# Telemedicine Clinic

## Quality Report

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

## Ratings

| | |
|---|---|
| Overall rating for this location | Good |
| Are services safe? | Good |
| Are services effective? | |
| Are services caring? | |
| Are services responsive? | Good |
| Are services well-led? | Good |

# Summary of findings

## Letter from the Chief Inspector of Hospitals

Telemedicine Clinic is operated by Telemedicine Clinic Limited. Telemedicine Clinic is a European based teleradiology company providing diagnostic reporting services day and night, throughout the year, to hospitals in the UK. It does not provide patient imaging services and does not have direct contact with patients. As a teleradiology service, it receives diagnostic images from hospitals, reports on them and sends the reports back to the referrer. For some clients it also justifies diagnostic imaging, which means radiologists evaluate the radiological examination proposed, for its clinical merit and appropriateness. It reports on images generated by magnetic resonance (MR), computerized tomography (CT), X rays, dual-energy X-ray (DEXA) and nuclear medicine.

The provider, Telemedicine Clinic Limited, is the UK branch of the company with an operations office in Theale, Reading, serving UK clients which are NHS trusts and independent health providers. Telemedicine Clinic Limited is owned by a diagnostic service provider based in Switzerland.

The Theale operations office receives images from health provider clients and allocates them to radiologists for reporting. The radiologists are supported to work remotely from their homes or from offices in Barcelona, Spain and in Sydney, Australia.

The service provides diagnostic image reporting services for the whole population.

We inspected this service using our comprehensive inspection methodology. We carried out the announced part of the inspection on 4 April 2019 at the operations office and we also phoned radiologists working remotely after the onsite inspection.

To get to the heart of patients' experiences of care and treatment, we ask the same five questions of all services: are they safe, effective, caring, responsive to people's needs, and well-led? Where we have a legal duty to do so we rate services' performance against each key question as outstanding, good, requires improvement or inadequate.

For diagnostic imaging services, we do not rate effective, and for teleradiology services we do not inspect or rate caring, as the service does not have direct contact with patients. This was the first time we rated this service. We rated it as **Good** overall.

We found the service was good:

- The service had enough radiologists and operational staff with the right qualifications, skills, training and experience to keep people safe from avoidable harm. All staff completed a programme of induction, designed for their roles.
- Records of patients' care and treatment were clear, secure and accessible to all staff involved in the diagnosis pathway via password protected systems. Patient data was pseudonymised and only retained for as long as necessary.
- Radiologists escalated unexpected or significant finding on reported images, kept clear records and asked for support when necessary. This included findings indicative of abuse. They applied the Ionising Radiation (Medical Exposure) Regulations guidelines when justifying X-ray diagnostic tests. The service followed best practice when justifying the use of contrast administration.
- The service managed patient safety incidents well and reviewed records for discrepancies. Senior radiologists or managers investigated incidents and shared lessons learned.
- The service supplied staff with suitable equipment, including workstations with monitors for all radiologists. There were systems to test and calibrate monitors, in line with the Royal College of Radiologists (RCR) guidelines for diagnostic display devices.

# Summary of findings

- The service provided care and treatment based on national guidance and evidence of its effectiveness. This included guidance issued by the RCR. Managers checked to make sure staff followed guidance.
- There was peer review and management review of radiological reports and findings were shared to improve outcomes for patients and for learning.
- The service made sure staff were competent for their roles. Managers appraised staff's work performance and held meetings with them to provide support and monitor the effectiveness of the service.
- Staff in different roles worked together as a team to benefit patients. Radiologists, other health staff, operational, IT and administration staff supported each other to provide a good service.
- The service planned and provided services in a way that met the needs of those using the service. It was available at any time of day or night, throughout the year so clients could access the service when they needed it, in line with their contracted arrangements. Turnaround times from referral to reporting were in line with agreed standards.
- The service treated concerns and complaints seriously, investigated them and learned lessons from the results, and shared these with all staff.
- There was a clear leadership structure that supported radiologists and operational staff.
- The service had a vision for what it wanted to achieve based on agreed values and objectives.
- Managers across the service promoted a positive culture that supported and valued staff, and created a sense of common purpose based on shared values.
- Telemedicine Clinic systematically improved service quality and safeguarded high standards of care through effective governance systems. This created an environment that promoted excellent clinical care. The service was committed to improving services by learning from when things went well or wrong, promoting training and innovation
- The service collected, analysed, managed and used information well to support all its activities, using secure electronic systems with security safeguards
- Telemedicine Clinic had systems to identify risks, plan to eliminate or reduce them, and cope with both the expected and unexpected.
- The service engaged well with staff, clients and local organisations to plan and manage appropriate services.

However, we found the service required improvement in the following area:

- The provider did not have a registered manager for the service, which is a requirement of the service's condition of registration with the Care Quality Commission. The applicant was in the process of resubmitting their application at the time of the inspection, but the service had been without a registered manager for over six months.

Following this inspection, we told the provider that it should make other improvements, even though a regulation had not been breached, to help the service improve. Details are at the end of the report.

**Nigel Acheson**
**Deputy Chief Inspector of Hospitals (London and South)**

# Summary of findings

## Our judgements about each of the main services

| Service | Rating | Summary of each main service |
|---|---|---|
| **Diagnostic imaging** | Good  | This service provided a radiological reporting service for UK hospital clients, mostly NHS trusts, at all times of the day and night. The radiologists were based internationally and within the UK and reported via secure radiology information systems.<br>We rated this service as good because it was safe, responsive and well led. We don not rate effective or caring for this type of service. |

# Summary of findings

## Contents

Good

# Location name here

**Services we looked at**
Diagnostic imaging

# Summary of this inspection

## Background to Telemedicine Clinic

Telemedicine Clinic is operated by Telemedicine Clinic Limited. The service started in Barcelona, Spain, where the company has its head office. It is a private service, with a reporting hub in Sydney, Australia where radiologists report on emergency trauma cases and provide a triage service during the UK night time. The UK Telemedicine Clinic office in Theale, Reading, opened in 2011 and registered with the CQC in October 2013. There are no clinical facilities at this site and it provides a base for the UK operations team and support functions. Radiologists are based in offices in Barcelona and Sydney or remotely, at their homes in the UK or internationally.

