

# Implementation, Experience and Impact of GP Referred CXR: Radiographer led Fast Track to further imaging Pathway at UCLH NHS Trust.

## Overview

The intentions of this project were to improve patient outcomes and reduce anxiety by initiating faster imaging and reducing time to diagnosis of lung cancer for patients referred for chest x-ray (CXR) by their General Practitioner (GP). We hoped to achieve this by safety netting the communication of CXR results suspicious of cancer to the primary care provider by introducing a radiographer-led immediate reporting service and radiographer referral for any appropriate further imaging including Computed Tomography (CT). By piloting pathways improvement, we aimed to better align with the National Optimal Lung Cancer Pathway (NOLCP) in Imaging. The NOLCP pathway recommends improvements in all aspects of the pathway and is primarily designed to improve outcomes in lung cancer by encouraging best practice, reducing variation, and reducing delays in diagnosis, staging and treatment" (4). The NOLCP recommends CXR suspicious for lung cancer to be reported before the patient leaves the department or within 24 hours and same day CT/within 72 hours. Patients referred by GP for CXR, now have their X-rays "hot" or immediately reported whilst they wait. Any unclear findings or findings suspicious for lung cancer (Ca) on the CXR will be fast tracked to same day further imaging including CT chest scans. Prior to this project, patients sent by their GP for CXR would have to contact their GP for results which could take up to 14 days. Previously, following abnormal CXR suspicious for cancer, the GP would be required to initiate referral into the 2 Week Wait (2WW) pathway, this could include referral to CT, however in some cases the respiratory team would accept the patient and request CT, further increasing waits.

## Objectives and Methods

Initial scope of the project was to create closer alignment with the Imaging pathway component to the NOLCP with an aim of improving patient outcomes by reducing time from initial imaging to diagnosis. In addition to fast track to CT, other ambitions include a comparison of pre-audit to assess how many patients were recalled for a repeat x-ray for unclear findings such as "nipple markers" views, often with a normal result after repeat. Having those additional X-ray views on the same day can reduce patient anxiety as often turn-around times (TAT) for repeat imaging to results pre pilot could be in excess of 14 days. Recent research has shown that faster diagnosis and immediate reporting of GP referred CXRs leads to better patient outcomes and can reduce anxiety.

### Key steps: -

Primarily utilising the reporting Radiographer workforce to set up a hot reporting service for GP referred CXRs with support from the Consultant Chest Radiologist team.

Provision of Non-Medical Referrers (NMR) training to secure requesting privileges for reporting radiographers to enable them to refer to CT under the pathway. This was done via an online training course, signed off by the consultant chest radiologist and imaging clinical governance.

Flow pathways were developed initially for the core pathway, and following feedback, developed individual 'mini' flow pathways for each area.

Training was set up for radiographers in difficult communications and provision of well-being support for those staff directly involved with pathway.

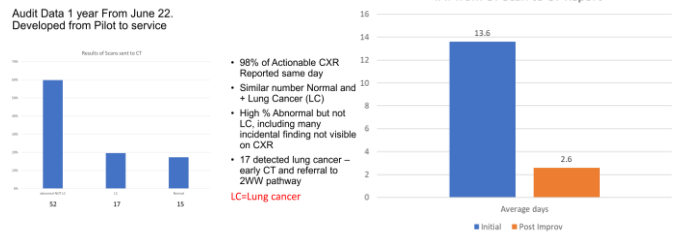
We worked closely with IT teams to improve flow for patients whilst in the Imaging department, adapting and optimising the Electronic Health Records System (EHRs) to allow remote initial read of the radiograph by reporting radiographer and direct electronic communication from Reporter to acquisition Radiographer as to whether patient can go home to receive results from GP or needs further imaging.

Developed Patient Information Leaflet to inform service users alongside Allied Health Professionals (AHP) Patient Experience Forum.

