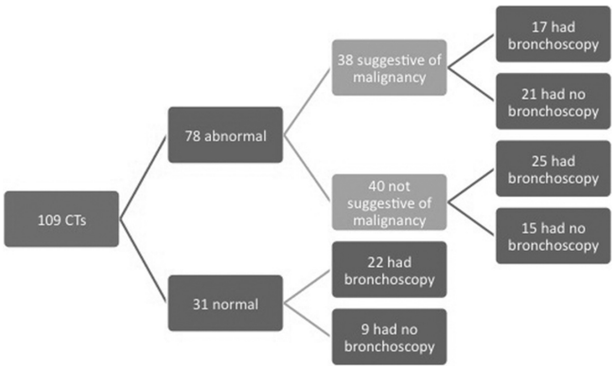
Background Southmead Hospital is a large teaching Hospital in the South West of England. GP two week wait (TWW) referrals to the respiratory department are sent via a standardised proforma with one of a number of reasons for referral selected. We conducted this project both to evaluate how we are currently investigating patients referred with haemoptysis and to identify whether our diagnostic pathway for patients for these patients could be optimised. We were particularly interested as to whether bronchoscopy is diagnostically helpful in this cohort of patients.
Methods We looked at all TWW referrals between 13/6/13 and 2/4/15 (825 referrals) and selected those who were referred for haemoptysis (110 patients). The clinical course of these patients was tracked retrospectively by looking at our electronic record system and clinical letters.
Results Overall 109 of the 110 patients identified had a CT scan – this was normal in 31 patients. In the remainder of cases the CT was suggestive of malignancy in 38 of the 78 abnormal scans. The remainder of CT scans had positive findings that were not suggestive of malignancy. Of the 31 patients who had a normal scan, 22 patients underwent bronchoscopy. 40 patients had abnormal CT scan that were not suggestive of malignancy. 25 of these patients went on to have bronchoscopy All bronchoscopies were either normal or showed non specific findings.16 patients who had an eventual diagnosis of lung malignancy had an initial CT scan suggestive of malignancy.



Abstract P173 Figure 1

Conclusion Our project demonstrates that currently 58% of patients referred with haemoptysis via the TWW system go on to have a bonchoscopy. In our cohort of patients all bronchoscopies were either normal or showed non-specific changes. All patients with lung malignancy had a prior CT that was suggestive of malignancy and did not require a bronchoscopy other than as a potential means of obtaining tissue. We suggest that bronchoscopy may not be necessary in patients referred with haemoptysis who have a normal CT scan. We feel this will change our local practice and may enable us to better target this investigation to patients who will benefit from it.

P174 CATCH - A YEAR IN PROFILE AND FURTHER REDUCTIONS IN 2WW REFERRALS

[1]VTY Ng, [2]A Walsham, [2]A Sharman, [2]SCO Taggart. *[1]Manchester University Medical School, Manchester, UK; [2]Salford Royal NHS Foundation Trust, Salford, UK*

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Introduction In Salford, annual 2WW referrals rose from 235 in 2010/11 to 248 (2011/12) and 281 (2012/13) but fell to 249 in 2013/14 as the result of a 5 month pilot[1] of our CATCH protocol (**C**ommunity **A**ccess **T**o CT **Ch**est) allowing abnormal "low risk" CXR reports to trigger a GP request for a fast track CT scan. This audit reviews the performance of CATCH for a whole year of activity from 1st May 2014 to 30th April 2015.
Methods The CATCH d-base and electronic patient record were used to identify the patients and dates of CXR and CT examinations in addition to CXR/CT scan reports and final diagnoses. The number of 2WW referrals was determined for the same time period using the cancer waiting times d-base.
Results A total of 117 patients entered the CATCH protocol of which the majority of CXRs demonstrated the presence of a well-defined (47%) or ill-defined opacity (14%) and a further 18% revealed abnormality at the hilum. The remaining CXRs (21%) raised concerns about fat pads, atelectasis or pleural abnormality. For the 115 patients having a CT scan, the findings confirmed cancer in 9%, solitary pulmonary nodule (25%), infection/inflammation (15%), atelectasis (10%), pleural plaque (10%), fat pad (5%) and in 11% the CT scan was normal.

Following CATCH CT scan, 53 (46%) patients required no follow up, 33 (29%) generated urgent referral, 16 (14%) non-urgent referral to the chest clinic, 11 (10%) required follow up surveillance imaging. Timelines for CATCH management are detailed in Table 1. Mean time from CT report to cancer diagnosis was 61.1 days (range 23 to 187) and total number of 2WW referrals for 2014/15 was 234.

Abstract P174 Table 1 Mean time for main CATCH outcomes

CXR performed to CXR report	4.0 days
CXR report to CT appointment	14.6 days
CT appointment to CT report	0.8 days

Conclusions Following the introduction of CATCH to the Salford Lung Cancer Service, 2WW referrals have fallen further to manageable numbers. The pick-up rate for cancer is only small and reflects the low risk abnormality detected on CXR. The relatively long diagnostic times for cancer reflect the processing of small nodules detected within this select group of patients.

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P175 USE OF A VIRTUAL CLINIC TO IMPROVE THE LUNG CANCER PATIENT JOURNEY

A Nanapragasam, N Maddock, A McIver, C Smyth, MJ Walshaw. *Liverpool Heart and Chest Hospital, Liverpool, UK*

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In 2014 with our primary care colleagues we introduced a 'Straight to CT' system for out-patients with a radiological or clinical suspicion of lung cancer. The CT was done on behalf of primary care, and only patients who had a CT suspicious of lung cancer, were automatically taken by the lung cancer team. Such scans are reviewed by a cancer clinician, who makes a provisional next best test plan, and this empowers a telephone clerking by a highly specialised lung cancer nurse. The assessment

and plan are documented, and the GP receives a same day fax. We now report our results for the calendar year.