The service provides image reporting primarily for NHS trusts and some independent health organisations; it has contracts with 39 NHS trusts, two research companies and three private imaging companies. The service is operational 24 hours a day, 365 days a year and radiologists based in the Barcelona office and remotely in the UK and other countries report on elective cases during the day. At night, the on-call radiology team in Sydney, Australia, reports on urgent and emergency cases and provides a triage service for NHS trusts, advising on the most appropriate diagnostic approach.

The service is registered to provide the regulated activity, diagnostic and screening procedures.

The service did not have a registered manager at the time of our inspection. The applicant had submitted an application, which needed a correction and resubmission. The previous registered manager had deregistered in September 2018 to work in a different role within the organisation.

This inspection was announced and the site visit took place on 4 April 2019 when the inspection team visited the UK head office in Theale. After the inspection, we spoke with 10 radiologists remotely, by phone or internet conference call.

## Our inspection team

The team that inspected the service comprised a CQC lead inspector and a specialist advisor with expertise in radiology. The inspection team was overseen by Amanda Williams, Interim Head of Hospital Inspection for South Central and South London region.

## Information about Telemedicine Clinic

The service had an operations department that coordinated the receipt and distribution of images to radiologists. It is registered to provide the following regulated activity:

- Diagnostic and screening procedures

For this inspection, we visited the UK operations hub, and we spoke with 10 radiologists including those working remotely and internationally, after the site visit. We spoke with the managing director, the medical director for clinical governance, the company and UK leads for quality, operations, people and values and business management. During our inspection, we reviewed six sets of patient records.

There were no special reviews or investigations of the service ongoing by the CQC at any time during the 12 months before this inspection. This was the service's first inspection since registration with CQC.

Activity (April 2018 to March 2019)

# Summary of this inspection

- In the reporting period April 2018 to March 2019 telemedicine clinic reported over 500,000 images. In the UK it reported on 117,286 elective and 96,166 emergency cases.
- Approximately 99% of UK reports were for NHS trusts. The rest were for independent health providers.

The organisation employed radiologists in Australia (18) and within mainland Europe (5) and had contracts with self-employed radiologists (termed collaborators) in UK (31) and 79 in Europe and other countries in the European Economic Area, Australia, New Zealand, South Africa, United Arab Emirates, Serbia, USA and Canada. Employed radiologists usually worked normal office hours, with their shifts arranged based on the service they reported for. Collaborators worked evenings, weekends or when they were not contracted to work with another organisation. All radiologists were registered with the GMC and provided evidence of professional qualifications in clinical radiology.

There were 27 client administrators.

Track record on safety

- No never events
- 397 clinical incidents
- 4 serious incidents

There had been 5 complaints.

**Accreditations by a national body:**

- Imaging Services Accreditation Scheme (ISAS)

  Since July 2016 and last revalidated April 2018. This is a scheme developed by The Royal College of Radiologists and the College of Radiographers to check diagnostic imaging services provide consistent, high-quality care.

# Summary of this inspection

## The five questions we ask about services and what we found

We always ask the following five questions of services.

### Are services safe?

Good

This was the first time this service was rated. We rated it as **Good** because:

- The service had enough radiologists and operational staff with the right qualifications, skills, training and experience to keep people safe from avoidable harm. All staff completed a programme of induction, designed for their roles.
- Records of patients' care and treatment were clear, secure and accessible to all staff involved in the diagnosis pathway via password protected systems. Patient data was pseudonymised and only retained for as long as necessary.
- Radiologists escalated unexpected or significant finding on reported images, kept clear records and asked for support when necessary. This included findings indicative of abuse. They applied the Ionising Radiation (Medical Exposure) Regulations guidelines when justifying X-ray diagnostic tests. The service followed best practice when justifying the use of contrast administration.
- The service managed patient safety incidents well and reviewed records for discrepancies. Senior radiologists or managers investigated incidents and shared lessons learned.
- The service supplied staff with suitable equipment, including workstations with monitors for all radiologists. There were systems to test and calibrate monitors, in line with the Royal College of Radiologists (RCR) guidelines for diagnostic display devices.

### Are services effective?

We do not rate effective for this type of service.

- The service provided care and treatment based on national guidance and evidence of its effectiveness. This included guidance issued by the RCR. Managers checked to make sure staff followed guidance.
- There was peer review and management review of radiological reports and findings were shared to improve outcomes for patients and for learning.
- The service made sure staff were competent for their roles. Managers appraised staff's work performance and held meetings with them to provide support and monitor the effectiveness of the service.

# Summary of this inspection

- Staff in different roles worked together as a team to benefit patients. Radiologists, other health staff, operational, IT and administration staff supported each other to provide a good service.

## Are services caring?

We do not inspect nor rate caring for this type of service.

## Are services responsive?

Good

This was the first time this service was rated. We rated it as **Good** because:

- The service planned and provided services in a way that met the needs of those using the service. It was available at any time of day or night, throughout the year so clients could access the service when they needed it, in line with their contracted arrangements. Turnaround times from referral to reporting were in line with agreed standards.
- The service treated concerns and complaints seriously, investigated them and learned lessons from the results, and shared these with all staff.

## Are services well-led?

Good

This was the first time this service was rated. We rated it as **Good** because:

- There was a clear leadership structure that supported radiologists and operational staff.
- The service had a vision for what it wanted to achieve based on agreed values and objectives.
- Managers across the service promoted a positive culture that supported and valued staff and created a sense of common purpose based on shared values.
- Telemedicine Clinic systematically improved service quality and safeguarded high standards of care through effective governance systems. This created an environment that promoted excellent clinical care. The service was committed to improving services by learning from when things went well or wrong, promoting training and innovation
- The service collected, analysed, managed and used information well to support all its activities, using secure electronic systems with security safeguards
- Telemedicine Clinic had systems to identify risks, plan to eliminate or reduce them, and cope with both the expected and unexpected.
- The service engaged well with staff, clients and local organisations to plan and manage appropriate services.

# Summary of this inspection

However

- The provider did not have a registered manager for the service in place at the time of the inspection. The applicant was in the process of resubmitting their application.

