responsibility to provide this). The most recommended methods to achieve this were: drop-in stop smoking clinics and free access to stop smoking medications. Only 35% of staff agreed or strongly agreed that e-cigarettes were less harmful than cigarettes and 81% were either unsure or felt that e-cigarette vapour was harmful/very harmful. 41% of staff disagreed/strongly disagreed with vaping being allowed on the hospital site.

Discussion Enablers to a smoke free hospital site are the provision of comprehensive services and support for staff not to smoke at work (rather than strict enforcement of no smoking) and providing an educational package for staff regarding vaping. Barriers to a smoke free site include current negative views on vaping as a facilitator for smoke free sites.

S107 OCCUPATIONAL LUNG DISEASE SPECIALIST ASSESSMENT FOR PATIENTS WITH USUAL INTERSTITIAL PNEUMONIA, AS PART OF AN INTERSTITIAL LUNG DISEASE MULTI-DISCIPLINARY TEAM – A SINGLE CENTRE EXPERIENCE

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Introduction and Objectives The characteristic radiological pattern of usual interstitial pneumonia (UIP)-pattern fibrosis is common to both idiopathic pulmonary fibrosis (IPF) and asbestosis. It is essential to exclude asbestosis when deciding on a working diagnosis of IPF, as the medical treatment for each condition differs. Currently, only patients with IPF are eligible for NICE-approved anti-fibrotic treatment, but medicolegal compensation may be available for patients with asbestosis.

Between January -December 2019, we piloted a service arranging an Occupational Lung Disease (OLD) specialist assessment for all new patients with UIP-pattern fibrosis and a previous exposure to asbestos, prior to review in the Interstitial Lung Disease (ILD) clinic, to estimate the prior asbestos exposure in fibre/ml/years, in order to firmly diagnose or exclude asbestosis.

Methods Referrals were received directly from primary or secondary care, or following ILD multidisciplinary team (MDT) discussion. Patients were then assessed by an OLD specialist, where a detailed occupational history was taken and each case was discussed between two consultants in the clinic MDT meeting. If asbestosis was excluded then subsequent review in the ILD clinic was arranged to consider anti-fibrotic treatment. If a diagnosis of asbestosis was made, medicolegal advice was offered.

Results A total of 67 patients were seen by an OLD specialist team (mean age 80, 95% male). 39 (58%) were radiologically probable UIP pattern. 23 (59%) were diagnosed with asbestosis. Of these, 21 (91%) were given medicolegal advice in clinic (if a prior compensation claim had not already been made). 2 (9%) patients with asbestosis were referred for Nintedanib on the compassionate access scheme. The remaining 16 (41%) had MDT-ratified IPF. Out of which 8 (50%) were initiated on antifibrotic medication in the OLD clinic by the ILD team.

Conclusions We demonstrated that introducing specialist OLD assessment into the review of patients with UIP-pattern fibrosis aids accurate diagnosis of asbestosis, facilitating the provision of medicolegal advice. In patients where asbestosis was excluded and the diagnosis was IPF, by initiating anti-fibrotic medication in clinic supported by the ILD team, we were able to ensure patients still received prompt and appropriate management of their IPF.

S108 OUTCOMES OF FIREFIGHTER APPLICANTS WITH A HISTORY OF ASTHMA

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Introduction Firefighters work in a 'safety critical role' and undergo comprehensive pre-employment screening. Applicants with a history of asthma (often made in childhood) are regularly referred to our specialist occupational lung disease service for additional assessment including measurement of non-specific bronchial hyper-responsiveness (NSBHR).

No studies have reported the impact of a pre-existing asthma diagnosis on future employment as a firefighter; most have studied current firefighters[1] or others in safety critical roles.[2] We sought to identify factors associated with a positive NSBHR test amongst UK firefighter applicants, and to link these to symptoms and employment status around one year later.

Methods We reviewed case notes for all firefighter applicants referred between 2005–2019; we defined NSBHR as a fall in FEV_1 of at least 20% (provocation concentration (PC)20) following inhalation of <8 mg/ml histamine. Around one year after their initial appointment we contacted them for follow up, including enquiring about their application outcome and current respiratory symptoms.

Results Clinical data were available on 120 applicants of whom 19 (16%) had a positive NSBHR test (see table 1).

Follow-up data were available on 116 applicants. Those with a positive NSBHR test (n=17; 14.7%) were less likely to be accepted into the fire service than those with a negative test (76.5% vs 95.0% respectively, p=0.026). However, of the 4 with a positive NSBHR and not accepted by the fire service, only 2 were due to asthma. Of the 90 serving firefighters at follow-up, only 2 (2.2%) reported any recent trouble with asthma.

