

## Poster sessions

3 levels (cranial, middle and caudal) with grade 1 representing 1–5% emphysema, 2 = 6–25% emphysema, 3 = 26–50%, 4 = 51–75% and 5 >75% emphysema. Mean age at presentation was 40.7 (SD 5.4) years with all subjects aged 50 years or younger and 18/41 (44%) were younger than 40 years. Mean pack years cigarette smoking was 27 (19) and subjects had smoked heroin for 14.8 (6.6) years. Mean pre-bronchodilator FEV1 was 0.99 (0.52) L; 29.9 (17.6)%predicted and FEV1/FVC was 0.36 (0.13). Nine subjects had moderate (GOLD stage II), 7 severe (GOLD stage III) and 25 had very severe (GOLD stage IV) COPD. DLco was 41 (23)%predicted in the 9 subjects and alpha-1-antitrypsin level was normal in the 20 subjects who had it measured. Twenty nine CT scans were high resolution and suitable for detailed analysis. 28/29 (97%) subjects had at least grade 1 upper lobe emphysema and mean upper lobe emphysema extent (average of the 2 upper lobe scores) was 3.0 (1.4) with 15/29 (52%) subjects having grade 3 emphysema or worse. Overall emphysema extent (average of all 6 scores) was 2.5 (1.1). Moderate bronchiectasis was seen on only 3 scans and no subject had severe bronchiectasis. The other 12 CT scans could not be precisely graded but all had been reported as showing emphysema (2 mild, 2 moderate, 1 moderate to severe and 7 severe). Heroin smoking is associated with very early onset severe COPD with predominant emphysema. This is an important public health message needing dissemination to heroin smokers, drug service workers and healthcare professionals.

### P126 THE PREVALENCE OF SELF REPORTED RESPIRATORY SYMPTOMS AND DIAGNOSES AMONGST PATIENTS ATTENDING A DRUG DEPENDANCE CLINIC

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**Introduction** In England it is estimated that between the ages of 15–64, 2.2% use cocaine, 6.8% use cannabis and 0.8% use opiates on a regular basis<sup>1</sup>. Illicit drug use such as crack cocaine smoking, heroin smoking and intravenous heroin also contribute to a range of respiratory conditions. A significant proportion of drug users also smoke tobacco. For a wide range of social, psychological and economic reasons, respiratory conditions within this population may often go undiagnosed for many years. Often their disease can progress to become severe before any medical input is sought. Aim: To ascertain a detailed tobacco and non-tobacco smoking history and the prevalence of respiratory symptoms, prior diagnostic investigations and diagnoses amongst clients in the criminal justice system attending an inner city drug treatment clinic run by Addaction.

**Methods** Questionnaires were administered by Addaction staff and junior doctors from the respiratory department as part of a service evaluation. In order to ascertain whether their symptoms were likely to represent underlying COPD, a validated questionnaire was used<sup>5</sup>. The definitive diagnostic test for COPD is spirometry however in this particular group of people this is difficult to obtain due to frequently chaotic lifestyles.

**Results** A total of 62 clients completed questionnaires. 44 (71%) smoked cigarettes, 39 (63%) tobacco (mean pack years (SD) combined cigarettes/tobacco 23.5 (25)), 40 (65%) marijuana, 54 (87%) crack and 57 (92%) heroin. 26 clients (42%) injected heroin. Only 17 (24%) reported having had spirometry. Clients were divided into tertiles ('heavy', 'moderate' and 'mild' exposure to smoked tobacco and drugs) according to total smoking history

(combined pack years, joints/day years, rocks/day years and bags/day years respectively for tobacco, marijuana, crack and heroin). There were no statistically significant differences between groups - See Table 1.

**Conclusions** The majority of the clients reported at least one symptom suggestive of airways disease. A larger study incorporating spirometry based at drug clinics may help to diagnose, and thereby facilitate effective treatment, of underlying COPD in this population. Early diagnosis and treatment could reduce illness within this population, prevent admissions and lead to significant savings in NHS spending.

## REFERENCES

1. United Nations Office on Drugs and Crime, World Drugs report 2012
2. Pulmonary effects of illicit drug use, *Clin Chest Med.* 2004 Mar;25(1):203–16, Wolff AJ *et al.*
5. Scoring System and Clinical Application of COPD Diagnostic Questionnaires, *CHEST.* June 2006;129(6):1531–1539. doi:10.1378/chest.129.6.1531, Price DB *et al.*

Abstract P126 Table 1.

	Heavy	Moderate	Mild
Number	21	21	20
Mean MRC score - good day	2.00	1.81	2.30
Mean MRC score - bad day	2.85	2.43	2.60
Kept indoors with chest symptoms (%)	33.33	47.62	45.00
Cough (%)	42.86	66.67	55.00
Admitted to hospital with chest problems (%)	38.10	28.57	25.00
Ever had inhalers (%)	57.14	61.90	50.00
COPD/Emphysema/Bronchitis (%)	33.33	23.81	30.00
Asthma (%)	47.62	42.86	40.00

### P127 RADIOLOGICAL DIAGNOSIS OF EMPHYSEMA, PNEUMOTHORAX AND BULLAE: CASE FOR TOBACCO AND CANNABIS SMOKING HISTORIES

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**Introduction** There is increasing evidence that cannabis smoking, combined with tobacco, increases the risk of emphysema and bullous lung disease (BLF Report 2012). The aim of this retrospective case study was to determine the prevalence of tobacco and/or cannabis smoking amongst patients < 50 years with radiologically-diagnosed emphysema, pneumothorax or bullous lung disease, and to assess the quality of smoking documentation.

**Methods** A list of all high-resolution computerised tomography (HRCT) scans over 2 years (Jan2010-Dec2012), of patients ≤50 years at scan date was generated from the radiology database. All scans were reviewed by a Consultant Thoracic Radiologist to confirm accuracy of initial reports. Case notes of all patients with radiological emphysema, pneumothorax or bullous lung disease were reviewed for tobacco and cannabis smoking histories to examine the relationship with abnormalities.

**Results** 361 HRCTs were performed over 2 years in ≤50 year olds. 91/361 (25.2%) scans were reported as emphysema, pneumothorax or bullae. 85/91 notes were available for analysis and 62/85 (73%) had full smoking histories recorded; 7/85(8.2%) tobacco smoking history not recorded and 22/85(25.9%) cannabis smoking history not recorded. 27/48 (56%) current tobacco smokers with an abnormal HRCT also smoke cannabis. There