

Self-referral Chest X-ray (SRCXR) for suspected lung cancer

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Background

Primary care chest x-ray (CXR) requesting has still not increased back to pre-COVID levels. Increasing the uptake of CXRs in symptomatic patients with suspected cancer may lead to a stage shift towards early-stage disease and improved survival (Kennedy et al, Thorax 2018). Accelerated pathways can help improve survival in lung cancer patients (Navani et al, Lancet Respiratory 2015, Hall et al, Lung Cancer 2021). The Northern Care Alliance have set out to implement a SRCXR pathway to allow for improved early-stage detection whilst reducing clinical burden.

Criteria for self-referral

If a patient meets the following pre-defined criteria, they can attend a participating radiology department for a CXR:

- Age > 40 years
- AND has had any of the following symptoms for more than 3 weeks:
 - Cough
 - Fatigue
 - Shortness of breath
 - Chest pain
 - Chest pain
 - Weight loss
 - Appetite loss
 - Haemoptysis

Methods

We analysed data from 221 patients who used the SRCXR system covering the first five weeks of the project. Patients were separated into one of three categories depending on their CXR findings: SRCXR 1 – normal CXR; SRCXR 2 – abnormal CXR, but not concerning for malignancy; SRCXR CATCH – concerning for malignancy. We collected data looking at the patient's age at presentation, gender, time from CXR to report, smoking history, symptoms at presentation and ethnicity. We also collected data from patient feedback surveys looking at how likely patients were to present to their GP with their symptoms and how they were made aware of the SRCXR pathway.

Results

Fig.1 Age range of referred patients

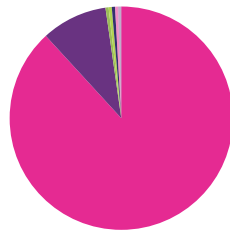
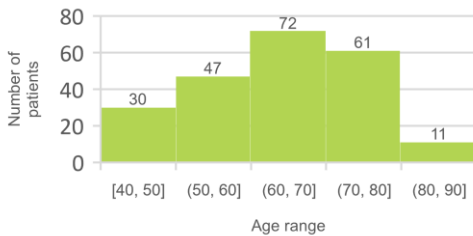


Fig 2. Patient ethnicity



Fig 3. Patient means of awareness

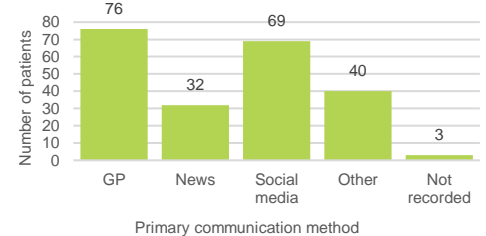


Fig 4. Patient presenting symptom

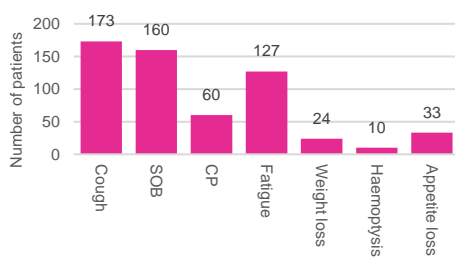
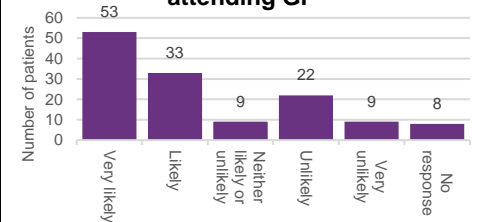


Table 1. Number of patients (raw and percentage) as categorised by CXR findings				
	SRCXR 1	SRCXR 2	SRCXR CATCH	
Number of patients	210	6	5	
Percentage	95.5%	2.71%	2.26%	
Smoking history	Current-	33	2	1
	Ex-	68	1	3
	Never-	105	3	0
	No record	4	0	1
Of SRCXR CATCH patients, 3 are being worked up as possible lung cancer with 2 having a confirmed stage (one stage IIIb, one stage IIa)				

Fig 5. Patient likelihood of attending GP



45.5% of patients (n=61) didn't contact their GP regarding their symptoms. 13.4% of patients (n=18) tried to contact their GP to discuss symptoms but were unable to do so.

Conclusions

This project further highlights the benefit of a SRCXR project in detecting abnormal CXRs and CXRs concerning for malignancy and reducing barriers to CXR access. With many patients being unlikely or unable to see their GP, this project highlights the importance of a self-referral system in reducing barriers to CXR access. Initial results suggest a pickup rate of 1.36% indicating that this could be an important tool in improving lung cancer survival. However further analysis is needed and will be published as the project matures.

References

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