

DMC Imaging Ltd

DMC Imaging

Inspection report

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

Ratings

Overall rating for this location

Good 

Are services safe?

Good 

Are services effective?

Inspected but not rated 

Are services responsive to people's needs?

Good 

Are services well-led?

Good 

Summary of findings

Overall summary

We rated it as good because:

- The service had enough staff to meet its contractual obligations with its clients. Staff had training in key skills and understood what processes to follow when identifying potential safeguarding scenarios. The service managed incidents well and learned lessons from them.
- Staff worked to best practice and relevant guidelines. Managers monitored the effectiveness of the service and made sure staff were competent.
- The provider planned its services to meet the needs of its clients.
- Leaders ran its service [EC1] well using reliable information systems and supported staff to develop their skills. Staff felt respected, supported and valued. Staff were clear about their roles and accountabilities. Staff were committed to improving services continually.

Summary of findings

Our judgements about each of the main services

Service

Diagnostic imaging

Rating

Good



Summary of each main service

We rated it as good because:

- The service had enough staff to meet its contractual obligations with its clients. Staff had training in key skills and understood what processes to follow when identifying potential safeguarding concerns. The service managed incidents well and learned lessons from them.
- Staff worked to best practice and relevant guidelines. Managers monitored the effectiveness of the service and made sure staff were competent.
- The service planned its services to meet the needs of its clients.
- Leaders ran services well using reliable information systems and supported staff to develop their skills. Staff felt respected, supported and valued. Staff were clear about their roles and accountabilities. Staff were committed to improving services continually.

Summary of findings

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Summary of this inspection

Background to DMC Imaging

DMC Imaging provides a teleradiology reporting service to NHS hospital trusts and independent healthcare providers, providing remote reading and analysis of images. Services can be provided as a bespoke package for organisations for both backlog reduction initiatives and routine and urgent scans depending on the participating service's requirements.

The reporting centre is staffed by a team of trained administrators who assign reporting to a team of General Medical Council (GMC) registered, sub specialist consultant radiologists who provide interpretation of diagnostic radiographs, magnetic resonance imaging (MRI) and computerised tomography (CT) scans.

We spoke with eight members of staff which included the registered manager and reviewed client feedback, and reviewed discrepancies arising from radiologist reports. The service was registered to carry out diagnostic imaging as a regulated activity.

How we carried out this inspection

We carried out a short notice inspection on the teleradiology service on 13 June 2023.

You can find information about how we carry out our inspections on our website: <https://www.cqc.org.uk/what-we-do/how-we-do-our-job/what-we-do-inspection>.





Our findings

Overview of ratings

Our ratings for this location are:

	Safe	Effective	Caring	Responsive	Well-led	Overall
Diagnostic imaging	Good	Good	Not inspected	Good	Good	Good
Overall	Good	Inspected but not rated	Not inspected	Good	Good	Good

Diagnostic imaging

Safe	Good 
Effective	Good 
Responsive	Good 
Well-led	Good 

Is the service safe?

Good 

Mandatory training

The service provided mandatory training in key skills to all staff and made sure everyone completed it.

DMC Healthcare engaged a number of radiologists through a practicing privileges contract (PPC), the majority of whom had a substantive post within the NHS. As per DMC Imaging's 'Mandatory Training Policy', it stated that it recognised there was no need to duplicate the mandatory training, therefore DMC accepted the mandatory training from their respective NHS trusts. Verification of mandatory training compliance was requested from each radiologist as part of their onboarding process. This included a summary document which listed their training modules, confirming that they had been completed, as well as checking expiry dates.

The service had access to a company who was able to provide mandatory training to substantive staff at all levels (radiologists and non-clinical staff), which included providing mandatory training to retired radiologists wanting to work for the service. Some of the mandatory training modules provided included: confidentiality, consent, conflict, information governance, and freedom to speak up training. 95% of staff were compliant in their mandatory training.

Managers monitored mandatory training and alerted staff when they needed to update their training. A spreadsheet was kept by the operational team, of individual radiologists' compliance with mandatory training, showing when renewals were due and completion rates.

If a radiologist went out of date on any mandatory training, the mandatory training system would email reminders to the radiologists. The system would also send an email to staff a month before expiry of any mandatory training, with regular emails after expiry until training had been completed.

Safeguarding

Staff had training on how to recognise and report abuse and they knew how to apply it.

