



**Somerset
Clinical Commissioning Group**

ACE Programme

SOMERSET INTEGRATED LUNG CANCER PATHWAY

**Phases One and Two
Final Report**

July 2017

Introduction

This paper presents the learning and actions that have been generated from phase One and Two of the Somerset integrated lung cancer pathway project; part of NHS England's Accelerate, Coordinate, Evaluate (ACE) project.

Aim of the Somerset Project

Pilot the re-design the early diagnosis of lung cancer pathway in Somerset and by doing so reduce mortality from lung cancer. The project consisted of four key Phases:

- To review, audit and establish key reasons for delay in presentation with lung cancer in Somerset.
- To design Pilot integrated pathway that includes learning from the audit and encourages earlier diagnosis of lung cancer.
- To evidence potential improvements that could be introduced in early diagnosis of lung cancer in Somerset.
- To share key learning with the wider health economy and the ACE programme.

Background

In the UK Lung cancer is not the commonest cancer but it is the commonest cause of death from cancer in both men and women.

Survival from lung cancer is primarily determined by the stage of disease at presentation. Late presentation has been proposed as a major contributory factor to poorer survival in the UK.

Phase One

There were three key activates in phase one of the Project:

Lung Cancer in primary care Audit

Most GP practices will only have a handful of lung cancer cases each year. Consequently lung cancer is not often chosen as a topic for audit and little is known about the time leading up to diagnosis.

In order to understand more about what is happening in the stages of this pathway we designed a collaborative GP audit with 17 practices participated across Somerset with 69 cases included, key themes were:

- 75% patients were on a chronic disease register at the time of diagnosis.

- 85% of patients attended their surgery in the 6 months before diagnosis.
- 50% of patients had their symptoms for 3 weeks or less when they sought medical attention.
- More than half of the patients had Q cancer score of less than 2% at the presentation immediately before the presentation where a referral was made.

Patient and Carers Views

Engaging patients throughout both phase one and two was challenging. We initially approached patients through the lung cancer nurse specialists at Musgrove Park and Yeovil District Hospital. Musgrove Park have a team of volunteers who are experienced in interviewing cancer patients and intended to engage interested patients in one to one interviews or focus groups. Unfortunately of the many patients who were approached none wanted to be interviewed. Three filled in an online questionnaire. This may have been because they were being approached shortly after diagnosis.

Following improvement methodology we then tested a different approach and arranged a press release discussing the project and inviting patients, relatives of carers to share their experiences through an online questionnaire. This was published in 5 local newspapers and the GP cancer lead did an interview on BBC radio Somerset. Following the press release 23 people accessed the questionnaire; 12 patients and 11 carers/ relatives. 8 of the people who chose the option of patient did not fill in any other information in the form.

The three main themes identified from the transcripts of patient comments included:

- Feeling that GP did not take symptoms seriously
- The benefit of earlier investigation by GP
- Better communication between different departments.

Stakeholder work shop

The CCG facilitated a stakeholder workshop to review and consider the public health data, findings of the GP audit and public engagement exercise

The Role of Chest X-ray

Chest X-ray (CXR) is recommended as the first line investigation for lung cancer (NICE Guidance 2011).

CXR is normal in approximately 20% of lung cancers and if there is a high suspicion of cancer a 2ww referral should be made with a normal CXR.

There are several models of investigation following a two week wait referral. In the traditional model the patient is seen in a respiratory out-patient clinic and a CT scan of the chest is requested if indicated following clinical assessment.

There is a possible alternative pathway using direct access to low dose CT; offering direct GP access to CT scans either based on symptoms or based on CXR report and advice from radiologist categorising results according to post-test probability of lung cancer and recommending actions including:

- Abnormal – advise CXR follow-up or nothing.
- Abnormal – advise low dose CT.
- Likely lung cancer – advise staging CT.

This could be coupled with Radiologist or Chest Physician review of CT reports recommending to GP:

- Two week wait outpatient referral.
- Non-urgent outpatient referral.
- No outpatient required.
- If CXR incidentally suggests lung cancer a copy of radiologist's report is send directly to a member of the lung MDT.

Patient Care Views

The three main themes identified from patient comments included:

- Feeling that GP did not take symptoms seriously.
- The benefit of earlier investigation by GP.
- Better communication between different departments.

