored and clearly segregated at the base location.

Medicines

- The medical director had overall responsibility for medicines used by the service and the registered manager was the authorised witness to the destruction of controlled drugs.

- The service had comprehensive processes in place to safely procure, store and manage medicines including Controlled Drugs (CDs).
- The service had a comprehensive medicines management policy and standard operating procedure, which set out the roles of staff to follow. The documents had a review date and followed national guidance and legislation.
- The service stored CDs according to legislation in a locked metal cabinet in a secure room. We checked three CDs and found the number of prefilled syringes and vials matched the register. All of the CDs were within their expiry date.
- Staff kept CDs in special pockets in their uniforms. This meant that staff did not leave CDs in an unattended vehicle or kit bag.
- Staff checked the CD stock daily to ensure that the stock levels matched the CD register. Staff stocked CDs in a specialist wallet ready for call out. Staff checked the expiry date and the labels to ensure they had the required medicines for a call out. All clinical staff had access to CDs.
- The service had processes in place for the destruction of CDs. The service had a visit from the local clinical commissioning group (CCG), in November 2017, following concerns identified by the CCG, that the records for the destruction and stock levels of CDs were not reported correctly. The service used a separate register for out of date CDs and the CCG advised the service to keep one record. Following this visit, the service made changes to their process in the recording and destruction of CDs. We were assured by the processes that the service had in place following the CCG inspection.
- The service procured medicines and CDs from outside organisations under contract. We saw that staff recorded the CDs in the register on receipt of CD delivery.
- The service had devised a method of reducing errors with medicines required for emergency anaesthesia. Staff drew up drugs for anaesthesia (Rocuronium Bromide) in syringes with a red plunger to ensure staff identified this medicine easily. This showed the service worked continuously to improve the safety of medicine administration. The service shared this innovation with other similar services. Staff discarded unused pre-drawn up syringes after 24 hours in line with the manufacturer's recommendations.
- The service stored medicines within locked cupboards in the secure operations room. We checked 22 medicines and we found them to be within their expiry date and stored correctly.
- The service had a medicines fridge to staff medicines that required refrigeration. We checked the 14 medicines we found them within their expired date and stored correctly.
- Staff monitored the medicine fridge temperature daily from Monday to Friday. We reviewed the records for January and February 2018, which showed that all checks were completed and the temperatures remained within the recommended range.
- The service had a locked storage facility to store oxygen cylinders. The storage remained locked at all times and the cylinders stored appropriately with appropriate warning signage in place.
- We saw that medical gases were stored securely in both the rapid response vehicles and on the helicopter. This prevented the risk of injury to staff and patients through unrestrained items during transfer.
- The service used security tags to seal medication packs within the kit bags used by crews. Once the security tag had been broken staff restocked and checked the medication packs back at the base and sealed these with a security tag. Staff recorded the unique security code on the electronic management system.
- During our inspection, we saw that clinicians double checked medicines and dosages prior to administration.
- We reviewed 14 patient records which, demonstrated documentation of administered medications.
- The service stored kit bags within the secure operation room when they were not in use.

Records

- Effective systems and processes were in place to ensure the secure creation, storage and destruction of medical records.
- Staff completed both hand written patient records and electronic patient records. The service did not have facilities to print patient records for the receiving hospitals so crews used carbon copy hand written patient records for handover at a receiving hospital. Crews completed electronic records in order to link readings from the monitoring equipment and the information from the paper based form. The service used the electronic records to discuss cases in the monthly forums.

- The electronic records system had a two-point security system to keep records secure. The service had a backup system to prevent loss of electronic records.
- The electronic records and the paper records included the patient details and the patient history including allergies. All medication used by the crew were recorded. We reviewed 14 patient records, 10 paper records and four electronic records, staff had completed all of the records appropriately.
- The service stored paper securely within the administrative office at the base. We reviewed the process for the storage of paper based patient records and we had no concerns.
- We saw the process of handover from the service to the receiving hospital which demonstrated staff shared information and the patient record with hospital staff in a timely way.
- The service received allocated work through the local NHS ambulance dispatch where staff received and recorded information about patients and the scene of an incident. The NHS ambulance staff shared all relevant information at the time of allocation and at the scene. We observed the process from allocation and at the scene of an incident, which demonstrated that staff received all relevant information.
- The local ambulance service shared mission information at the point of dispatch. Any additional information was passed in a timely manner to ensure crews had up to date scene information. We observed this process in use and found staff had all the information required
- The service had major incident triage standard operation procedure in place for staff to follow in the event of a major incident. Staff had access to the major incident policy for the local NHS ambulance service, which set out the roles and responsibilities of all crews in a major incident.

