

Portsmouth Hospitals NHS Trust Queen Alexandra Hospital Quality Report

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Date of inspection visit: 19 July 2017 Date of publication: 01/12/2017

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

Outpatients and diagnostic imaging

Summary of findings

Letter from the Chief Inspector of Hospitals

The Care Quality Commission (CQC) carried out an unannounced inspection at Queen Alexandra Hospital on 19 July 2017. The purpose was to look at specific aspects of the care provided by the diagnostic imaging department.

Concerns were initially raised by a member of the public, and the trust was given the opportunity to respond to these. When satisfactory assurances were not received from the trust, the local inspection team decided to conduct an unannounced inspection.

In particular we looked at the reporting of chest x-rays, and the governance processes in place to ensure that any backlog in reporting was managed, escalated and resolved.

We did not inspect other diagnostic imaging services or any outpatient services at the hospital on this occasion. Because of this we have not provided ratings for this inspection.

Our key findings in the diagnostic imaging department were:

- An increasing problem with staffing capacity in radiology meant reporting of chest x-rays was not always undertaken by appropriately trained members of staff
- There have been three serious incidents causing significant harm to patients which was caused by the failure of reporting of chest x-rays by radiologists.
- At the time of inspection there had been no trust wide risk assessment or up to date audit of the potential harm caused by the failure to report chest and abdomen images
- There was insufficient audit undertaken to ensure that every examination undertaken had sufficient clinical review.
- During the junior doctor focus group, we were informed that staff that had been delegated responsibilities for reviewing chest and abdomen x-rays were not always appropriately trained and felt that they were not competent or confident to undertake such duties.
- Reporting on some plain film and cross sectional diagnostic imaging tests were not completed in a timely manner.
- Chest and abdomen x-rays from the emergency department did not always receive a formal report
- There was no effective governance framework to support the delivery of good quality care around reporting times.
- There was insufficient assurance that the risk was appropriately managed and mitigated to ensure that patients are protected from harm.
- During the inspection we were told the risk was "being tolerated".

However:

- We saw good evidence of learning from radiation incidents which had meant that the department had good framework around radiation protection.
- We saw some evidence that scope of practise had been and was continuing to be extended for radiographers.
- The department did reach the department's key performance indicator for turnaround times for reporting cancer waits.
- Local leadership was good. The radiology service manager had kept oversight of the risk and had attempted to influence change as best to their ability.

Summary of findings

• The clinical director for radiology was new in post, and was highly regarded. They had already made several efforts to improve the service's risk.

Based on the findings of this inspection CQC took urgent enforcement action and imposed conditions on the trust's registration, as a service provider. CQC believed patients would be exposed to the risk of harm if these conditions were not urgently imposed. These conditions are;

- 1. The Registered Provider must take evidenced based appropriate steps to resolve the backlog of radiology reporting using appropriately trained members of staff. This must include a clinical review, audit and prioritisation of the current backlog of unreported images, (including those taken before January 2017); assess impact of harm to patients, and apply Duty of Candour to any patient adversely affected.
- 2. The Registered Provider must ensure that they have robust processes to ensure any images taken are reported and risk assessed in line with Trust policy.
- 3. The Registered Provider must submit their evidenced based decision-making on how the backlog will be addressed to the Commission by the 21 August 2017.
- 4. From 6 September 2017, and on the Wednesday of each week after, the Registered Provider must report to the Care Quality Commission, NHS Improvementand the NHS England Local Area Team:
- The total number of images remaining in the backlog (including unreported images pre-January 2017) shown by year of image taken.
- The current trajectory date of when the backlog (including unreported images pre-January 2017) will be cleared.
- The proportion of patients waiting less than the trusts KPI for x-rays, CT and MRI.
- The average waiting time (in days and hours) for a reported plain film (excluding GP requests).
- The average waiting time (in days and hours) for chest and abdominal films (excluding GP requests).
- Number of plain film requests (excluding GP requests).
- Longest waiting time for a reported radiology plain film request.

