

National Radiology Quality Improvement Programme

2nd National Data Report
1 JAN - 31 DEC 2020



RCSI FACULTY OF
RADIOLOGISTS



Building a
Better Health
Service

National Quality Improvement Team

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**ROYAL
COLLEGE OF
PHYSICIANS
OF IRELAND**

EXECUTIVE SUMMARY

This 2nd Radiology QI national data report presents anonymised aggregate quality improvement (QI) data from the 48 participating public hospitals collected through the National Quality Assurance and Improvement System (NQAIS) for Radiology from 1 January 2020 to 31 December 2020.

In 2020, 2.56 million cases were recorded in participating hospitals, which was 10% lower than in 2019, which indicates the significant efforts made to maintain radiology services across the country in 2020 but also reflects the impact of the pandemic on radiology services and patient management. COVID-19 has had an enormous impact on all aspects of radiology services, including QI; however, significant efforts have taken place to deal with the backlog of examinations that exists to achieve some recovery to pre-pandemic imaging levels. The biggest decrease in numbers of completed exams in 2020 in comparison to 2019, was recorded for ultrasound imaging. However, data recorded in NQAIS-Radiology show no significant change in overall numbers of PET exams in 2020 when compared with 2019 records.

The turnaround time data reveal that the percentages of reports authorised nationally for each modality with a defined timeframe had maintained or increased in 2020. To maintain current improvements and to continue to achieve faster Turn Around Times (TATs) overall, an uplift in radiologist numbers is required across the country. The NRQI Programme plan to recommence the total turnaround time pilot project in 2022. The aim is to measure the total turnaround time from when the referral is logged to when the report is authorised, which will provide a comprehensive view of the patients' journey through a radiology department and contribute valuable data to waiting lists and how they can be reduced.

The peer review process is an important contributor to quality patient care; 2020 data reveal similar finding to 2019 for prospective, assigned and retrospective peer review categories. Levels recorded in local systems are low, however the Working Group plans to collaborate with software vendors to improve the current recording system making it more suitable for a busy working environment.

The total number of radiology alerts activated in 2019 was 40,750 which reflects 1.4% of total case count, while 2020 records show 30,725 alerts activated which represents 1.2% of total cases. This is an achievement taking into consideration the significant impact the COVID-19 pandemic has had on radiology services. Findings suggest that alert acknowledgement timeframes in 2020 were similar to 2019, however many critical and urgent alerts require more immediate action, usually via direct phone call and as a result are not always recorded in the local system.

A low number of radiology QI meetings taking place were recorded in 2020. It is likely that more sites are holding these meetings than the numbers in the report would suggest.

The last two years have demonstrated the increasing importance of having QI activities and processes in place locally and nationally. Long-standing problems persist such as lack of resources, lack of protected time, minimal support and buy in from management. In order to face future challenges and to continue to navigate current circumstances, radiology work practices and workload must be built and managed to ensure resilience. Targeted investment in radiology systems will also be key to ensure necessary upgrades and training take place.

The Working Group is committed to continuously reviewing KQIs, appropriate targets and more efficient methods of data collection and reporting for colleagues across the country. It is vital to ensure that best practice is followed and that patient safety is at the centre of what the programme hopes to achieve.

KEY RECOMMENDATIONS

1	<p>The Working Group recommend developing a schedule with the programme management for the summary data requiring manual upload, which should help to increase compliance. The schedule would indicate the times of the year when the data should be uploaded and will be made available to QI Tech Leads and QI Lead Radiologists.</p> <p><i>See Chapter 2</i></p>
2	<p>Radiology departments must be resourced adequately and in line with European best standards to continue to provide the optimum level of service to patients and to ensure a reduced burden on existing staff to mitigate against burnout, this is strongly supported by international research.</p> <p>There is a backlog of patients requiring radiological examination. The Working Group recommend that additional resources are put in place to ensure patients receive diagnoses in an appropriate timeframe.</p> <p><i>See Chapter 3</i></p>
3	<p>Based on the 2019 findings and additional local knowledge, the Working Group recommended broadening the scope of Turnaround Time (TAT) in future reporting cycles. The goal is to measure total turnaround time, and its two separate components, technical TAT and report TAT. This will include the time from when the examination is requested, to when the examination is completed by the radiographer, to when the report for the examination is finalised by the radiologist. This work was postponed in May 2021 owing to the ransomware cyber attack, it will resume in 2022.</p> <p><i>See Chapter 4</i></p>
4	<p>The Working Group strongly recommends QI Lead Radiologists feed any departmental improvement ideas back to the Group to assist in developing a more coordinated national solution with regards to QI activity, collection and reporting on QI data.</p> <p><i>See Chapter 5</i></p>
5	<p>Radiology QI meetings should take place 5 times per year at a minimum and attendance where possible should be mandatory for all departmental Radiologists including Radiologists in Training.</p> <p><i>See Chapter 7</i></p>

KEY FINDINGS

1. In 2020, 2.56 million radiology cases were interpreted and reports generated in the 48 public Irish hospitals represented in this report.

2. The total case figure is 385,082 cases less than in 2019, which indicates the significant efforts made to maintain Radiology services across the country in 2020 but also reflects the impact of the pandemic on radiology services and patient management.

3. Owing to the impact of the pandemic, a significant decrease of 50% (approx. 123,000 cases) in workload was noted in April 2020 in comparison to April 2019. From June to December 2020 the radiology workload remained steady and was on average only 8% below 2019 levels for the same months.

4. In 2020, 23 out of 41 sites met or exceeded the recommended TAT target of 90%. This is an increase on 2019, when 17 out of 39 sites met or exceeded this target.

5. The percentages of cases referred for a Prospective Review are below 1.1%. The highest percentage of Prospective Reviews was recorded for Magnetic Resonance (MR) cases in 2020 at 1.1%. This was a 0.2% increase from 2019, which translates into 19% overall increase between 2019 and 2020 data.

6. In 2020, 79% of all recorded Retrospective Reviews were in concordance with the original report; this was 8% more than in 2019.

7. A decrease of 8% was seen in the cases submitted to Radiology Quality Improvement Meetings following a Retrospective Review from 22% in 2019 to 14% in 2020.

8. The majority of Radiology Alerts activated in the local systems, for each patient class in 2020 refer to Unexpected-Clinically Significant (U-CS) findings. The Outpatient (OP) referrals have seen the highest percentage of those alerts, at 95%.