Conclusions NSBHR is associated with atopy and a lower FEV_1 but it was not otherwise possible to predict NSBHR. Although many applicants had a history of asthma and 16% a positive NSBHR result, encouragingly, only two individuals' applications were rejected due to their asthma; individuals with a history of asthma should not be deterred from applying to become a firefighter. Specialist assessment may be useful in determining evidence of asthma amongst firefighter applicants prior to recruitment.

REFERENCES
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Abstract S108 Table 1 Findings stratified by NSBHR test result (data are presented as n(%) unless otherwise stated. P-values are calculated excluding the 'not recorded' data)

	All n=120	NSBHR+ (PC20 <8 mg/ml) n=19	NSBHR- (PC20 ≥8 mg/ml) n=101	P-value
Male	105 (87.5)	16 (84.2)	89 (88.1)	0.705
Age, median (range)	26 (23–31)	29 (22–35)	26 (23–31)	0.375
Smoking				
Current	9 (7.5)	0 (0.0)	9 (8.9)	
Ever	24 (20.0)	5 (26.3)	19 (18.8)	0.334
Never	81 (67.5)	14 (73.7)	62 (66.3)	
Not recorded	6 (5.0)	0 (0.0)	6 (5.9)	
Atopic to common aeroallergens				
Yes	87 (72.5)	18 (94.7)	69 (68.3)	
No	19 (15.8)	0 (0.0)	19 (18.8)	0.038
Not recorded	14 (11.7)	1 (5.3)	13 (12.9)	
Self-reported atopic disease				
Yes	74 (61.7)	17 (89.5)	57 (56.4)	
No	23 (19.2)	1 (5.3)	22 (21.8)	0.063
Not recorded	23 (19.2)	1 (5.3)	22 (21.8)	
Adult symptoms/treatment				
Yes	84 (70.0)	15 (79.0)	69 (68.3)	
No	34 (28.3)	4 (21.1)	30 (29.7)	0.590
Not recorded	2 (1.7)	0 (0)	2 (2.0)	
Last treatment as an adult (any)				
Never	47 (39.2)	4 (21.1)	43 (42.6)	
> 1 year ago	25 (20.8)	3 (15.8)	22 (21.8)	0.062
<1 year ago	42 (35.0)	11 (57.9)	31 (30.7)	
Not recorded	6 (5.0)	1 (5.3)	5 (5.0)	
Childhood asthma (treatment and/or diagnosis)	100 (83.3)	14 (73.7)	86 (85.2)	0.219
FEV_1%predicted; mean (sd)	101.09 (12.5)	93.1 (15.5)	102.6 (11.3)	0.002
FVC% predicted; mean (sd)	110.8 (12.0)	106.6 (15.2)	111.7 (11.2)	0.090
FEV_1/FVC, mean (sd)	0.78 (0.09)	0.74 (0.06)	0.79 (0.09)	0.023

S109 IS COVID-19 AN OCCUPATIONAL DISEASE?

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Aim To retrospectively analyse current occupation in patients needing higher level respiratory support (Continuous Positive Airway Pressure) for COVID-19 to determine if certain occupational groups were seen more frequently and considered higher risk in this cohort.

Background NHS workers during the first wave of COVID-19 infections in 2020 were frequently highlighted in news and media stories in the UK as having an occupational risk for developing infection. The effect occupation has on the likelihood of developing severe COVID-19 infection defined as requiring ventilator support in a district hospital setting is unknown.

Data collection All patients admitted to the respiratory ward in a district general hospital with COVID-19 and who required CPAP between 01/04/2020 and 12/05/2020 were included. We collected data on their age, gender, ethnicity and occupation.

Results In total, 16 patients were identified. The demographics are shown below:

Occupation
- NHS/Care workers - 8
- Taxi drivers - 2
- Teachers - 2
- Unemployed - 2
- Video game designer - 1
- Unknown - 1

Gender
- Male - 11
- Female - 5

Age
- Range 35 to 70
- Mean - 55.6
- Median - 58

Ethnicity
- White British - 9
- African - 5
- Chinese - 1
- Other White background - 1

Discussion 50% of the cohort who required CPAP ventilation worked in the NHS, and 75% of the cohort worked in occupations that could be considered high risk as they would routinely be in contact with people who may be carrying COVID-19. This included NHS/care workers, taxi drivers and teachers. The NHS and care workers had a wide range of