



ELSEVIER

Contents lists available at ScienceDirect

Clinical Radiology

journal homepage: www.clinicalradiologyonline.net

Technical Report

Radiology-led lung escalation pathway: a streamlined innovative service expediting the diagnosis of lung cancer

J. Cox^{a,*}, J. Spratt^a, A. Ajith^a, S. Haydar^b, G. Gordon^a, S. Elwell^a,
R. Marsh^a

^a City Hospitals Sunderland Foundation Trust, Kayll Rd, Sunderland, SR4 7PY, UK

^b Northwick Park Hospital, Watford Rd, Harrow HA1 3UJ, UK

ARTICLE INFORMATION

Article history:

Received 28 April 2017

Received in revised form

6 October 2017

Accepted 12 October 2017

Introduction

Lung cancer is still the leading cause of all cancer deaths in the UK. Currently, the 10-year survival rate from lung cancer is approximately 5%, largely because most lung cancers are diagnosed at a relatively advanced stage. Two thirds of patients are diagnosed with stage 3 or more advanced disease at presentation.¹

Lung cancer is currently not a malignancy that has a screening programme in the UK. Patients who are referred from their GP who present with symptoms such as cough including haemoptysis, weight loss, and a history of smoking are investigated with chest radiography. Around 46,400 people are diagnosed in the UK each year with lung cancer. Nearly half (46%) of lung cancer patients report experiencing delays at some stage of their care and only two thirds (64%) say they receive prompt referral to hospital according

to a report published by the UK Lung Cancer Coalition (which includes Cancer Research UK) in November 2013.² Recent National Institute for Health and Care Excellence (NICE) Guidance (NG12) has resulted in a lower threshold for suspected cancer referrals to try to ensure earlier investigation of symptoms of concern.

In 2015, six pilot studies in NHS Trusts were funded under the banner of the ACE (Accelerate, Coordinate, and Evaluate) Programme by Cancer Research UK, MacMillan Cancer Support, and NHS England, to try to improve diagnostic pathways for patients with suspected lung cancer.³ A variety of different approaches were used and evaluated, both alone and in combination, including both general practitioner (GP) direct-access computed tomography (CT) requesting, straight to CT pathways triggered by radiology services, the introduction of new chest radiography request forms with incorporated patient information, the introduction of new radiology alert codes for abnormalities suggestive of cancer, and introduction of a diagnostic multidisciplinary team (MDT) to discuss patients on a pathway with possible lung cancer.

* Guarantor and correspondent: J. Cox, Department of Radiology, City Hospitals Sunderland Foundation Trust, Kayll Rd, Sunderland, SR4 7PT, UK. Tel.: 0191 565 6256.

E-mail address: j_cox@talk21.com (J. Cox).

<https://doi.org/10.1016/j.crad.2017.10.009>

0009-9260/© 2017 The Royal College of Radiologists. Published by Elsevier Ltd. All rights reserved.

To improve the access to diagnostic services for patients with suspected lung cancer, City Hospitals Sunderland Foundation Trust (CHSFT) has implemented a rapid-access referral pathway in which, since April 2014, on reporting a chest radiograph with an abnormality suspicious for lung cancer, a consultant radiologist can refer patients directly for definitive imaging with thoracic CT and for an expedited appointment with a respiratory physician. This pathway predates the ACE initiatives described above. The local pathway was developed after discussion with local GPs, the Sunderland CCG and the respiratory physicians in Sunderland. Posters and leaflets are present in the waiting rooms of participating GP surgeries to inform patients that they may be contacted and undergo CT and a hospital appointment if their chest radiograph is abnormal.

Specific aims

By introducing a lung cancer escalation pathway (LCEP), the aim was to¹ reduce timelines to diagnosis, specifically the wait between undergoing an abnormal chest radiograph and the CT thorax being performed²; create a seamless referral pathway between primary and secondary care.