The registered manager, who was also a clinical director within the organisation, was the safeguarding lead for DMC Imaging. Any safeguarding issues were reported to DMC's safeguarding lead who was Level 3 trained. Each client of DMC had its own approved safeguarding pathway contact and the safeguarding lead took on the responsibility of liaising and communicating with relevant trust's safeguarding leads in the event of any safeguarding concerns.

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The service recognised that because it was a digital, non-patient contact, secondary care service, it had opted to use a policy which covered adults, young people and children as its overarching safeguarding policy. The service had a safeguarding policy with its review date set at 25 April 2024, which had recently been updated by the chief operations officer, and reviewed and approved by the group medical director. Updates included safeguarding lead responsibilities, safeguarding assurances and reference to its mandatory training policy.

All staff joining the organisation as a substantive employee received adult and children safeguarding training, appropriate to their role as part of their mandatory training. For radiologists working under practising privileges, the service accepted the level of safeguarding training required by the radiologist's respective trusts. We saw evidence of a radiologist's Level 2 safeguarding training for children and adults that was kept on file by DMC.

Staff working in the service had a 96% compliance rate for completion of safeguarding training.

DMC Imaging undertook DBS checks on all new employees. It accepted DBS checks completed by their employed trust within the past 12 months. If there was an immediate short term need to employ a radiologist with a specific sub-speciality reporting skill, they would also accept an NHS DBS if completed within the last 12 months.

Cleanliness, infection control and hygiene

We did not inspect this element using our key lines of enquires as it was not applicable to this service.

Environment and equipment

The equipment was suitable for the reporting of imaging services.

There was a minimum requirement that equipment used by radiologists met the requirements for home reporting. Twelve of the radiologists were using the reporting equipment provided to them by the service, whereas the other radiologists were using home reporting equipment provided to them by their NHS trusts. The equipment the service provided to its radiologists was calibrated by an external IT company that specialised in IT support, cyber security and business intelligence. They were also responsible for undertaking remote setups of new equipment for radiologists, arranging equipment delivery and holding tele-conferencing calls to help radiologists set up their equipment.

The clinical directors told us that oversight of radiologist's home environments was very difficult but radiologists were encouraged to ensure their light settings were appropriate when reporting. The service also recognised that it was difficult to monitor the calibration and quality settings of remote reporting monitors issued by the NHS, so a solution was being explored to enable the radiologists to self-declare that the quality of their equipment was in accordance with the royal college of radiologists guidelines and the guidelines of their respective NHS trusts.

We saw maintenance logs for equipment issued by the service and a radiology workstation reporting requirement standard operating procedure (SOP). The SOP which detailed the minimum equipment requirements radiologists reporting for the service had to possess, covering specifications such as: screen resolution, screen size; maximum luminance, luminance contrast ratio; and greyscale bit depth.

Assessing and responding to patient risk

The service had processes in place to respond to diagnostic reports received.

The service had a clear pathway it would follow for urgent findings. If findings were urgent or potentially life threatening, the radiologist would contact the clinical on call teams at the referring organisation and discuss the findings.

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If the findings were not urgent or immediately life threatening but needed action, the reporting radiologist would email DMC's help desk with the patient's details, who would forward it to the referring organisation. The service requested a read receipt from the client to ensure the referral had been received. Urgent and non-urgent findings were recorded and discussed at radiology governance meetings.

Within the reporting software, there was a drop-down menu indicating significant (yellow flag), urgent (orange flag) or critical (red flag) findings. This generated an automatic email to the client who would then confirm receipt of the referral. This was in addition to radiologists emailing the helpdesk themselves with the issue as a back-up measure. Radiologists would send a further email to the helpdesk to ensure receipt of the referral.

Staffing

The service had enough staff with the right qualifications, skills, training and experience to undertake interpretation and reporting.

There were 45 UK radiologists working for the service. Radiologists were assigned studies based

on their availability and capabilities by the administration team using the picture archiving and communication system (PACS).

Leaders working in the service told us that it was steadily increasing its capacity to report because of its ability to tap into an international company who could provide radiologists from other countries (namely India), to provide fast, accurate and comprehensive remote radiology reporting across a number of different modalities.

Leaders working in the service told us that the amount of magnetic resonance imaging (MRI) studies they received to report on could at times be overwhelming. Head and neck imaging required specialist reporting and the service sometimes had to turn that work away because they did not have the specialists to undertake that work. As a learning process, the service had identified that they had to turn away work rather than take the work on and consequently report late.

DMC had recently recruited two radiologists who were specialists in positron emission tomography (PET) scanning.