Professor Edward Baker

Chief Inspector of Hospitals



Queen Alexandra Hospital Detailed findings

Services we looked at Outpatients and diagnostic imaging

Detailed findings

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Our inspection team

How we carried out this inspection

Our inspection team

Our inspection team was led by:

Inspection Manager: Caroline Bishop, Care Quality Commission.

The team included three additional CQC inspectors, two of which were clinical specialist IR(ME)R inspectors who provided radiology specific clinical knowledge.

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How we carried out this inspection

We undertook a focussed, short notice inspection of radiology services at Queen Alexandra Hospital on 19 July 2017.

The purpose was to look at specific aspects of the radiology service which had been highlighted as a patient safety risk by a member of the public. In particular we looked at the time that it took to report on plain film chest x-ray examinations, and the governance processes in place to ensure that any backlog in reporting was escalated and resolved. We also looked at staffing within the department.

We did not inspect the caring domain or other diagnostic imaging and outpatient services, because of the limited scope of the inspection. We spoke to a range of staff, which included, four radiologists, two superintendent radiographers, the radiology support manager, the picture archiving and communication systems (PACS) manager, clinical lead for the department who was a consultant radiologist, the general manager and a focus group of non-radiology junior medical staff.

We would like to thank all staff, members of the public and stakeholders for sharing their views and knowledge of the quality of care and treatment in the radiology departments at Queen Alexandra Hospital.

Safe	
Effective	
Responsive	
Well-led	
Overall	

Information about the service

Queen Alexander Hospital is located in Cosham, Portsmouth and is a 975 bedded District General Hospital providing a comprehensive range of acute and specialist services to a local population of approximately 610,000 people.

A full range of radiology procedures are undertaken including CT Scans, MRI, obstetric ultrasounds, general ultrasounds, nuclear medicine studies, plain film x-ray, mammography and breast screening, angiography, fluoroscopy and DEXA scans.

Summary of findings

We did not rate this service because this inspection was very focussed on specific areas of concern initially raised to us by the public. We did not gather sufficient evidence to rate the whole service.

- An increasing problem with staffing capacity in radiology meant reporting of chest x-rays was not always undertaken by appropriately trained members of staff
- There have been three serious incidents causing significant harm to patients which was caused by the failure of reporting of chest x-rays by radiologists.
- At the time of inspection there had been no trust wide risk assessment or up to date audit of the potential harm caused by the failure to report chest and abdomen images
- There was insufficient audit undertaken to ensure that every examination undertaken had sufficient clinical review.
- During the junior doctor focus group, we were informed that staff, that had been delegated responsibilities for reviewing chest and abdomen x-rays, were not always appropriately trained and felt that they were not competent or confident to undertake such duties.
- Reporting on some plain film and cross sectional diagnostic imaging tests were not completed in a timely manner.
- Chest and abdomen x-rays from the emergency department did not always receive a formal report

- There was no effective governance framework to support the delivery of good quality care around reporting times.
- There was insufficient assurance that the risk was appropriately managed and mitigated to ensure that patients are protected from harm.
- During the inspection we were told the risk was "being tolerated".

However:

- We saw good evidence of learning from radiation incidents which had meant that the department had good framework around radiation protection.
- We saw some evidence that scope of practise had been and was continuing to be extended for radiographers.
- The department did reach the department's key performance indicator for turnaround times for reporting cancer waits.
- Local leadership was good. The radiology service manager had kept oversight of the risk and had attempted to influence change as best to their ability.
- The clinical director for radiology was new in post, and was highly regarded. They had already made several efforts to improve the service's risk.

Are outpatient and diagnostic imaging services safe?

We did not rate this service because this inspection was very focussed on specific areas of concern initially raised to us by the public. We did not gather sufficient evidence to rate the whole service.

- An increasing problem with staffing capacity in radiology meant reporting of chest x-rays was not always undertaken by appropriately trained members of staff.
- There have been three serious incidents which caused significant harm to patients this was attributable to the failure of radiologists to report x-rays.
- At the time of inspection there had been no risk assessment or up to date audit of the potential harm caused by the failure to report chest and abdomen images.