Assessing and responding to patient risk

- The service provided prehospital emergency care to the patient. Staff conducted individual risk assessments at the scene and planned for potential risks based on the limited information received.
- Due to the nature of the service and the specialism provided, the service had developed standard operating procedures to support clinicians in assessing and responding to patient risks.
- Staff assessed wider risks on the way to the patient, based on the information given by the local NHS ambulance trust emergency control room. There was also informal risk assessing of potential scenes they were going to, for example, road traffic collisions, the landscape, and terrain. The service already knew about some of the risks because they were contained on the services risk assessments and identified on the maps used by the crew.
- If the patient was likely to panic or become delirious during a flight, the clinicians would risk assess this. If they could reduce the risk by making the patient calm and comfortable through medication, they would do this, especially if clinically they required urgent transfer, or if they were in a remote area in accordance with policy.
- The local NHS ambulance trust emergency control room did not task Magpas staff to attend patients detained by the police under a section 136 of the Mental Health Act unless they were suffering from life threatening injuries or illness. If this were the case, any medical intervention in an emergency setting would be undertaken if considered to be in the best interest of the patient.
- Crew used a duty advice doctor (DAD) to get specialist advice while in transit or on scene. The service monitored the number of call to the DAD and calls missed by the DAD on a monthly basis. We saw that crews made one call to the DAD to gain interventional advice in the November 2017 governance report. The consultants that worked for the service managed DAD line internally.
- The service collected patient observations via a patient monitoring system, which uploaded to the central database system with the related audio tape of communications between clinical and operational staff. This meant that all clinicians could review these for shared learning and assessment.
- Patient records demonstrated that staff regularly monitored patients for signs of deterioration through use of the Glasgow Coma Scale (GCS, used to monitor and assess impairment in conscious levels) and through the regular taking and recording of patient observations such as pulse, respiratory rate and blood pressure. We saw that staff had documented patient observations in all patient medical records that we reviewed.
- Records also reflected that staff closely monitored patients before and after rapid sequence induction (emergency anaesthesia).

- Prior to scene departure, clinicians alerted the most appropriate hospital or urgent and emergency care centre dependent on clinical need to ensure speciality team availability upon arrival. Staff had access to hospital information to inform them which locations specialised in particular illness including but not limited to; cardiothoracic surgery, neurosurgery, or cardiac care. This ensured that patients received the most appropriate and specialist care in a timely manner.
- Clinicians provided pre-alert information (by telephone) to the receiving emergency department to inform staff of the patient's condition prior to arrival. This ensured the appropriate medical teams were prepared for patient arrival.
- Crews had information about hospitals in the local area to inform the choice of the clinically appropriate destination. For example major trauma positive patients went to the nearest appropriate receiving major trauma centre.

Staffing

- The service planned and reviewed staffing levels and skill mix to ensure that people were safe from avoidable harm and received safe care and treatment at all times.
- The service had an establishment of 14.5 whole time equivalent staff and the service had no vacancies. The service had five full-time critical care paramedics (CCPs) and eight volunteer CCPs to ensure that all shifts were covered and staff had protected time to complete professional development and take annual leave.
- The service had 16 consultants, all of the consultants worked for the service during their professional development time. The service had six Pre-Hospital Emergency Medicine (PHEM) trainees, one full time doctor and a further four doctors that worked for the service on a voluntary basis.
- The service had two shifts per day, the shift patterns for the day shift started at 7 am until 7.30pm and the night shift from 7pm until 7.30am. Each shift had a critical care paramedic (CCP) and a doctor to deliver care and treatment to patients. Paramedic staff worked to a five-week rolling rota.
- The service scheduled a doctor and a CCP for all shifts to ensure the service had the right skill mix on duty. However, if the team was not complete the shift did not run and the service was unavailable during this time. The rota for doctors and CCPs was organised using the service's web-based rota system, which ensured delivery of two shifts a day 365 days a year.
- The service had covered most shifts from January 2017 to November 2017. We reviewed the clinical governance report for November 2017, which showed the service covered 625 shifts out of 668 from January 2017 to November 2017. This meant that the service covered 93.5% of shifts.
- To manage vacant shifts the web-based rota system allowed clinicians to claim open shifts. To manage short notice cover issues such as sickness, the service sent text messages by mobile phone notifying the clinical teams that a shift had become available at the last minute.
- The CCPs working with Magpas were either on a permanent secondment or on a three-year cycle from the local NHS ambulance trust. The East of England Deanery placed some prehospital emergency medicine (PHEM) doctors with the service for a six to twelve-month period as part of their PHEM sub-speciality training.
- Consultants worked for the service during their professional development time from the local NHS trusts. The consultants we spoke with worked in an emergency department and another consultant worked in anaesthetics. The consultant team supported the seconded doctor completing pre-hospital emergency medicine training.
- Staff held comprehensive handovers following missions and did key safety checks prior to each mission before deployment. As part of the pilot's pre-flight take off checklist they carried out a security check, the aircraft captain has ultimate responsibility for the security of equipment and personnel in the aircraft at all times during missions.
- Staff we spoke with told us they had at least 11.5 hours between shifts and they felt the time between shifts was adequate. The service did not set meal breaks and staff managed their breaks between missions.
- An outside organisation supplied the pilot and 0.5 whole time equivalent co-pilot through a service level agreement.

