consideration of surgical intervention were made, a referral rate of 6%. The referral rate from the same consultants secondary care clinic during this period was 8% (10 referrals from 126 new COPD patients).

Referred patients had a mean age of 60 years (range 45–72), mean COPD Assessment Test (CAT) score 19 (8–32), mean FEV1 38% predicted (22–64%) and mean RV 196% (163–246%).

All referred patients are discussed at a regional COPD MDT. 5 patients have subsequently received an intervention- 2 lung volume reduction surgery and 3 endobronchial valve placement. 2 patients declined further assessment following discussion with surgeons. 3 patients currently undegoing further investigation to assess operative risk. Outcomes from secondary care referrals were similar (3 had an intervention, 5 were declined and 2 awaiting further assessment).

Post operative CAT scores improved by an average of 9 points. Uncomplicated recovery is rare with complications ranging from wound infection to coughing up a valve. Patients felt the information given pre-operatively by the community and surgical services was at the right level, although it was noted by the community respiratory nurse that patients required significant psychological support before and after surgery.

Summary Management of complex emphysema is possible in a community setting. 6% of COPD patients were referred for assessment for surgical intervention for their emphysema. Objective and subjective patient reported outcome measures improved post operatively. Patients needed more intensive support from the community team in the peri- and post-operative periods.

REFERENCE

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M15 USE OF E-CIGARETTES IN PATIENTS ACCESSING SECONDARY CARE IN CROYDON

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10.1136/thoraxjnl-2015-207770.442

Background The introduction of electronic cigarettes on the market as a cheaper and allegedly healthier alternative to cigarettes, has led many people to use them. The aim of this study is to give us a better understanding of the increase in useage of electronic cigarettes as an aid to quitting smoking for people accessing stop smoking services in secondary care in Croydon.

Method Questionnaires were given to participants who were willing to take part. 50 participants were recruited during their hospital visit through the Croydon Respiratory Team (CRT) and the hospital based stop smoking service. Patient demographics were recorded and participants reported their behavioural changes, impact on health, reason for use, and intention of when to stop using e-cigarettes.

Results Participants were both male and female with the age range of 23–82 years. 17 participants (35%) reported a diagnosis of COPD (Chronic Obstructive Pulmonary Disease). 34 participants were single users (only used e-cigarettes) and 16 were dual users (use e-cigarettes and other NRT products). Results revealed that e-cigarettes are popular, well tolerated and various brands used. The most popular brand was Vapour Zone cigarettes with 14 users followed by V2 Cig with 8 users. The findings also showed that some patients are using 2 types of e-cigarettes: 2 participants in this study were using more than one brand at the same time. Duration of using e-cigarettes was from one week to over 18 months with 50% of patients having used e cigarettes for at least 3 months. 26 patients (52%) reported improvement in breathing and 9 patients (18%) reported a reduction in sputum. 21 patients (42%) had reduced their cigarette use and 19 (38%) had quit smoking. Out of these 25 patients who were using e-cigarettes for at least 3 months; 12 had quit smoking. 22 participants reported hearing about e-cigarettes through the media, 14 through friends, 3 from health professionals, 3 from relatives and 3 through media and friends. It was interesting to note that despite all participants wanting to stop smoking, 33 participants were not sure when they intended to stop using e-cigarettes.

Conclusions The use of e-cigarettes is common in patients accessing secondary care in Croydon. Many patients either quit or reduced smoking and many reported improvement in symptoms. Duration of use of e-cigarettes is variable but half of patients surveyed had used them for at least 3 months. Whilst this study provides some local data, further research is required to help shape future respiratory and smoking cessation services and policies.

M16 ARE WE SHOUTING LOUD ENOUGH? – A COMPARISON OF PRIMARY VERSUS SECONDARY CARE SPIROMETRY

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10.1136/thoraxjnl-2015-207770.443

Background Abnormal spirometry results are a leading cause of referral to secondary care in the UK. Spirometry performed in GP practices is often supervised by nursing staff and in secondary care by dedicated respiratory physiologists. We felt that patients who performed spirometry in secondary care would be encouraged to exhale to their full capacity and achieve higher spirometric values.

Methods We collected patient spirometry values from 87 GP referral letters and compared them with the values obtained at our lung function laboratory at a district general hospital. We used a paired t-test to compare the two sets of spirometry results.

Results We found that there were significant differences between the lab FEV1 ($p = 0.034$), FVC ($p < 0.0001$) and FEV1/FVC ratio ($p = 0.0001$) compared to primary care values. There was a 77 ml average increase in FEV1 and a 241 ml average increase in FVC when spirometry was performed in our lung function lab.

Importantly, when we looked at the individual results, 18 patients (21%) originally deemed to have restrictive spirometry had obstructive spirometry when performed in our lab. Six patients (7%) originally had obstructive spirometry which proved to be normal or restrictive in our lab.

Conclusions A significant difference was identified between GP and secondary care spirometry. The most important aspect of this is the understanding that spirometry is effort based. Most patients require significant encouragement to perform to their limit. If a less than maximal effort is made, the FVC value is most affected. This may cause truly obstructive spirometry to appear restrictive.

Primary care spirometry gave a misleading picture in 28% of cases in this cohort, resulting in instances where referrals, investigations and treatments might have been avoided and possibly