

# Greater Manchester Cancer Alliance

# **Early Diagnosis for Symptomatic Lung Cancer**

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# Symptomatic Lung Cancer

Lung cancer is the third most prevalent cancer in the UK and the most common cause of cancer related death [1]. Each year, there are approximately 48,500 new incidences of lung cancer (13% of all new cases) and 34,800 deaths (21% of all cancer deaths) [1]. Furthermore, only 45% of patients diagnosed with lung cancer survive for more than one year after diagnosis [2]. The reasons for these poor outcomes are myriad, but stage at presentation is key: in the UK, 61% of patients diagnosed with stage I lung cancer survive for five years or more compared to only 4% of those patients diagnosed at stage IV [3]. In addition, 32% of lung cancers are diagnosed via an emergency presentation to hospital, making it the most common route to diagnosis [4]. These statistics highlight the need to improve outcomes, but the importance of earlier diagnosis to shift towards earlier stage diagnosis and improve fitness for treatment.

# Early Diagnosis of Symptomatic Lung Cancer Working Group

The Targeted Lung Health Check programme being rolled out across Greater Manchester aims to decrease the stage at diagnosis for asymptomatic patients, ultimately improving outcomes. To ensure an equitable focus on symptomatic lung cancer, the Early Diagnosis of Symptomatic Lung Cancer Working Group has been set up and will function as a subgroup of the lung pathway board. The primary aim for the group is to scope, pilot and evaluate innovations that tackle the barriers to early diagnosis. The group will combine expertise from primary, and secondary care as well as colleagues from locality teams, the voluntary, community and social enterprise sector and patient / carer representatives. Amongst the new innovations, already ongoing work will be managed through the group including a healthbot project and the Self-Referral Chest X-Ray pathway (SRCXR).

## The Healthbot

The Cancer Alliance, in collaboration with MSD, are working to develop a digital, symptom validation and patient activation tool in the style of a chatbot. Users can anonymously click through a series of questions, and depending on their answers, will be signposted to appropriate resources and/or primary care and other innovations, such as the SRCXR pathway. MSD have already launched a similar tool in Sweden with success.

#### Membership

The working group will combine expertise from across cancer care to drive the project forward and ensure buy in from all key stakeholders including: primary and secondary care, locality and public health, voluntary sector and patient/carer representation.

#### Scope

The group aims to explore a wide range of innovations that will increase CXR referral rates and outcomes for symptomatic lung cancer.

### Safety Netting

Chest X-Rays (CXR) are the most common radiological route to diagnosis for most lung cancers and are a cheaper and easier alternative to CTs with a lower radiological dose to the patient. However, the sensitivity of a CXR is only around 75-80% and despite the negative predictive value of a normal CXR being a reassuring 99.7% [5], there is still need to safety net patients whose symptoms persist following a normal CXR as it cannot entirely rule out lung cancer. This group will explore various means of increasing safety netting through appropriate engagement and messaging, the healthbot and other digital innovations

### Innovate

Digital tools to overcome known barriers to early diagnosis such as the healthbot and targeted safety netting will be explored alongside pathway innovations, research and education

# Data

Data will be central to tracking the success of the work undertaken by the group and will also allow a targeted approach to better focus resource. CXR referral rates will offer key insights to many of the projects

**Figure 1**: Infographic outlining the key aims of the Early Diagnosis of Symptomatic Lung Cancer Working Group as well as highlight descriptions of two of the major pieces of work already underway as part of the overall project, the healthbot and safety netting work.

#### References

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- 5. Bradley SH, Abraham s, Callister ME, Grice A, Hamilton WT, Lopez RR, et al. Sensitivity of chest x-ray 1for detecting lung cancer in people presenting with symptoms: a systematic review. Br J Gen Pract. 2019;69(689):e827-e35