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Category: Service delivery

Purpose:
To identify the reasons for rejecting radiology requests as well as the overall rejection rate at our centre.

Methods and materials:
A six-month retrospective review of all rejected GP and outpatient radiology requests was undertaken with each examination classified according to its reason for rejection. Any subsequent imaging requested in the six months following rejection was reviewed to look for related requests in both primary and secondary care.

Results:
We found overall rejection rates of 1.17% for GP and 0.6% for outpatient requests. Half of all GP rejections could have been avoided through education and signposting to appropriate clinical pathways and local policies. 14.4% of rejections were due to form errors, which could be avoided through electronic requesting.

Conclusion:
Overall GP and outpatient radiology request rejection rates were 1.17% and 0.6% respectively. Use of appropriate pathways could reduce GP rejected requests by 50%. Electronic requesting could reduce rejection by 14.4%.

Impact of COVID-19 on CT imaging in a tertiary care hospital

Authors: Eva Pereira Mendes Serrao, Abhishekh Ashok, Obinna Abani, Sumit Karia, Ashley Shaw, David Bowden, Robert MacKenzie, Teik See

Category: Service delivery

Purpose:
The COVID-19 pandemic significantly affected healthcare systems worldwide. During pandemic waves, the UK government imposed national lockdowns and social distancing policies, leading to fluctuations in imaging workflow. Several imaging centres around the world reported reductions from 7% to 64% in imaging volume during the first wave. The aim of this study was to assess the computed tomography (CT) imaging volumes during the first and second wave of COVID-19 pandemic in a large tertiary UK centre.

Methods and materials:
Monthly CT scan volumes in a single tertiary centre were retrospectively assessed by patient service locations in 2020 and 2019. Inpatient and emergency department (ED) exams were further analysed.

Results:
Historical data shows 7% increase in CT activity annually. In 2020, total and outpatient scans declined 11% (18% accounting for the projected annual increase rate) and from 2019 16%. ED exams dropped 9% and inpatient scans increased 3% on average. ED scans dropped 37% in the peak of the first wave (April 2020) and 9% during the second lockdown (November 2020). Months between lockdown periods showed an increased or similar volume to normal practice. Upon a 30% decrease in April 2020, inpatient scans surpassed 2019 numbers. Despite a 17% reduction in hospital admissions in 2020, we found that each patient had more scans, likely due to clinical acuity.

Conclusion:
Despite significant cuts in outpatient activity and hospital capacity during the pandemic, we found a small reduction in overall activity. Activity drop was steeper in the first wave followed by progressive increase in inpatient imaging in response to hospital demand.

Reducing interruptions during radiology reporting: Beneficial effect of duty radiologist and office reporting

Authors: Kirsty McNeil, Carina Banziger, Ian Zealley

Category: Service delivery

Purpose:
Interruptions have been implicated as a cause of discrepancy, errors and potential safety incidents in radiology. The aim of this study was to identify if changes made to the location of the reporting radiologist and role of the ‘duty’ radiologist have reduced the interruptions for the computed tomography (CT) radiologist reporting the inpatient CT list.

Methods and materials:
This was a pragmatic prospective observational study of the inpatient CT list within Ninewells Hospital following introduction of a new duty radiologist role and change of reporting location. The number of potentially disruptive events was recorded during 20 separate one-hour observations pre-intervention in 2015 and repeated post-intervention in 2020/21.

Results:
The number of potentially disruptive events decreased from a median of 11 events per hour to 4.5 events per hour (p<0.0001). In particular, there has been a substantial 82% reduction in the frequency of interruptions requiring the radiologist to abandon their task (122 events to 22 events over the 20 pre-intervention and 20 post-intervention one-hour observation periods).

Conclusion:
The change to introducing the role of the duty radiologist to include taking all external CT queries, and having radiologists report inpatient CT scans from their own offices, resulted in far fewer potentially disruptive events, in particular those interruptions that required the radiologist to abandon the reporting task and return to it later on.

Opportunistic CT thorax imaging for the detection of SARS-CoV-2 infection in patients presenting with an acute abdomen

Authors: Farah Din, Sara Zafar, Jody Maclachlan, Katie Planche

Category: Service delivery

Purpose:
Gastrointestinal symptoms are a presenting feature in as many as 20% of patients with SARS-CoV-2 infection. Patients with an acute surgical abdomen requiring operative intervention may also have incidental COVID-19. Studies suggest that computed tomography (CT) is 54% sensitive