The Rotherham NHS Foundation Trust

Rotherham General Hospital

Quality Report

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

Ratings

Summary of findings

Letter from the Chief Inspector of Hospitals

We carried out a focussed unannounced inspection of the Rotherham General Hospital. We visited the hospital on 17 July 2018 because we identified concerns in relation to: -

- The management of non-invasive ventilation (NIV) patients admitted to the Rotherham General Hospital
- The management of the deteriorating child in the urgent and emergency care centre at the Rotherham General Hospital

We did not rate the service because this was a focussed unannounced inspection looking at specific areas of concern. Therefore not all of the five domains: safe, effective, caring, responsive and well led were reviewed for each of the core services we inspected.

We inspected the paediatric area in the urgent and emergency care centre and visited the medical wards to look at the management of acute non-invasive ventilation (NIV) patients. Non-invasive ventilation (NIV) is the use of airway support provided through a face (nasal) mask or a similar device.

For this inspection we only inspected the safe domain. The inspection was based on specific key lines of enquiry relating to assessing and managing risk, incidents, medicines management, patient records, environment and equipment, training and competency and medical and nurse staffing.

We requested further information following the inspection to provide assurance that immediate risks to patients were being addressed. We made a formal request for assurance using our powers under Section 31 of the Health and Social Act 2008. Section 31 allows the Care Quality Commission to take urgent enforcement action if it has reasonable cause to believe that, unless it acts any person will or may be exposed to the risk of harm.

The trust provided a detailed response including improvement actions taken or planned for completion by November 2018. This showed that sufficient actions had been planned to address the immediate risks to patient safety within the service.

In the Urgent and Emergency Care service (paediatric area), we found that:

- There was insufficient escalation and management of the deteriorating child, and a lack of oversight and governance of the risks to children within the paediatric (children's) urgent and emergency care service.
- There were three serious incidents that highlighted a lack of clinical oversight, poor medicines management and delayed diagnosis and treatment of children in the urgent and emergency care services.
- There was no paediatric-specific training for staff or competency assessment in place for sepsis or diabetes / diabetic ketoacidosis(DKA). Staff did not routinely use Paediatric Early Warning Scores (PEWS) on all children attending the department.
- Patient records were not complete and contained errors and omissions. Daily resuscitation equipment checklist records were not always completed by staff.
- We asked the trust to provide further information following the inspection that immediate risks to patients attending the paediatric urgent and emergency department were being addressed.
- The trust provided a detailed response including improvement actions taken or planned for completion by October 2018. This showed that sufficient actions had been planned to address the immediate risks to patient safety within the service.
- A multi-disciplinary paediatric task and finish group was established following the inspection to oversee improvements and address the immediate risks to children.

Summary of findings

- The information detailed a number of actions that had been implemented including the completion of a risk assessment, additional recruitment, improvements to staff rotas with consultant and middle grade doctor cover, implementation of staff training and increased monitoring. Further improvement actions were planned for completion by October 2018.

In the Medical Care service (acute NIV patients), we found that:

- There was insufficient management, oversight and governance of the risks to acute non-invasive ventilation (NIV) patients admitted at the hospital.
- Inspiring Change, a report published by the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) in 2017 identified areas for improvement following a review of patients receiving acute non-invasive ventilation.
- The NIV services were not provided in line with British Thoracic Society (BTS) guidelines. Patients did not always receive care in specifically identified area(s) and nurse staffing levels were not always sufficient to meet the needs of these patients.
- In the patient records we reviewed we found that they contained errors and omissions and showed evidence of delayed escalation and delayed or missed observations.
- Patients did not always have a specialist consultant review within 14 hours of admission and patients did not have a daily consultant review thereafter.
- We asked the trust to provide further information following the inspection that immediate risks to non-invasive ventilation patients were being addressed.
- The trust provided a detailed response including improvement actions taken or planned for completion by November 2018. This showed that sufficient actions had been taken to address the immediate risks to patient receiving non-invasive ventilation at the hospital.
- The trust reported following the inspection that from August 2018 onwards all patients that commenced on NIV would receive ongoing care and treatment within the high dependency unit (HDU). This would allow NIV patients to receive care and treatment by appropriately trained and competent staff and achieve recommended staffing levels, in line with BTS guidelines.
- The NCEPOD recommendations and action plan were reviewed and updated and a further audit had commenced.
- Additional record audits and spot checks were taking place or planned to improve documentation compliance.
- The roles and responsibilities of the clinical lead for NIV were defined along with support functions. A multidisciplinary NIV task and finish group was also established following the inspection to oversee NIV patient safety.
- An additional middle grade registrar position had been added to rosters to support patient reviews at weekends.

Professor Ted Baker Chief Inspector of Hospitals

Summary of findings

Our judgements about each of the main services

Service	Rating	Why have we given this rating?
Urgent and emergency services		We did not rate the service because this was a focussed unannounced inspection looking at specific areas of concern. There was insufficient escalation and management of the deteriorating child, and a lack of oversight and governance of the risks to patients within the paediatric (children's) urgent and emergency care service. We asked the trust to provide further information following the inspection that immediate risks to patients attending the paediatric urgent and emergency department were being addressed. The trust provided a detailed response including improvement actions taken or planned for completion by October 2018. This showed that sufficient actions had been planned to address the immediate risks to children's safety within the service.
Medical care (including older people's care)		We did not rate the service because this was a focussed unannounced inspection looking at specific areas of concern. There was insufficient management, oversight and governance of the risks to acute non-invasive ventilation (NIV) patients admitted at the hospital. We asked the trust to provide further information following the inspection that immediate risks to non-invasive ventilation patients were being addressed. The trust provided a detailed response including improvement actions taken or planned for completion by November 2018. This showed that sufficient actions had been taken to address the immediate risks to patient receiving non-invasive ventilation at the hospital.

Rotherham General Hospital

Detailed findings

Services we looked at
Urgent and emergency services; Medical care (including older people's care).

Detailed findings

Contents

Background to Rotherham General Hospital

The Rotherham NHS Foundation Trust provides acute and community services to a population of 242,000 across Rotherham, South Yorkshire and its surrounding areas. Rotherham General Hospital is the trust's main hospital and provides a range of acute hospital based medical, surgical, paediatric and obstetric & gynaecological services.

We inspected Rotherham General Hospital on 17 July 2018 because we identified concerns in relation to the management of non-invasive ventilation (NIV) patients and the management of the deteriorating child in the urgent and emergency care centre at the hospital.

Our inspection team

Our inspection team was led by Sarah Dronsfield, Head of Hospital Inspections.

The team included two inspection managers, two inspectors, an enforcement inspector and a specialist clinical advisor (who was also a Clinical Fellow to the Chief Inspector of Hospitals).