Stakeholder meeting

Key Points:

- Data from the NCRAS show that the Somerset CCG had a higher rate of emergency presentation than England.
- Inequalities in mortality and access to healthcare are evident between the most and least deprived communities in Somerset.
- The Primary Care Audit showed that 75% of lung cancer patients were on one or more chronic disease registers at the time of diagnosis. As these patients have regular check-ups for their condition, and are on a register, Healthcare Professionals (HCPs) have an opportunity to proactively seek red flag symptoms.
- High risk patients with a normal chest X-ray could be offered a low dose CT scan.
- Formal Advice and Guidance would also assist in developing plans to manage high risk patients with a clear chest X-ray.

- GPs could have access to an acute advice line/ email chat to discuss cases where they are unsure whether to refer.

Next Steps

To take the learning from the Audit and engagement event and develop an action plan for phase two that will include:

- Agreeing a method of risk stratification that can be piloted in a variety of settings - Health assessments; chronic disease reviews; pharmacists; by patients themselves at home.
- For those below threshold develop a package of education and reduction of risk factors, education of symptoms of cancer and what to do if they develop, education of current treatments for lung cancer to combat nihilism.
- Agreement and development of a pilot pathway for patients above risk threshold

The full phase one report has been included (see appendix one).

Phase Two

Development of Project group

A project group was formed to review the findings of phase one and develop an action plan from this, the group consisted of:

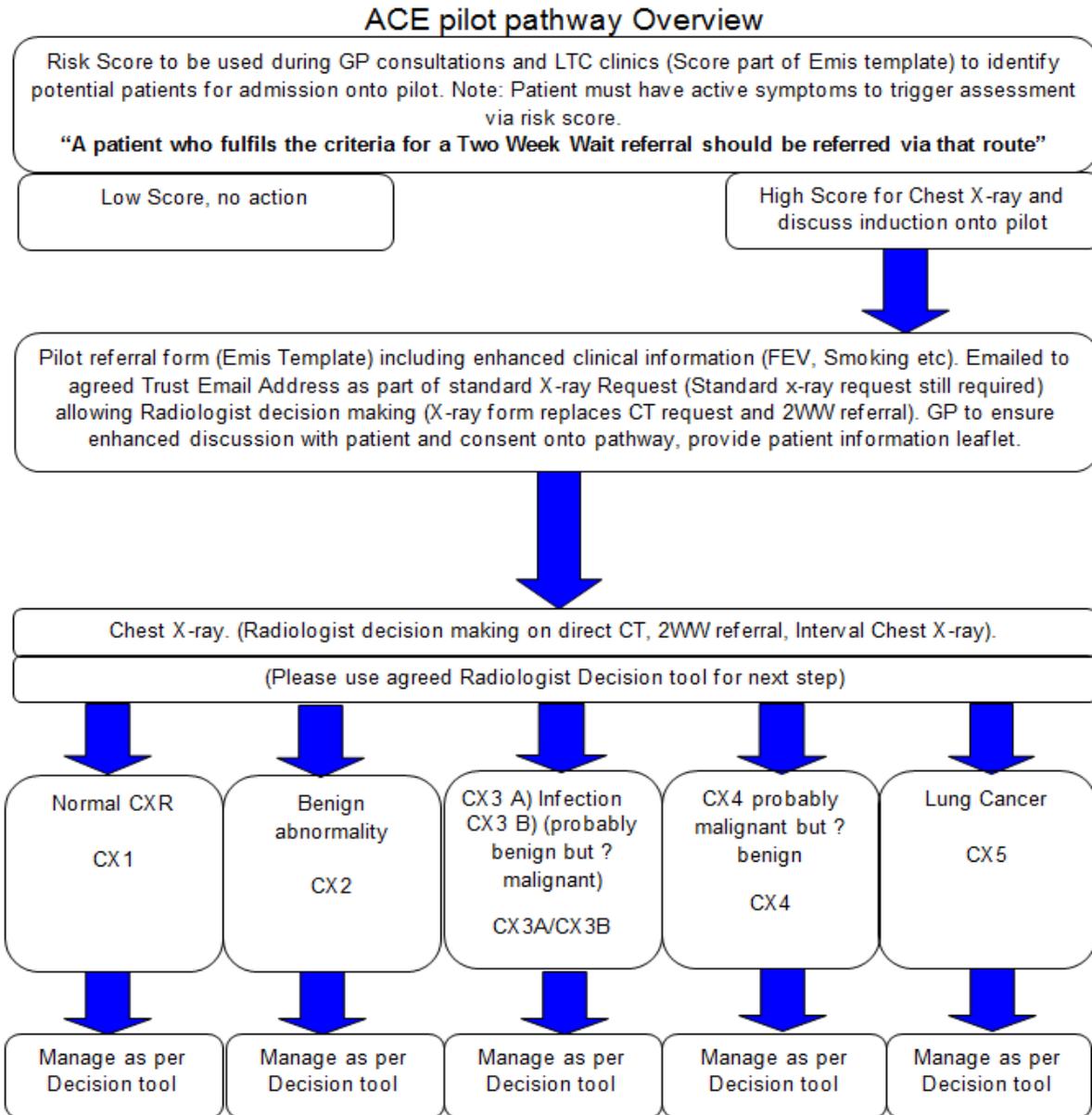
Secondary Care Respiratory physician
Consultant Radiologists
Primary Care General Practitioners
Specialist Nurse
Project Manager

