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Clinical Radiology
The Royal College of Radiologists

Gloucestershire Hospitals NHS Trust- Invited Review of Radiology Services

5-6 October 2021

Faculty of Clinical Radiology

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Table of abbreviations

The report contains a number of abbreviations and acronyms; for the ease of the reader, these are spelt out in the table below.

Term	Definition
A(H)P	Advanced (Healthcare) Practitioner
CCG	Clinical Commissioning Group
CQC	Care Quality Commission
CT Scan	Computerised Tomography Scan
DSSD	Diagnostic and Specialty Services (Division)
ED	Emergency Department
IGIS	Image Guided Interventional Surgery
IR	Interventional Radiology
MDT	Multi-Disciplinary Team
MRI	Magnetic Resonance Imaging
PA	Programmed Activity
PC!	Percutaneous coronary intervention
PACS	Picture Archiving and Communication System
QSI	Quality Standard for Imaging
RCR	Royal College of Radiologists
SD	Specialty Director
SLT	Senior Leadership Team
SOP	Standard Operating Procedure
SPA	Supporting Professional Activities
WTE	Whole Time Equivalent

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Executive summary

Introduction

This report presents the key findings from the Royal College of Radiologists' review of the radiology services at Gloucestershire Hospitals NHS Foundation Trust. This summary and the subsequent report complement the verbal feedback given at the end of the review visit and the initial letter sent on 20 October 2021.

The reviewers visited both main departments and were impressed by the commitment of the clinical teams and the achievement of a manageable waiting list across many modalities, despite the impact of Covid on similar trusts. Limits on expansion and staffing following the Trust's unexpected financial deficit in 2015/6 were still affecting services, workforce and expectations; although the capital investment in the Image Guided Interventional Surgery (IGIS) project and recent equipment replacements demonstrated a good level of Board support for the service as a whole, when there was a clear business case. The Trust is a tertiary centre for cancer, a stroke unit, a vascular unit and undertakes percutaneous coronary intervention (PCI), all of which are significant services for a trust of its size, and the department does not struggle to attract and retain trainees.

Despite the recent efforts of senior management to engage the clinical teams, there remained a perception amongst several radiologists and radiographers that their input and innovation was not valued, that the complexity and pressure of their roles was not fully understood and they felt that the significance of the issues facing the service were underestimated . This gap in perception and communication is impeding change and must be addressed both through discussion and demonstrable actions.

Workforce

Radiology is numerically understaffed when benchmarked against equivalent units. Recruitment is already difficult in the current climate but should be prioritised alongside modernsation of the department, development of new ways of working including more acceptable rostering, and appropriate delegation of some clinical activity. This will require a unified job planning exercise across the department.

Radiography staff require encouragement to work to their full capacity and capability, and opportunities to progress further to advanced practice will relieve some of the workload pressure on the consultants. Creation of the local degree-level course is a positive step to 'grow' a local radiographic workforce for the future.

Pressure points and risks

Concerns about the responsiveness of the out-of-hours contract provider are being addressed through regular contract discussions to tackle unacceptably long waits for reporting. There are two single-handed specialisms (breast and paediatrics) which need immediate support to protect the service and patients from

delays and omissions, firstly through service agreements with other providers and ultimately through recruitment.

We noted very good leadership and innovation within the sonography team, with new ways of working and a good support network for the Lead Sonographer, which he had developed within the region.

Expediting replacement of the outdated and inefficient PACS system is a priority, as loss of this equipment is a major and avoidable risk for the Trust; and provision of home-based access to reporting systems is an area where the Trust is a long way behind others in supporting its clinicians to work efficiently.

Leadership and management

Changes to clinical leadership and general management are taking time to bed in; there was a general willingness to work together but the reporting and decision-making processes appeared unclear and communication channels were not working effectively, leading to workarounds and some lack of engagement which sapped morale amongst clinical and non-clinical leaders. Strengthening the links within radiology, radiologists and managers/modality leads is crucial to modernising the department and building morale with shared objectives and a thorough understanding of each group's role and potential.

Clearly the IR team are motivated, engaged and forward looking, so there is no global problem with radiology management and engagement. Our two-week letter outlined some early actions that required attention and this report goes more deeply into specific issues, and provides some suggestions for resolution based on the experience of the review team and evidence from other similar services.

There were no concerns raised about individual practitioners in terms of clinical safety, behaviour or competence. It is important that this report is used to catalyse change and so we have included some quick wins and an agreed longer-term plan with timescales and risks. Enabling all staff to 'walk the 'talk' should help restore the warranted pride in the department that has ebbed in recent years

We suggest as good, open management practice that the Care Quality Commission (CQC) is notified by the trust of this review and the findings in this report.

1. Introduction and background

1.1 Radiology at the Gloucestershire Hospitals NHS Foundation Trust is managed through a single Diagnostic and Specialties Division across two sites, at Cheltenham and Gloucester, with a catchment population of 620,000[1]. The trust offers all the usual general hospital facilities but is ambitious and has invested heavily in new equipment in recent years. There is a new imaging and cancer centre at Cheltenham run by the charity Cobalt that provides contracted NHS services for the trust.

1.2 Dr Kate Hellier became Chief of Service in the Diagnostic and Specialties Division three years ago. The previous Chief of Service was a radiologist, and also covered the Specialty Director Radiology role. Since he retired the department struggled to fill the Specialty Director role from within the radiology team until fairly recently.

1.3 Trust senior management are aware that the department is not functioning effectively in some areas and have, from their perspective, tried a number of techniques to motivate the radiologists to work constructively together, to consider future developments and enhance the services offered for the benefit of patients. They appreciate that they have good radiologists who are trusted, believed in and valued. However, many of the consultants remain convinced that they are not listened or responded to and are unwilling to engage with future, big picture thinking.

1.4 The consultant team is divided by specialist interest. The Interventional Radiologists (IRs) tend to be younger and more engaged as a group. They have worked collectively to plan the future of IR services in the trust and have brought alongside colleagues from vascular and cardiac services. There is potential for the diagnostic radiologists to be better supported in their current work practices to view change similarly positively; at present there is an acknowledged reluctance to fill gaps in the rota and to provide cover beyond the contract and job plan.

1.5 There remain some legacies of single site working but several consultants are appointed to work cross site and there is more flexibility, although this has not always been possible because of building works restricting numbers on site.

1.6 The radiographic workforce is subject to significant recruitment difficulties within a national occupational shortage. This is exacerbated by local geography with the proximity of many other radiology services nearby, all competing for a small pool of potential staff. The future looks bright with a University of Gloucestershire degree programme about to start which will provide much

[1] CQC 2019 data

greater resilience moving forward. In the interim the trust is recruiting from overseas to fill the gaps which is not a sustainable solution going forward.

1.7 The trust's recently published five-year strategic plan necessitates different ways of working across the trust and in radiology but the review team did not see specific details about how this would be rolled out in practice in the department radiology. It is important that managers and senior leaders have a plan to ensure that they have the appropriate equipment, workforce and skill mix in place to support delivery of an innovative service in future.