How we carried out this inspection

We carried out a focussed unannounced inspection of The Rotherham NHS Foundation Trust. We visited Rotherham General Hospital on 17 July 2018.

We inspected the paediatric area in the urgent and emergency care centre and visited the medical wards to look at the management of acute non-invasive ventilation (NIV) patients. We only inspected the safe domain. The inspection was based on specific key lines of enquiry relating to assessing and managing risk, incidents, medicines management, patient records, environment and equipment, training and competency and medical and nurse staffing.

As part of the inspection, we visited the paediatric area and resuscitation bay (combined adults and children) in the urgent and emergency care centre (UECC). We also visited the high dependency unit located in the children's ward. We also visited the acute medical unit and Ward A1 (33 bedded cardiology / respiratory specialist ward).

The trust also manages Breathing Space; a nurse-led community unit which includes inpatient beds and both receives patients on NIV and initiates NIV on new patients. We did not inspect this service as part of this inspection.

We spoke with 20 staff across a range of disciplines within the paediatric urgent and emergency care area and those involved in the care and treatment of patients receiving

Detailed findings

NIV. We observed care and treatment and looked at the care records for 28 patients. We also reviewed performance information about the hospital. We did not speak with any patients during the inspection.

Facts and data about Rotherham General Hospital

Hospital activity for the period March 2017 to February 2018 was: -

- 54,603 inpatient admissions
- 298,808 outpatient attendances
- 88,029 Accident and emergency attendances

The trust has 434 beds (excluding the community units). A total of 3954 staff are employed by the trust (at end January 2018). These were:

- 321 whole time equivalent (WTE) Medical and Dental
- 982 (WTE) Nursing/ Midwifery / Health Visiting
- 2389 (WTE) Other staff

For the 2017/18 financial year, the trust reported a turnover of £248 million and a financial deficit of £22.3 million.

The urgent and emergency care centre (UECC) at the hospital has a separate paediatrics (children's) emergency department area. There were 20,563 attendances of children aged 0 – 17 years of age between April 17 and March 18.

Patients requiring non-invasive ventilation (NIV) outside of intensive care / high dependency units received treatment in the emergency department (ED) resuscitation area, the acute medical unit and Ward A1 (cardiology / respiratory specialist ward). There were 184 patients on non-invasive ventilation patients admitted to Rotherham General Hospital between February and June 2018. This also included patients that were treated for obstructive sleep apnoea (condition where the walls of the throat relax and narrow during sleep) and continuous positive airway pressure (CPAP) device.

Urgent and emergency services

Safe

Overall

Information about the service

The urgent and emergency services were provided from Rotherham General Hospital. The urgent and emergency care centre (UECC) at the hospital had a separate paediatrics (children's) emergency department area. The children's service was open 24 hours a day, seven days a week and provides urgent and emergency care and treatment for children across Rotherham and the surrounding areas.

Paediatric patients attended the main reception and were triaged and taken through to the main paediatric waiting room. There were five paediatric consultation and assessment rooms. There were six beds in the resuscitation area and any of these could be used for paediatric resuscitation if needed.

Paediatric (children's) nurses were on duty between 7am and 5:30am each day. There were no paediatric nurses in the department between 5.30 and 7.00am. Children arriving between 5.30 and 7.00am were seen by an appropriately trained adult nurse.

There were 20,563 attendances of children aged 0 – 17 years of age between April 17 and March 18.

We carried out a focussed unannounced inspection and visited the urgent and emergency care paediatric area and resuscitation area at Rotherham General Hospital on 17 July 2018.

We did not inspect all aspects of urgent and emergency care as part of this inspection because we had specific concerns around the escalation and management of the deteriorating child within the paediatric urgent and emergency care service. We looked at whether the service was safe and the inspection was based on specific key lines of enquiry relating to assessing and managing risk, incidents, medicines management, patient records, environment and equipment, training and competency and medical and nurse staffing.

We observed care and treatment and looked at the care records for 20 patients. We also spoke with a range of staff at different grades including a junior doctor, two emergency department consultants, an adult nurse, two paediatric nurses, the training lead, the urgent and emergency care centre matron and the lead consultant. We also spoke with the deputy chief nurse, the chief nurse and the ward manager and deputy ward manager from the children's ward. We reviewed performance information about the trust. We did not speak with any patients during the inspection.

Urgent and emergency services

Summary of findings

We did not rate the service because this was a focussed unannounced inspection looking at specific areas of concern. We found that:

- There was insufficient escalation and management of the deteriorating child, and a lack of oversight and governance of the risks to child patients within the paediatric (children's) urgent and emergency care service.
- There were three serious incidents reported between January 2018 and July 2018 which highlighted poor care and delayed diagnosis and treatment of children in the urgent and emergency care services. We were not assured that there was sufficient clinical oversight for paediatric patients.
- Staff did not routinely use Paediatric Early Warning Scores (PEWS) on all children attending the department, but PEWS were undertaken if clinically appropriate on all unwell children.
- There was no paediatric-specific training for staff or competency assessment in place for sepsis or diabetes / diabetic ketoacidosis (DKA).
- Care records of paediatric urgent and emergency care patients were not fully complete and contained errors and omissions. A review of serious incidents and patient records identified two instances of poor medicines management.
- Daily resuscitation equipment checklist records were not always completed by staff.
- We asked the trust to provide further information following the inspection that immediate risks to patients attending the paediatric urgent and emergency department were being addressed.
- The trust provided a detailed response including improvement actions taken or planned for completion by October 2018. This showed that sufficient actions had been taken to address the immediate risks to patient safety within the paediatric urgent and emergency care service.
- A multi-disciplinary task and finish group was established following the inspection to review current arrangements for paediatric urgent care, to make recommendations and implement these to address the immediate risks to patients.
- Information from the trust following the inspection showed details of immediate actions and learning from incidents had taken place. There was a plan to complete overdue incident investigations by September 2018.
- Immediate actions were taken following the inspection and the medical rota identified each day the allocated doctor for the paediatric area within the urgent and emergency care centre (UECC) along with an improved system for contacting the doctor.
- There was a plan to implement a Paediatric Observation Priority Score (POPS) system to assess all children attending the department.
- Further competency-based training had been arranged for sepsis, diabetes and insulin administration and there was a plan for all relevant staff to complete this by September 2018.
- Additional records audits and spot checks had been put in place following the inspection to improve the quality and completeness of patient records.
- A 'nurse in charge' checklist to monitor resuscitation equipment checks was put in place following the inspection to monitor staff compliance.
- The number of suitably qualified nursing staff was not in line with the 2018 intercollegiate 'Facing the Future' standards. There was a plan to increase the number of paediatric nurses and to recruit a band 7 lead nurse by the end of November 2018 to comply with the intercollegiate guidance.
- The majority of eligible staff had completed paediatric life support or European paediatric advanced life support training. Further training was arranged for staff that had not yet completed this.
- There were guidelines and clinical pathway documents in place for the management of sepsis and the management of patients with diabetic ketoacidosis (DKA). These were up to date and were based on national guidance.