Records

Records were clear, up to date, stored securely and easily available to all staff requiring access.

Images for interpretation and subsequent reports between the service and its clients were sent securely and were easily available to all staff.

The retention of records were automatically managed by a medical device company. There was a 90 day retention period for all patient data. The service had regular contract meetings with its clients, where missing reports could be discussed before the 90-day retention period expiration.

Medicines

We did not inspect this element using our key lines of enquires as it was not applicable to this service.

Incidents

The service managed incidents well. Staff identified incidents and took appropriate action. Managers investigated incidents and shared lessons learned with the whole team and the wider service.

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The service kept a spreadsheet of its highlighted incidents, which also included a column to indicate where they had contacted their clients about the incident.

The service had an incident recording system accessible to staff for recording incidents. However, if radiologists had a non-clinical incident that needed reporting, they could email the service's help desk, who would decide whether an incident was appropriate to record as an incident, or whether it could be resolved alternatively i.e. if it was a simple IT issue that needed to be reported.

There was one incidence of a data breach in the last 12 months. This involved reports being sent to one of DMC Imaging's clients by another of its clients, which breached patient data confidentiality. It was identified that there was a flaw in DMC Imaging's and its clients' combined processes and systems. Administrators working for one of the service's clients had been able to access the combined systems and send reports and patient data to another of DMC's clients. The action taken to prevent the issue from happening again, was for the service to remove any external user permissions from its systems, with the action also informing the subsequent learning.

Is the service effective?

Good 

Evidence-based care and treatment

The service worked to best practice and relevant guidelines.

Policies and standard operating procedures (SOPs) followed a standardised corporate style and format, were 'easy read' and easily accessible to all staff and were maintained on a central website. Only current policies and procedures were published, and previous versions were archived and available if there was a need to identify organisational practice at the relevant time.

The service worked to The Royal College of Radiologists standards for the provision of teleradiology. The 4 standards were around data transfer; reporting; communication of the results; and quality assurance. The communication of the results standard stated that the same person should interpret the examination and issue the report to the referring clinician. The reporter should be clearly identified on the report, with the results communicated and integrated into the base hospital's radiology information system (RIS), picture archiving and communications system (PACS) and electronic patient record (EPR) in a timely manner.

The service reviewed policies and procedures to ensure they reflected latest legislation, national guidance and evidence based best practice. Useful resources that informed the service's policies and procedures included: Department of Health, Care Quality Commission, National Institute for Health and Clinical Excellence, Royal Colleges and Professional bodies, and other organisations.

Nutrition and hydration

We did not inspect this element using our key lines of enquires as it was not applicable to this service.

Pain relief

We did not inspect this element using our key lines of enquires as it was not applicable to this service.

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Patient outcomes

Staff monitored the effectiveness of its radiologist's reporting. The service had been accredited under relevant clinical accreditation schemes.

The service had an audit process for managing the performance of radiologists. The service had introduced a 'radiologists watchlist', where a radiologist who had over a 5% discrepancy in their reporting were subject to a further review of more of their reporting to ensure competency. This involved having their next 20 consecutive reports monitored and reviewed by external auditors.

The hospital held a certificate of assurance for cyber essentials, detailing its compliance with the requirements of the cyber essentials scheme. The service had received their certification for this on the 28 July 2022. Cyber essentials is a government-backed scheme that helps businesses protect themselves against the growing threat of cyber attacks and provides a clear statement of the basic controls organisations should have in place to protect themselves.

The hospital held a certificate of assurance for cyber essentials plus, detailing its compliance with the requirements of the cyber essentials plus scheme. The service had received their certification for this on 9 September 2022.

The service was assessed and certified by the British Assessment Bureau as meeting the requirements of ISO 9001:2015 for the provision of clinically led and clinically delivered, high quality, sub-specialist radiology reporting services, securely forwarding clinical information to National Health Service (NHS) and private healthcare providers within the UK. Initial certification was provided in November 2015 and their most recent annual assessment took place in November 2022.

Competent staff

The service made sure staff were competent for their roles.

All UK consultant radiologists applying to work for the service were interviewed by the clinical directors. Aspects of the radiologist's professional life of particular interest to DMC Imaging, included the name of the NHS trust where the consultant held a substantive appointment, the nature of their sub-speciality interest and the nature of their fellowship training. Mandatory characteristics needed to work in the service included having: a sub-speciality radiology interest; record of regular appraisals (including revalidation date); to be up-to-date with their mandatory training (as required by their own trust); have medical indemnity cover and be registered with The General Medical Council and the Royal College of Radiologists (RCR). Clinical directors were responsible for interviewing prospective radiologists.