# Detailed findings from this inspection

## Overview of ratings

Our ratings for this location are:

| | Safe | Effective | Caring | Responsive | Well-led | Overall |
|---|---|---|---|---|---|---|
| Diagnostic imaging | Good | N/A | N/A | Good | Good | Good |
| Overall | Good | N/A | N/A | Good | Good | Good |

Good

# Diagnostic imaging

| | |
|---|---|
| Safe | Good |
| Effective | |
| Caring | |
| Responsive | Good |
| Well-led | Good |

## Are diagnostic imaging services safe?

Good

This was the first time this service was rated. We rated it as **good**.

**Mandatory training.**

**The service provided mandatory training in health and safety and information security to all staff and made sure everyone completed it**

- The service recruited qualified and experienced radiologists to report on diagnostic images. It also employed client administrators to coordinate diagnostic referrals and image reports between health providers in the UK, mostly NHS trusts, and the radiologists. The service did not have any patient facing functions and did not require staff to complete mandatory training, other than induction training. During induction, all staff completed training in health and safety, including home working radiologists.
- Telemedicine Clinic had specific induction programmes for radiologists, client administrators working the on-call shifts at night and client administrators working on the day time elective shifts. The induction training included health and safety training for staff working in the offices and for radiologists working remotely. Health and safety training for client administrators included first aid, accident reporting, safety policy and procedures, manual handling and fire safety. This meant the provider complied with Health and Safety at Work etc Act 1974, by providing employees with information and instruction to protect them at work.
- The induction training also included topics on IT safety, such as data protection, IT security protocols and confidentiality.
- All radiologists and operational staff completed induction training, which was monitored, documented and signed off when completed.

**Safeguarding.**

**There were systems to anonymise patient records and radiology staff understood their role in protecting patients from abuse.**

- The service did not have any patient facing functions or a requirement for staff to complete safeguarding training. Staff only saw limited patient details and radiologists received pseudonymised referrals, which meant information that identified the individual in the patient record was removed. The service did not ask radiologists to demonstrate any competency or complete any training in safeguarding vulnerable adults or children.
- Telemedicine Clinic had an established system of pseudonymising referrals before distributing them to radiologists. The client administrators had access to the NHS trust 'clinical record interactive search' system that removed patient-identifying information from the electronic medical records. Client administrators used this system to create a Telemedicine Clinic reference code for the patient records.
- Telemedicine Clinic's procedure for paediatric cases and safeguarding in the UK stated that if a radiologist suspected abuse, they should mark this as a critical finding and ask the client administrators to put them in contact with the radiology service manager at the

hospital's radiology department to explain the findings. Guidance for radiologists stated they should include a statement in their report to recommend a second review of a paediatric case by a subspecialist if necessary.

- The service relied on radiologists' professional training on safeguarding vulnerable adults and children. Radiologists told us if they had potential safeguarding concerns from reviewing images, they flagged this on the report and included a commentary. We spoke with a neuro radiologist who explained there were a small number of neuro-radiologists with expertise in paediatrics. They said they used the alert system to flag any concerns or urgent findings, which they then followed up by arranging a direct call to the referrer. They said they had not identified a safeguarding concern whilst employed at Telemedicine Clinic, but they had experience of this in previous employment and knew what to do.
- There was no requirement for radiologists to demonstrate they recognised and reported fracture patterns indicative of abuse or vulnerabilities.
- Telemedicine Clinic only reported on paediatric cases which were referred through routine work and did not offer paediatric specialist reporting services. Routine paediatric cases made up about 2% of UK reports, and of these, about a third were emergency cases. If a radiologist considered they did not have the appropriate skills or knowledge to report on an elective paediatric case, they could reject it and request the hospital to report on the case locally. Emergency routine paediatric cases were reported on based on the clients' guidelines, by non-specialist radiologists.

**Cleanliness, infection control and hygiene**

- This is not applicable to teleradiology services and not reported on.

**Environment and equipment.**

**The service managed equipment safely.**

- Both radiologists and client administrators received training in health and safety and work, including display screen equipment safety. All radiologists who worked from home received workstations and monitors from Telemedicine Clinic, and guidance on how to set them up safely, including how to position them with appropriate lighting. They carried out annual workstation safety assessments.
- There was a system for monitors to be calibrated remotely in line with The Royal College of Radiologists guidelines for diagnostic display devices and guidelines on ergonomics. Radiologists said this system worked well, and one commented that the remote sensor had identified a calibration issue with their monitor and they received a replacement monitor promptly.
- The company provided home workers with IT support 24 hours a day, 365 days a year.

**Assessing and responding to patient risk.**

**Staff escalated unexpected or significant finding on reported images.** They kept clear records and asked for support when necessary.

- All radiologists used the Telemedicine Clinic's own radiological information system (RIS). This was designed with alerts for critical findings, urgent cases, important finding and interesting cases for learning. The alert system was linked to patient risk, for example critical findings had to be communicated within a defined time period, and ideally within the hour. Radiologists confirmed the system was effective and there were protocols for escalating findings with each NHS trust they reported for. These included arrangements for contacting referrers to have direct communication.
- These system alerts prompted client administrators to make contact with the referring hospital and if necessary to arrange a direct conversation between the referrer and the radiologist. The timescales for alerting the referring physician were agreed with trusts and in their contracts. Radiologists explained this worked well in practice and if they could not access the referrer immediately, the client administrators kept calling to advise them of the urgency of the report.
- The medical director of clinical governance held responsibility for Ionising Radiation (Medical Exposure) Regulations (IR(ME)R). The organisation had a policy on the management of exposure to ionising

radiation that outlined responsibilities for different staff groups. It required radiologists to discuss potential IR(ME)R concerns with clients and the company's UK handbook had been updated to reflect this policy.

- Telemedicine Clinic radiologists only justified elective scans for a small number of clients. Telemedicine clinic issued IR(ME)R guidelines in 2018 to radiologists involved in justifying referrals, which outlined the roles and responsibilities of client administrators and radiologists in promoting radiation safety. The policy included references to risks when justifying referrals, such as those relating to children and pregnant women, as well as the requirement to notify the CQC of any IR(ME)R related incidents. There had been no reason for the service to notify CQC of this type of incident.
- Radiologists described systems in place to enable them to seek advice or second opinions when reporting. For example, they could use their IT platform to share images and discuss cases, and this applied to both staff working remotely those in the offices.