However:

• We saw good evidence of learning from radiation incidents which had meant that the department had good framework around radiation protection.

Incidents

- We were told of three serious incidents caused by the failure to report chest x-rays. These involved two patients who had a recent chest x-ray as part of an emergency department attendance. Neither of these patients received a formal radiological report. The third incident was still under investigation.
- In the first case, the patient attended in 2014, and the junior doctor who was looking after the patient interpreted the x-ray and recorded in the patients' notes that no abnormality was detected. One year later the patient underwent a second chest x-ray requested by their GP. This was reported upon by a radiologist who reported pathology suspicious of lung cancer. The radiologist felt this abnormality was evident on the previous chest x-ray.
- The second case was very similar. A patient attended the hospital in late 2015. The notes showed no formal review by the referrer, so it is unclear whether the

referrer either failed to spot the pathology, or did not review the x-ray at all. Ten months later the patient was re-x-rayed and found to have advanced spread of lung cancer.

- There was a reliance on the referrer to interpret their patients' x-rays. The delay in diagnosis caused significant harm to both patients.
- The third investigation had not been completed at the time of our inspection. A provisional cause for the lengthy delay in the diagnosis of lung cancer had been identified as a delay in the review of a chest x-ray by the referring clinician or radiologist.
- There was assurance around radiation regulatory compliance within the department and following on from a number of incidents lessons had been learnt. The department and the trust continued to use errors as a foundation for audit and change.

Cleanliness, infection control and hygiene

• This was not inspected at this focused inspection

Environment and equipment

- We saw evidence of computer monitors available across the hospital site. These were above the minimum standard as per the Royal College of Radiologists required for imaging viewing and reporting.
- Staff we spoke with told us viewing a chest x-ray on the computer monitor was problematic. The resolution was not high enough to be able to diagnose small changes. They also told us the computers were not kept in a darkened room, which made it more difficult to read the chest x-ray. Radiologists told us there had been times when doctors had requested to read the x-ray in the radiologists reporting room because the image was clearer.

Medicines

This was not inspected at this focused inspection

Records

• Radiology reports were generated electronically and stored using the Radiology Information System (RIS) and Picture Archiving and Communication Systems (PACS). These systems could only be accessed by passwords which ensured the images could not be viewed by unauthorised personnel.

- Radiological images stored on PACS were accessible across the trust to relevant medical staff to review. The trust was also part of a local consortium which allowed for the sharing of images across a number of local NHS trusts. This enabled rapid access of all imaging taken across the trust to be reviewed in relevant clinical areas but at the time of inspection it was not apparent as to whether cross site reporting was being undertaken within the consortium.
- A plain film, or x-ray, is a two dimensional radiograph. During our inspection we saw that a number of plain film examinations were being 'auto- reported' this meant there was an expectation that the referring doctor requesting the x-raywould interpret the images and record a written clinical evaluation in the patients notes.

Safeguarding

• This was not inspected at this focused inspection

Mandatory training

• This was not inspected at this focused inspection

Assessing and responding to patient risk

- Data supplied by the trust prior to and during our inspection suggested that there was significant risk to patients around unreported chest and abdominal imaging. The risk to patients had not been assessed by the trust.
- During the inspection we were informed that in 2007, due to the escalating problem with the lack of capacity within radiology, reporting of plain film chest x-rays by radiologists was stopped for certain referral pathways. It was decided by the clinical director at the time, that chest x-rays requested and reviewed by respiratory physicians would not require a radiology report due to the expertise of such physicians in their field.
- Due to the increasing demand on radiology services and the shortage of radiologists, over the next eight years, more chest x-ray reports were delegated to the referrers such as inpatient and outpatient x-rays. By the time of inspection, the only chest x-rays that were being reported by radiologists were for GPs or non-medical referrers (such as nurses and physiotherapists) who

either did not have access to the images or had not received what the trust deemed as appropriate levels of training through medical school. All paediatric images were also reported upon.