2. Terms of reference

This will follow in broad terms the process set out in "A guide to the process for service reviews conducted by the Service Review Committee" dated June 2014. The review will specifically examine:

a) Is there enough staff, technology and skill mix within the radiologist team to enable it to discharge its statutory and non-statutory functions in managing current and anticipated workload?

b) Is the radiologist management and leadership of the imaging service visible and enabled to deliver their roles?

c) Are the diagnostic and interventional consultant rotas- including creation, acute reporting, day to day running and out of hours cover- suitable for life in the modern NHS and comparable to an imaging department of a similar size?

d) Are there any adjustments that should be made to improve the safety, effectiveness, and efficiency of the service?

e) How can the service develop in the medium and longer term in terms of radiologist staffing establishment, equipment, skill-mix and recruitment potential to deliver the strategic plans of the trust? Are there any changes that should be considered to improve the service for patients and build resilience within the team?

f) Are the systems and processes in place those that you would expect to see in an imaging department? Are any systems or processes a consultant radiologist or radiology manager would expect to see missing?

g) Do current systems highlight to referring clinicians the following: rejected requests; fail safes; unexpected findings; cancer and non-cancer alerts?

h) Is the patient, staff and trainee experience equitable on both hospital sites?

i) Do trainee radiologists, nurses and radiographers receive appropriate experience and training in comparison to other imaging departments of a similar size?

j) Is the department patient focussed? Are patients kept safe in the department? Do they receive the privacy and dignity required, and are their views and experiences routinely monitored and used to influence the service?

Implicit in the service review is the need for the data provided to be of sufficient quality and accuracy to underpin the findings.

3. Methodology

3.1 Planning for the review began in summer 2021. A visit date of 5-6 October 2021 was agreed, and the Terms of Reference were agreed by the trust's senior leadership team and the RCR. A range of contextual documentation was requested by the RCR team and uploaded by the trust to a secure cloud site ahead of the visit.

Survey

3.2 Trust staff had been advised of the review. It was reported that the radiologists were supportive of the review visit, but the radiographic staff were more apprehensive about the visit and what it might mean for them. There was a feeling that the department had been subject to several visits and reviews with limited impact/improvement on their working environment. A confidential online survey link was distributed by email a few weeks ahead of the visit to 224 staff in the department by the Directorate Manager and Specialty Director, with responses viewed and collated by the RCR, and not visible to trust management. By 1 October responses had been received from 53 staff. The survey asked general questions seeking narrative answers about positive and negative aspects of working at the trust, together with aspirations and expectations of the review team and review impact. Staff were asked the length of time they had worked in the department, their generic role and at which site they were based.

3.3 The responses were analysed, collated, and summarised by the RCR to provide contextual detail to the review team ahead of the visit. The findings from the survey have contributed alongside documentation and interviews to this report, although statements have been cross-checked and triangulated to ensure that the views or experiences of one or a small number of individuals have not skewed the conclusions.

Interviews

3.4 Ahead of the visit, members of the review team met the Medical Director and the Senior Leadership Team (SLT) to cross check the terms of reference and explain the process of the review. It was agreed that an open process was preferred, with commitment to swiftly implement recommendations. Many of the issues were known and the RCR visit offered a fresh view to catalyse the changes required.

3.5 Staff from each site were interviewed individually or in groups by the review team; role details of those who contributed are listed in Appendix 2. Interviewees had been sent information about the review and an assurance of confidentiality and they appeared to feel comfortable talking to the reviewers. The review team's contact details were provided, and several staff sent further information to the team after their interview.

Feedback and reporting

3.7 Verbal feedback was provided at the end of the second visit day, initially to the Medical Director, Chief Executive, Chief of Service and Director of Operations and then to at least 23 staff via an MS Teams link

3.8 The final timetable for the review visit enabled sufficient allocation of time for interviews and time for collaborative discussions amongst the review team. The support provided by the Chief of Service, Specialty Director and General Manager, Radiology in setting up the visit and the interviews was noteworthy and much appreciated.

4. Service review findings

4.1 Leadership and management

Trust and divisional level

4.1.1 The Diagnostic and Specialties Division includes pathology, oncology, physiotherapy and radiology. The divisional structure is well established in the trust. The current Chief of Service, a stroke physician, has worked hard to support the department and encourage development. The Divisional Operations Director is an interim role leaving a gap in support for the General Manager Radiology.

4.1.2 The previous Chief of Service (who also covered the Specialty Director role) was a radiologist, who had intrinsic understanding of the service, but since their retirement it has emerged that they were known for their assertive (some suggested overbearing) approach, and very tight budgetary control which, although helpful on one level, meant that for several years recruitment of staff did not keep pace with the demands of service delivery. Whilst it is not helpful to dwell on the past there is no doubt that the previous leadership culture still permeates the present. The radiology team would do well to recognise this and move forward; there is little to be gained by blaming the current management team for the failings of the previous administration.

4.1.3 The current SLT told the review team that they are much keener to develop and expand the department and there was considerable engagement by the Chief of Service, who appears from the interactions observed to know the staff well through day-to-day engagement with running of the department. However radiology staff still cite barriers to engagement; they perceive that the GIRFT and KPMG reports had not been shared with them and mentioned delays in implementing home reporting (see para 4.2.5) which may have led them to be less willing to work beyond their contract.

4.1.4 Whilst this has been important to support the department in a period of change, this director-level involvement is greater than would be expected in many radiology departments in the UK. Curiously some staff indicated the senior and executive team members should be more visible walking the floor which indicated their lack of confidence in managing themselves as a department. The review team suggests that radiology would be best served if the Chief of Service was able to be less operationally involved but could instead focus their support at a higher level, overseeing, coaching and encouraging the Specialty Director to deliver on their role, supporting the General Manager, ensuring good lines of communication from senior leaders and enabling the department to come up with its own solutions and initiatives to tackle any concerns swiftly

Recommendation: Senior and Executive management should consider with the Chief of Service how to best provide consistent and visible support whilst enabling the Specialty Director, General , and senior radiographers to develop their roles and leadership of the department, so that the voice of practitioners is clear and staff can see their place within the overall trust strategy

Departmental Level Management

4.1.5 The management at departmental level comprises the General Manager, Specialty Director (SD), Matron, and Lead Superintendent Radiographer. There is a vacancy for the Radiology Service Manager. The team needs to be cohesive and joined-up in its approach to enable the rapid decision making and change management that will be required in the next few years as IGIS is implemented and the department adapts to new ways of working. From conversations with the members of the management team and other clinicians it was clear that they did not yet function in this way and there was confusion about the various roles and responsibilities.

4.1.6 The Specialty Director Radiology (SD) was enthusiastic, but their managerial style is to conduct with a hands-off approach that was at odds with the approach taken by senior colleagues. There is little delegation of tasks or team building to help drive solutions to the issues within the department, and considerable support is still required from senior management Several staff commented that they liked the SD and thought they were doing the best that they could. Given the difficulties in the department, the SD should be supported to manage in a more directional, hands-on style, with clear routes for communications and decision making, and closer working with senior leaders to build the confidence of the wider team.

4.1.7 The General Manager was relatively new in post although had worked in other departments in the trust. They were working very hard to bring the teams together and has a positive, inclusive approach, but seemed unsupported by more senior staff, and was struggling to prioritise. This role in many departments is generally filled by a radiographer at Band 8b / 8c so there may be an extra challenge to become familiar with the processes and ways of working. There did not seem to be any coaching or mentoring offered and the individual should be encouraged to seek out peer support across the network as well as in –house development.