**Operations staffing.**

**The service had enough operational staff with the right skills, training and experience to keep people safe from avoidable harm**

- Telemedicine Clinic had a system for forecasting demand based on a mix of clients' quoted forecasts, experience of demand levels and new business projections. This was used to plan staffing levels and recruitment.
- In 2018, the organisation had identified a shortage of client administrators and high staff turnover rates amongst the on-call night shifts. They recruited additional client administrators and set up two on-call night shifts at the UK office, as well as the day shift and weekend shift. Staff reported improved stability and support as a result of improved staffing levels. The service did not use bank or agency staff in these roles.
- There was a detailed induction programme for client administrators to ensure they had the right skills for the role. Client administrators received training on the terminology and basics relating to teleradiology and imaging and completed a four-week induction programme. Induction training included guidance on how to manage client calls, internal and client RIS systems and turnaround times. It also covered data protection and health and safety. All inductions started on day time cases, and those working night shifts had additional training specific for on-call workflows and night-time office arrangements. Telemedicine had a checklist for new starters and we saw these were completed.
- The UK client administrator teams had daily handover meetings, to update staff on allocations and any issues to follow up on.

**Medical staffing.**

**The service had enough radiologists with the right qualifications, skills, training and experience to keep people safe from avoidable harm and to provide the right care and treatment.**

- The service contracted or employed 260 radiologists, and 134 radiologists worked for Telemedicine Clinic UK. The radiologists working with UK clients were based in Australia, Barcelona and as remote staff working from home in different countries.
- There was a mix of employed radiologists and 'collaborators', or self-employed radiologists. In the UK, radiologists held substantive NHS posts and worked under contract arrangements as collaborators. Radiologists worked for one of the four medical sections; emergency, body (thorax and abdomen), MSK (musculoskeletal) or neuro (head and spines) radiology.
- The provider had systems to monitor the number of radiologists reporting, and their past activity and capacity. Telemedicine Clinic's capacity management team forecasted future demand based on client engagement and projected new business. The capacity management team, clinical leads and the HR staff liaised on staffing needs, to ensure there were sufficient radiologists to deliver the service. Telemedicine Clinic used collaborators to provide a flexible workforce resource and the company employed staff to carry out recruitment procedures.
- Collaborators and part-time staff agreed their working hours in advance and this was used to populate the

demand and capacity planning tool. The chief operational officer explained they used this tool to plan capacity levels and to support recruitment plans. The tool reported workflow on a daily, weekly and monthly basis.

- The service had a policy relating to working hours and overtime, that made reference to the European Working Time Directive. The policy stated that the service would not force staff to work outside these boundaries.
- Although there were no formal systems to ensure collaborators maintained safe working hours when they combined their hospital-based duties with work for Telemedicine Clinic, staff told us working arrangements meant the risk of working excessive hours was low. This was because there was a dedicated team to work on emergency on-call reporting overnight, and radiologists said they were not penalised if they 'rejected' cases if they had completed their agreed hours. If managers had the impression that a radiologist worked excessive hours they would address this directly. For NHS radiologists working in the NHS they had to declare how much time they worked for other organisations. For those who did not have an NHS position, the Telemedicine Clinic appraisals process required they stated any other work activities.
- All medical staff completed induction at the head office in Barcelona. It was a minimum of two days that included test reporting and training in the IT systems, workflow managements, medical teams and reporting guidelines. Induction covered how to manage unexpected, urgent or critical findings, as well as the medical team structure and how to report incidents. New employees completed an induction checklist and this was followed up with any identified training needs.

**Records.**

**Records of patients' care and treatment were clear, secure and accessible to all staff involved in the diagnosis pathway.**

- We reviewed six records and they were clear and informative. They included clinical information, any previous images, findings and interpretation and a conclusion. Telemedicine Clinic used their own report templates and radiologists said the radiology information system (RIS) and picture archiving communication systems (PACS) worked well. There were systems to ensure that radiologists received the necessary clinical information and previous images for each patient referral.
- Images, referrals and previous reports were pseudonymised (personal identification data removed) and compliant with the General Data Protection Regulation and Data Protection Act 2018. Telemedicine Clinic's workflows were approved to meet the NHS Digital requirements. Telemedicine Clinic had five clients which did not pseudonymise patient data and for those, only radiologists based in England were permitted to read their reports.
- Telemedicine Clinic had set up records management systems in line with the RCR standards for the provision of teleradiology. They ensured all new clients were supported to install systems to facilitate secure and rapid transfer of images. The client server encrypted the data sent to the UK office in Reading. Only UK based administrators could access patient data on the hospitals' RIS systems. This included full access to prior imaging and reports. Radiologists based outside of the UK had access to this as pseudonymised data. All radiologists had full access to the patients medical details in order to complete the report.
- In most cases, client administrators checked this information was available from the client hospital before distributing the case to radiologists. There were times when hospitals delayed adding images to the referral, for example in urgent cases, and radiologists rejected these as incomplete.For some clients, there was system of direct communication with radiologists, where the client provided pseudonymised patient data directly to Telemedicine Clinic.
- Access to all systems was password protected for security. Radiology reports were auto-populated with the reporting radiologist's digital signature, their name as it appeared in the GMC register, their GMC pin number and contact details. The reports were then integrated into the clients' own RIS, via a secure virtual private network (VPN).

- Contracts with hospitals included confidentiality terms and duties under the Data Protection legislation. They also outlined the processes to manage personal data safely.

**Medicines.**

**The service followed best practice when justifying the use of contrast administration.**

- Where contrast studies were carried out, the referring hospital checked blood results and advised the Telemedicine Clinic if the results were abnormal. The Telemedicine Clinic radiologists then confirmed if a scan should be carried out without contrast. If this was not possible, the referring hospital held the responsibility for contrast administration.

**Incidents.**

**The service managed patient safety incidents well.**
The service managed patient safety incidents well and reviewed records for discrepancies. Senior radiologists or managers investigated incidents and shared lessons learned.