Urgent and emergency services

Are urgent and emergency services safe?

Incidents

- We looked at incidents reported by the trust between January 2018 and July 2018 in relation to insulin administration, management of sepsis in children and managing deteriorating child patients in the emergency department.
- There were three serious incidents reported by the trust during this period.
- There was an incident in March 2018 of a child attending the department who had been given the incorrect dose of medication and deterioration in their condition had not been escalated appropriately. They were later transferred to a specialist children's hospital.
- We saw evidence to show some immediate actions had been taken and learning shared following this incident. These included an amended guidance document on the management of diabetes ketoacidosis, additional training for medical staff and a staff debrief and lessons learned session following the incident. The trust also planned to introduce enhanced infusion pump capability through implementation of the guard rail system and management of insulin e-learning for all paediatric nursing staff within the urgent and emergency care centre (UECC) by the end of September 2018.
- The second incident occurred in April 2018 and the root cause was identified as a delay in recognition of a sick child with sepsis due to lack of on-going monitoring or observation. The patient was transferred to another hospital after receiving treatment at this hospital. Immediate actions taken following the incident included a paediatric (child) task and finish group to review triage criteria for paediatric patients.
- The third incident occurred in July 2018 and related to a significant delay in a child patient being seen by a doctor of 4 hours 30 minutes. The trust reported in August 2018 that the patient did not come to harm and was discharged the next day after receiving treatment at the hospital. The investigation for this incident was on-going at the time of our inspection.
- Staff reported incidents through the use of an electronic incident reporting system. Any incidents deemed to have caused moderate harm or above were further discussed at the weekly serious incident panel to ascertain the level of investigation and reporting required. Incident responses were monitored through local divisional governance meetings and escalated through trust-wide groups such as the Medication Safety Group, Patient Safety Group and Clinical Governance Committee.
- The three serious incidents reported by the trust highlighted poor care and delayed diagnosis and treatment. These had not yet been fully investigated at the time of the inspection and we were not assured that systems were in place to minimise reoccurrence of similar serious incidents.
- The trust reported that the electronic incident reporting system automatically sent a feedback message to the reporter with identified learning and actions taken when an incident was closed. Learning from incidents was shared also through the divisional governance meetings, patient safety alerts, daily safety huddles and a trust-wide newsletter (circulated every three months).
- The trust reported that there were three overdue serious incident investigations between January 2018 and July 2018 that related to the management of child patients in the emergency department. There was a plan in place to complete the overdue investigations by the end of September 2018.

Environment and equipment

- The urgent and emergency care centre (UECC) at the hospital had a separate paediatric emergency department area. Paediatric patients were booked in at the main reception and were directed to wait in the paediatric waiting area to be triaged in the paediatric area of the department. There were five paediatric consultation and assessment rooms.
- Paediatric patients arriving by ambulance went straight through either to the resuscitation area or nurse assessment area. There were six beds in the resuscitation area (combined adults and children). Any of these could be used for paediatric resuscitation if needed. The paediatric emergency resuscitation equipment trolleys were located next to one bed but could be moved as required.
- We found the general environment was visibly clean, well maintained and free from clutter. However, we found damaged suction equipment in one paediatric

consultation room. Staff were not clear if this had been reported as a fault with the trust's maintenance team. We raised this with the trust during the inspection and were given assurance that this had been resolved.
- All the equipment we saw had labels to show they had been serviced and electrical safety tested. The paediatric consultation rooms were not particularly child friendly but had a few child friendly stickers on walls.
- We looked at the paediatric emergency equipment in the resuscitation area and the UECC paediatric area. There was a sealed neonate emergency box located in the emergency area of the UECC.
- We found that daily equipment checklist logs for May to July 2018 were not fully complete with omissions and gaps in the checklists for some dates. For example, there were two dates in July 2018 and 11 dates in June 2018 with no entries made on the checklists to confirm equipment checks had been carried out on the paediatric area trolley. The incomplete checks meant there was a potential risk to patients that the correct equipment may be unavailable in the event of a medical emergency.
- The trust reported that following the inspection, the UECC Matron had introduced a 'nurse in charge checklist' that included checking that essential elements were completed each day, including resuscitation equipment checks.

Medicines

- We identified an error in one patient's notes during the inspection where the same practitioner had signed in both boxes on the drug prescription chart following the administration of intravenous medicine. The trust policy was that this should have been checked and countersigned by a second registered practitioner.
- We raised this with staff during the inspection. The trust reported that the staff in the department had been made aware of the policy. A weekly audit of a sample of paediatric patient notes was also put in place following the inspection to check staff adherence to the policy.
- We spoke with the UECC matron and training lead about the incident in March 2018 where a child patient was prescribed an incorrect dose of medicine in error. They told us there was no specific competency based training for medicines administration within the emergency department. Nursing staff were trained and assessed as part of their pre-registration training and then through their preceptorship and individuals were monitored as part of the routine supervision and appraisal process.
- The trust reported that a paediatric drug administration workbook and competency assessment was developed for paediatric nurses in the children's department and this was due for completion by the end of September 2018. This was not initially planned to include staff in the emergency department but the children's and UECC matrons were developing a plan to allow training processes to be utilised for paediatric nurses in both areas.
- The UECC Matron and Pharmacist also planned to review what other tools might be appropriate to assess competency of paediatric prescribing and administration and develop an action plan to implement these if required.

Records

- We reviewed 20 sets of care records of paediatric urgent and emergency care patients during our inspection. We found these were not fully complete and contained errors and omissions, including:
  - The 'time seen by' was not recorded in seven records (35%).
  - Incomplete observations were recorded in four records (20%).
  - Allergy status was not documented in three records (15%).
  - The triage time was not recorded in two records (10%).
  - One record showed error where the medicine administered was double signed by the same member of staff.
- This was raised with staff during the inspection and these records were reviewed again by staff to check for completeness. The trust reported following the inspection that a daily spot check of patient records by the nurse in charge was taking place to identify and address documentation issues. The trust also planned to launch an audit process for matrons to review patient notes and formally document the audit findings.
- The trust-wide 2017/18 annual medical notes audit had been recently completed and the findings were being analysed to identify areas for improvement. There were also two nursing notes audits scheduled to take place within the emergency department during 2018/19.