4.1.8 The uncertainty about radiographic professional leadership going forward is unhelpful. The current Lead has resigned but continues to provide service activity via a bank arrangement. The non-medical workforce must be led by an appropriately senior and experienced radiographic lead typically at 8b/8c level. They must be an integral part of the interprofessional senior leadership team to ensure consensus decision making happens and that the wider professional voices are heard. The review team are of the opinion that without a good radiographic manager in post, the aim of achieving a united, well-functioning management team will likely fail, so this recruitment must be prioritised.

4.1.9 The diagnostic radiologists, although performing well and appreciating the range of work the Trust offers, feel neglected with issues they raise not being addressed by management. The PACS and working environment issues are justified and listening to radiologists' preferences in dealing with them could be a useful first step in better engagement. Ensuring the configurations suit the users is key as there are many options which can work, and the ultimate users must like and appreciate the tools they use daily.

4.1.10 The review team was told that the weekly management meeting does not have full attendance, which can hinder swift decision making and change. A facilitated team building programme among the management team would enable the team - old and new – to develop together, clarify their responsibilities and lead the service effectively.

Recommendation: Develop a programme of team building and clarify roles among the department management team so decision making is rapid and clear to all in the department.
Recommendation: Offer appropriate development, coaching and support for the General Manager and Specialty Director so they are clear about their responsibilities and how to escalate problems.
Recommendation: Prioritise seeking a permanent Radiology Service Manager, perhaps using alternative or creative approaches.

Vision and plan

4.1.11 The reviewers did not see or hear of a five-year plan / vision about direction of travel for diagnostic radiology and how this aligns with the trust strategic plan. The future seemed clear for the interventional element of the service, but the issues raised by radiologists and radiographers, need to be addressed so they as experts in the field, can devise bespoke local solutions that will deliver on the trust objectives. Without a plan there was no annual review of progress or objectives to which all can contribute.

4.1.12 The review team strongly support the Quality Standard for Imaging[2], which seeks to ensure that all UK imaging services continually seek to improve the quality of the service that they offer. The Standard is jointly owned by the RCR and the College of Radiographers and good imaging services are either accredited or working towards accreditation in this standard. It is recommended that the service review consider whether working towards QSI accreditation would bring benefits to the service.

Recommendation: The leadership team need to create and communicate a vision and plan articulating what the aims are over the next 5 years, including milestones that the workforce understands and supports. This could be facilitated by the trust organisational development team involving all staff groups to discern their ideas and aspirations and generate enthusiasm and ownership of their future.
Recommendation: consider the Quality Standard for Imaging and working towards it.

[2] https://www.rcr.ac.uk/clinical-radiology/service-delivery/quality-standard-imaging-qsi

HR Team

4.1.13 Although the scope of the review did not include other trust wide departments, the review team were made aware of less-than-best-practice experiences of staff in relation to the HR team that, if not remedied, could cause further difficulties for the radiology department. These are included for information only.

4.1.14 It was reported that a recent advert for a breast consultant did not mention the 'golden hello' that had been negotiated by the team. There is a national shortage of breast radiologists and so trusts need to persuade specialists to move posts. It is understandable that the Breast Radiologist in post, having worked to agree a 'golden hello', is very disappointed that the advert did not mention the incentive.

4.1.15 Another staff member commented that it had taken six months from application to starting in their role. Given the staff shortages across the UK it is imperative that HR teams stay on top of recruitment to ensure staff are not lost to other departments who are able to act with greater speed.

4.1.16 The radiologists reported confusion about Retire and Return plans, inferring from trust information that if they retired, they would only be allowed to return for two years, limiting opportunities for flexible staffing. It is important to clarify the position so that staff can plan their working arrangements going forward and the recognition be emphasised that they are valued and valuable to the trust. The trust can benefit significantly from the presence of experienced radiologists well versed in local working practices; these team members can be a great asset to departments' ability to manage workload and should be retained by making the retire and return option financially viable

4.1.17 The review team found that the establishment of the radiology department had been stripped back over time in order to meet budget targets. The establishment was being restored but it is important, because of the national shortage that there is continued support for over-recruitment through appropriate processes when recently graduated radiologists, radiographers and pysio-OT staff are available.

Recommendation: Clarify the arrangements for Retire and Return and other flexible working options for experienced consultants, to make the option financially viable

Recommendation: Ensure there is a robust and documented programme of induction and mandatory training job-planned for all new staff whether or not they have previously worked at the Trust. This must include the requirements of IR(ME)R 17.

Recommendation: allow the departmental managers to over recruit to the establishment at times of the year when radiographers are available in quantities, typically at the time of band 5 graduation.

Modality leads

4.1.18 The radiographer modality leads presented as competent and able. They were hindered in their ability to lead and manage their teams by the workforce practices of the department (see below) that were out of touch with modern radiology teams.

4.1.19 The lead radiographers the review team spoke with were engaged, willing and able. They were uniformly frustrated by department processes which hindered their ability to lead their teams in the ways that they would like, and this affected the overall patient experience. The trust should better encourage and support this staff group to enable them to deliver the strategic and operational requirements of their role rather than firefighting.

Recommendation: Review the departmental processes and systems involving the modality leads to ensure the processes and systems are working effectively

4.2 Resources and workforce

Equipment

4.2.1 The level and condition of the equipment installed in the department was impressive, with the trust having taken advantage of development grants in recent years, and reconfigurations were in progress during the visit. The service is very able from this perspective to deliver the service quality and throughput to which it aspires, but equipment is only part of the picture. The new equipment has not been planned with the required workforce to utilise it to the required capacity. This has resulted in equipment laying idle at times without the necessary workforce to deliver the service.

4.2.2 On a separate note, the Breast Radiologist, who is the main link with the charity-owned Cobalt oncology centre, advised that the trust was not providing the building maintenance required within the agreement, placing the contract with the centre at significant risk. It was not clear why this had not been resolved but was presented as an example of consultants' concerns not being prioritised.

Recommendation: Check and resolve contractual maintenance obligations to the Cobalt centre

IT Resources

4.2.3 The IT systems in place for the radiologists at the trust were not fit for purpose; the PACS system is likely to be unsupported within 18-24 months and replacement must be expedited as loss of the system is a significant clinical risk, highlighted in the GIRFT 2019 report. The current PACS inhibits streamlined reporting. It does not automatically pull up previous scans for patients, except for chest x-rays, and in order to use the MPR (multiplanar reconstruction) facility, the dataset must be moved to a different screen rather than being available directly. These are basic PACS functions required for all patients and their absence is a serious clinical risk, delaying patients and reducing service capacity as radiologists source

previous images and provide their expert opinion. There is no doubt this inefficiency contributes towards outsourcing costs. Improving PACS will cut clinical risk, improve radiologist morale and productivity, and mitigate the outsourcing costs.

4.2.4. The reporting rooms at each hospital are not conducive to concentration and focus, being cluttered, with many distractions. The team acknowledged that these were short-term arrangements using spare equipment and were infrequently used but note that reporting productivity requires the correct physical environment to complement a modern RIS/PACS system. Neither is currently provided.