- The service monitored incidents and categorised them in terms of client administration, IT or medical. Until December 2018, the service logged near misses as adverse events, and these were recorded separately from other incidents in the incident log. In the 12 months to March 2019 the service reported 397 incidents.
- The service had policies, procedures and timescales for managing incidents and the medical director for clinical governance had overall responsibility for incident management.
- Descriptions and definitions of concerns, complaints, serious incidents were described in the Telemedicine Clinic standard operating procedure 'How to raise clinical concerns, discrepancies or complaints to TMC' and in the 'Clinical non-conformities management' policy. The standard operating procedure was shared with clients so they could raise a concern. This could be a clinical discrepancy, a concern about workflow and procedures or the competency of a radiologist. The procedure included information on reporting ionising radiation incidents to the CQC. All incidents were reported on a single format notification form, known as a discrepancy form, provided to trusts and other clients to complete.
- The Telemedicine Clinic policy on non-conformities described types of errors, such as complaints, concerns and adverse events. Examples of an adverse included diagnostic errors, distributing the wrong report and discrepancies. They were categorised in term of severity, to include near misses (risk of injury) and incidents (reversible, irreversible and lethal).
- Telemedicine Clinic responded to clients with their investigation findings if clinical discrepancies occurred which resulted, for example, in serious harm or were ionising radiation incidents.
- For the year to March 2019, there were on average 16 client administration incidents in the UK, which were mostly near misses. The majority of incidents related to distributing workflow and were detected before the report reached the client, so there was no patient harm. They were rated as 'risk of injury'. Examples of these types of incidents were missing previous reports or incorrect examination type.
- Incidents were identified by client feedback and through the audit process. Peer review results showed 95% of peer reviewed reports were in full agreement or contained clinically not relevant discrepancies in 2018. Of the remaining 5%, 4% were possibly clinical relevant and 0.1% almost certainly clinically relevant. This data was based on a peer review of 21,000 reports.
- There were 245 medical during the 12 months to March 2019. These were discrepancies raised by an external source, such as a client hospital. Medical discrepancies were categorised according to the Department of Health's five-point discrepancy scale. Most of these were rated as 'possibly clinical relevant'.
- Radiologists said there was good access to learning from discrepancies. This was from both the learn by discrepancy meetings and from individual feedback. The minutes of the Sydney emergency radiology team's LDM, held in December 2018, showed 12 radiologists attended, six from the UK reporting team.

They presented eight cases for discussion and to raise learning points. Any discrepancies were also discussed with clients, at the quarterly client quality assurance meetings.

- There had been four serious incidents reported in the 12- month period to April 2019, and three of these occurred in the emergency on-call service in Sydney. These were fully reviewed with root cause analysis and shared learning.

## Are diagnostic imaging services effective?

Start here...

## Are diagnostic imaging services caring?

We do not rate effective for this type of service**.**

**Evidence-based care and treatment.**

**The service provided care and treatment based on national guidance and evidence of its effectiveness.**
Managers checked to make sure staff followed guidance

- Approximately 50% of Telemedicine Clinic's UK activity related to emergency cases, with the rest of the activity spread roughly evening across the three elective services; body, MSK and neuro-radiology cases. Most of the cases related to CT and MR scans (73%), and the remainder included computed radiography, DEXA and ultrasound image reporting.
- The service obtained ISAS Accreditation in 2016 and was revalidated in 2018. ISAS is operated by the Royal College of Radiologists (RCR) and the Society and College of Radiographers (SCoR). Accreditation demonstrated assessed compliance with the Royal College of Radiologists guidelines.
- Telemedicine clinic had produced a suite of standard operating procedures for radiologists, that referred to RCR and the National Institute for Health and Care Excellence (NICE) guidance. For example, their procedures reflected the RCR standards for the reporting and interpretation of imaging investigations, issued in March 2018.
- Telemedicine Clinic had a section on their intranet for all RCR policies. The service monitored when the RCR issued updates and the Telemedicine Clinic's UK medical advisor and quality team reviewed these against their own policies and procedures and updated them as necessary. This team also carried out an annual review of any new RCR standards and spot-checked practices to assess compliance.
- Their procedure for 'Quality Assurance of Diagnostic Reporting' was based on the RCR 2014 'Quality Assurance in Radiology Reporting: Peer Feedback guideline'. This however had since been replaced in 2017 with updated guidance on 'lifelong learning and building teams using peer feedback'.

**Nutrition and hydration**

- This is not applicable to teleradiology services and not reported on.

**Pain relief**

- This is not applicable to teleradiology services and not reported on.

**Patient outcomes.**

**There was peer review and management review of radiological reports and findings were shared to improve outcomes for patients and for learning.**

- Telemedicine Clinic had a programme of internal and external audits to evaluate clinical practice. The internal, peer review process was set up so reports were peer reviewed both before release to the client, and after release. Telemedicine Clinic achieved a minimum of 5% peer reviews for UK cases, with 8% of elective and 6% of emergency cases secondary read.
- For the elective team, peer reviews were completed before release, with daily prospective secondary reading of reports. There was retrospective secondary reading of the emergency reports, carried out the day after the reports were issued.
- All new radiologists had their reports second read until they were signed off as fully competent to report to the Telemedicine Clinic standard. Radiologists said the peer review process was valuable and positive, and feedback was always given to promote discussion and learning.

- If peer reviews resulted in different interpretations, there was a protocol for the two radiologists to discuss their findings. If there was no resolution, the report was read by a third radiologist, a senior member of the team, such as the head of section. In this way, there was an opportunity to agree the report conclusion before it was issued to the client.
- The peer review process was captured within the Telemedicine Clinic RIS to provide quality and performance monitoring data for each section, imaging type and individual radiologist. We saw examples of the reports generated from this data.
- Each Telemedicine Clinic section (emergency, body, MSK and neuro-radiology) held learning by discrepancy meetings (LDMs) to learn from discussing cases where discrepancies had been identified. The emergency section, which accounted for about 50% of all UK referrals, held weekly LDMs. The body and neuro radiology sections held their LDMs during their regular weekly clinical sessions. In the MSK section, they used a knowledge sharing platform to communicate topics, ask for advice and share learning. They had quarterly LDMs and were in the process of changing to the same routines as the body and neuro sections.
- In addition, Telemedicine Clinic sought external auditors to review their cases. In November 2018, there was an external audit of the neuro-radiology team's reports for computed tomography (CT) facial sinuses. The results of 120 reports showed a high level of clinical accuracy and interpretation. An audit of 83 emergency reports in 2017/18 showed 3.6% had a discrepancy rating of 4 (high clinical significance). The client shared these results with Telemedicine Clinic at their review meeting.
- The external clinical audit plan for 2018 had not been fully completed, as Telemedicine Clinic could not find suitable auditors for the MSK or body sections. A delayed body audit was planned for April 2019.
- Telemedicine Clinic produced monthly reports on their audit results, for review by the medical team and by heads of section, at both section level and for individual radiologists. For example, the key performance indicator (KPI) report for November 2018 showed over 10% of elective reports and 5% of emergency reports were peer reviewed. The service aimed to achieve 95% agreement with the clinical report. The overall result showed they met this target, and 0.5% of reports were probably or almost certainly clinically relevant. Individual peer review reports were also shared with radiologists.
- The audit results and client feedback had led to improvements in reporting quality. For example, the service had standardised their report templates which had reduced the risk of typing errors and improved reporting style and consistency.