- Data provided prior to the inspection showed the number of images which did not receive a formal radiological report between 1 April 2016 and 31 March 2017 included:
 - 26,345 chest x-rays
 - 2,167 abdomen x-rays
- The clinical evaluation of these images was delegated to the referring clinician.
- The decision was made to stop reporting plain film x-rays as it was believed that the radiologist resources was better spent on reporting cross-sectional images, such as CT and MRI of which no other physicians could accurately interpret, whereas it was presumed that chest x-rays could be interpreted by other doctors (including junior doctors) within the hospital.
- In April 2017, the decision was made to start outsourcing some cross sectional imaging to an external reporting company to increase capacity. Prior to this there was some insourcing of reports done by the in-house radiologists; however this was not a long term sustainable measure.
- Superintendent radiographers performed housekeeping in relation to the outstanding images that were unreported and any CT or MRI examination that was waiting over six weeks for a report was sent directly to a consultant and reported immediately.

Radiographer staffing

- Five radiographers were qualified to report on certain x-rays. This training allowed them to report on acute appendicular skeletal accident and emergency department x-rays, such as ankles and elbows.
- Two training posts had recently been agreed to train radiographers to report chest x-rays. The training for these was due to commence in September 2017.

Medical staffing

• The consultant radiologist workforce consisted of 29 WTE (one of which is on long term sickness) with an agreement for 32 WTE. The department also utilised two further radiologists who worked out of hours (evenings and weekends) to provide ad hoc reporting sessions on a long term basis. In recent months there had been approval for a further five WTE consultant radiologists.

- We had been told that the vacancies had regularly been advertised, however due to the national shortage of radiologists, it had been difficult to recruit sufficient number of qualified radiologist into these posts.
- After midnight, the department used an external reporting company to report all urgent CTs and MRIs. We were also told there was an on-call consultant radiologist in case of anything outside the scope of the reporting company.
- The department had utilised locums in the past, however at the time of the inspection, none were employed.
- The clinical director had undertaken work which reviewed the consultant radiologist's job plans. The aim of which is to look at reporting capacity and to see if additional capacity could be sought within the existing work force.

Major incident awareness and training

• This was not inspected at this focused inspection

Are outpatient and diagnostic imaging services effective?

We are currently not confident that we are collecting sufficient evidence to rate effectiveness for Outpatients & Diagnostic Imaging.

- There was insufficient audit undertaken to ensure that every examination undertaken had sufficient clinical review.
- During the junior doctor focus group, we were informed that staff that had been delegated responsibilities for reviewing chest and abdomen x-rays, were not always appropriately trained and felt that they were not competent or confident to undertake such duties.

However:

- We saw some evidence that scope of practise had been and was continuing to be extended for radiographers.
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Evidence-based care and treatment

- The Royal College of Radiologists published standards on the reporting of imaging by non-radiologist medically trained practitioners in 2016 as an update to the previous standards in 2011. It stated "Reporting is best carried out by radiologists or, where appropriate, by delegation to role-extended practitioners working in teams with radiologists. Other professional groups do not share this depth and breadth of experience, training and ongoing support in clinical imaging." The RCR considers that "healthcare organisations should provide appropriate resources to ensure timely reporting or reporting supervision of all imaging investigations by radiologists."
- During the inspection we found that these standards were not met at the trust relating to chest and abdomen imaging. We found that skeletal plain films for orthopaedic doctors were also not reported by radiologists however, the trust had delegated reporting of these images to orthopaedic doctors. This is normal and accepted practice across England due to the expertise of such doctors. However, due to the complexity involved in chest x-rays and the lack of specific training in these specialities we were not assured that the images were reported by appropriate role-extended practitioners.

Pain relief

• This was not inspected at this focused inspection.