Anticipated resource and capacity risks

- The service planned for any resource or capacity risks and outlined these in the business continuity plan, for

example the loss or an accident involving a vehicle. The service had taken actions to minimise the risk of a vehicle being off the road. The service had two rapid response vehicles, completed routine driving licence checks, and only allowed staff with blue light training to drive with blue lights.

- If there was an unexpected staffing problem within the clinical staff team, the service had qualified staff within its managerial team, whom were up to date with their relevant training and competencies that could cover the shifts at short notice.
- The staff alerted the appropriate hospital urgent and emergency care centre about the inbound patient once they had stabilised and transferred the patient into the aircraft or road vehicle. They had a list of receiving hospitals and if they had no capacity, there they could make contingency for a second choice of hospital. All staff knew the hospitals, and which specialised in specific areas, for example, cardiothoracic surgery, neurosurgery or had the right services for the patients with a myocardial infarction (heart attack). This ensured that patients received the most appropriate and specialist care in a timely manner.

Response to major incidents

- Magpas responded in conjunction with two local NHS ambulance trusts and were included in trust major incident policy and planning.
- The service had major incident standard operating procedure for staff to follow in conjunction with the local NHS ambulance trust major incident policy. In addition to the standard operating procedure, the service had a major incident communications response plan. Staff had a clear process to follow in the event of a major incident.
- Staff undertook regular simulation training which incorporated major incidents.

Are emergency and urgent care services effective?

Evidence-based care and treatment

- The service had a number of detailed and relevant policies and standard operating procedures, including, consent and scheduling and currency amongst others. The scheduling and currency policy set out clearly when staff were unable to work due to not meeting the training and currency requirements. Currency meant that staff had completed mandatory training, attended forum meetings, and remained up-to-date with changes to policy and standard operating procedures. All of the documents we reviewed were all evidence based and set out the responsibility of staff at all levels.
- Critical care paramedics and doctors risk assessed patients using these standard operating procedures including advanced life support and managing myocardial infarction (heart attack). All of the standard operating procedures and policies were up to date, referenced national guidance, and had a review date.
- Staff had access to policies and standard operating procedures at all times through hand held tablet devices. The service had paper copies of these documents in the base for staff to refer to or read between missions.
- The service was involved in a cohort study for the use of intravenous fluids used for hypovolemic shock. Hypovolemic shock is a life-threatening condition due to a large loss of blood or bodily fluid. The service published the findings of the study within a medical journal.
- The service had completed an audit to ensure the service met the recommendation set out by the National Institute for Health and Care Excellence (NICE) guidance for trauma.
- The service met the recommendations set out by NICE for guidance for major trauma: service delivery (NG40), Major trauma: assessment and initial management (NG39) and Major trauma: assessment and initial management (NG39).
- The service mostly met the recommendation set out by NICE guidance for Fractures (complex): assessment and management (NG37). The service used box splints rather than the vacuum splints recommended as the service used the regional trauma triage tool for pelvic fractures.
- The service mostly met the recommendations set out by NICE guidance for Spinal injury: assessment and management (NG41) and Head injury: triage, assessment, investigation, and early management (CG176) because additional documentation was required to meet the guidance. The service had plans in place to address the additional documentation.

- The service was participating in a multi-centre randomised controlled trial of prehospital blood product administration, versus standard care for traumatic haemorrhage. Managers and staff referred to the trial as the RePhill trial.