**Competent staff.**

**The service made sure staff were competent for their roles.** Managers appraised staff's work performance and held meetings with them to provide support and monitor the effectiveness of the service

- Telemedicine Clinic had a detailed process for recruiting radiologists and assessing their competency. They screened all applicants and approximately 20% were rejected. Applicants self-assessed their strengths in different modalities and subspecialties and provided evidence of their qualifications, career history, CVs and references and, if held, their GMC registrations. Telemedicine Clinic required their Disclosure and Barring Service certificate, or a comparable document such as a 'certificate of good standing' from their local police department. It also required non-English speakers to demonstrate language skills by meeting the International English Language Testing System test threshold, used by the GMC. Potential applicants attended an assessment session at the Barcelona office, where they presented their paperwork and test-read 30 cases relevant to their specialities or special interests. The relevant heads of section reviewed their reports for accuracy, knowledge, style of reporting and conclusion. All applicants had to exceed a minimum threshold in these tests.
- If applicants passed the assessment process but were not already on the GMC specialist register, Telemedicine Clinic required them to register with the GMC before starting work.
- Radiologists completed a minimum of two days induction, which covered their reporting skills, IT

systems, workflow and capacity management. Newly appointed radiologists had all their reports second read until they were signed off as competent to report to the Telemedicine Clinic standard.

- Both collaborators and employed radiologists completed annual appraisals with appointed, trained appraisers. These were used to discuss the individuals' discrepancies, adverse events, number of cases reported and audit results, as well as any development plans. The company had statistics on each individual's performance. Telemedicine Clinic had an appointed responsible officer to assess radiologists' fitness to practice.
- Telemedicine Clinic supported their employed radiologists with continuing professional development (CPD), so they were able to complete 250 CPD points over a five-year period. Radiologists reported good access to training and valued the emphasis on CPD. For example, different sections offered lectures on sub-topics, which were available on the intranet for all staff to view and Telemedicine Clinic had its own on-line training platform. Radiologists told us this meant they had good access to interesting articles, recommended reading and journals on-line.
- The provider had a policy covering medical performance management, which described the mechanisms for managing poor performing radiologists, based on the results of peer reviews and audits, incidents, CPD activities and client feedback. There was a clear process which included, if necessary a disciplinary procedure and potentially not recommending a UK radiologist for revalidation.
- UK client contracts included details on the competency of the Telemedicine Clinic radiologists. For example, they stated that all radiologists held qualifications in line with RCR guidelines, underwent revalidation, were registered with the GMC and held insurance indemnity, in line with UK practice. Telemedicine Clinic issued hospitals with a list of radiologists, with their CVs and subspecialist areas of interest, so the client had a right to refuse the services of an appointed radiologist.
- The service allocated radiologists into one of four sections of sub specialisation: neuro-radiology, MSK, body and emergency. They based this on the applicant's experience, specialisms and performance. Radiologists rejected cases if they felt they did not have appropriate skills to report on them.
- The client administrators completed a detailed, structured four-week induction and training programme, which was supervised. They had adopted a coaching system, that promoted the company values and assessed performance, training needs and competence throughout the year. There was an annual training budget for each employee to support their development and skills.

**Multidisciplinary working.**

**Staff in different roles worked together as a team to benefit patients.** Radiologists, other health staff, operational, IT and administration staff supported each other to provide a good service.

- When setting up contracts with referring hospitals, Telemedicine Clinic ensured they could access patients' previous diagnostic imaging history. The client administrators checked patient history and current images were available before assigning cases to the radiology reporting list.
- Telemedicine Clinic had established systems for radiologists to share images and seek advice from colleagues using their networked IT system. Radiologists said this was very well used and a helpful way to get prompt feedback, particularly for those working remotely.
- The service's RIS included client's individual local practices and specific requirements, that showed up on the reporting screen, to provide guidance for the radiologists. This meant that radiologists understood the reporting parameters agreed for each client.
- There were also systems for the reporting radiologist to discuss images with the referring clinician, by a secure telephone link. If a radiologist wanted to contact the referrer, there was an alert system and the client administrators could prompt the referrer to make contact. Referrers could also request urgent reporting, and the client administrators then prioritised these cases.

**Seven-day services.**

Good

# Diagnostic imaging

**The service was available at any time of day or night, throughout the year.**

- Telemedicine clinic provided teleradiology services 24 hours a day, 365 days a year. It had specific arrangements to offer clients radiological reporting services, in line with client contracts, during evenings, nights, weekends and bank holidays.

**Health promotion.**

- This is not applicable to teleradiology services and not reported on.

**Consent, Mental Capacity Act and Deprivation of Liberty Safeguards.**

This is not applicable to teleradiology services and not reported on.

## Are diagnostic imaging services responsive?

Good

This was the first time this service was rated. We rated it as **good.**

**Service delivery to meet the needs of local people.**

**The service planned and provided services in a way that met the needs of those using the service.**

- The service was established to provide radiology reporting services at all times, day and night, to meet the needs of the referring clients and their patients.
- The Telemedicine Clinic radiology information system (RIS) flagged when the referring client required a time-critical report so it was given a priority allocation. For the emergency out-of-hours service, at least one radiologist was responsible for receiving calls, discussing cases with referrers and providing advice on the most appropriate diagnostic test to undertake, based on the referring hospital's guidelines. Responsibility was allocated to specific individuals to review referrals and identify urgent cases for allocation.
- The service was structured with emergency, on call staff located in Australia, so radiologists justified and reported UK's out-of-hours cases during their normal waking hours.
- Elective reporting was carried out in line with the client's contract arrangements. Contracts included the type of reporting, modalities and turnaround times.