Patient outcomes

- We reviewed evidence of yearly audits up to 2015, to check compliance against the IR(ME)R requirement that a clinical evaluation must be recorded for every medical exposure. These looked at a variety of non-radiology specialties and different plain film examinations. This was in line with the RCR recommendation; however there were no audits post 2015.
- There had been two audits where the secondary aim had been to look at the accuracy of referrer clinical evaluations against radiologist reports. In 2008 an audit had shown 75% of clinical evaluations were found to be adequate with 11% showing significant discrepancies due to the lack of or inadequate reports. An audit dated 2012 found 29% (nine out of 31 reports) had a significant discrepancy between a retrospective radiological report

and the clinical evaluation of the chest x-ray made by the referring team in the patients notes. Examples found showed three chest x-rays that had been reported by the referrers as normal when there was pathologies on the films and three further x—rays where not all pathologies had been reported upon.

- Neither of these audits had been repeated since and there was no evidence that the repatriation of chest X-ray reporting back to radiology was considered. We also found no evidence of harm reviews of the significant discrepancies found; therefore we are unsure of whether the patients received appropriate treatment.
- The radiology department actively participated in national and local benchmarking initiatives and submit data regularly to the annual RCR reporting snapshot survey and NHS benchmarking. They also have good relationships with other trusts within their RIS/PACS consortium.

Competent staff

- The trust did not appear to fully utilise the reporting skills of radiographers within the department to reduce reporting delays.
- We saw evidence of limited amounts of training for non-radiology speciality junior doctors. We were not satisfied that the training was comprehensive or accessible enough to doctors within the trust to allow for all chest x-ray reporting to be delegated away from radiologists.
- Training sessions for non-radiology staff included:
- Basic final year medical students
- Teaching session to the ED registrars every 3-4 months
- Respiratory registrars and junior doctors in weekly respiratory meetings
- Weekly ITU meetings
- Other sessions were ad hoc, for example a teaching session for all doctors was last undertaken three months prior to the inspection. There had also been a one-off talk with ED consultants covering hard-to-spot cancers on chest x-rays.

- The radiology department was intending to start providing chest x-ray teaching sessions from Sept 2017 and a scheduled talk to the Speech/Language Therapists was imminent.
- We met three junior doctors who told us they did not have specific training to read chest x-rays and were not fully clear of their responsibilities in evaluating plain film images. They raised concerns around their ability to pick up malignant or chronic changes on chest x-rays, and only felt comfortable with evaluating what they had requested the chest x-ray for or for looking at infective changes. One more senior doctor told us they were aware of the risks and stated they were not confident to report on chest x-rays.
- Two of the reporting radiographers had received training in reporting other non-acute appendicular pathologies; however there was not the appropriate support from radiologists to extend their role to include non-acute appendicular plain films. This training (with the appropriate onwards support) would have allowed these radiographers to report GP and other non-accident and emergency appendicular skeletal x-rays. At the time of the inspection, all x-rays that had been requested by GPs were reported by radiologists.
- In 2012, two radiographers had undergone training in reporting CT Head scans however due to a mixture of shop floor demand and radiologist training, theses radiographers were not able to continue with the reporting.

Multidisciplinary working

 Radiologists attended multidisciplinary (MDT) meetings. These meetings were cancer review meetings where all clinicians, nurse specialists and radiologists met and reviewed the care of patients on the cancer pathway. They were held for each speciality for example, head and neck, and upper gastrointestinal. Attendance to these meeting was above the two-thirds standard set by the Royal College of Radiologists (RCR) with one to two radiologists dedicated to each specialty.

Seven-day services

• This was not inspected at this focused inspection

Access to information

• This was not inspected at this focused inspection

Consent, Mental Capacity Act and Deprivation of Liberty Safeguards

• This was not inspected at this focused inspection

Are outpatient and diagnostic imaging services responsive?

We did not rate this service because this inspection was very focussed on specific areas of concern initially raised to us by the public. We did not gather sufficient evidence to rate the whole service.

- Reporting on some plain film and cross sectional diagnostic imaging tests were not completed in a timely manner.
- Chest and abdomen x-rays from the emergency department did not always receive a formal report

However:

The trust achieved the departmental key performance indicator for turnaround times for reporting cancer waits.