4.2.5 Most UK radiology departments set up home reporting for all groups of reporting staff in the early days of the pandemic lockdown but only two consultant radiologists at Gloucestershire hospitals had home access. Many of the consultants would value home reporting, it could help with greater in-sourcing and would undoubtedly aid recruitment. It was a recommendation from GIRFT in 2019. However , the 'Home reporting document' which was drafted by the radiology management is unhelpful and restrictive in style and should be rewritten.

Recommendation: Expedite replacement of Philips PACS
Recommendation: Ensure that the lack of pre-fetch on PACS is represented on the trust wide risk register.
Recommendation: Develop, with the radiologists, suitably designed reporting rooms drawing on national guidance and local preference. Ensure there are suitable reporting facilities for complex work.
Recommendation: Urgently redesign the Home Reporting offer with consultant involvement for all consultants and reporting radiographers who wish to participate.

Workforce

4.2.6 There are, as the trust is already aware from previous review reports by KPMG and GIRFT, too few radiologists and radiographers for the size and ambition of the trust, increasing pressure on staff and sapping team morale. Some of this is due to long term suppression of department expansion by the previous Head of Service and Specialty Director to meet tight budget constraints, with unfilled posts being subsequently removed from establishment on an annual basis. The management team have worked very hard to get those posts put back into the complete establishment but there was no confidence that the establishment in the budget was what was required to deliver the level of radiology activity in the trust. It was also implied that business cases for consultant expansion in referring specialties do not fully cost the impact on diagnostic services that this additional activity will bring. This results in an unbudgeted increase in workload across both pay and non-pay budgets

4.2.7 The department systems are also not working effectively to maximise the use of the skilled clinicians in post, as set out elsewhere in this report

Recommendation: It should become an integral part of Trust sign-off of any new service or new consultant business case that the implications and true costs of the required radiology capacity are included.

Radiographers

4.2.8 There are too few radiographers at both sites. The layout of the installed equipment, such as CT and MRI scanners each having separate control rooms adds to the staffing requirement. A thorough review of current and future staffing needs is needed, recognising the current challenges in recruiting skilled staff from a diminished pool.

4.2.9 Radiography is an ambitious profession and in modern imaging departments radiographers are encouraged to work to the full extent of their licence, making their roles interesting, through covering work previously undertaken by doctors and releasing scarce consultants to focus on the more complex cases. The radiographer rota arrangement at Gloucester, whilst covering the workload, is unlike other departments as they are deployed across all modalities. This does not support development of expertise in any radiology modality such as CT, MR and IR, and hinders career development.

4.2.10 Encouraging radiographers to become experts in a modality will allow them to up skill and eventually permit them to undertake vetting and straightforward reporting common in many radiology departments. This would permit delegation of a significant amount of the vetting to the radiographer staff, allowing radiologists more time to do the work that only they can do. A highly skilled radiographer workforce is also more likely to be content and happy with their work. However, the current under establishment below required capacity, due to years of underfunding, means that there is little availability to backfill those training or performing advanced practice roles - with the consequent impact on morale and retention.

4.2.11 There are plans in place to reduce the locality workforce shortfall via a degree course at the University of Gloucestershire. This ‘Grow your own radiographers’ scheme is a laudable strategic solution, although there will be a time lag before the students become competent staff members. This is being supplemented by international recruitment in the interim, but these staff require additional supervision to ensure they can provide care to the standard expected by the department.

4.2.12 The senior radiographers should have agreed job plans in place. This would identify dedicated time to complete the tasks assigned to them, including vetting and reporting – if appropriately trained. There are currently no job plans for the advanced practice (AP) radiographers.

Radiologists

4.2.13 The 33 consultant radiologists are insufficient for the work being generated by the trust – although trusts throughout the country are understaffed. There is a national shortage of radiologists and even if

additional posts were funded recruitment would still be difficult, so it is important to make the best use of expert time and delegate consultants' current responsibilities as far as possible.

4.2.14 The RCR is working to increase the numbers of diagnostic radiologists and in the past 12 months have secured an additional 100 diagnostic radiologist training numbers, although clearly these will take time to come through to consultant level. Whilst changes outlined below can improve efficiency and job satisfaction, there is still a need to recruit more consultant radiologists.

Recommendation: The service should undertake a complete workforce establishment review in regard to the workforce capacity needed to provide the required activity and out of hours service provision. This must include development of advanced radiographer roles and those currently in AP roles must have job plans agreed. The Trust must ensure that it has an effective out of hours service where sufficient staff are available and supported to deliver care. An example of this is the burgeoning CT and PCI activity.

Recommendation: The trust must recruit more radiologists to meet current and planned demand in the short and medium term. The Trust could consider the global radiologist route[3]-

4.2.15 The trust is still able to recruit and retain registrars, who go on to fill consultant roles in the team, which is very positive. There had been a recent drive to acquire more training places and trainee numbers had risen from four to seven , but 10 were needed. Feedback from trainees is very positive.

4.2.16 The diagnostic radiologist workforce habitually select tasks that were easy for them, choosing their next case as they go along which did not allow the PACS system to autoload the next one. One consultant explained that reporting a large number of chest x-rays was more important to the trust than reporting fewer cross-sectional reports - even though the latter would be more interesting. If radiographers were enabled to develop their skills, including plain film reporting, radiologists would have time to complete cross sectional reporting and tasks that only they can undertake, and with allocated cases based on urgency as well as subspecialty the process would be more efficient with their time. Considering options for workload management has worked in many Trusts and allows better planning of work that requires prioritization.

4.2.17 When planning the radiologist workforce numbers needed, a complete review of working patterns needs to be undertaken. The out of hours work pattern may not be the best use of radiologist time and other options should be considered. The vetting/query process could possibly be undertaken by a junior with consultant oversight. Spare capacity when intervention cases are cancelled should be well utilised. There should be a departmental overview taken as to how many consultants are needed to provide a PET reporting service, and this should only be added to when a slot becomes vacant. Recruitment and retention of consultants will be better if the work they are doing is interesting and sending the complex and

[3] https://www.hee.nhs.uk/our-work/global-radiologists-programme

interesting CT/MRs to an external company will not help this – a point raised in the GIRFT review in 2019. (see also section 4.3.8)

Nursing staff

4.2.18 There were some Band 2 staff providing scrub support in the IR theatres. These roles, in the view of the review team, should be Band 3 given the breadth of their roles.

Admin and clerical staffing

4.2.19 The review team did not have the opportunity to speak directly with the admin and clerical staff.

4.2.20 The bookings team were not centrally located which hindered their ability to work at maximum efficiency. There was no indication that the same processes were being followed by all booking room staff and the Did Not Attend rate for patients was 6.4% for ultrasound. There is potential to reduce this significantly through the use of text message reminders and phone calls. (See section 4.5.5)

Recommendation: Consider co-location of the booking team and a review of processes to maximize the efficiency of the service.

4.3 Clinical services

General

4.3.1 The delivery of care at the trust is carried out to the best of everyone's ability and the team work hard, notably the waiting lists are not long despite the workforce pressures. The throughput has risen significantly. The staff spoken to by the review team raised no concerns about clinical quality or practice and all appeared conscientious and competent in their areas as individuals, but the review team has concerns about the cover for out of hours activity.