Urgent and emergency services

Mandatory training

- Staff we spoke with told us they had received paediatric life support training. Information provided by the trust showed most staff had completed paediatric life support training: -
  - Seven out of 10 (70%) of paediatric nurses in UECC had completed paediatric life support (PLS) training. One member of staff was on maternity leave and training dates were arranged for the other staff that had not completed this training.
  - Four out of 10 (40%) of paediatric nurses had completed European Paediatric Life Support (EPLS).
  - 35 out of 53 (66%) of eligible adult nurses in UECC had completed PLS training and 15 out of 30 (50%) of eligible adult nurses had completed EPLS training.
  - Nine out of 22 (40%) of support staff in UECC had completed PLS training. A further nine had planned dates for this training.
  - 100% of consultants, middle grade and locum doctors in UECC had completed EPLS training.
- The trust reported there had been no instances in the last six months where no staff were on shift without PLS or EPLS training.
- The European paediatriclife support (EPLS) training is recognised as being equivalent to advanced paediatric life support (APLS) training by the Resuscitation Council (UK).
- There was no paediatric-specific training or competency assessment in place for sepsis or diabetes / DKA. There was a rolling programme of training for staff in the emergency department on common emergencies and staff received training as part of their clinical qualifications and on-going professional development. Trust policies and guidelines were in place for staff to follow.
- All Consultants and middle grade doctors working within the UECC were required to complete all Royal College of Emergency Medicine (RCEM) competencies as part of their deanery training. The trust reported that 100% of consultants had completed the RCEM competencies. Junior doctors also completed mandatory deanery training and competencies.
- Junior doctors and nursing staff also received occasional training through a programme of study days. There were eight training days arranged until the end of December 2018 and these included specific topics such as sepsis or diabetes / DKA for children.
- Junior doctors were also able to attend the simulation-based 'cross-specialty multidisciplinary paediatric emergency training' (CRUMPET). This course ran five times per year with approximately 10 to 12 candidates each time.The training co-ordinator told us they encouraged nurses and healthcare assistants to attend this training and a band six nurse had recently completed the training.
- Following the inspection, the trust launched e-learning courses for 'children with sepsis' and 'children with diabetes and DKA' and all UECC paediatric nursing staff were required to complete the training and on-line competency assessments by September 2018.
- A theoretical 'assessing, identifying and managing the sick child' training package for UECC nursing staff had also been developed. The trust reported that 60% of paediatric nurses have completed this training. Staff that had not completed the training (such as new starters) had been prioritised and the planned target was to achieve 100% completion by the end of August 2018.

Assessing and responding to patient risk

- There were guidelines and clinical pathway documents in place for the management of sepsis and the management of patients with diabetic ketoacidosis (DKA). These were up to date and based on national guidance, such as from the National Institute for Health and Care Excellence (NICE), Royal College of Emergency Medicine and the British Society for Paediatric Endocrinology and Diabetes (BSPED).
- Staff could access current guidelines through an electronic system. We found a paper-based file containing guidelines in the emergency resuscitation area that included out-of-date guidance. We raised this staff during the inspection and these were removed from the area immediately after the inspection.
- Paediatric patients were triaged using the Manchester Triage System by trained paediatric triage nurses. Where paediatric triage nurses were unavailable adult triage nurses with European paediatric life support training were used.
- There was a policy in place which outlined the process for transferring acutely unwell child patients to the dedicated high dependency unit (HDU) located in the children's ward. Staff in the urgent and emergency care centre (UECC) paediatric area were aware of this policy and how to access the EMBRACE service for transfer of

acutely unwell child patients to another hospital. A UECC paediatric nurse told us if the children's HDU was occupied, they would assess the needs of the patient and provide care and treatment within the emergency department until they could be transferred to a suitable in-patient bed within the hospital or to another hospital.

- The dedicated HDU area within the children's ward consisted of one room with capacity for one bed and one cot. This was not occupied at the time of our inspection. The ward manager (children's ward) told us they mostly accommodated one patient at a time in the HDU. If a second child patient required admission to the HDU, staff placed a privacy screen between the patients to allow for privacy. The ward manager told us they maintained a 1:1 or 1:2 paediatric nurse to patient ratio in the HDU area, depending on the acuity of patient.
- The ward manager and deputy ward manager (children's ward) identified if there was a shortfall in nurse staffing on the ward, the children's assessment unit (10 beds) could be closed and staff relocated to the children's ward, within which assessments could still be conducted.
- The 'guideline for paediatric sepsis' policy (July 2018) provided instructions for staff in identifying and managing patients with sepsis and staff we spoke with understood how to manage patients with sepsis. The trust's management of paediatric DKA patient's guidelines had been updated following the incident in March 2018 and the updates had been discussed with staff.
- Paediatric UECC staff did not routinely use Paediatric Early Warning Scores (PEWS) on all child patients attending the department but PEWS were undertaken if clinically appropriate on all unwell children. The trust reported that clinical observations (temperature, pulse, saturations) were recorded on all children as part of the triage process and repeated as required according to the clinical condition or PEWS score. The use of PEWS in UECC was planned for inclusion in the trust-wide PEWS audit by September 2018.
- Following the inspection, the trust carried out an initial review of the model of triage/assessment, including a visit to a neighbouring Children's NHS Trust to review the use of the Paediatric Observation Priority Score (POPS). There was a plan to implement this system and planned actions to develop an implementation plan and training needs analysis are due for completion by the end of September 2018.
- A risk assessment was carried out in August 2018 to manage the risks around failing to identify and treat deteriorating children in the UECC. The initial risk score was 20 (extreme).
- The trust reported a number of actions had been implemented including additional recruitment, improvements to staff rotas, implementation of staff training and increased monitoring. A multi-disciplinary task and finish group was established following the inspection to review current arrangements for paediatric urgent care, to make recommendations and implement these to address the immediate risks to patients. This was chaired by the deputy chief nurse and 10 group meetings were planned between August and December 2018.
- The risk score was revised to 12 (moderate risk) following the actions taken after the inspection. The trust planned to achieve a risk score of eight (moderate) by October 2018 through the implementation of improvement actions including staff recruitment, commencement of record keeping audits and the Paediatric Observation Priority Scores with associated audits to demonstrate compliance.

Nursing staffing

- The urgent and emergency care centre (UECC) matron had overall responsibility for nurses and healthcare assistants in the department. There was a band 7 nurse identified as the nurse in charge each shift across the whole department providing 24 hour cover seven days a week. There was also a band 6 paediatric lead nurse (team leader) in post who oversaw the paediatric area.
- The UECC paediatric area had 7.95 whole time equivalent (wte) registered paediatric nurses. This allowed for at least one registered paediatric nurse to be on duty on each shift. The number of paediatric nurses was increased during busy periods. For example, there were two nurses between 10am and 5pm, three nurses between 5pm and 7.30pm and two nurses between 7.30pm and 10.30pm.Paediatric nurses were on duty between 7am and 5:30am each day. There were no paediatric nurses in the department between 5.30am and 7.00am. Children arriving then would be seen by an adult nurse with advanced / paediatric life support training. Some adult nurses also had additional training so that they could triage children if needed. Additional paediatric nursing support was also available from the children's ward if required.