Assessment and planning of care

- The consultants volunteered to be on call for support and provide advice for crews. This formed the duty advice doctor (DAD) service and crews had access to advice 24 hour a day 7 days a week. The DAD service provided a contact telephone number for crews to confirm treatment decisions or the planned emergency department (ED) destination, for example if the patient required a major trauma centre outside the agreed pathway.
- Staff followed set processes to assess and treat patients. Dependent on the patient's clinical needs, the staff transferred them to the most appropriate hospital. The crew assessed the location of the patient and the distance from hospitals or regional specialist centres before leaving scene.
- The service did not convey all patients to hospital by air ambulance. Staff made the decision whether to convey by road based on the distance and the time to taken by air and by road. The crews explained that helipads for hospitals often required a short journey by land, which added time to the total journey time.
- We saw that clinicians and pilots conducted frequent conversations to ensure transfer to the nearest, most appropriate facility.
- The service assisted crews from the local NHS ambulance service and assisted these crews to convey patients to hospital as required. The service did not convey patients that had passed away at the scene of an incident.
- The service did not convey patients in mental health crisis to hospital unless they had physical injuries, which required their expertise. In cases where staff had concerns about a patient's mental state, for example delirium, crews conveyed these patients by road to the hospital or used sedation if conveyance by air was required.
- The service had standard operation procedures, which included managing myocardial infarction (heart attack). The standard operating procedure included treatment and the hospitals with ED and cardiac care facilities.
- The service treated children, the policy, and standard operating procedure documents including treatment variations for paediatric patients. An example of this was the advanced life support standard operating procedure.

Response times and patient outcomes

- There are no nationally specified key performance indicators for the type of service provided.
- The service monitored patient outcomes and care of patients who had a return of spontaneous circulation following a cardiac arrest. The service conducted the audit from November 2015 to April 2016 and showed areas for improvement with recommendations. The service analysed the care provided to patients during the monthly forum.
- The service conducted a retrospective audit for the use of pelvic binders in accordance with the internal standard. Pelvic binders are used when there is a suspected pelvic injury with associated internal bleeding. The audit reviewed 278 patients involved in a high-energy mechanism of injury from May 2016 to April 2017. The result showed that 65 patients met the standard for the use of a pelvic binder. Of the 65 patients, 63 of the cases staff used a pelvic binder appropriately in accordance to the standard.
- The service monitored the number of call outs and stand-downs. The service had 1,448 activations from January 2017 to November 2017. The crews were stood-down for 615 call outs, either before or on arrival at the scene. The service had 833 scene attendances.
- The service logged the reason for stand-downs and the top three reasons were clinical team input not required, ambulance leaving or left the scene or no injury. We saw that crews were stood down 54 times due to the clinical team not required, six times as the ambulance was leaving the scene and one due to no injuries in November 2017.
- The service worked with the East of England Trauma Network to monitor the outcomes for Trauma Audit and Research Network (TARN) unexpected survivors and deaths of the patients treated by the service.
- The service collected information about response times; however, the service did not actively use this information for quality. The director of operations told us that the safety of patients and crew was important

and using targets for responding to incidents may cause crews to rush and take risks. The service had plans for one of the critical care paramedics to undertake a project analysing the mission times.
- The service did not have formalised clinical key performance indicators (KPIs), however, the service had robust monitoring of equipment and medicines, which formed the internal monitoring of quality and governance oversight.

Competent staff

- Recruitment processes for the clinical staff teams were comprehensive and included specific checks with the Disclosure and Barring Service (DBS), Health and Care Professions Council and General Medical Council.
- The service offered a comprehensive induction process for all staff, specifically tailored to the needs of the roles, for example clinical and non-clinical. Initial induction included orientation with the premises, who's who in the organisation, security, and human resource details amongst others. As the staff progressed, they would cover standard operating procedures, complete all mandatory training, read, and understand the service values, and cover incident reporting, amongst other key points.
- The service had a policy for staff appraisal and revalidation for clinicians. The policy set out the responsibilities for staff to follow. The policy was up-to-date and had a review date.
- The service completed appraisal statements for all of the doctors who worked with the service. The statements formed part of the appraisal and revalidation evidence and gave feedback about the doctor's performance with the service. All doctors had to submit evidence of their appraisal and medical registration.
- The service had an appraisal completion rate of 90%. The appraisals information showed that four (10%) clinical staff members had started the appraisals process and had the status of information pending which meant the appraisal was in progress.
- We reviewed the annual appraisal records of six staff and found these were comprehensive and up to date. The appraisal system encouraged staff to discuss their individual and professional needs in line with the service's strategic aims and values.
- Staff we spoke with during the inspection valued the appraisal process as an opportunity to discuss their performance and plan for their future roles. In all of the appraisals we reviewed, managers had given effective feedback that encouraged staff to reflect on their performance and how they could improve to get the best from their role.
- The service supported staff to complete a PHEM (Prehospital Emergency Medicine) National Course and PHEM sub-speciality national and local course for new trainees providing prehospital critical care and environmental exposure.
- The service had collaborated with a local university to provide a Master's degree for paramedics that mirrored the PHEM sub-speciality curriculum. The service had a paramedic enrolled on the course at the time of our inspection. Managers within the service expressed the importance of the development of the paramedic role due to the limited progression other than managerial roles.
- The service monitored the completion of mandatory training and the requirements for staff currency. Currency meant that staff had completed mandatory training, attended forum meetings, and remained up-to-date with changes to policy and standard operating procedures.
- Staff regularly undertook simulation training of types of scenes that staff encountered while working in their roles. The senior team monitored simulations and gave feedback to staff on their performance during the simulation.
- Staff used the service's IT portal to access electronic learning either at the base or remotely. Staff accessed a wide range of mandatory training, and additional training, clinical updates, and updates to standard operating procedures amongst other things. Staff we spoke with during the inspection told us the service was keen in ensuring they had access to a broad range of information to update their competencies and skills.
- The service required staff to produce evidence of professional registration and driving licences on an annual basis. Staff we spoke to confirmed that they were required to produce this information on an annual basis.
- The service had ensured that all clinical staff had completed the RePHILL training to support the randomised control trial.