Results 293 patients with suspicious scans were contacted through our virtual clinic, and of these 241 (82%) were triaged to the most appropriate next test as day cases (69 (29%) bronchoscopy, 50 (21%) EBUS, 69 (29%) PET scan, 26 (11%) CT biopsy, 4 (1%) FNA, 17 (7%) pleural aspiration, 6 (2%) bronchoscopy and pleural aspiration).

At these attendances, patients were reviewed by medical staff and the CNS who undertook the telephone assessment, and any relevant other assessments performed. Of the remainder, 38 (13%) were triaged to a clinic for assessment, 2 (6%) were admitted, and 2 (6%) referred back to their GP for best supportive care.

Using this service we have been successful in targeting cancer resources onto patients subsequently diagnosed with lung cancer (79%), we have improved our mean time to diagnosis to 19 days, with a histological rate of 89%. Our 62 day breach rate is 6%. The new process also provides a 42% cost saving for primary care.

Conclusions We have shown that the use of a virtual clinic can target and speed up the diagnostic pathway for patients with lung cancer. It also makes more efficient use of scarce NHS resources, by ensuring that patients only attend the hospital for necessary investigations.

We recommend the use of this innovative service to other clinicians charged with managing this common and distressing disease.

P176 EPIDERMAL GROWTH FACTOR RECEPTOR (EGFR) MUTATION TESTING AND TREATMENT CHOICE IN ADVANCED NON-SMALL CELL LUNG CANCER (NSCLC): UK FINDINGS FROM A GLOBAL SURVEY

[1]J Spicer, [2]B Tischer, [3]M Peters. *[1]Guy's Hospital, London, UK; [2]Kantar Health, Munich, Germany; [3]Concord Hospital, Sydney, Australia*

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Introduction International and UK guidelines recommend EGFR mutation testing should be performed for advanced non-squamous NSCLC and results should guide treatment decisions. This testing is an important component of standard care because matching mutations to specific TKI treatment can extend survival and improve quality of life compared to first-line chemotherapy.

Objectives To assess the prevalence of EGFR mutation testing, attitudes and barriers to testing, and how results affect choice of therapy among prescribers in the UK and internationally.

Methods We conducted an online representative survey of 562 prescribers in 10 countries (Canada, France, Germany, Italy, Japan, South Korea, Spain, Taiwan, UK and US) between December 2014 and January 2015, including 51 oncologists in the UK (Annals of Oncology, Volume 26, Supplement 1, 2015).

Results In the UK, prescribers stated that 77% of newly diagnosed patients with advanced NSCLC were tested for EGFR mutations, the same proportion as in Europe (77%) and North America (76%), but less than in Asia (92%). The stated reasons for not testing included: histology, insufficient tissue to perform the test, poor performance status, and long turnaround time for results. Despite the relatively high rate of EGFR testing claimed in the UK, respondents said that 21% of patients for whom a test was ordered were started on first-line treatment before results were available, nearly double the rate in Asia (12%). Further, 67% of UK of oncologists, compared to 51% of all respondents, reported that treatment decisions were not affected by EGFR mutation subtype.

Conclusion Despite the high levels of EGFR mutation testing in the UK, the survey found that more than one in five patients with advanced NSCLC do not receive treatment personalised for cancer type and mutation subtype, even though evidence shows this improves survival and quality of life. These findings suggest there is incomplete implementation of UK guidelines. Further research is needed to discover what factors contribute to oncologists not following established guidelines in the UK. These data were originally presented at the European Lung Cancer Conference, 2015. Annals of Oncology, Volume 26, Supplement 1, 2015.

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Managing pleural disease

P177 COST EFFECTIVENESS OF AMBULATORY MANAGEMENT OF SPONTANEOUS PNEUMOTHORAX

C Pillay, B Shah, M Naeem, R Reddy. *Kettering General Hospital, Kettering, UK*

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Introduction Hospital admissions due to a primary diagnosis of spontaneous pneumothorax (SP) have an annual incidence of 11.2 per 100000.[1] It is estimated there are around 7200 emergency hospital admissions annually for pneumothorax in NHS. We have previously demonstrated pneumothorax patients requiring intercostal drains can be managed safely as outpatients with a Pneumostat device (similar to Heimlich valve).[2]

Methods All patients with primary spontaneous pneumothorax (PSP) and secondary spontaneous pneumothoraces (SSP) with a good performance status (WHO scale of 0–1) requiring an intercostal drain were eligible for outpatient management. SP patients presenting to hospital between July'14 and June'15 were analysed to see what percentage could be managed on the ambulatory pathway. The number of bed days saved was calculated from the total number of days patients spent in the community with the chest drain. The savings were then extrapolated to whole of NHS.

Results 50 episodes (in 44 patients) of SP presented to hospital between July'14 and June'15. 36 episodes required a chest drain insertion. 20 of these 36 episodes (55%) were managed on the ambulatory pathway. Based on this approximately 4000 (55% of total NHS admissions) SP patients could be managed in an ambulatory setting annually across NHS.

The health care usage (number of attendances at ambulatory care, Chest X-rays and Pneumostat devices used) of patients managed on the ambulatory pathway is listed in table 1. The unit cost of healthcare usage was obtained from the hospital information department and the overall cost of ambulatory care was calculated. The difference between this and the calculated bed day savings established the overall cost savings (Table 1). The potential savings to NHS equate to around £2.8 million based on the calculated average savings of £703/patient.

Conclusion Ambulatory management of Spontaneous pneumothorax could realise significant savings to the NHS.