- The UECC matron told us they were over establishment for paediatric nurses and there were no vacancies. The matron told us cover for sickness was covered within the team and they rarely used bank or agency staff. We spoke with a UECC paediatric nurse who also confirmed the staffing levels were appropriately maintained and support from adults nurses and the children's ward was available when required.
- There was also a healthcare assistant on duty 24 hours per day, seven days per week dedicated to the paediatric area to support the nursing staff.
- The paediatric nurse staffing levels at the time of the inspection were not in line with the intercollegiate standards; Facing the Future: Standards for children in emergency care settings (June 2018) which stated that every emergency department treating children must be staffed with two registered children's nurse.
- The UECC paediatric nurse staffing was reviewed in July 2018 following the inspection and the new establishment increase to 10.66 wte registered paediatric nurses was approved at the end of July 2018. This would provide at least two registered paediatric nurses on duty 24 hours per day, seven days per week. An additional band 7 lead nurse for developing policy, practice and training within the paediatric area was also agreed as part of the staffing review.
- Recruitment for the band 7 nurse and additional paediatric nurses had commenced and the trust planned for these posts to be filled by November 2018.

Medical staffing

- The UECC lead consultant had overall responsibility for medical staff in the department. There was also a designated consultant lead for paediatrics.
- The trust employed eight substantive emergency medicine consultants, of which three had sub-specialty training in paediatric emergency medicine. This included the UECC lead consultant and the designated paediatric consultant lead. The third consultant was also interim director of clinical services for the Division of Integrated Medicine and was available to support the department infrequently.
- There was an identified clinician in charge of the whole department each day providing on site consultant cover from 8am to 10.30pm seven days a week and on call from 10.30pm-8am. The clinician in charge was a middle grade doctor between 10.15pm and 8am, seven days a week.
- The trust reported that the UECC operated on an integrated workforce model whereby all patients (including children) were seen by the most appropriate clinician. This may be a doctor, general practitioner (GP) or advanced nurse practitioner (ANP). This enabled patients to be seen by the most appropriate clinician and allowed the workforce to be flexed across the UECC as appropriate.
- The UECC lead consultant told us the weekday consultant on-call rota had eight slots so they currently used one regular locum consultant to make up the rota. The UECC lead consultant was expecting another consultant to come into post and hoped to retain some locum capacity for leave cover. There was a second on call consultant to support the first if a second opinion / extra clarification was needed.
- At weekends there was an on-call consultant overnight and consultant presence during the day. The weekend rota was mostly filled using locum consultants. The UECC lead consultant told us they used regular locum staff that were given access to the trust intranet and a paper-based resource file was in place for locums to familiarise themselves with the department.
- There were two middle grade doctors on between 7am and 4pm followed by one middle grade doctor during the night. The UECC lead consultant told us the middle grade doctor usually supported the paediatric area from 2pm onwards as it was busy at this time. The GP's based in the UECC also saw paediatric minor injury patients and were available until 10pm. There had been one middle grade doctor on long term sickness. The department had recruited seven doctors from India that are due to commence employment in October 2018.
- The UECC lead consultant told us there was a pool of 12 junior doctors; however, this had been reduced to nine junior doctors and one middle grade doctor for the last six months. The department was expecting junior clinical fellows to commence employment in August 2018.
- We were not assured that there was sufficient clinical oversight for paediatric patients in the emergency department because a paediatric-trained doctor was not present on each shift.
- We raised our concerns about clinical oversight in the UECC paediatric areas following the inspection. The trust reported that from August 2018: -

- A designated medical paediatric lead doctor from the existing workforce had been identified to work in the UECC paediatric area, on every shift, 24 hours a day; seven days a week. This nominated paediatric doctor was specifically identified on all rotas to ensure there was clarity about responsibility.
- The designated doctor was supplied with a DECT (digital enhanced cordless telecommunications) phone so can be contacted directly for any issues or escalation.
- An additional shift has been added to the middle grade doctor rota from 2pm and 12am to provide additional resource at peak attendance times. The trust planned to fill the additional shift using locum doctors.

- Information from the trust showed Shift fill rate from July 18 was consultants (100%) and middle grade (87%).
- The trust reported that a poster had also been developed for display in the department to show the names of the daily paediatric medical and nursing leads and the UECC paediatric nursing staff were provided with contact details for the designated medical paediatric lead doctor.

Medical care (including older people's care)

Safe

Overall

Information about the service

The medical care services at Rotherham General Hospital included: general medicine, haematology, oncology, gastroenterology, respiratory medicine, cardiology, endocrinology, dermatology and stroke, geriatric medicine and rehabilitation. There were approximately 260 medical inpatient beds.

There were 23,983 inpatient admissions to the medical care services for the period March 2017 to February 2018. The average length of patient stay was 5.6 days during this period.

Patients requiring non-invasive ventilation (NIV) outside of intensive care / high dependency units received treatment in the emergency department (ED) resuscitation area, the acute medical unit and Ward A1 (cardiology / respiratory specialist ward). There were 184 patients on non-invasive ventilation patients admitted to Rotherham General Hospital between February and June 2018. This also included patients that were treated for obstructive sleep apnoea (condition where the walls of the throat relax and narrow during sleep) and continuous positive airway pressure (CPAP) device.

We undertook an unannounced inspection at The Rotherham NHS Hospitals Trust on 17 July 2018. The purpose of this was to follow up on concerns we had in relation to the care and treatment of patients having non-invasive ventilation (NIV) therapy.

We did not inspect all aspects of medical care as part of this inspection because we had specific concerns around the management of NIV patients. We looked at whether the service was safe based on specific key lines of enquiry relating to assessing and managing risk, incidents, patient records, environment and equipment, training and competency and medical and nurse staffing.

We spoke with nine members of staff involved in the care and treatment of patients receiving NIV. This included the head of nursing for the division, the matron for ward A1, nursing staff and allied health professionals. We also reviewed eight sets of care records for patients who had undergone NIV treatment, the incidents related to NIV treatment reported by staff and minutes of meetings held in relation to the NIV service.

We asked staff about the progress made following the NCEPOD 2017 audit and listened to staffs views on the improvements made and the ongoing concerns about the care and treatment provided for NIV patients at the trust.