Emergency and urgent care services

Coordination with other providers

- There were clear lines of responsibility and accountability for the service and care delivered in a coordinated way with other services involved. For example, the police, or fire services if they attended an incident.
- The service held agreed pathways with other services and arrangements for escalating issues with the local NHS ambulance trust via its standard operating procedures.
- Critical care paramedics in the local NHS ambulance trust emergency control room worked with the service on all 999 emergency calls to deploy the appropriate resources to incidents.
- The service worked with other air ambulance services in the area for procurement. We saw that the service had worked with these services in the procurement opportunities and equipment alignment. An example of this was the procurement of the rapid response vehicles.

Multi-disciplinary working

- We observed handovers between clinical staff from the service and emergency department (ED) staff receiving patients. The handovers were comprehensive and included all of the relevant treatment decisions and outcomes.
- We noted a strong ethos of multidisciplinary working during our inspection. Staff respected each other's roles across the organisation working closely to coordinate individual elements of a mission to enable the most direct, efficient and seamless service for the patient.
- Staff we spoke with told us it was important to work as a team between themselves, as well as with the land ambulance staff- and other services such as, police and fire and rescue. This enabled them to overcome any challenges or obstacles to ensure the best service for the patient, both on the ground and when airborne.

Access to information

- Due to the service responding to trauma and prehospital medical emergencies, not all patient information was available before staff were deployed. The tasking NHS ambulance trust might have access to information such as, do not attempt cardiopulmonary resuscitation (DNACPR) and advanced care plans but often the critical care paramedic (CCP) in the local NHS ambulance trust emergency control room was the main source of clinical mission information.
- The tasking NHS ambulance trust also notified the air ambulance staff if there were any know safeguarding children or vulnerable adult concerns.
- Staff used the provider's intranet to access the service's standard operating procedures, and policies, that were comprehensive and reviewed in line with set review dates.
- The rapid response vehicles (RRV) had an up to date satellite navigation system in place and the service had reported no incidents or concerns reported relating to these. The aircraft were all equipped with the appropriate navigation systems as advised by the Civil Aviation Authority.

Consent, Mental Capacity Act and Deprivation of Liberty Safeguards

- Staff understood the relevant consent and decision-making requirements of legislation and guidance, including the Mental Capacity Act (MCA) 2005. The service had a policy available for staff regarding capacity to consent.
- Staff completed training about the Mental Capacity Act as part of safeguarding training. The service achieved 100% for safeguarding training.
- Staff we spoke with during our inspection told us they asked for the patient's consent where possible. Staff explained that often when responding to emergencies, patients were unresponsive, so clinicians considered their duty of care and the patient's best interests instead of formal consent.
- Staff we spoke with during our inspection were knowledgeable regarding the implications of the Mental Capacity Act. They were able to describe how they would assess a patient's capacity to make decisions about their care and treatment and the best interest decision-making process.
- Patient report forms contained a section to indicate if the patient had consented to treatment. Due to the nature of critically unwell patients, it was not always possible to gain verbal consent. We reviewed 14 patient report forms which showed clinical staff had documented consent in 14 cases.
- DNACPR notices were rarely available due to the emergency nature of the service. The tasking service

(NHS ambulance trust) may hold these, and carry out checks to ensure they were enforced. When air ambulance clinicians arrived on scene, patients were often unconscious, so clinicians acted in the best interests of the patient, but informed of what was happening if it was possible or practical.
- The local NHS ambulance control did not task Magpas to transport patients detained by the police under a section 136 of the Mental Health Act unless they are suffering from life-threatening injuries or illness.

