

**P162 CT FOLLOW UP AFTER SURGERY FOR LUNG CANCER – SHOULD THE AVAILABILITY OF RADIO-SURGERY PROMPT A CHANGE IN SCREENING PROTOCOL TO DETECT EARLY INTRACEREBRAL RECURRENCE?**

S Roberts, L Jones, C Exley. *Mid Yorkshire NHS Trust, Dewsbury, UK*

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Although routinely performed, the optimal screening regimen for recurrent disease after curative surgery for lung cancer has yet to be agreed. Radio-surgery has improved prognosis for patients with limited intra-cerebral metastases,<sup>1</sup> however screening for intracerebral recurrence has little evidence base. Local protocol is to perform CT head/chest/abdomen pre surgery and CT chest/abdomen at 3, 12 and 24 months after surgery. We proposed that the addition of CT head to the post-surgical protocol would enable earlier detection of intra-cerebral recurrence, facilitating timely treatment.

CT head was added to standard post surgical surveillance programme in February 2015. CT reports were reviewed prospectively and we report data to June 2015. For comparison, retrospective data for all patients currently enrolled in screening was also reviewed.

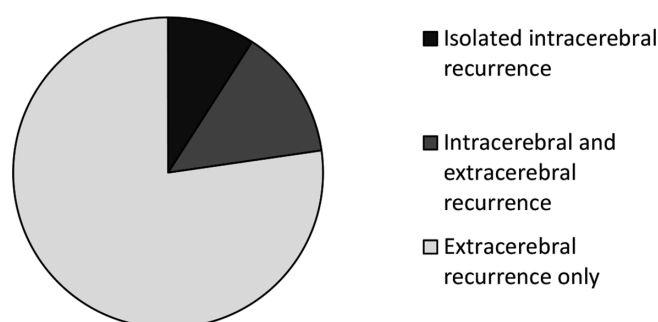
All 222 CT scans for the 115 patients undergoing post-surgical surveillance were reviewed. 28 of these have been performed since our protocol changed to include CT head.

In total, 22 patients (19%) had recurrent disease. 2 patients had isolated intracerebral recurrence. This represents 9% of all patients with recurrent disease and these patients would not be identified on previous screening protocol. This is in line with findings from previous work.<sup>2</sup>

Four cases of symptomatic intra-cerebral recurrence were identified prior to protocol change. Only one of these patients was eligible for radio-surgery. Since protocol change, one case of asymptomatic isolated intra-cerebral recurrence has been detected through screening; this patient was thereafter treated with radio-surgery.

Our results show that isolated intra-cerebral recurrence would be missed on the previous screening protocol. These preliminary results suggest that the addition of CT head in post operative surveillance enables earlier identification of these patients. The earlier detection of intracerebral recurrence as a result of screening may increase referrals for radio-surgery, with potential for improved survival.

**Site of recurrent disease after surgery**



Abstract P162 Figure 1

**REFERENCES**

- 1 Andrews, *et al. Lancet* 2004;**363**:1665
- 2 Yokoi, *et al. Ann Thorac Surg.* 1996;**61**:546

**P163 OUTCOMES FROM A NOVEL NURSE LED TELEPHONE CLINIC POST THORACIC SURGERY**

A Hyde, A Moore, J Love, S Berwick, RA Thomas. *York Hospitals NHS Trust, York, UK*

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**Background** Moore *et al.*<sup>1</sup> reported that nurse led initiatives can reconfigure care, making it more responsive to individual needs, increasing patient satisfaction and reducing hospital visits. Nurse-led telephone follow up clinics post surgery have evidence of patient satisfaction and reduction in post-op complications,<sup>2</sup> but this is not a routine intervention post thoracic surgery. Prior to establishing our clinic, patients were discharged after thoracic surgery with a surgical outpatient appointment at 6 weeks and no routine community follow up. These patients had often undergone complicated surgery, and been discharged with chest drains or on strong opioids.