The service worked alongside a company that provided international remote-working radiologists to DMC Imaging. They had to be registered with the UK GMC, hold the Fellowship of the Royal College of Radiologists (FRCR) qualification; have a sub-speciality radiology interest; and have 30 initial reports go through a process of second sign-off by one of the service's clinical directors.

87% of staff working in the service had received an appraisal and for those that hadn't it was because they had been working in the service for less than a year.

Multidisciplinary working

We did not inspect this element using our key lines of enquires as it was not applicable to this service.

Seven-day services

We did not inspect this element using our key lines of enquires as it was not applicable to this service.

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Health promotion

We did not inspect this element using our key lines of enquires as it was not applicable to this service.

Consent, Mental Capacity Act and Deprivation of Liberty Safeguards

We did not inspect this element using our key lines of enquires as it was not applicable to this service.

Is the service responsive?

Good 

Service delivery to meet the needs of patients

The service provided a provision of interpretation and reporting for its NHS and private healthcare clients.

The service had a number of NHS trusts and private healthcare facilities that were its clients, undertaking reporting of different studies for its clients' patients.

The service discussed with its clients that they would use Royal College of Radiologists (RCR) and general medical council (GMC) registered radiologists who were based in India to undertake reporting. This was agreed only with the written agreement of the client. We were shown evidence of where a client declined to use international radiologists but saw evidence of two hospital trusts consenting to reporting being undertaken in India, with another hospital trust about to sign a contract in agreement to the terms, and another trust considering it. Radiologists working for the company which provided international radiologists were able to work from a centre in India or from their home but had to comply with RCR guidelines.

Meeting people's individual needs

We did not inspect this element using our key lines of enquires as it was not applicable to this service.

Access and flow

The service met its contractual obligations for sending back reports within agreed timeframes.

The service used Picture Archiving and Communication System (PACS) which supported radiologists to upload and submit their reports safely and securely. Reports were sent back through an NHS N3 network.

The clients were able to state how quickly they required a report. Eighty per cent of the service's reporting had to be turned around within 48 hours. The service was open and honest about timelines and workloads and would turn down work if they did not have the capacity to do so.

The service had doubled its throughput from the previous year without any serious incidents, adverse events or reportable incidents.

Learning from complaints and concerns

It was easy for clients to raise queries and make complaints about the service provision they received. The service treated all queries and complaints seriously and investigated them.

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The service kept a discrepancy log which tracked all the discrepancies and queries that clients raised with the service. A common theme raised by clients was issues around poor sentence construction in diagnostic reports. Queries and discrepancies were handled by the clinical directors, with them contacting the radiologist who was responsible for completing the report, and addendums to the original report if necessary. The service had not received any formal complaints in the last 6 months.

We looked at a discrepancy form completed by a client on the 17 May 2023 which queried a report for a special type of MRI. Following the discrepancy being logged by the client, the service reviewed the report and surmised that the reporting radiologist was confirming the already held clinical suspicion.

Is the service well-led?

Good 

Leadership

Leaders had the skills and abilities to run the service. They understood and managed the priorities and issues the service faced.

The organisational structure of DMC Imaging was overseen by a board, which included a managing director, a group medical director, two clinical directors who held substantive posts within NHS hospitals, and a consultant advisor.

The data insight manager and radiologists reported to the chief operating officer. The chief operating officer reported to the board.

Under this layer of structure was a 'head of radiology reporting operations' and within this organisational structure [EC1] were administrators for operations and clinical liaison.

The service had plans to recruit a chief technology officer; a connectivity and integration manager; and an application specialist.

Staff commented that management were very accessible and approachable and that there were opportunities for additional training and development.

Vision and Strategy

The service had a vision for what it wanted to achieve and a strategy to turn it into action.

The service's mission was to create a frictionless patient experience of the highest quality and their vision was to deliver healthier outcomes.

The service identified their purpose as being a strong provider in the NHS ecosystem, with DMC Imaging delivering healthier outcomes by always putting their client's patients first. Their clinical and operation teams were available to add capacity and help tackle waiting lists.

The service's values which had an acronym of 'TRUST', had been coproduced with staff and stood for: team, respect, understanding, supportive, and together. The 5 values underpinned the way the service delivered their services, treated their patients and inspired their colleagues to make a difference.