4.3.2 It was disappointing that the radiologists did not appear confident that they did a good job, they perceived themselves to be constantly under surveillance for failings and there is some unwillingness to innovate and contribute to management of the service. The consultants have little involvement in national and regional strategic agendas citing insufficient time, leaving the service under-represented, and without feedback on best practice or alignment with rest of region. There is work to be done by senior management to establish trust with the non-IR consultants and engage them in service design and new ways of working.

4.3.3 The reduction in on-site hours for radiologists has left radiographers potentially without medical support for some of the IV contrast procedures. CTs are sometimes delayed while waiting for a ward or emergency department (ED) doctor to attend prior to administering IV contrast. The CT scanner which is used out of hours is next door to the emergency department, closer than most of the consultant offices. Discussion with the ED management team to allow cover by them if needed in an emergency or urgent

need would be of great help to all and avoid delays, while ensuring that the radiographers feel supported and that their patients are safe.

4.3.4 There must at all times be an appropriate medical response to patients who become unwell during scanning, whether through pre-existing conditions, such as heart attacks, sepsis etc., or as a result of contrast administration. There are different ways of providing this in the absence of a radiologist, but it is important that patients and scanning radiographers are safe and supported. Whilst a radiologist presence in working hours provides this by offering advice when unexpected findings appear or when there are protocolling issues, rota gaps in the short term mean that medical cover may need to be provided in other ways. This could be a ward doctor or anaphylaxis trained nurse, or support from ED doctors where radiology is co-located. Increasing consultant numbers and availability will assist but alternatives need to be discussed with CT radiographers and need to be robust and tested.

4.3.5 The registrars are being asked to 'cover' some of these gaps, such as when IV contrast outpatient scans have been booked despite no consultant on site and can claim for the hours worked. Practice in other radiology departments is that senior registrars are rostered for these sessions if they are paid waiting list imitative / in sourcing monies. Senior registrars in other radiology departments can also be asked to report plain films for payment which may be helpful.

4.3.6 As in many departments, outsourcing reporting is necessary as the local team cannot manage the workload. Local reporting is preferable as it allows better workload management and vetting and a better level of trust exists between local clinicians and their radiological colleagues, reducing rota pressure on the consultants and enabling realistic on-call arrangements. Outsourcing to GMC-registered consultants is acceptable but the reports need to be delivered effectively and accurately to prevent the tendency to rescan or re-report, wasting valuable time. The review team was told of delays in out of hours reporting to the ED which must be resolved urgently. Any outsourcing company delivering acute and emergency out of hours reporting needs to commit to being available to justify the examination, liaise with the radiographers and report the examination in a timely fashion.

4.3.7 The sub-specialty work is often out-sourced, which is not in line with the practice of similar departments. Sub-specialty work will be by its nature, more interesting and so it would make more sense for a significant proportion to remain in house and for the less complex work such as plain film x-rays to be out-sourced – a range of reasons was offered for why this is not done. The diagnostic radiologists will de-skill if they are not provided with the opportunity to work in their sub-specialty area.

Recommendation: Review which items are outsourced. Ensure that a significant proportion of the sub-specialty and complex work is kept in house and prioritise outsourcing plain films based on clinical urgency

4.3.8 The company currently providing reporting has several times caused unacceptable delays out of hours to the emergency department, up to 40 minutes in some cases. At other times, the outsourcing company provided a clerical interface between the onsite clinician and the reporting radiologist which risked misunderstanding and caused delays.
This is unacceptable and the contract performance was being monitored at the time of our visit.

Rota planning

4.3.9 Trust consultants cover 8am to 8pm during the week and from 8:30-17:30 at weekends, with overnight work being outsourced. They cover 4.6 weekends per year per WTE diagnostic radiologist. There is an insourcing option for staff to report outside their job plan hours, and some staff do considerable numbers of insourced additional programmed sessions, particularly the consultants who reduced their NHS hours due to pension issues, but then report via the insourcing option.

4.3.10 Retirements, resignations and the new IR rota has led to some loss of weekend cover, and since the rotas are planned annually alongside job plans there are many gaps which the remaining consultants have declined to fill, particularly at short notice. In September there were large numbers of unfilled slots, leading to additional work for the administration team and patients being moved or cancelled at short notice.

4.3.11 This position is not unique to the trust; elsewhere in the country departments are struggling to fill rotas and are understaffed, but many have greater rota flexibility, and negotiate cover for gaps through local review of rotas and workload. This however depends on how the out-of-hours period is covered. In this Trust, two consultants (one on each site) work a 9-5.30 day on Saturday and Sunday covering emergency and acute work as part of the job plan, with time taken back in the week following the weekend cover. This is not an on-call service. Different options for providing the out-of-hours cover should be looked at to see if there is a better or more flexible way of working. Ultimately with a finite number of consultants on the general rota covering two sites, options will be limited, however offering extra paid sessions routinely may be easier to manage as time back during the week at short notice would not be a problem.

4.3.12 It is important that SPA time is scheduled within job plans and rotas and usually taken by consultants during the working week. This will enable more structured teaching arrangements for trainees and the wider team, the opportunity to develop radiographers in extending their skills and knowledge, and participation in regional and national activities to develop new ways of working.

4.3.13 The utopia rota for diagnostic radiologists does not meet the needs of the service. The teams' understanding of the rota is that it effectively removed on-call from consultant radiologists who instead work adjusted hours to accommodate out of hours work at no financial cost to the trust. This is not a rota pattern that is common in other imaging teams. The review team consider that the trust would be better served by a more traditional on call system with the requisite financial compensation for radiology staff. Most

consultant diagnostic radiologist staff cover at least six weekends a year as part of their rota. The diagnostic radiology consultants, in comparison to other specialists, are not required to be on-call overnight due to outsourcing requirements. Discussion of the rota management needs to be part of an overall review of job plans and capacity, including the advanced practitioners, to ensure equity and the most efficient use of consultants' time.

4.3.14 As the out of hours cover is unsatisfactory, reinstating the on-call supplement could be useful in starting discussions about increased levels of consultant cover. In other units, there is frequently an on-call supplement and an additional payment for extra work required unless out of hours cover is rostered with time in lieu. It should be borne in mind that IR consultant on call could conflict with urgent on call diagnostic work so may be best kept separate.

4.3.15 Some of the IR radiologists who are on the rota also provide general work. When there are no available beds and work is suspended it is not clear how those on the rota are redeployed to ensure fair allocations. This needs to be looked at as part of the workload across the department. The RCR document on the provision of IR services[4] advocates a minimum of 1:6 Interventional radiologists on an OOH on call rota. It is appropriate for the IRs to attend the vascular MDT and take an active share in reporting the general cross sectional Imaging work in CT and MR alongside specialist IR cross sectional Imaging reporting timetables.

4.3.16 It is for the department locally to agree the approach to balancing specialty work with general cover. For example, reporting on PET-CT is usually carried out by those trained in reporting who would report on all subspecialties. The radiologists who attend the relevant MDT just need to be familiar with the images and able to interpret the findings and report for that MDT. It is inappropriate for all the subspecialty radiologists to be trained to report PET-CT. The department needs to decide on the appropriate number needed to ensure adequate numbers are trained and report to allow sufficient to maintain competency and cover for leave. It is important that the service does not depend upon single-handed expertise, so a level of generalist reporting is important, as long as there is appropriate training and REALMS support.