**Meeting people's individual needs**

- This is not applicable to teleradiology services and not reported on.

**Access and flow.**

**Clients could access the service when they needed it, in line with their contracted arrangements.**
Turnaround times from referral to reporting were in line with agreed standards.

- The service agreed contracts with hospitals which defined the services provided. For example, there were agreed turnaround times for different types of reports; for a routine report, an urgent report or stroke cases for elective reports and for out-of-hours reporting (7pm to 9am Monday to Friday and 6pm to 9am on weekends and bank holidays, UK time). The referring hospital or trust maintained overall responsibility for patient waiting times. Telemedicine Clinic's turnaround times for reporting were measured from the time the referral was received in full, with the associated images.
- Telemedicine Clinic used a demand and capacity planning tool to monitor and report on workflow on a daily, weekly and monthly basis. It reported on turnaround times achieved for different types of reports, and this was used to predict staffing required on a short-term and medium-term basis. Telemedicine Clinic used the tool to monitor delays, and results showed the average delay was 1.3% beyond the deadline.
- If the data showed there was a risk of a backlog developing, the service requested additional hours from radiologists. If there was a short-term rise in demand, and there was sudden pressure on the emergency section, the operations team also used radiographers based in the Sydney office to triage priority cases.

Good

# Diagnostic imaging

- The turnaround time for the emergency on-call reports was 60 minutes, or 30 minutes for stroke thrombolysis cases. The service had critical trauma and thrombolysis pathways. The client coordinators monitored this timeframe and a radiologist was assigned to allocate and prioritise reporting as appropriate.
- The turnaround times for elective cases was as agreed with clients within their contracts. If radiologists identified significant pathology on reporting they had to raise this with the reporting physician as soon as possible, and within one hour maximum, though agreed procedures.

**Learning from complaints and concerns.**

**The service treated concerns and complaints seriously, investigated them and learned lessons from the results, and shared these with all staff**

- All complaints, concerns and adverse events were processed and managed through the organisation's incident management process. Telemedicine Clinic complaints procedure was in line with the NHS complaints procedure and any complaints were shared between both parties within 24 hours for appropriate investigation and resolution. This was included in client contracts.
- The service had received five complaints in the period April 2018 to March 2019, and of these four were upheld. The complaints were from clients and related to issues such as report turnaround times, prioritisation and access to operations staff. In response to these complaints, and from issues raised internally by staff, the service had commissioned a new telephone system to be implemented in April 2019 and a new prioritisation process. To improve turnaround times, the service used current and forecast data to better plan their capacity to meet fluctuations in demand.
- The service had regular quarterly client meetings where concerns were raised and followed up with agreed actions to deliver improvements. These were also used to help forecast demand levels.

## Are diagnostic imaging services well-led?

Good

This is the first time this service has been rated. We rated it as **good.**

**Leadership.**

**Managers had the right skills and abilities to run a service providing high-quality sustainable care. The manager selected to apply for the registered manager role had not completed their application.**

- There was no registered manager in place at the time of our inspection. The previous manager had deregistered in September 2018, to move to another role within the service. The UK quality lead had initially submitted their application in November 2018, but this had been rejected as it required amendments. The applicant was in the process of resubmitting their application and the service had been without a registered manager for over six months.
- There was a new management structure for the organisation, which had been revised in April 2019 to create regional business units. The senior leadership team members included the medical director of clinical governance, business unit leaders for UK (acting), Scandinavia and new business, the medical director for diagnostic services and the chief operating officer. They reported to the chief executive officer. The UK business unit was the CQC provider Telemedicine Clinic Ltd.
- The UK business unit was made up of the four medical teams with a dedicated UK lead, the operations team including the client administrators and a UK quality lead. It also included the sales and account managers based in the UK, the quality manager and clinical governance coordinator who were based in Barcelona and support functions.
- The medical director of clinical governance was responsible for clinical governance, audit, quality control and the quality assurance policies. The four heads of sections, (emergency, body, MSK and neuro) were responsible for the radiologists in their section, and for delivering a high-quality service. They were involved in recruitment, assessed applicants' test cases and radiologists' performance.

- The company had set up a coaching programme to develop operational leaders and support them in establishing relationship-based meetings with individuals and with staff groups.

**Vision and strategy.**

**The service had a vision for what it wanted to achieve based on agreed values and objectives.**

- Telemedicine Clinic had established a set of five key values; uncompromising medical quality, generous experts, innovation through experimentation, care across borders and find fun in hard work. These were referred to in their suite of policies and procedures. The cultural values of the company had been defined in 2015, and its agreed core purpose was 'bringing quality healthcare to all people'.
- The service aimed to offer radiology expertise at specialist and subspecialist levels, by recruiting experienced specialists and providing in-house training to develop staff.

**Culture.**

**Managers across the service promoted a positive culture that supported and valued staff, which created a sense of common purpose based on shared values**

- Radiologists and client administrators said they felt supported and enjoyed working for Telemedicine Clinic. They valued the organisation's priority on quality and the radiologists said they liked to be able to focus on reporting without interruptions. They commented on having good professional support, for second opinions and for sharing images and comments.
- Staff spoke of there being a collaborative culture, where people worked well together and aimed to resolve problems as they occurred.
- The whistle-blowing policy emphasised the company's commitment to promoting a culture of openness and honesty, and made reference to external bodies staff could refer to if they felt their concerns had not been dealt with internally.
- The company risk register identified the risk of staff in the UK feeling remote and not involved, and this had resulted in more frequent visits from senior managers from Barcelona.
- Telemedicine Clinic promoted staff engagement through team chats and team meetings, weekly clinical sessions via video conference and regular discrepancy meetings. The company also held an annual meeting in Barcelona, and circulated newsletters via social media. Staff said this approach worked well in helping people feel connected.
- As part of the reward package, the organisation offered operations staff an 'invisible hero' award for those who made extraordinary contributions to the objectives and values of the company. The award was given whenever someone had been nominated, so might take place several times a year.