Medical care (including older people's care)

Summary of findings

We did not rate the service because this was a focussed unannounced inspection looking at specific areas of concern. We found that:

- There was insufficient management, oversight and governance of the risks to acute non-invasive ventilation (NIV) patients admitted at the hospital.
- Inspiring Change, a report published by the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) in 2017 identified areas for improvement following a review of patients receiving acute non-invasive ventilation.
- NIV Patients did not always receive care and treatment in specifically identified area(s), in line with British Thoracic Society (BTS) guidelines.
- We were not assured about the trust's ability to maintain safe staffing levels in line with BTS guidance for NIV patients in ward A1 and the acute medical unit. There was a risk to patients due to staffing because patient records showed evidence of delayed escalation and delayed or missed observations.
- Patient records were not complete and contained errors, omissions and examples of missing or delayed care and treatment.
- Patients did not always have a specialist consultant review within 14 hours of admission and patients did not have a daily consultant review thereafter in line with the BTS guidance.
- The role and responsibilities of the trust lead for NIV management were not clearly defined.
- Only 12% of eligible nursing staff on ward A1 had completed NIV competency training.
- There were two serious incidents reported between January 2018 and July 2018 in relation to adult patients with respiratory problems and non-invasive ventilation.
- We asked the trust to provide further assurance following the inspection that immediate risks to non-invasive ventilation patients were being addressed.
- The trust provided a detailed response including improvement actions taken or planned for completion by November 2018. This showed that sufficient actions had been taken to address the immediate risks to patient receiving non-invasive ventilation at the hospital.
- The trust reported following the inspection that from August 2018 onwards all patients that commenced on NIV received care and treatment within the high dependency unit (HDU). This would allow NIV patients to receive care and treatment by appropriately trained and competent staff and achieve recommended staffing levels, in line with BTS guidelines.
- There was also a plan to implement a permanent dedicated respiratory unit for NIV patients.
- The NCEPOD recommendations and action plan were reviewed and updated and staff had commenced a re-audit of some of the actions from this plan. There were two further clinical audits relating to NIV scheduled to take place during 2018/19.
- Additional documentation audits and real-time spot checks were taking place or planned by October 2018 to improve record keeping and documentation compliance.
- The roles and responsibilities of the clinical lead for NIV were defined along with support functions. A multidisciplinary NIV task and finish group chaired by the chief operating officer was also established following the inspection to oversee NIV patient safety.
- An additional middle grade registrar position had been added to rosters during daytime hours on Saturday and Sunday to support patient reviews at weekends.
- Some incident investigations were on-going and had not yet been completed. There was a plan to complete overdue incident investigations by September 2018.

Medical care (including older people's care)

Are medical care services safe?

Incidents

- We looked at incidents reported by the trust between January 2018 and July 2018 in relation to adult patients with respiratory problems. We found incidents had been reported where inappropriate changes to non-invasive ventilation (NIV) treatment were made, patients had suffered pressure damage from the NIV mask and there was insufficient nurse to patient staffing ratios to safely care for patients.
- We identified two serious incidents reported by the trust during this period which highlighted poor care and delayed diagnosis and treatment.
- The first incident occurred in March 2018 and related to concerns about the patient management and appropriateness of non-invasive ventilation on a deteriorating patient. The second incident occurred in April 2018. This was raised following the death of a non-invasive ventilation patient. The incident findings highlighted gaps in early warning score and escalation processes.
- The deputy chief nurse informed us that the root cause investigations for these incidents were not yet concluded. There was a plan in place to complete all overdue investigations by the end of September 2018.

Environment and equipment

- The British Thoracic Society (BTS) / Intensive Care Society (ICS) Guideline for the ventilatory management of acute hypercapnic respiratory failure (March 2016) recommends patients should receive care and treatment in specifically identified area(s) for non-invasive ventilation (NIV) treatment at level two equivalence.
- The 'placement of 'Bilevel Positive Airway Pressure' (BiPAP) standard operating procedure' stated that patients should be cohorted to the emergency department (ED) resuscitation area, the acute medical unit and Ward A1 (cardiology / respiratory specialist ward). Patients requiring NIV outside of these areas should have a multidisciplinary team (MDT) decision documented to identify and minimize patient risks.
- Information from the trust showed there were 184 patients on non-invasive ventilation admitted to the trust between February and June 2018. This also included patients that were treated for obstructive sleep apnoea (condition where the walls of the throat relax and narrow during sleep) and continuous positive airway pressure (CPAP) device. Only 49% (91/184) of these patients were treated in emergency department resuscitation, acute medical unit, ward A1 and the intensive care / high dependency units.
- The trust reported that the information on number of NIV patients may be skewed because: -
  - Clinical coding grouped these patients with other conditions (such as obstructive sleep apnoea syndrome) and this was identified as a national issue.
  - Trust information recorded the ward at the point of discharge, and this may not be the ward where NIV treatment actually took place.
  - The trust managed Breathing Space; a nurse-led community unit which included inpatient beds and both received patients on NIV and initiated NIV on new patients.
- The trust reported following the inspection that the electronic patient record systems had been updated to enable live status information on the location of NIV patients and capture where NIV patients are being cared for.
- The trust planned for all patients that were commenced on NIV to be cared for within the high dependency unit (HDU) from August 2018 onwards, in order to meet the BTS guidelines.

Records

- We were not assured that there was an effective process in place for implementing national guidelines and monitoring the quality of care and the accuracy and completeness of patient records.
- We reviewed eight sets of care records of non-invasive ventilation patients during our inspection: -
  - Seven of the eight records (88%) did not show that patient observations had been recorded hourly. However we saw in four (50%) of the records there was evidence of escalation when patients reached a trigger on their early warning scores.
  - The patients had not been seen by a consultant within 14 hours in four sets (50%) and the trust did not provide a seven day consultant service therefore patients could not be reviewed each day.
  - Target oxygen saturation was outside of the target range (88%-92%) in seven sets of records (88%).

  - We could not find evidence of patients having pressure area care performed in six (75%) sets of records.
  - Detail of how the patient's care will be managed was documented by a medic in five sets of records (63%). We also saw that in two cases, commencing non-invasive ventilation was not in line with the trust policy and best practice guidelines, in that the requests to initiate treatment were not from a senior member of the medical team.
- We found that the therapy staff documentation was exemplary in all eight cases; this was completed in line with policy and in accordance with best practice.
- The trust carried out an annual documentation audit that involved a review of 20 randomly selected patients' medical notes. The acute medical unit (AMU) records audit 2017/18 (carried out in October 2017) showed compliance ranged from 80% to 100% for the eight indicators for medical entries. The audit also showed less than 10% of deletions included time, date or had been countersigned.
- The medicine records audit 2017/18 was carried out in October 2017 and included records from ward A1. The audit showed compliance for medical entries ranged between 81% and 100% for five of the seven indicators for medical entries. The remaining two indicators highlighted poor compliance; entries with time recorded (76%) and entries with location (ward) records (41%). The audit also showed 50% of deletions included the time, date or had been countersigned.
- The medical note audits included actions such as sharing the findings with staff to raise awareness and improve the quality of records.
- A monthly matrons' assurance review was also in place and included a review of the nursing records to review the assessments and care records of five patients. A trust-wide audit of nursing records was also planned to be completed by October 2018.