Recommendation: Conduct a systematic review of job plans and rotas, against activity, involving the consultants throughout, to ensure equity and manageability, and that SPAs and commitment to teaching are recognised. There must be a non-voluntary rota of on-call consultants available for the times when there is no other cover in the departments in order that a sustainable and safe level of cover at these times is present.

[4] https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr198-provision-interventional-radiology-services-second-ed.pdf

4.3.17 IV cover for acute and emergency CTs out of hours could be provided by the ED team as it is next to the scan room, there is no requirement for a junior doctor from the ward or ED to attend with the patient, so long as there is a clear SoP with ED in place which would allow for safe and timely attendance in the event of clinical need. A medically qualified practitioner must be available at all times in case of a contrast reaction. The radiographer can give the contrast under protocol only so long as there is an agreed medical practitioner available quickly and at all times.

4.3.18 The review team was told that consultants can be reluctant to answer clinical queries; this may be because the query relates to a specialist area (this is one of the problems of a single radiologist answering all on the queries on the 5552 line). This concern should be addressed locally.

Clinical governance

4.3.19 There was no formal induction process in place for newly appointed consultants. Specifically, one consultant was not aware of the employers' responsibilities as listed in in IRMER Schedule 2(b)[5] which is a cause for concern given the recent CQC improvement notice

Recommendation: There must be a clear process for induction for new consultants including statutory requirements under employers' responsibilities.

4.3.20 Some areas of emergency work, including fractures, did not appear to follow a standard clinical pathway and the review team was told that the weekly trauma meeting does not have an infrastructure for overlap with radiology.

Recommendation: Review and standardise pathways of emergency and urgent care including engagement with trauma meetings.

4.4 Safety

4.4.1 The review team heard no concerns about individual practice.

4.4.2 The review team re were some areas of risk of which trust management is aware in addition to the lack of non-voluntary on-call out of hours rota at times not covered by an external provider (see section 4.3.13).

4.4.3 Single-handed specialists in breast and paediatric radiology (including suspected physical abuse reporting) were performing an excellent service but did not have robust backup arrangements in place, and consequently were under considerable pressure. If the paediatric radiologist is unavailable there is some

[5] https://www.cqc.org.uk/guidance-providers/ionising-radiation/ionising-radiation-medical-exposure-regulations-irmer

support from Birmingham, and Bristol, although this is not formalised. The offer by the paediatric radiologist to train a sonographer had not been taken up by radiology management.

4.4.4 Loss of either of these services, even temporarily, could put patients at risk of delay in treatment or safeguarding issues. Recruitment of additional consultants with these interests should be prioritised and, in the meantime, more formal Service level agreements for cover and second opinion should be put in place.

Recommendation: Formalise arrangements for back-up and cover for the breast and paediatric radiology consultants and prioritise efforts to recruit to these specialisms.

4.4.5 Out of hours, there is one radiographer to cover each site, including cover for PCI and interventional radiology. This is unsafe, as was evidenced by an incident the week before the review visit. The rota/arrangements for out of hours work should be urgently reviewed.

Recommendation: The service should review the OOH working arrangements for radiographers with particular reference to those service elements reliant upon single handed on call cover across more than one modality or service.

4.4.6 Despite the review team being told of a range of weekly and monthly Divisional and Department meetings, some staff reported that staff meetings and safety huddles did not regularly take place, which is unusual in radiology departments. It was not clear- without these meetings- how communication was delivered to the staffing teams.

Recommendation: Safety huddles and staff meetings should take place regularly so that all staff are fully informed and there is a space for communication to take place.

4.4.7 The reviewers were told that the arrangements for discrepancy meetings and REALM were limited, with only a selection of relevant cases being discussed, and sonographers and plain film radiographers not included within the meeting. The review team did not see details of the REALM process but there is RCR guidance, which should be followed.

Recommendation: All relevant staff and trainees should be included within the REALM process as set out in the RCR guidance.

4.4.8 The PACS system is likely to be unsupported within 18-24 months. Loss of this system is a critical risk to the department and its replacement must be expedited (see section 4.1.10 and 4.2.3)

Vetting and outsourcing

4.4.9 Any doctor from F1 up can request any radiology test, and any referral refused is escalated to consultant level, although in practice the tests take place regardless. The diagnostic radiologists rarely refuse requests because of the workload such refusals generate in liaison with referrers. The RCR has recently published guidance on vetting[6] and cancellation of requests, the review team recommend that its advice is reviewed and implemented in the new PACS system.

4.4.10 The consultant radiologist team also spend a proportion of their time vetting the requests from referrers, although some felt unable to properly challenge referrals outside their area of interest and therefore allowed cases to be done. The approach also differed between sites, and the management is aware of some issues raised by referrers. A range of services are available to GPs on direct access – through contact with the on-call radiologist (8.30am-8pm). There is a CCG radiology user group but it may be helpful for the department to establish regular meetings with key referrers from the trust.

4.4.11 Again, skilled radiographers could safely undertake the majority of vetting tasks to protocol and liaise with referrers, freeing radiologists to report or vet more complex cases. This allows the radiologist to comment on why the request was being denied and this can be sent to the appropriate clinical team by the booking clerk. The trust could consider the implementation of a clinical decision support software- such as RCR's web based iRefer tool[7] or Medcurrent's iRefer CDS[8]. This could reduce the number of requests without impacting on radiologist time. The lack of vetting could also be a potential safety risk for patients due the additional radiation. With an electronic vetting system the radiographers can refer a complex case which requires a consultant radiologist review to specific subspecialty groups of radiologists which ensures that the radiologist has the appropriate knowledge to assess the request.

Recommendation: Develop a departmental process which would allow electronic vetting, where the consultants could review those cases which the radiographer felt needed a radiologist opinion and mechanisms for liaison with referrers about appropriateness of test requests.
Recommendation: Ensure that vetting staff have appropriate skills among them to be able to challenge all referrals where required
Recommendation: Consider adopting iRefer to support appropriate referrals

Rejected requests- alert arrangements:

4.4.12 There is a departmental alert document provided which indicates how unexpected findings/cancer alerts are conveyed to the clinical teams, however it does not address the requirement to ensure that the alert has been read/picked up or by whom. The National Patient Safety Agency alert issuing guidance on this has made it the responsibility of the radiology departments to ensure there is a clear audit trail and the

[6] https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr214-vetting-triaging-cancellation-inappropriate-radiology-requests.pdf
[7] https://www.rcr.ac.uk/clinical-radiology/being-consultant/rcr-referral-guidelines/about-irefer
[8] https://www.medcurrent.com/

RCR has published guidance on communication of fail-safe alerts. This should be audited and brought in line with the national guidance.

Recommendation: The Trust should review the alert mechanisms for unexpected findings and cancers, bringing it in line with national guidance.

4.5 Patient experience

4.5.1 Although there is a good range of radiology information leaflets on the Trust website, there was no patient experience information provided for the review. The 2019 GIRFT report recommended that accessible electronic patient feedback systems should be introduced specifically for radiology but there was no evidence this was in place.