**Governance.**

**The service systematically improved service quality and safeguarded high standards of care by creating an environment that promoted excellent clinical care.**

- Clinical governance was led by the medical director for clinical governance, who was a member of the medical management team. This team was responsible for setting and auditing clinical standards. It was supported by the clinical governance coordinator who managed complaints, incidents, risks and audits. They also compiled the monthly clinical KPI reports for the medical management team.
- The company's clinical governance and strategy policy outlined the systems for monitoring and improving service quality and made reference to the company's management manual. The processes had been certified by ISO 9001:2015 (an international quality management system) to demonstrate effective business management standards.
- The organisation had a meeting structure which promoted effective communication of priorities, objectives, issues and feedback. Minutes of meeting showed open discussion of issues.

**Managing risks, issues and performance.**

Good

# Diagnostic imaging

**The service had systems to identify risks, plan to eliminate or reduce them, and cope with both the expected and unexpected**

- Telemedicine Clinic had systems to monitor staffing, skill mix, turnaround times, incidents and risks and created a range of management and quality reports to support the business. This helped the organisation plan for the right number of radiologists with the necessary skills available to meet the turnaround times required for reporting.
- All departments produced quality assurance reports, at least three a year, for the security and quality board. This board was made up of departmental managers and key managers involved in non-clinical quality, and it reported to the medical management team. These board meetings were used to review information governance audits, incidents and actions plans. For example, we saw minutes that demonstrated the team discussed updates in IR(ME)R regulations and data security legislation and agreed actions.
- The medical management team met weekly to discuss and review topics such as recruitment, training, audits, discrepancies and reporting processes. Within each of the four medical groups (emergency, body, MSK and neuro-radiology) there were weekly team meetings and regular discrepancy meetings. There was a strong focus on improving processes and quality.
- The company maintained risk registers to identify, manage and monitor risks. There was an overarching company risk register and departmental risk registers. Although there was evidence these were updated and reviewed the company risk register did not include the risks associated with not having a registered manager in place.
- Risks were identified internally, from audits, incidents and staff feedback and also from clients through client reviews and complaints. There was a UK risk manager and all risks rated moderate or major were escalated for review at the security and quality board meetings. Senior managers and board members were trained in risk management.
- The risk registers showed risks were managed appropriately. For example, the service set up a dedicated mailbox to receive client lists, to minimise the risk of missed cases. There were various IT risks and mitigations logged and the service had two separate picture archiving communications systems so there was a backup system if needed.
- Telemedicine Clinic held regular client review meetings to discuss performance and demand levels and agree actions. The service also sought client feedback on service quality.
- The company had a UK contingency plan that related to systems failure or any factor that affected workflow. The contingency folder contained relevant phone numbers, client workflows with contact details, radiologist contact lists and 'quick sheet' guidance documents.

**Managing information.**

**The service collected, analysed, managed and used information well to support all its activities, using secure electronic systems with security safeguards**

- Telemedicine Clinic had effective systems for managing information. The company had developed its own radiology information system (RIS), which staff said worked well and was easy to use. Staff had remote, secure access to this system and it was used for reporting and for producing management data.
- The company had up to date performance data that it used for operational planning and for identifying areas for improvement.
- Telemedicine Clinic had two separate picture archiving communications systems (PACS), one in Barcelona and the other in Sydney. This provided contingency, as the service was able to transfer data between the two, and radiologists could report via the PACS if necessary.
- When Telemedicine Clinic set up new contracts, their IT team ensured the client's IT system could communicate and share information quickly and securely with Telemedicine Clinic's IT system, and in line with Data Protection legislation. Radiologist reported directly into the providers RIS, via a secure virtual private network.
- Processes were set up to manage personal data safely, based on the NHS information governance toolkit guidance. All data was encrypted and patient data was

pseudonymised before shared internationally for reporting. The company had been certified by ISO 27001, an international standard for information security, and was compliant with the General Data Protection Regulation (GDPR).

- Telemedicine Clinic did not retain pseudonymised data longer than necessary. Emergency cases were deleted after three days and elective cases were held for one month, on the PACS system hosted in Barcelona.

**Engagement.**

**The service engaged well with staff, clients and local organisations to plan and manage appropriate services.**

- Telemedicine Clinic had quarterly meetings with clients to discuss any concerns, performance, volume projections, protocols and agreed actions. These were minuted so actions were monitored.
- The service had received six written compliments in the year to April 2019, as well as informal positive feedback at service review meetings. These related to thanks for helping to reduce trust turnaround times and thanks to specific radiologists for identifying an important feature in an image and flagging it to the referrer.
- The service used a survey tool to measure customer loyalty and to gain client feedback, which asked clients to rank how likely they would recommend the service. The results for the previous three years showed a response rate of about 20% from the UK clients, although this dropped in 2018, and was 7% in the last quarter. This was a low rate of engagement and the provider had a plan to improve engagement scores. Results indicated a more positive response for elective reporting than for on-call and the report included individual comments from clients and any actions taken as a result of feedback.
- Telemedicine Clinic carried out employee surveys, using the same loyalty assessment tool. Results in 2018 showed a downward trend, which was partially attributed to the company's integration with a new parent company. The positive comments related to the focus on quality, good working conditions, dynamic environment, friendly, and skilled colleagues and possibilities to learn and grow. Critical comments related to high workload and pressure. This was worse in one section, and this was an identified priority area for 2019.
- Client administrators said they felt listened to if they raised issues. For example, the UK office had moved to more suitable premises in response to feedback from staff.

**Learning, continuous improvement and innovation.**

**The service was committed to improving services by learning from when things went well or wrong, promoting training and innovation**

- Telemedicine Clinic continued to develop its RIS with additional functionality to improve service quality. For example, it had developed its own structured report feature within the RIS which had helped reduce clinical discrepancy rates from 20% to 5%. Its software developers were also creating a new audit function and a client portal within the RIS, to help prioritise cases.
- Telemedicine Clinic used an information sharing IT platform to promote learning and provide an on-line chat forum for radiologists where they could seek advice and share ideas. The conversations were held on-line for future reference. The system was also used to communicate meetings, lectures, guidance from heads of section and reading suggestions.
- The service had a training academy, with on-line training modules for both their own radiologists and for other customers. The academy offered a mini fellowship programme to help radiologists gain sub-specialist skills.
- The company's objectives for 2019 included the implementation of a new incident management system and a new appraisal system for UK radiologists.

# Outstanding practice and areas for improvement

## Areas for improvement

**Action the provider SHOULD take to improve**

The provider should make sure the registered manager application is submitted as quickly as possible, to ensure there is an accountable manager within the service.