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Culture

Staff felt respected, supported and valued

Staff we spoke with felt respected and valued and spoke highly of their colleagues. The culture encouraged openness and honesty at all levels within the organisation.

Governance

Leaders operated effective governance processes throughout the service. Staff at all levels were clear about their roles and accountabilities and had regular opportunities to meet, discuss and learn from the performance of the service.

The service's clinical governance structure facilitated good and evidence-based practice, with ideas and innovations systemically integrated. It facilitated quality improvement and clinical risk reduction, and identification of poor clinical performance.

Clinical Governance was led by the medical director and managed through its medical advisory committee, providing DMC Imaging with a means of independent and objective review of the company's processes, policies and service operations. The medical director was also responsible for the day-to-day clinical management. They were supported by the clinical directors and the quality assurance team. These groups assisted in the implementation of procedural changes and actions at a local level related to learning opportunities that had been identified.

In meeting minutes that we looked at for the strategic operation and governance group (SOG) and medical advisory committee (MAC) group for April 2023, agenda items such as audits, complaints and turnaround times for reporting to its clients were discussed. There was regular discussion of governance issues and audit findings at scheduled SOG meetings.

The service was committed to providing its clients with comprehensive audit reports, performing routine monthly audit of a random selection of 10% of all reports for cross-sectional studies, which included CT and MRI, and 2% of plain film examinations. The level of audit could periodically increase for reasons of specific scrutiny and could also decrease in light of sustained excellent performance over any 2 year period. Reports generated by the service's radiologists were randomly selected and forwarded to the relevant sub-specialist auditing team. The audit process followed a standard five-point scale for review of radiology reports. Newly recruited radiologists had their first 30 studies audit under a category of a 'New Starter Audit'.

Management of risk, issues and performance

Leaders and teams used systems to manage performance effectively. They identified and escalated relevant risks and issues and identified actions to reduce their impact. They had plans to cope with unexpected events.

Leaders were aware of risks within the service. The service had a risk register which it used to record organisational risk. The top risks on the register were: clinician availability; reporting within agreed turnaround times; picture archiving and communications system (PACS) IT system outage; and inter-client connection failures. The mitigations in place for reduced clinician availability was for the service to only accept work they knew could be completed on time, to have constant communication with the reporters, and to have a targeted recruitment drive.

The service identified that during an outage, the PACS system would become inaccessible or would fail to function properly, leading to an interruption in service and an inability for radiologists to view images and complete reports. The

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service recognised that the PACS system was managed by a company who led in medical technology management, with all data being stored in a cloud server, which allowed them to have redundant systems and easily turn-on backups if there was a server-wide issue. They also had a regular maintenance and patch schedule to ensure all servers were secure and up to date.

The service had an industry standard audit process for managing the performance of its radiologists. External auditors would be paid to complete the monthly audits. Any radiologists who had a 5% discrepancy with their reports would be subject to further review of more of their reporting to verify their ability and reporting competency.

Information Management

Information systems were integrated and secure.

The information sent between the client and the service was general data protection regulation (GDPR) compliant. Data was sent securely with end-to-end encryption between the client, the service and the radiologists.

The designated information governance lead within DMC Imaging was responsible for the oversight of information governance. This included: distributing protocols; escalating information requests and incidents to the data protection office and caldicott guardian; raising awareness of information governance; and ensuring that there was ongoing compliance with the policy and its supporting standards and guidelines.

The company who provided medical technology management to the service undertook their own data security checks and these were shared with the service.

The service was compliant with data protection legalities, undertaking data protection impact analysis, as well as its clients undertaking their own data protection impact analysis.

Engagement

Leaders and staff actively and openly engaged with staff and its clients.

The service had a 'you said, we did' process with its clients and staff, to ensure greater efficiencies and improvements across its services. An example of this is where a client stated they found it was burdensome to its radiographers to find and transfer prior image studies. To address this, DMC Imaging implemented an automated query-retrieve system, removing the need for manually finding and sending images.

The service had been going through a transformation change, which included recruiting and retaining talent and working with existing employees to establish and encourage their growth within the organisation.

Eighty-nine per cent of staff were aware of how to report concerns through the freedom to speak up guardian.

Learning, continuous improvement and innovation

All staff were committed to continually learning and improving services. They had a good understanding of quality improvement methods and the skills to use them. Leaders encouraged innovation.

The service was exploring the development and implementation of artificial intelligence (AI) processes within radiology workflows and reporting accuracy.

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The service was proud that they had successfully migrated all its clients to one reporting platform powered by a medical technology management company.