Service planning and delivery to meet the needs of local people

- We were not assured that the department had sufficient plans in place to address the backlog x-rays that required reporting on.
- The demand, especially around cross-sectional imaging had risen. CT demand has risen by approximately 8% year on year for the last 5 years and the current focus was to ensure that all of these were reported as a priority.
- During the inspection senior staff told us the department had gained approval for a further five WTE consultant radiologists to assist with the increasing workload. There were also plans for two radiographers to train in reporting chest x-rays.
- The trust had taken the decision in April 2017 to begin outsourcing some images to an external reporting company due to the lack of capacity within their current radiology workforce. This was an initiative undertaken by the new radiology clinical lead as an aid to reduce the capacity issue within the trust. It was unclear why this decision had not been undertaken sooner, however, in 2015 this option was proposed to the board. It had

been suggested that the decision had not been taken sooner due to the cost of such services; however we have not been able to find evidence to suggest this conversation had been carried out. The images that were outsourced only consisted of cross-sectional such as CT and MRI (20-60 per day).

• The department had on occasion, insourced CT and MRI reports. This meant that substantive radiologists reported in additional sessions outside for their job plans. However, these were sporadic and not sustainable with their current capacity and vacancies.

Access and flow

- Patients did not have timely access to initial assessment, diagnosis and urgent treatment as plain x-ray reporting was not conducted in a timely manner.
- At the time of the inspection there were 23,031 unreported plain film images from the last 12 months.
- Chest X-rays for ED patients that were deemed "normal" by the requesting clinician were cited in the reporting policy as requiring a formal radiology report in case of missed findings but this practice no longer occurred due to the continual reduction in reporting capacity.
- Priority had been given to the reporting of cross sectional imaging such as MRI and CT and this had allowed a backlog of plain film images to build across a number of referral pathways.
- Priority was also given to reporting images that had been deemed urgent which includes any plain film requests that were flagged to radiology through the request mailbox or brought to the duty radiologist. From February to June 2017, 3,740 emails have been sent and actioned.
- An average of 30 phone calls were received daily into the radiology department, over the course of 6 months 3900 calls were responded to.
- The clinical director informed us that CT reporting per scan at the trust was above the national average. This meant that the radiologists were reporting more scans an hour than the average set out by the Royal College of Radiologists.

- At the time of inspection the number of unreported CT scans was 542 and the clinical director informed us that the peak reporting backlog for cross sectional imaging was around holiday time.
- The radiology services manager discussed that not reporting GP images was not an option as these images, unlike the ones which were requested by internal clinicians, would not be viewed by the referring doctor at any point.
- The radiology department had recently struggled to meet the 6 week targets for referral to treatment. This had been affected due to reporting of cross sectional imaging for outpatients. Through outsourcing, this had been rectified by June 2017.
- Elective CT and MRI scans were reported by the outsourcing company with an expected turnaround time of 72 hours. The clinical lead for each area selected cases and assigned them to the outsourcing worklist.
- The daily capacity of reporting f the outsourcing company is limited to the figures below which demonstrated a restriction on the amount of outsourcing the department could send
 - Neuro: MR 60CT 10
 - MSK: MR 120 CT 30
 - Body: MR 20CT 20
- Funding for outsourcing has been approved for 2017/18.
- The departmental key performance indicator for turnaround times for reporting cancer waits were 5 working days, urgent imaging 5-10 working days and routine imaging 10-15 days. These KPIs were being met at the time of inspection as resources had been reallocated to ensure this.
- The average report turnaround times in 2016/17 for plain films excluding auto-reported images was 1.5 days for GPs and 18 days for outpatients at specific request by the referring clinician and therefore not at the time of imaging.
- Doctors outside radiology were given access to expert advice from radiologists in a number of different ways allowing for appropriate support at all times. The radiology access unit consisted of consultant cover between 0900 and 2400 which allowed free access to

other doctors to expert advice. For less urgent queries there was also an email inbox where doctors could request any film to have a formal report by a radiologist. When requested CXR were classed as urgent so reported quickly. A junior doctors focus group stated that this service was generally good and responsive to their queries.