4.5.2 Concerns were raised that for ultrasound services there were insufficient chaperones to ensure availability for intimate examinations. The facilities for changing, particularly in Gloucester, were run down and not at the standard expected for a modern radiology department.

Recommendation: Review arrangements for chaperones and ultrasound patient experience in Gloucester, including all waiting and changing areas.

4.5.3 At the new building in Cheltenham, waiting patients are not supervised by a RA or even by a receptionist due to staff pressures. For patients who have undergone contrast injections awaiting MRI scans, observation is strongly recommended in case of reaction. Also, the changing areas are cramped and inappropriate, although these will be overhauled alongside the new build.

Recommendation: Ensure there is staffing assigned to monitor patients in the waiting area at Cheltenham.

4.5.4 Delays in reporting, particularly out of hours in the Emergency Department, are covered elsewhere but also affected the patient experience.

4.5.5 The review team were told that the DNA rate in ultrasound was 6.4%. Data on the DNA rates for other modalities was not shared with the team but a review of DNA rates is recommended to determine what could be done to reduce them.

Recommendation: Review the DNA rates in all modalities to determine what action could be taken to reduce them.

4.5.6 It was striking to the review team that very few of the concerns expressed by the radiologists focussed on the outcomes for patients or their experience in the department. The consultant team were very focussed on what they needed in their jobs without mentioning the potential impact, for good or ill, on patient care. They may have become so disengaged because they could not do their job well (i.e., provide a high-quality report) as a result of long-term understaffing, leading to them feeling rushed with inadequate facilities.

5. Conclusions

This section responds specifically to the questions raised in the terms of reference

Resources:

5.1 For historical reasons, there are too few consultant radiologist and radiographic posts within the establishment, but those currently in the team could be enabled to work more efficiently and a full team and individual job plan review will identify these new ways of working.

5.2 In the longer term the development of specialist advanced practice radiographers and their routine use in vetting and some reporting alongside continuing consultant expansion should ease the situation.

5.3 The workforce has become disillusioned as they have felt unappreciated, either across the professions, or by senior leaders for an extended period of time - and this has become the culture. Modern interprofessional working where specialist radiographers vet to agreed standardised protocols in cross sectional imaging and other modalities should be adopted. In line with normal practice, the development of sufficient numbers of advanced practice radiographers (AP) working alongside their consultant radiology colleagues will result in delivering an Interprofessional workforce with capacity to deliver the required service activity.

Management and leadership:

5.4 Development of a strong and respected department leadership team is important alongside clarification of roles and responsibilities and a package of leadership development, mentoring and peer support in post, both formal and informal, should be encouraged. This will allow the Senior Leadership team to step away to provide a more friendly but more distant interest and support to enable those in departmental leadership to grow into their role. Review of the Radiology service manager/ lead radiographic posts and combining them to a senior grade (suggest Band 8c/d) may attract someone with a track record of managing an imaging service & providing professional practice leadership for the non-medical staff and support the radiologists and general manager through the line structure. Deputies for the three individuals in the proposed triumvirate will enable succession planning.

5.5 The Trust themselves have a working model of consultant leadership in the form of their engaged motivated interventional radiologists who doubtless themselves played a large part in the devising of work practices which they both supported and felt were optimal for patient care and effectiveness. An arrangement like this will probably deliver for the main department, but it will take time, work and support.

Rotas:

5.5 Provision of a robust OOH non voluntary rota or on-call service needs to be addressed as a matter of urgency.

5.6 There is no UK standard arrangement for rota design, the management team must work together with the consultant and senior radiographers to design an arrangement that is fair and safe and includes SPA time as well as home reporting where appropriate. The use of outsourcing is necessary given the current staff numbers and recruitment of more consultants and development of senior radiographers will enable greater flexibility. It is more usual for the routine reporting to be outsourced and the complex cases retained in house. This enables more scope for training sessions.

Safety effectiveness and efficiency:

5.7 The report details how ways of working and appropriate development of radiographers could improve efficiency and satisfaction amongst staff in the department. The quality of work was reported to be very high and apart from staffing levels being low the review team were not made aware of any specific safety issues.

Development Plans:

5.8 It is important for the senior and department management to rebuild the confidence and engagement of the consultants, strengthen their relationships with the radiography and sonography staff and themselves have a programme of training, mentoring and succession planning. This should lead to a strategy and business plan that is agreed across the professions by the department. An ‘Awayday’ or facilitated session could be the start of this process, with the support of the trust organisational development department, however fully rebuilding confidence may take many months of consistent hard work. Some ‘quick wins’ include resolution of the problems with loss of office/reporting space, provision of home-based reporting, interprofessional Realm activities, and a commitment to expanding the department through a review of workload and job plans for all.

Systems and processes:

5.9 These will be unique to each department; however the service would do well to review the commentaries and requirements of the Quality Standard Imaging. This would effectively let the service undertake a gap analysis against a quality norm. Specifically:

- The lack of safety huddles and cohesive system of staff meetings. It is important that a standardised and agreed meetings schedule is drawn up, agreed and in place to support communication within and across radiology modalities and departments. This is supported by tools such as departmental newsletters which regularly features a blog from one of the leadership team within radiology.

- The silo working between radiographers and radiologists. This culture doesn't reflect modern practice. The department should look to introduce a partnership rather than a paternalistic approach to working together between the professions. This must be patient focussed in nature with a view to pragmatically looking at how flexibly they can work together to make a better patient journey in all modalities. This should be communicated and enabled by modality / service teams to deliver it. An audit review process must be included.
- The modality lead radiographers and sonographers should have a thorough understanding of budget, their workforce activity in that area and to be providing operational leadership to driving down the waiting lists and driving up the quality. To do this there must be a managerial system in place for them to understand and own their budgets.
- Leadership training coupled with support from senior managers (clinicians & non clinician) is vital to ensure all are focussed on delivering the departmental 5-year vision viewed through the professional lens of a quality and timely service delivery. The Department would do well to undertake a gap analysis of required skillsets to inform a workforce development plan for training needs analysis.

Cross-site equality:

5.10 The review team did not detect any significant issues around cross-site working although there are still some residual issues commensurate with the time since merger. We did not have the opportunity to speak with trainees nor see data from patient experience but cross-site inequity issues were only mentioned in the context of great improvement.

Trainee experience:

5.11 The department is rated highly by medical trainees in the Health Education England (HEE) training survey and their willingness to apply for consultant posts testifies to their experience. More could be done to support training for radiographers in order to develop their careers and increase retention.

Patient focus:

5.12 Little direct information was provided on the patient experience or feedback; some concerns were raised by the clinicians about waiting and changing areas and the lack of chaperones but these are being addressed by new-build work. There is no patient-driven strategy for quality improvement.

5.13 The new Ultrasound lead had an exemplary patient focus and was driving forward service improvement within his service.

5.14 The team were not made aware of a strong patient focus by the departmental team as a whole however this could be that due to a lack of a strong clinical vision for the service the messages are diluted and compete with the omnipresent workforce issues.