Mandatory training

- Staff we spoke with felt that the focus on staff development over recent years had been predominantly aimed at newly qualified staff and managers to complete leadership courses. The trust had recognised the need to invest in the 'middle' tier of staff and we were told this was the focus for the current educational budget.
- We looked at the competency documentation for ward based nurses and found this to be a detailed scope of professional practice competency assessment tool, which was based on British Thoracic Society (BTS) guidelines. All staff caring for patients receiving non-invasive ventilation (NIV) were required to complete the competency assessment tool.
- Information provided by the trust showed competency training rates for eligible staff were; physiotherapy staff (94%), AMU nursing staff (90%), urgent and emergency nursing staff (72%) and hospital at night team (100%). However, only 17% (2/12) of eligible nursing staff on ward A1 were competency trained. This had been identified as a risk by the trust and was evident on the risk register.
- Trust information showed that 94% of HDU nursing staff had attended a training session on respiratory support therapies and the remaining staff were scheduled to complete this training by September 2018. 84% of HDU nurses had completed the NIV competency assessment. The remaining staff that had not completed this were new starters or staff returning from maternity leave that were allowed a year to complete this.
- The trust reported that NIV training for medical staff was part of the core curriculum for emergency medicine, anaesthetic and medicine trainees. There were NIV 'Objective Structured Clinical Examinations' (OSCE's) in both Membership of the Royal College of Emergency Medicine (MRCEM) and Fellowship of the Royal College of Emergency Medicine (FRCEM). Simulation training was offered within the emergency department covering a number of clinical scenarios including COPD scenarios where NIV is discussed.
- We were told the hospital at night team reviewed all patients on NIV. The patients were flagged on the trusts electronic system which then alerted the team that there was a patient for them to review.

Assessing and responding to patient risk

- Our observations and discussions with staff in AMU and ward A1 confirmed that outside of the intensive care unit (ICU) and high dependency unit (HDU) areas, NIV treatment was initiated by specialist physiotherapists predominantly in the acute medical unit and ward A1 (as well as the emergency department (ED) resuscitation area).
- Staff we spoke with told us that patients commencing treatment in the ED resuscitation area would not be

moved from the resuscitation bay until they were deemed medically stable by a senior doctor. If a patient move was necessary a risk assessment would be conducted and the patient would be accompanied by a physiotherapist and other members of the medical team as necessary.

- Physiotherapists we spoke with told us they felt that delays in escalation were occurring due to staffing levels. The also had concerns about patient selection. They spoke about treatment being initiated for patients who were approaching end of life and described the distress that this could cause for patients and their families.
- Ward staff were unable to complete patients observations in a timely manner to determine warning scores and escalate appropriately. A member of staff told us about raising a concern about a respiratory patient who had not received their intravenous antibiotics on time. This nurse was caring for three patients on NIV, a patient with a sliding scale insulin regime and a patient who had suffered a heart attack during their shift.
- The patients on NIV should have hourly pressure area care, hourly observations and the possibility of hourly medications, in some cases, the member of staff who raised this concern acknowledged that it was not physically possible for the nurse caring for these patients to provide the level of care required to maintain the safety of these patients.
- The trust had a 24 hour, seven day on call physiotherapy service. We were told that all members of the on call team were trained and competent to care for patients needing NIV. The on call training included theoretical and practical training in medicine, surgery, HDU and ICU followed by a period of shadowing and completion of competency based assessments.
- There was a minimum of four specialist respiratory physiotherapists on duty Monday to Friday from 8:30am to 6pm, two on Saturday and Sunday and one on call out of hours. The therapy team had developed a detailed training package for all staff who participated in the on call service and also the hospital at night team.
- Some new initiatives were being taken forward, this included the recruitment of a respiratory specialist physiotherapist who would work the same shifts as the nursing staff and would support with NIV patients. Ward A1 also had a respiratory specialist nurse from another trust who was working bank shifts on the ward.
- Inspiring Change, a report published by the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) in 2017 identified areas for improvement following a review of the quality of care provided to patients receiving acute non-invasive ventilation.
- The purpose of NCEPOD is to assist in maintaining and improving standards of care for adults and children by reviewing the management of patients, by undertaking confidential surveys and research, by maintaining and improving the quality of patient care and by publishing and generally making available the results of such activities.
- Following the NCEPOD report we saw a review of the recommendations had taken place and areas of non-compliance were highlighted. We saw there was non-compliance or areas of concern in 15 of the 21 recommendations. This included:
  - The trust not having a recognised clinical lead for its NIV service.
  - The trust not meeting the BTS recommendations for nurse to patient staffing ratios of one registered nurse to two patients having NIV therapy.
  - NIV being provided in areas with insufficient equipment.
  - Poor quality documentation due to there being no treatment escalation plan, reference to appropriateness of NIV treatment or ceiling of care documented prior to commencing NIV for 49% of patients.
  - Poor quality documentation due to a failure to document target saturations, the device used for delivery and the oxygen concentration to be delivered.
  - Prescription and changes to NIV treatment being undertaken by staff without the appropriate level of competence and a failure to document changes made.
  - Patients not having a specialist consultant review within 14 hours of admission and patients not having a daily consultant review thereafter.
  - Patients not having hourly observations.
  - The trust policy did not include all nationally recommended guidelines and there was a lack of assurance for the trusts NIV service. We were not assured the trust board were sighted on the concerns.
- The NCEPOD audit found that the trust did:

  - Code continuous positive airways pressure (CPAP) and NIV appropriately as two distinct treatments.
  - Achieved commencement of NIV treatment within one hour of the arterial blood gas analysis identifying the need for the treatment.
  - Keep a log of all patients treated with acute NIV.
  - Audited acute NIV services annually however staff were unsure if this information was presented to the trust board.
- Senior staff told us they felt the outcome of the NCEPOD audit had created a mixed view amongst the professionals involved in the care of patients having NIV therapy. This included the need for a cohort bay, as the numbers of inpatients at any time varied. Clinical staff told us the lack of a cohort bay had been raised as a concern for more than ten years and they had been disappointed to learn this was not part of the operational plan for the current year.
- In addition to the NCEPOD audit, a clinical audit was undertaken within the trust by clinical staff regarding the application and provision of NIV across the acute wards and the emergency department. This audit took place between January and February 2017 and consisted of a sample of 69 patients. The audit highlighted that the mortality rate for the patient sample size was 54%, which was worse than the national average of 34%.
- Staff told us that the medical director had attributed the mortality outlier concern to one of the trusts community inpatient units (Breathing Space) where patients on non-acute NIV were cared for at the end of their life. Therefore staff within the service had completed the audit again during January and February 2018. During this time there were no patients on the community unit on NIV. The results still indicated that the trust was an outlier with a mortality rate of 44%. This had improved from 54% identified in 2017. However it was still worse than the national average of 34%.
- The trust reported following the inspection that this audit did not correlate with other mortality data received by the trust. The audit highlighted that the most common diagnosis in which NIV was used was chronic obstructive pulmonary disease (COPD). The trust's Summary Hospital-level Mortality Indicator SHMI) data (January to December 2017) highlighted that the trust had 20 fewer patient deaths than expected for COPD.
- The trust reported that the difference in the mortality data sources may be due to factors including a difference in the locations from which the data was collected from, the methodology (case mix adjustment) or the timeframe.
- There were two further clinical audits relating to NIV scheduled to take place during 2018/19. The trust reported that a meeting was held with 22 staff following the inspection to review NIV patients. Following this meeting the trust updated the NCEPOD recommendations and action plan were reviewed and updated. The physiotherapy team had also commenced real-time audit monitoring of some of the actions from this plan.
- We raised our concerns about the management of NIV patients with the trust during the inspection. The trust carried out an initial review of the management of non-invasive ventilation patients to address patient risks. A risk assessment was completed out in August 2018 to manage the risks around the lack of safe non-invasive ventilation services. The initial risk score was 20 (extreme).
- The trust reported a number of actions had been implemented to minimise patient risks. The trust planned for all patients that were commenced on NIV to be cared for within the high dependency unit (HDU) from August 2018 onwards. The trust allocated two HDU beds specifically for NIV patients and this could be increased depending on the number of patients admitted to the hospital. The risk to patients would be reduced because NIV patients would receive care and treatment by appropriately trained and competent staff and achieve a 1:2 nurse to patient ratio.
- A working draft standard operating procedure (SOP) for' placement of adults requiring Bipap' was in place to provide guidance for staff. This SOP was due to be ratified by 23 August 2018.
- A multi-disciplinary NIV task and finish group was established following the inspection to oversee NIV patient safety, to make recommendations and implement actions to address the immediate and to review long term NIV service provision. This was chaired by the chief operating officer (COO) and nine group meetings were planned between August and December 2018.

- There was a long-term proposal to establish a respiratory unit outside of HDU by 30 November 2018. The trust planned to set this up as a four-bedded bay with 2 additional beds for step-down patients.
- Additional actions taken by the trust following the inspection included improvements to staff rotas and clinical oversight. The risk score was revised to eight (high risk) following the actions taken after the inspection. The trust planned to achieve a risk score of four (moderate) by October 2018 through the implementation of the respiratory unit, commencement of record keeping audits and the implementation of improvement actions identified by the task and finish group.

Nursing staffing

- The British Thoracic Society (BTS) / Intensive Care Society (ICS) Guideline for the ventilatory management of acute hypercapnic respiratory failure (March 2016) recommend staffing levels above that of a general medical ward with one nurse for every two non-invasive ventilation cases (especially during the first 24 hours of treatment).
- Staff told us the planned staffing level of five registered nurses was rarely achieved on ward A1. This was corroborated by the matron who explained that recruitment and retention on the ward was a challenge. We were told the ward was usually staffed with three registered nurses, one substantive member of staff and two agency workers. Where possible consistency was maintained by having regular agency workers.
- The nurse staffing fill rates for ward A1 between January 2018 and June 2018 ranged between 63%% and 69% for days and between 97% and 100%% on nights.
- The nurse staffing fill rates for the acute medical unit (AMU) between January 2018 and June 2018 ranged between 75% and 78% for days and between 77% and 79% on nights.
- The trust reported that the service had not been trying to achieve the 1:2 ratios but considered the staffing needs of wards on a daily basis and allocated staffing based on clinical need and professional judgement.
- The trust reported following the inspection that it was recognised they were not able to provide 1:2 level nursing care for all patient's receiving NIV within the ward areas. Therefore from August 2018 onwards all patients that commenced on NIV were cared for within the HDU. This would allow NIV patients to receive care and treatment by appropriately trained and competent staff and achieve the 1:2 nurse to patient ratio, in line with BTS guidelines.

Medical staffing

- The BTS / ICS Guideline for the ventilatory management of acute hypercapnic respiratory failure (March 2016) recommend that there is a designated lead with a 'core' multidisciplinary group (physicians, nurses, physiotherapists) co-ordinating non-invasive ventilation service provision and linked with critical care services.
- We found there was an identified lead for NIV during the inspection; however their role and responsibilities were not clearly defined. Information from the trust following the inspection showed that there was an overall strategic senior clinical lead for NIV across the trust. An additional consultant had been identified as the operational clinical lead for NIV and the operational lead was also supported by the lead respiratory consultant. A multidisciplinary NIV task and finish group chaired by the chief operating officer was also established following the inspection to oversee NIV patient safety.
- The NCEPOD audit 2017 highlighted that the trust did not provide a seven day consultant service. There were four respiratory consultants responsible for reviewing all patients on NIV on a daily basis during weekdays. The trust reported following the inspection that an additional middle grade registrar position had been added to rosters during daytime hours on Saturday and Sunday to support patient reviews at weekends. These shifts were covered by agency staff until substantive appointments could be made.
- The trust reported that patients receiving NIV within the HDU would remain under the care of the respiratory / medical on call team and would be reviewed twice daily by physicians to expedite de-escalation decisions. A DECT (digital enhanced cordless telecommunications) telephone was also put in place from August 2018 so nursing staff could contact the clinician with responsibility for NIV 24 hours per day. Out of hours cover was provided by a medical registrar on call with the senior support of the medical consultant on call.
- Guidance had been issued to all relevant clinical staff confirming the criteria for which staff were able to commence non-invasive ventilation. The trust reported that the decision to initiate NIV was made at senior

registrar or consultant level in the emergency department, which was above the BTS guidelines that state NIV should be initiated by a Specialty Trainee (ST2) or above.

Outstanding practice and areas for improvement

Areas for improvement

Action the hospital MUST take to improve

There was insufficient management, oversight and governance of the risks to acute non-invasive ventilation (NIV) patients admitted at the hospital and child patients within the paediatric urgent and emergency care service.

We asked the trust to provide further information following the inspection that immediate risks to these patients were being addressed.

The trust provided a detailed response which showed that sufficient actions had been taken to address the immediate risks to patient receiving non-invasive ventilation and those attending the paediatric urgent and emergency department.