Are emergency and urgent care services caring?

Compassionate care

- Staff respected a patient's privacy and dignity at all times. During a training scenario, staff demonstrated the care they provided. We observed staff covering the simulated patient with a blanket and ensuring this remained in place during the emergency procedures demonstrated to us.
- The service provided critical care in emergencies and often the patient was unconscious when the staff arrived. In these situations, clinicians could not interact verbally with the patient. However, we observed that crew maintained the dignity of the patient at all times and showed respect. Crews kept the area where the patient was treated, private and crews remained organised and calm on scene and during the transfer to hospital.
- The service found obtaining patient feedback challenging due to the nature of the patients they service treated. The service sent 'thinking of you' cards to all patients the service had treated with information about how to give feedback.
- Staff spoke passionately about the care they provided to patients. Staff we spoke to explained how they delivered care and put the patient's care needs first all times.
- Patient feedback was positive. During our inspection, a patient shared their experience. The patient told us that the staff providing care and treatment remained calm and put them at ease with friendly "chit chat while carrying out the essential care." "Wrapped up in one word - caring."
- We reviewed patient feedback; compliments demonstrated the compassionate care given to the patients and their families. The patient feedback was all positive praising staff for their kindness and compassion.
- Staff understood and respected people's personal, cultural, social, and spiritual needs. All staff were respectful and considerate when dealing with patients and their families. Staff maintained confidentiality across the service.
- We reviewed the patient feedback forms from January 2017 to December 2017. These were very positive and showed that all patients were likely to recommend the service to their family and friends.
- Comments from patients included, "The Magpas team were fantastic, my son did not just survive but he recovered really quickly." "It is amazing that someone can suffer the extent of injury I did and be in the position I am in today. " Without Magpas I would not be here and I want to say a huge thank you."

Understanding and involvement of patients and those close to them

- Staff communicated with patients in a way that they could understand their care and treatment. Staff explained treatment options and the decision to convey to hospital to conscious patients. Staff we spoke to told us that they updated family members at the scene.
- Staff understood the importance of involving patients and family in decisions about their care. However, patients were often unconscious at the time staff were involved in their care.
- Patients and families were given time to ask further questions they may have. The service invited patients or those close to them to talk to staff and discuss their case. Staff we spoke to told us that patients and their families sometimes needed this process for recovery or as part of the grieving process.

Emotional support

- Staff we spoke to understood the impact that a person's care and treatment could have on their future wellbeing. Staff spoke about how some patients needed to talk to the clinician who helped them at the scene to understand what happened to them. This helped some patients to emotionally heal following a major injury
- Staff demonstrated empathy to those who were anxious and reassured them. One patient we spoke to told us

that crews had ensured he had spoken to his daughter, as he was concerned his family would worry. The crews tried to get hold of family members so they knew what had happened to reduce the patient's anxiety.
- The service sent "thinking of you" cards to every patient during their recovery time and encouraged him or her to visit the service to have any questions they might have answered as part of their rehabilitation.

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

Service planning and delivery to meet the needs of local people

- The service analysed various data in order to plan and deliver new services. For example, they analysed how to meet the trauma needs of local communities during the day and night times. At the time of our inspection Magpas was the only service that had a 24-hour service in the area.
- The service had been planned to ensure a 24/7 response through use of rapid response vehicle at times of diminished natural light.
- They worked closely with local NHS services and looked at research from the Trauma Audit and Research Network (TARN) to consider the type of prehospital emergency clinical interventions used, for example the prevalence of road traffic collisions, and cardiac patients so they could deploy the most effective resources to the scene.
- The service worked cooperatively with other services to review service provision and to meet the needs of the community as a whole. The service worked closely with two NHS ambulance trusts and nearby air ambulance services.

Meeting people's individual needs

- Magpas staff utilised the language line translation service provided the local NHS ambulance trust. Due to the nature of the service, a large proportion of patients have reduced levels of consciousness due to illness or injury and therefore verbal communication was challenging regardless of language. As an initial response staff utilised family members or friends to provide an initial translation at scene whilst staff contacted language line.
- Critical care paramedics and doctors received training in the Mental Capacity Act and would always risk assess, and take appropriate actions, when responding to a patient with cognitive impairments or mental health illness. This was important to avoid putting the staff and patient at risk mid-flight.
- We asked the service how it dealt with bariatric (heavier) patients. The staff did not always know about this before missions and they would provide the care and treatment at the incident site. If the patient's weight were a restriction, either for access into the air ambulance or in terms of weight limitations for the air ambulance, staff would transfer the patient to the appropriate NHS hospital via a land-based ambulance.