Context

In the CHSFT, the incidence of lung cancer is 120.8 per 100,000 population, far higher than the national average of 79.8 per 100,000 population.⁴ Lung cancer mortality rates in Sunderland are also high, 90 per 100,000 population, compared with the national average of 61.3 per 100,000.² CHSFT has approximately 400 new cases of lung cancer diagnosed per year.

Intervention

For patients referred from a GP, every abnormal chest radiograph suspicious for malignancy was cycled into the LCEP in which a cancer services facilitator based in the Radiology Department arranges an urgent thoracic CT examination and subsequent respiratory clinic appointment (both to be completed with 14 days), resulting in a reported CT examination prior to the consultation with the respiratory physician. The pathway is only for those patients who have abnormal chest radiography findings suggestive of malignancy. Patients who have clinical symptoms of concern but unremarkable chest radiography findings are referred by the standard 2-week wait (TWW) pathways.

Both the patient and the GP are informed of the patient's entry into the LCEP and the appointment dates by the cancer services facilitator. The cancer services facilitator checks the electronic hospital records to ensure there is a contemporary assessment of the patient's renal function, in line with the radiology department protocol regarding assessment of renal function prior to the administration of iodinated contrast media. In a minority of cases, where there has been no relatively recent assessment of the renal function, the cancer services facilitator will make

arrangements for the patient to attend the hospital outpatient department for blood tests under the care of the respiratory physician with whom the patient has a booked outpatient appointment. The patient's GP will receive the information that the patient has been entered into the LCEP by phone call or secure fax.

The patient is informed by a personal phone call from the cancer service facilitator about the need for further investigation with a CT examination and the appointment times for both the CT examination and also the appointment with the respiratory physician. At the commencement of the project the post of cancer services facilitator was already in post in the department. The initiation of the CT examination and the respiratory appointment by the consultant radiologist overcomes any perceived difficulties that GPs may have interpreting radiological reports, which may be unclear in terms of recommendations or significance of the findings.

All chest radiographs from general practice in CHSFT are reported by a team of 16 consultant radiologists within the hospital as there is no outsourcing of general practice radiographs in CHSFT. Patients who are referred for chest radiography by their GP in Sunderland attend one of five peripheral walk-in sites (which are open from 8 am to 8 pm) throughout the city. All GP-referred radiographs are reported centrally within the CHSFT with an average turnaround time of 2–3 days to completed report. The consultant radiologist who has reported a patient to be referred to the LCEP then either informs the cancer services coordinator by a secure internal messaging system or in person directly. The project has proven to be sustainable over a period of 3 years with a variety of staff changes in several departments. To date, there have been no instances of "double booking" a patient on the LCEP and the TWW pathway, which is attributed to excellent communication with the GP colleagues facilitated by the cancer services coordinator.

Results

The results presented are of a relatively mature diagnostic pathway, the LCEP, started in CHSFT in April 2014. This pathway predates the ACE initiatives described above. There are now 33 months of outcome data on the pathway and the numbers of malignancies and other abnormalities detected as well as data regarding the numbers of referrals and malignancies diagnosed by type (Table 1). Overall, there were 121 cases of intrathoracic malignancy identified. In the majority of cases, a histological diagnosis was reached, but 11 cases of radiological diagnosis of lung malignancy (where tissue sampling was inappropriate or unsuccessful) was made have been included in the analysis if the diagnosis was made at the MDT meeting.

Between April 2014 to December 2016 (a 33-month time frame), 1,028 lung cancers were diagnosed at CHSFT: 14% ($n=157$) from the LCEP; 16% ($n=169$) from the TWW pathway; and 35% ($n=359$) from routine referrals (Emergency Department) and respiratory clinic.

Download English Version:

<https://daneshyari.com/en/article/8786546>

Download Persian Version:

<https://daneshyari.com/article/8786546>

[Daneshyari.com](https://daneshyari.com)