6 Recommendations

Leadership

- Senior and Executive management should consider with the Chief of Service how to best provide consistent and visible support whilst enabling the Specialty Director, General , and senior radiographers to develop their roles and leadership of the department, so that the voice of practitioners is clear and staff can see their place within the overall trust strategy (4.1.4)
- Develop a programme of team building and clarify roles among the department management team so decision making is rapid and clear to all in the department.(4.1.10)
- Offer appropriate development, coaching and support for the General Manager and Specialty Director so they are clear about their responsibilities and how to escalate problems. . (4.1.10)
- Prioritise seeking a permanent Radiology Service Manager, perhaps using alternative or creative approaches. (4.1.10)
- The leadership team need to create and communicate a vision and plan articulating specifically what the aims are over the next 5 years, including milestones that the workforce understands and supports. This could be facilitated by the trust organisational development team involving all staff groups to discern their ideas and aspirations and generate enthusiasm and ownership of their future. (4.1.12)
- Consider the Quality Standard for Imaging and working towards it. (4.1.12)
- Clarify the arrangements for Retire and Return and other flexible working options for experienced consultants to make the option financially viable(4.1.17)
- Ensure there is a robust and documented programme of induction and mandatory training job-planned for all new staff whether or not they have previously worked at the Trust. This must include the requirements of IR(ME)R 17. (4.1.17)
- Allow the departmental managers to over recruit to the establishment at times of the year when radiographers are available in quantities, typically at the time of band 5 graduation. (4.1.17)
- Review the departmental processes and systems involving the modality leads to ensure the processes and systems are working effectively (4.1.19)

Resources and Workforce

- Check and resolve contractual maintenance obligations to the Cobalt centre
- Expedite replacement of Philips PACS (4.2.5)

- Ensure that the lack of pre-fetch on PACS is represented on the trust wide risk register. (4.2.5)
- Develop, with the radiologists, suitably designed reporting rooms drawing on national guidance and local preference. Ensure there are suitable reporting facilities for complex work. (4.2.5)
- Urgently redesign the Home Reporting offer with consultant involvement for all consultants and reporting radiographers who wish to participate. (4.2.5)
- It should become an integral part of trust sign-off of any new service or new consultant business case that the implications and true costs of the required radiology capacity are included. (4.2.7)
- The service should undertake a complete workforce establishment review in regard to the workforce capacity needed to provide the required activity and out of hours service provision. This must include development of advanced radiographer roles and those currently in AP roles must have job plans agreed. The Trust must ensure that it has an effective out of hours service where sufficient staff are available and supported to deliver care. (4.2.14)
- The trust must recruit more radiologists to meet current and planned demand in the short and medium term. The Trust could consider the global radiologist route (4.2.14)
- Consider co-location of the booking team and a review of processes to maximize the efficiency of the service. (4.2.20)

Clinical Focus

- Review what items are outsourced. Ensure that a significant proportion of the subspecialty and complex work is kept in-house and prioritise outsourcing plain films based on clinical urgency (4.3.7)
- Conduct a systematic review of job plans and rotas, against activity, involving the consultants throughout, to ensure equity and manageability, and that SPAs and commitment to teaching are recognised. There must be a non-voluntary rota of on-call consultants available for the times when there is no other cover in the departments in order that a sustainable and safe level of cover at these times is present. (4.3.16)
- Ensure the Risk Register includes progress and completion dates. (4.3.22)
- There must be a clear process for induction for new consultants including statutory requirements under employers' responsibilities. (4.3.19)
- Review and standardise pathways of emergency and urgent care including engagement with trauma meetings. (4.3.20)

Safety

- Formalise arrangements for back-up and cover for the breast and paediatric radiology consultants and prioritise efforts to recruit to these specialisms. (4.4.3)
- The service should review the out of hours working arrangements for radiographers with particular reference to those service elements reliant upon single handed on call cover across more than one modality or service. (4.4.4)
- The service should review the OOH cover/on call rota to ensure robust consultant cover for the times not covered by the external service.
- Safety huddles and staff meetings should take place regularly so that all staff are fully informed and there is a space for communication to take place. (4.4.5)
- All relevant staff should be included within the REALM process as set out in the RCR guidance. (4.4.6)
- Develop a departmental process which would allow electronic vetting where the consultants could review those cases which the radiographer felt needed a radiologist opinion and mechanisms for liaison with referrers about appropriateness of test requests. (4.4.10)
- Ensure that vetting staff have appropriate skills among them to be able to challenge all referrals where required.(4.410)
- Consider adopting iRefer to support appropriate referrals. (4.4.10)
- The Trust should review the alert mechanisms for unexpected findings and cancers, bringing it in line with national guidance. (4.4.12)

- **Patient focus**

- Review arrangements for chaperones and ultrasound patient experience in Gloucester, including all waiting and changing areas. (4.5.2)
- Ensure there is staffing assigned to monitor patients in the waiting area at Cheltenham. (4.5.3)
- Review the DNA rates in all modalities to determine what action could be taken to reduce them. (4.5.5)

Appendix A – Staff contributing to the review

The following staff were interviewed as part of the review visit

Medical Director
Deputy Medical Director
Chief of Service D&S Division
Acting Divisional Director of Operations
Specialty Director
Plain film and MRI lead
LNC Radiologist representative
Previous Specialty Director
Previous LNC representative
Ultrasound lead
Breast lead
Paediatrics lead
Interventional Radiology lead
General Manager
Lead radiographer
PACS manager
Lead consultant Emergency Care
Consultant radiologists from each site
Modality lead radiographers

Other staff contributed to the survey circulated ahead of the review and the RCR review team thanks them for their helpful contributions.

Appendix B

Job planning and workforce

Guidelines for nursing in Interventional Radiology (RCN/RCR 2017)

Standards for providing a 24-hour interventional radiology service, second edition (RCR 2017)

A guide to job planning in Clinical Radiology (RCR 2013)

Clinical Radiology Workforce Census RCR 2019

Diagnostics, recovery and renewal – an NHSE/I Board paper presented by Professor Sir Mike Richards – October 2020

National Quality Board guidance on safe staffing (Radiography and sonography staff)

Job Planning the Allied Health Professionals – a best practice guide – NHS England July 2019

Clinical governance and quality management

Standards for Radiology Events and Learning Meetings (REALM) RCR 2020

Royal College of Radiologists – Quality Improvement resources – a source page of numerous resources to help teams develop their service and themselves.

A guide to Quality Improvement Methods HQIP 2015

South Tyneside and Sunderland NHSFT Trust Board May 2021 – Workforce review outcome report appendix

Vetting and cancellation of inappropriate radiology requests – RCR May 2021

Productivity in NHS Hospitals

Radiology – GIRFT National Programme Specialty report

Radiology elective care handbook

Appendix C Documents reviewed

The following information and documents were submitted to the review team or obtained from the public domain and contributed to the findings in this report.

- A&C Structure
- Adult patients having a CT scan
- Audits list
- CT Colon Patient info leaflet
- Imaging standards
- Meetings in place in escalation order
- Radiology risks
- Turnover of staff
- GHNHSFT radiology LNC
- Gloucester Hospitals CR Benchmarking
- Gloucester Hospital timeline
- Regional CR Benchmarking
- South West IR Dashboard
- Service line board meeting 21September
- Workload and Service delivery Q18 Q30
- Departmental; Meetings
- Department Timetable Template
- Copy of NIDC Workforce 2020
- CQC review Cheltenham Oct 2018
- CQC review Gloucester Oct 2018

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