Access and flow

- Clinical staff contacted the local NHS ambulance trust control room upon commencement of shift to notify them of crew availability. This would be by either helicopter air ambulance or rapid response vehicle.
- The tasking NHS ambulance trust assigned missions and the service responded to these in priority order. If staff were on scene and needed to be dispatched to another incident before returning to base, the pilot, doctor and the critical care paramedic reviewed how much fuel they had and equipment which needed replacing.
- The service operated its air ambulance seven days a week 365 days a year, 24 hours a day. The service responded by air during the day and by road at night. The service responded to an average of four calls in a 24 hour period and to 155 missions during December 2017.
- The airbase was located near to major roads, which enabled timely dispatch and journey response times when using rapid response vehicles.
- The service also reviewed the types of incident they attended and the type patient injuries sustained. For example during December 2017, they attended 57 medical, 43 road traffic collisions, 19 intentional self-harm, 15 accidental injuries, 13 assaults, three sport/leisure and five other events. The service used this data to plan its future capacity and consider how it could best support patient outcomes.

Learning from complaints and concerns

- The service provided information to patients and relatives on how they could complain. They advised that

one avenue to make a complaint was through the service's website. We reviewed the on line complaint page, which was easy to use and contained information on how to make complaints.

- At the time of our inspection, the service had received three complaints that they investigated and provided feedback to the individuals within agreed timescales. None of the complaints the service had received related to the regulated activities. However, the investigation and the actions the service took demonstrated the service dealt with complaints effectively in line with their complaints policy.
- The service handled complaints effectively and confidentially. The service recorded complaints on its electronic reporting system and the relevant department and manager and lead investigator assigned. If appropriate, the service informed the local NHS ambulance trust of the complaint who may participate or lead in the investigation, depending on its nature.
- Leaders shared learning from the complaints with the wider teams and across the organisation. Leaders reviewed findings with the team involved and presented the findings in team meetings, and governance days where appropriate.
- The service did not benchmark its complaints with other air ambulance services; however, the service had very few complaints.

Are emergency and urgent care services well-led?

Leadership of service

- The chief executive was the registered manager of the service supported by a Chairman and board of trustees. The medical director and the and director of operations oversaw the clinical organisational arrangements.
- The leaders within the organisation had a wealth of skills and knowledge within this area of expertise. Most of the staff maintained alternative roles within local NHS services and recognised their transferable skills.
- The trustees supported organisational growth and challenged future developments. They had a varied background and not all had clinical backgrounds. For example, one of the non-executives had a banking background and supported staff with financial planning and growth of the service.
- Leaders described a service that put the patient and high quality care at the centre of all that it did.
- Staff we spoke with told us about their commitment to the organisation, which was due to the supportive culture of the leaders. Leaders were visible and approachable.
- The service had an appointed Caldicott Guardian. The deputy medical director held this position for the service. The deputy medical director understood the role and responsibilities of the position.

Vision and strategy for this this core service

- The service's mission statement was to save lives and reduce disability by taking enhanced emergency medical care to patients in their moment of need.
- The service had a vision "to deliver by land and air the best 24/7 pre-hospital emergency medical service to our patients." In addition, the service set out "to use our expertise to promote excellence in the provision, delivery, and development of pre-hospital emergency medical care across the United Kingdom."
- The service also had a set of beliefs of; "We are caring, pioneering, and dedicated to patients' needs". "We want to live in a country where any person that finds themselves in a life threatening situation through physical injury or illness away from a hospital, is given the very best chance of survival and recovery."
- The values for the service were "We are caring, pioneering, and dedicated to patients' needs." Staff demonstrated these values throughout our inspection.
- The service had a robust and realistic strategy for achieving strategic aims and priorities with safety and quality included in the service strategy plan was for 2016-2021.

Governance, risk management and quality measurement

- The service had an effective governance framework to support good quality care. The service held senior management team meetings, which monitored progress on achieving strategic aims, and reported to the board of trustees.
- The service reviewed each mission and challenged clinical decisions appropriately. The team were involved in the debrief sessions after each mission and supported as required. Staff we spoke with felt that the debrief process kept them and patients safe.