Pilot Pathway

The final agreed pilot pathway includes a new x-ray request form and risk tool. These facilitated direct access from Chest x-ray to CT and or Chest MDT if required. The Pilot took place across a federation of GPs with a patient population of 30,000. It included both Acute Trusts in the Somerset CCG area.

The pathway included improvements in both the Primary Care contact point and Secondary Care section of the pathway, See figure one.

Fig 1



Primary Care Section

It was agreed by the GP federation that practices would undertake four key steps in the pilot, these included:

Patient Identification: GPs were asked to review any patient that potentially could have symptoms linked with lung cancer. The GP was then asked to complete a risk assessment tool with any patient scoring three or more (See figure 2) being eligible for the pilot. Any patient scoring below a three would follow the standard referral process for x-ray if needed.

Figure 2

	Score	Detail	
Age > 55	1		
> 20 pack year smoking history	1		
< 10 years since quitting	1		
Weight loss > 5% body weight in past year	1		
Anorexia	1		
FEV1 < 80% predicted	1	Last Value:	Date:
	If score > 3 for CXR	Q Cancer Score:	

Enhanced Data: A key element of the pilot was the enhanced data set (Fig 3) of information that was made available to the acute Radiologist via the Pilot referral template. This facilitated the Radiologist developing a management plan for the patient.

Fig 3

Additional information to aid interpretation of CXR – allow conversion to CT request / 2ww referral		
Comorbidities		
Medications		
Performance status		
Family history of cancer – site and age of onset		
Metformin: Yes/No	Renal Function:	Date:

Enhanced Consultation and patient consent: Each patient enrolled on the pilot had an enhanced consultation with the GP that includes an explanation of the pilot pathway, what the patient should expect to happen, gaining patient consent and providing the patient with an information sheet fact sheet (Appendix Two). The

Information sheet included key information on what the patient should expect during their visit to the GP, during their x-ray and after they have had radiological diagnostics. After reviewing this information the patients consent was recorded both on the referral form and in the Emis clinical system. It was anticipated that this enhanced consultation would take around 20 minutes.

Due to the limited size and timescale of the pilot it was not possible to introduce a completely new compliant referral system for X-rays using only the new referral form and process. There was therefore a requirement to also undertake a standard x-ray referral on which the enhanced referral was piggybacked.

Radiology section

The radiologist had the enhanced information to support radiologist led decision making in requirements for CT and referral the LUNG MDT. The pilot group reviewed the potential for radiologist decision making and supported the development of a decision making tool. Part of this review process identified a requirement from GPs for a more standardised report from radiologists, as this would support GP understanding of the actions taken by the Radiologist. From the pilot radiology and decision making and reporting tool was developed (FIG 4). This was support positively by all GPs and Radiologists within the pilot.

Code	Result	Radiologist action	Standard text with report and Management Plan
CX1 (Normal)	Normal CXR Equivocal CXRs should be discussed and repeated if necessary prior to the report going out and a decision made as to which of the 5 categories they fit into.	Report to primary care, patient back to GP.	A normal CXR does not exclude malignancy. If there is still a strong clinical suspicion referral to the clinic is advised With haemoptysis: A normal CXR does not exclude malignancy but minor/resolved haemoptysis without other symptoms has a low risk
CX2 (Benign abnormality)	Other Pathology – not normal CXR but abnormality that does not need further investigation	Report to primary care, patient back to GP.	No further action required - ? same standard text as CX1
CX3 A) Infection CX3 B) (probably benign but ? malignant)	A) Infection B) Abnormal uncertain pathology	A) Book repeat CXR. Communicate plan to Primary Care. Second CXR to be managed as per Pilot pathway. B) Book CT Communicate plan to Primary Care. CT results to be managed as per Pilot pathway.	A) Repeat CXR in 6 weeks. B) CT Scan booked

CX4 probably malignant but ? benign	Abnormal uncertain pathology – or pathology that needs further evaluation	Book CT scan, refer to MDT (MDT Co-ordinator to upgrade the patient onto the 62 day pathway). Report to primary care	CT scan booked
CX5	Lung Cancer	Book CT scan, refer to MDT (MDT Co-ordinator to upgrade the patient onto the 62 day pathway), report to primary care	CT scan booked and patient booked into fast track clinic

Patient Feedback

As part of the pilot each patient was provided with a patient feedback form (Appendix three).