Meeting people's individual needs

• This was not inspected at this focused inspection

Learning from complaints and concerns

• The radiology service had received three complaints in last 12 months which related to the lack of timely reports, these were investigated individually. One related to incorrect booking of an examination and this was rectified at the time the error was noticed. The other two complaints were investigated and subsequently closed pending additional capacity and recruitment drives to improve the current situation. Complaints were responded to in a timely manner.

Are outpatient and diagnostic imaging services well-led?

We did not rate this service because this inspection was very focussed on specific areas of concern initially raised to us by the public. We did not gather sufficient evidence to rate the whole service.

- There was no effective governance framework to support the delivery of good quality care around x ray reporting times.
- We were not assured that the risk was appropriately managed and mitigated to ensure that patients are protected from harm. During the inspection were told the risk was "being tolerated".

However:

- Local leadership was good. The radiology service manager had kept oversight of the risk and had attempted to influence change as best to their ability.
- The clinical director for radiology was new in post, and was highly regarded. They had already made several efforts to improve the service's performance.

Vision and strategy for this service

• This was not inspected at this focused inspection

Governance, risk management and quality measurement

- The clinical director had been in post since April 2017 and was aware of concerns around reporting times.
- Outsourcing of cross sectional imaging to an external reporting company had commenced in April due to the concerns over a growing number of cross sectional images that were not being reported in a timely manner. There were some concerns around the quality of some of the outsourced reports and a percentage of cross sectional scans are double reported by departmental radiologists.
- Both serious incidents had action plans associated with them but these only related to sharing the incident through local governance arrangements and reviewing ED doctor's interpretation on chest x-ray training. Nothing had been highlighted in relation to a reporting capacity review or risk assessment of the remaining backlog.
- The imaging department was part of a clinical services governance structure and monthly meetings were held where the radiology risk register was discussed.
- There had been a recent trust wide initiative in 2017 to ensure all risks were transferred to the trusts incident-reporting tool. It did not appear that the reporting issue had been adequately reviewed prior to this.
- There was a weekly dashboard generated within radiology which informed modality superintendents of the diagnostic waiting times and reporting backlog. The dashboard allowed for the reassignment of cross sectional or plain film GP images to departmental radiologists; we did not see the key performance indicator for this at the time of inspection.
- A chronic underfunding in imaging had been cited as a reason for not prioritising the backlog of reporting by senior management. Senior staff told us money had been directed to ensure that diagnostic waiting times were not breached for cross sectional reporting which in turn meant there was no additional funding to increase the plain film reporting capacity.

- We were not assured that the risk was appropriately managed and mitigated to ensure that patients are protected from harm.
- The risk was added to the risk register in 2011 and subsequently escalated to the divisional and trust risk registers however we found that there was limited overview of the risk to patients with only one audit conducted in 2012 to look at the accuracy of referrer evaluations of chest x-rays. During the inspection, we were told the risk was "being tolerated".
- At the time of inspection there had been no trust wide risk assessment of the potential harm that could be caused to the group of patients who experienced significant delays in receiving their imaging reports. There was no apparent awareness of where the risk lies or the level of risk to patients across the trust.
- A risk assessment had been completed for the emergency department. In January 2017 the document details the risk will be 'tolerated'. From January to April there was no feedback from the executive team about the decision to tolerate the risk. The senior leadership team were not aware of the impact of the non-reporting of chest x-rays as no harm reviews or audits had been completed for a number of years. The risk assessment detailed the adequacy of the controls to mitigate the risk to patients as inadequate. Objectives had been identified to mitigate against the risks though these did not include timelines for completion. However it was clear from the documentation that the radiology services manager and recently the Medical Director had oversite of the risk in ED and had attempted to influence change.
- Harm reviews had not been undertaken following audit, which showed 29% of reports had significant discrepancies in 2012 nor had the audit been repeated.
- In May 2017 a paper was presented by the interim medical director to the board which related to radiology capacity, demand and strategy. The paper included the options to be considered to increase current capacity, it was stated that the reporting backlog needed to be a trust goal with an associated plan.