- There was a range of policies and standard operating procedures (SOPs), which underpinned the governance structure.
- The clinical governance committee met on a monthly basis, where the management team discussed clinical governance and strategic developments. The service presented reports following these meetings to the board.
- We reviewed meeting minutes from September, October, and November 2017. Minutes demonstrated attendance from a broad range of staff. Key areas of risk such as patient safety, equipment, significant events, and clinical care were regular agenda items at all meetings.
- The service had an audit committee, which met twice every year. The committee recommended the appointment of external auditors, reviewed audit reports and the annual budgets for the charity.
- The service reviewed policies in line with expected review dates. These included incident investigation, complaints, driving policy, consent, and medication management, the management of controlled drugs, and infection prevention and control.
- The service had a risk register in place detailing clinical, aviation or general risks with clear ownership. The risk register demonstrated regular review dates and risk ownership.
- Managers reviewed risks routinely and reported them to the senior management team. They supplied an action plan to mitigate each risk. The risk register was comprehensive and covered all aspects of the service, for example clinical, finance, governance, and fundraising. The service described its three main risks as financial, failure to upgrade the helicopter and the failure to develop the base. Staff we spoke with knew the risks held on the services risk register.
- The service had clear working arrangements with its local NHS trusts and ambulance trusts. The service shared monitoring reports with the local NHS and ambulance trust.
- Clinical staff we spoke with during our inspection knew their roles and their accountabilities. They completed their annual appraisal process.
- Managers used data to measure quality and performance, for example, infection control audits and medicines audits. All staff participated in monitoring audit outcomes.

Culture within the service

- The service had an open and learning culture, focused on patient centred care and patient outcomes. Clinicians worked with a mutual respect for each other. The service had a strong team working and a culture of positive working. All staff we spoke with reported that they were proud to work for the service.
- Staff shared learning through team meetings and their intranet and supported the learning culture by learning from missions at the monthly forum.
- The organisational culture had a strong focus on staff wellbeing. Managers debriefed the staff after their missions and provided supervision.

Public and staff engagement

- The service actively sought feedback from patients and those close to them. The service left details with patients about giving their feedback where appropriate. The website for the service had links for patients to give their feedback. The medical director told us that service found gaining feedback for patients challenging due to the nature of their work. Many patients had weeks of medical treatment following the care the service provided.
- The service had mechanisms in place to allow staff to share their opinions and share information. Staff we spoke with found the monthly forums gave them an opportunity to share learning or to give their opinions. Staff felt able to discuss their concerns or gain learning with their managers between the monthly forums. Staff told us that managers listened to them and took appropriate action.
- The service held regular public fundraising events within the local area; the service advertised events on their website. In addition to fundraising events, the service invited the public to visit the base. Managers told us that local scout and guide groups had visited the base.
- The service gave patients and those close to patients the opportunity to visit the operational base to meet the staff involved in their care. Managers told us that for some patients or families needed information in the recovery process or the grieving process and they felt this was an important part of their work.

Innovation, improvement and sustainability

- The service had plans to replace the helicopter and the service had completed a business plan for the

replacement of the helicopter in service due to the lease end date of April 2019. The business plan was thorough with costings of each replacement considered taking into account the best fit for the service.

- The service had worked with an external company to provide a business case for the procurement of a new helicopter to replace the existing helicopter. The business plan reviewed the needs of the service and the options available to the service based on the best fit for the service.
- The service was participating in a multi-centre randomised controlled trial of prehospital blood product administration, versus standard care for traumatic haemorrhage.
- The service used a laryngoscope blade with video camera attachment for intubation training and use during medical emergencies. This meant that staff could maintain and develop their intubation skills and reduce the time taken to intubate in emergencies.
- The service had plans to relocate the crew base, as the current base was to close due to the sale of the land by the Ministry of Defence. The service had located land that met the needs of the service. The plans were in process at the time of our inspection.
- The service was a founding member of The British Association for Immediate Care (BASICS). BASICS, is an education service that provides internationally respected training in immediate care both in the civilian and military settings.

Outstanding practice and areas for improvement

Outstanding practice

- The service had worked in collaboration with a local university to provide a Master's degree for paramedic staff for the clinical progression of paramedics, clinically rather than becoming a manager.
- The service sent 'thinking of you' cards to all of their patients.
- The service had robust safety checking systems and shared innovation with other services, such as coloured syringes to prevent drug errors.
- The service was involved in a multicentre randomised control trial for prehospital blood products.
- The use of technology such as camera laryngoscopes to ensure intubation of patients was timely and the correct positioning of intubation devices.