This short questionnaire was developed in conjunction with the clinical teams in each stakeholder and the patient Engagement Team at the CCG. The questionnaire contained three multiple choice questions and one question based on a scaled answer. Three of the questions focused on patient experience and one on patient preference during follow-up.

Anticipated outcomes

It was anticipated that the pilot would run for six months and enrol at least 100 patients this would allow a total of seven measures to be assessed (appendix four). These included:

- The time to a patients management plan being agreed
- Patient Satisfaction
- Impact on 2WW referral numbers
- Impact on numbers of Chest x-rays ordered
- Impact on Numbers of CTs required
- GP appointment time
- Combined Measure (patient journey)

Data from Secondary Care, the referring practices and a number of control practices would allow these measures to be fully assessed.

Results

At the termination of the six month point in the pilot only six patients had been successfully enrolled on the pilot with only one patient returning their patient experience form. This did not allow for testing against the agreed outcomes.

We have reviewed learning from the set-up of the pilot to support the development of phase three of the pilot.

Conclusion and learning into Phase Three

Standardised X-ray reporting: A key issue from phase reported by GPs was a lack of clarity in X-ray reporting. The Radiologist decision making tool included a Standardised response to GPs on X-ray reporting. These standardised reports were supported by Primary Care, with supportive feedback from the GPs who had received them.

Enhanced Information and decision making tool

The enhanced information supplied allowed the radiologists to undertake advanced decision making post X-ray. Of the six patients in the pilot less than 5 had a further CT or other radiological intervention without needing to return to their GP for a decision and less than 5 were returned to primary care

Although the small data set is not able to prove any improvement in the speed of decisions making using enhanced information and the radiologist decision making tool. It is suggestive that this needs further investigation and should be included in phase three.

GP participation in the Pilot

In this project the new lung pathway was offered as an option in addition to the existing pathway in order to establish the principle of direct access to CT and develop trust between primary and secondary care prior to developing a service wide pathway. It is disappointing that we did not have more referrals through the new pathway, however the few patients that went through have allowed us to establish the principle and gain confidence of stakeholders in developing a pathway for all new referrals that will replace the old pathway.

We have been working with Somerset's STP to develop a county wide integrated lung cancer pathway. CXR are currently performed by several independent centres and other providers in Somerset with variability in service provided.

The following proposal has formed part of Somerset's STP:

- 1) Provide same day walk-in access to CXR to all GPs
- 2) Implement CXR reporting tool for all CXRs performed in Somerset and work towards same day CXR reporting.
- 3) Provide direct access to the recommended actions in the reporting tool.
- 4) Work towards implementation of the National Optimal Pathway for Suspected Lung Cancer.
- 5) Set up reporting of CXR codes and relate to outcomes as quality assurance of CXR reporting across providers.

Increase consultation time: The pilot assumed an increase in the GP consultation to twenty minutes for patients on the pilot. This proved to be problematic with a number of GPs feeling unable to engage with the process because of existing work pressures. We will be further exploring the importance of GP consultation in the early diagnosis of lung cancer in the next phase of the project.

We are working on a Quality Improvement project with GP practices in Mendip as part of the Somerset Primary Quality Scheme. Practices will identify patients between the age of 65 and 75 who are recorded as ever having smoked and not been in contact with the GP surgery for 12 months. The GP will telephone these patients to offer them a Lung MOT appointment in which they have a QCancer score calculated and are screened for COPD. We will monitor new diagnoses of Lung cancer and COPD, as well as barriers to uptake of Lung MOT clinic.

ACE projects in the Proactive Lung cluster have reported an uptake of 35% using an invitation letter. By using a more direct approach led by the patient's GP surgery we will explore barriers to engaging on an individual basis. Using QI methodology we will evolve our approach to engaging patients as we learn from each cycle.

We have submitted a proposal to the diagnostic capacity fund that seeks to provide lung MOT clinics to a wider population and provide direct access to low dose CT scanning where indicated.

Appendix One (Phase one report)



IMPROVING THE
EARLY DIAGNOSIS OF

Appendix Two (Patient Information Sheet)



Patient Information
Sheet final.docx

Appendix Three (Patient Feedback Form)



Patient feedback
ACE project.docx

Appendix Four



Outcome
Measures.docx