Initial pilot and pre audit focused on turnaround times (TAT) from CXR acquisition to clinical report and further imaging, e.g. time to CT scan. We subsequently developed communications with the respiratory team and as a direct result now work closely together to safety track any patients referred for CT under the pathway to ensure faster report of the CT and 2WW referral if not already received from GP, therefore ensuring faster appropriate and safe follow up.

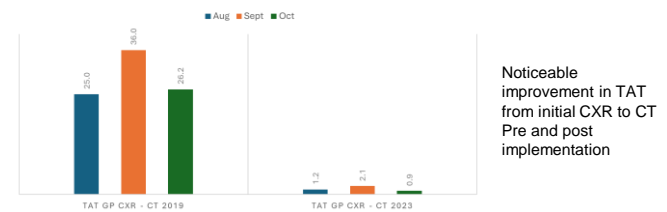
Following CT report, the patients will remain under the care of the respiratory team and will be triaged appropriately, e.g. escalate for further biopsy, PET CT, discharge the patient or refer to another appropriate service. The respiratory team will communicate directly with patients and via the GP. The results of any CT's requested by reporting Radiographer team under the pathway are directly routed back to the primary care clinician that referred the original CXR.

## Results



As seen above, the TAT from CT to reported CT has improved significantly following the tracking and highlighting for report in a similar way to those referred directly into 2WW from their GP. Reduced from an average of 13.6 days initially pilot period to 2.6 days post improvement with inter professional teams.

### AVERAGE TURNAROUND TIME (TAT) FROM CXR TO CT CHEST OVER THE SAME 3-MONTH PERIOD 2019 AND 2023



There was a post service improvement in the TAT for those patients waiting for follow up on requests for suggested further CXR views within the report. Previously report would go back via GP, wait for repeat imaging and similarly waiting on the CXR report to get back to the GP for results (often normal) to be shared with patient, taking in some cases 14+ days. Hot reporting those patients with clarity on same visit, reducing patient anxiety and plugging any potential for getting lost to follow up. Reducing wait for normal result (high %) and conversely reducing wait for further imaging and diagnosis of those repeat CXR with abnormal result. Although this was not part of the original aims of the service improvement, it soon became an important ambition, audited pre and post and was commented through patient feedback to have made an impact on reducing anxiety, especially those sent home the same day with clarity.

The immediate review of the CXR also allows for a discussion with the patient to narrow down possible differentials. For example, case where there was concern for a nodule, overlying rib, on discussion with the patient they informed that they had trauma to the exact area and reassuringly influenced report findings.

## Summary

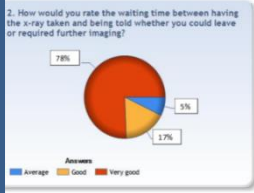
- Proven qualitative outcomes- Early lung cancer diagnosis, safety netting referral to correct 2WW pathway and communication of results and reduced patient anxiety.
- Improved skill set training, CPD and increased job satisfaction across the board
- Continued learning across teams and improvement
- Learning and improvement from patient feedback
- Time and cost saved from "one stop" imaging
- Sharing of learning with other trusts- Implemented based of project
- Improved MDT working

## Conclusion

Waiting time was a concern for us during the design phase and we have worked together to keep this as low as possible. The results from the survey have shown that 78% of the patient group felt the waiting time was very good and 17% felt the waiting time was good. No patients marked the waiting time as being bad or very bad.



All of the participants of the survey said that they would use this service again. Positive comments were also made by our patients praising the service and system we had in place.



## Next Steps/Future Development

- The initial success and learning from the pilot have been shared pan London and has directly influenced another London trust to implement a similar pathway. We shared all the learning and supporting documents and governance, supported other trusts for observation visits to our department, to demonstrate live workings. Following implementation and positive improvements to the Pathway, learning outcomes and impact has been further presented regionally and nationally and interest and potential spread of the pathway has increased.
- Have developed a difficult communication on site simulation alongside the NCL imaging academy practice educators to support the patient communications
- Since pilot, the running hours have been increased 9-4pm.
- For future development looking to extend the service to requesting & booking any 6 week treat and repeat Chest Xrays.

## Authors

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