**Methods** All patients discharged after surgery were contacted by telephone up to a maximum of a week after discharge with a further follow up call 2 weeks later if needed. A protocol of open questions was used to identify post-op difficulties at an early stage, facilitate referral to community teams, improve patient experience and provide additional information.

**Results and conclusion** 29 patients were contacted over a 6 month period, following discharge after thoracic surgery; VATs, lobectomy, sleeve/wedge resection, pneumonectomy and pleurectomy. Each call lasted up to 20 min, equating to a maximum 10 h of nurse time.

Telephone clinic highlighted a number of medical issues that required intervention and prevented GP and hospital appointments/admissions. Commonly reported symptoms included pain, shortness of breath, fatigue, constipation, weight loss and inability to sleep. In most cases simple advice and reassurance could be given. In 3 cases, medication was organised (antibiotics, laxatives, analgesia). A referral to the GP or community services was organised in 4 cases. Patient satisfaction was high however further evaluation over a longer period is needed. Additional study is necessary to explore the cost implications and the monetary value of avoiding admissions.

**REFERENCES**

- 1 Moore S, Corner J, Haviland J, *et al.* Nurse led follow up and conventional medical follow up in management of patients with lung cancer: randomised trial. *BMJ* 2002;**325**:1145
- 2 Young JM, Butow PN, Walsh J, *et al.* Multicenter randomized trial of centralized nurse-led telephone-based care coordination to improve outcomes after surgical resection for colorectal cancer: The CONNECT intervention. *J Clin Oncol.* 2013;**31**:3585–91

**P164 SMOKING AT THE TIME OF CURATIVE-INTENT LUNG CANCER SURGERY INCREASES PERIOPERATIVE COMPLICATIONS: IS THERE A ROLE FOR ELECTRONIC CIGARETTES?**

<sup>1</sup>ST Lugg, <sup>2</sup>T Tikka, <sup>2</sup>PJ Agostini, <sup>2</sup>A Kerr, <sup>2</sup>J Webb, <sup>2</sup>K Adamas, <sup>2</sup>E Bishay, <sup>2</sup>RS Steyn, <sup>2</sup>MS Kalkat, <sup>2</sup>PB Rajesh, <sup>1</sup>DR Thickett, <sup>1</sup>B Naidu. <sup>1</sup>Centre for Translational Inflammation Research, University of Birmingham, Birmingham, UK; <sup>2</sup>Department of Thoracic Surgery, Heart of England NHS Foundation Trust, Birmingham, UK

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**Introduction** Smoking is a risk factor for postoperative pulmonary complications (PPCs) following curative-intent surgery for lung cancer. Risk modification is via smoking cessation; the role that electronic cigarettes (e-cigarettes) have in preoperative tobacco replacement is a debated topic.

**Aims** Investigate the impact of smoking on postoperative outcome including long-term survival. Assess current smoking habits and attitudes towards preoperative smoking cessation, with emphasis on e-cigarette use.

**Methods** A prospective observational study was carried out on all patients following curative-intent lung cancer resection in a regional thoracic centre over 4 years. Preoperative smoking status was self-reported by all patients. PPCs were assessed daily in hospital using the Melbourne group scale.<sup>1</sup> Other data included patient demographics, hospital length of stay (LOS), intensive treatment unit (ITU) admission and mortality data. To assess smoking habits, a questionnaire was given to 105 patients attending the preoperative assessment unit.

**Results** Of 460 patients, 24% were current smokers, 12% ex-smokers 6 weeks duration, and 11% never smoked Compared to never smokers, current smokers had significantly longer hospital LOS in days (9, CI 7–11 vs. 6, CI 4–8;  $p < 0.001$ ), higher frequency of PPCs (22% vs 2%,  $p = 0.001$ ) and ITU admissions (14% vs. 0%;  $p < 0.005$ ). Compared to never smokers, the trend was for reduced survival in current smokers from 1–3 years, but the survival lines converged after this (median follow-up 30 vs. 31 months;  $p = 0.31$ ). The questionnaire found 24/105 patients were smokers, of these 80% patients had previously tried to quit but only 38% had been specifically approached by health-care professionals about smoking cessation. When asked if they would consider stopping smoking immediately if supplied an e-cigarette, 54% said yes.