Leadership of service

• Local leadership of the radiology department was good. There was a strong radiology manager who had delivered a robust radiology strategy plan with regards to radiology reporting. They were well supported by the newly appointed clinical director who was a consultant radiologist.

- The new clinical director was aware of the ongoing issues and concerns around plain film reporting and had made positive steps since their appointment to address the concern.
- The relationship between the departmental leads was positive and supportive.
- The radiology service manager had been concerned for many years about the lack of capacity for radiology reporting and had escalated this through the risk register and the risk assurance committee on numerous occasions. They were well respected by staff which included radiographers, radiologists and directorate personnel.

Culture within the service

- Following a high number of radiology reportable incidents a site visit by the IR(ME)R inspector was carried out in May 2017 where discussions were held between the inspector, radiology management and medical physics experts. The visit identified that the department had a sound radiation protection infrastructure and culture with strong leadership. The department had identified where learning from incidents could be addressed and that especially in CT there had been considerable work undertaken to address the overseas workforce and their understanding of the workings of the department. There had also been an increased vigilance over CT training for staff and this included student supervision for undergraduates.
- The relationship between medical physics and radiology was strong and the teams worked well together. Advice was sought regularly and appropriately and issues and concerns were addressed in a timely manner. Modality leads and their superintendents were knowledgeable and patient and safety focused. There was strong leadership throughout the department and within medical physics.

Public engagement

• This was not inspected at this focused inspection

Staff engagement

- This was not inspected at this focused inspection
- This was not inspected at this focused inspection

Innovation, improvement and sustainability

Outstanding practice and areas for improvement

Areas for improvement

Action the hospital MUST take to improve

1. The Registered Provider must take evidenced based appropriate steps to resolve the backlog of radiology reporting using appropriately trained members of staff. This must include a clinical review, audit and prioritisation of the current backlog of unreported images, (including those taken before January 2017); assess impact of harm to patients, and apply Duty of Candour to any patient adversely affected. 2. The Registered Provider must ensure that they have robust processes to ensure any images taken are reported and risk assessed in line with Trust policy.

Enforcement actions

Action we have told the provider to take

The table below shows the fundamental standards that were not being met. The provider must send CQC a report that says what action they are going to take to meet these fundamental standards.

Regulated activity	Regulation
Diagnostic and screening procedures	Section 31 HSCA Urgent procedure for suspension.
	variation etc.
	The provider has not taken appropriate steps to address the backlog of radiology reporting. A clinical review or audit has not been undertaken to assess the impact of harm for patients.
	The provider did not have robust processes in place which ensured all images were reported and risk assessed in line with trust policy.
	S.31 Imposition of urgent conditions.
	1. The Registered Provider must take evidenced based appropriate steps to resolve the backlog of radiology reporting using appropriately trained members of staff. This must include a clinical review, audit and prioritisation of the current backlog of unreported images, (including those taken before January 2017); assess impact of harm to patients, and apply Duty of Candour to any patient adversely affected.
	2. The Registered Provider must ensure that they have robust processes to ensure any images taken are reported and risk assessed in line with Trust policy.
	3. The Registered Provider must submit their evidenced based decision-making on how the backlog will be addressed to the Commission by the 21 August 2017.
	 From 6 September 2017, and on the Wednesday of each week after, the Registered Provider must report to the Care Quality Commission, NHS Improvementand the NHS England Local Area Team:
	• The total number of images remaining in the backlog (including unreported images pre-January 2017) shown by year of image taken.

Enforcement actions

- The current trajectory date of when the backlog (including unreported images pre-January 2017) will be cleared.
- The proportion of patients waiting less than the trusts KPI for x-rays, CT and MRI.
- The average waiting time (in days and hours) for a reported plain film (excluding GP requests).
- The average waiting time (in days and hours) for chest and abdominal films (excluding GP requests).
- Number of plain film requests (excluding GP requests).
- Longest waiting time for a reported radiology plain film request.