**Conclusions** Preoperatively, 1 in 4 patients continue to smoke; the majority have attempted to quit and failed. Current smokers have higher postoperative morbidity with no significant survival difference within our follow-up period. Current methods of preoperative smoking cessation in this population are ineffective; patients appear willing to use e-cigarettes. Further research in this field is urgently needed.

#### REFERENCE

<sup>1</sup> Agostini P, et al. *Thorax* 2010;**65**:815–18

#### P165 RESULTS OF THE NORTHUMBRIA DIRECT ACCESS CXR PROJECT

M Weatherhead. *Wansbeck Hospital, Ashington, UK*

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Northumbria Healthcare (NHCT) traditionally had a low number of patients presenting with early stage lung cancer leading to low resection rates. In addition a high number of patients presented through the emergency route rather than through target clinics.

A local initiative was developed to try to improve the local presentation and diagnosis rates. The Northumbria initiative utilised primary care education, a social marketing project and a direct access CXR project which ran for 12 months.

The assessment criteria for direct access CXR were based on NICE guidance and patients meeting these criteria could self-present for a CXR.

- Is the patient over 50
- Has the patient had a chest x-ray in the last 3/52
- Has the patient developed a new and persistent cough for more than 3/52
- Has the patient had persistent chest pain for more than 3/52
- Has the patient had blood in their phlegm

**Results** Over 12 months 768 CXR examinations were carried out. 751 people presented a cough, 192 with chest pain and 33 with haemoptysis.

18 CT's were requested due to a suspicious CXR and 52 people had a follow up CXR. 19 of these 70 were reviewed in a chest clinic.

4 lung cancers were detected, 2 of which were early stage and the patients had radical treatment. 5 pulmonary nodules were identified, for which interval follow-up was planned.

**Conclusion** The Northumbria Walk-in project proved successful in terms of delivering a campaign message to the local population. The trust communications team won a regional award for the best "low budget" campaign for this project.

The detection rate for lung cancer was not higher than one would expect from performing CXR's on a population of similar age with a smoking history and on current evidence did not provide evidence for continuing the walk in CXR programme.

However, over the 2 years while this project was being developed and awareness of cancer was targeted there was a 6% rise in the rate of early stage lung cancer locally suggesting that the combined awareness raising approach both locally and nationally has had some effect on presentation rate.

#### P166 THE FREQUENCY OF CHEST RADIOGRAPHS PRIOR TO THE ONSET OF LUNG CANCER SYMPTOMS

MPT Kennedy, O Walkowiak, MEJ Callister. *Leeds Teaching Hospitals NHS Trust, Leeds, UK*

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**Introduction** Previous data has shown wide variation in the frequency of CXRs requested by GPs that is not explained by case mix factors. The relationship between threshold for CXR request and lung cancer characteristics at diagnosis is unknown.

**Aim** To analyse the frequency of CXRs prior to the development of lung cancer symptoms according to stage at presentation.

**Method** Retrospective review of an electronic database of lung cancer patients, excluding small cell, from 2010–2013. The dates of all CXRs in the three years before the first appointment with the lung cancer team were recorded. The frequency of CXRs was compared using Mann-Whitney U test with normal approximation.

**Results** 1750 patients were included. 589 had early stage disease (I/II) and 1161 had late stage disease (III/IV). The frequency of CXRs from 36 to 6 months prior to diagnosis is shown in Figure 1 according to stage at diagnosis. Patients subsequently diagnosed with early stage cancer had significantly more CXRs performed during this period compared to late stage patients (1.70 vs 0.92,  $p < 0.001$ ).