VGDF, symptoms were reported more often by those with adult diagnosis. The results indicate the importance of targeted asthma treatment and follow-up by patient's exposure history and asthma diagnosis age.

P54 COMBINED EXPOSURE TO VAPORS, GASES, DUSTS, FUMES AND TOBACCO SMOKE INCREASES THE RISK OF ASTHMA SYMPTOMS

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Background Occupational exposure to vapors, gases, dusts and fumes (VGDF) is known to increase the prevalence of asthma symptoms. Less is known about the prevalence of asthma symptoms if VGDF exposure is combined to smoking or environmental tobacco smoke exposure.

Objective To test the hypothesis that combined exposure to VGDF and tobacco smoke would have an additive effect on the risk for being symptomatic in responders with physician diagnosed asthma.

Methods A random sample of 16 000 adults aged 20 to 69 years were invited to a postal survey on obstructive pulmonary diseases in Finland in 2016. Those who reported physician diagnosed asthma were included in the analysis and their reported VGDF exposure and smoking habits were analyzed. Being symptomatic was defined as an affirmative answer to three or more questions of asthma symptoms.

Results 8199 (51.5%) subjects responded. Of the responders, 831 reported physician-diagnosed asthma. 22.3% of asthmatics reported current smoking, 23.2% exposure to environmental tobacco smoke and 39.4% occupational exposure to VGDF. 14.0% reported combined exposure to environmental tobacco smoke and VGDF, and 10.2% exposure to VGDF and smoking. The prevalence of being symptomatic was increased in smokers (73.0% vs 58.0%, $p=0.005$) and in responders with occupational exposure to VGDF (75.2% vs 58.0%, $p<0.001$) compared to unexposed asthmatics. The highest prevalence estimates were seen in smokers with VGDF exposure (83.5% vs 58.0%, $p<0.001$) and in responders with exposure to both VGDF and environmental tobacco smoke (85.3% vs 58.0%, $p<0.001$) suggesting their additive effect on the prevalence of asthma symptoms. There was no difference in asthma medication use between responders with no exposure history, smokers or those with environmental tobacco smoke or occupational VGDF exposure.

Conclusion Our results indicate an increased prevalence of asthma symptoms in adult asthmatics with exposure to VGDF and tobacco smoke. Asthmatics with exposure to both environmental tobacco smoke and VGDF had the highest

prevalence estimates of asthma symptoms suggesting an additive effect. These results suggest the importance of prevention of occupational airborne exposures and smoking cessation in asthma treatment.

P55 OCCUPATIONS, WORKPLACE EXPOSURES AND PHYSICAL DEMANDS OF WORK IN PATIENTS WITH SEVERE ASTHMA

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Introduction Patients with severe asthma are a group distinct from those with mild or moderate disease, due to their complex healthcare needs. Employment is common in this group, and complete work disability unusual. Asthma-related loss of productivity may be higher compared with patients with non-severe asthma, and has been attributed to both physical and psychological impairments. We aimed to gain an understanding of the nature of work undertaken by patients with severe asthma.

Methods We searched the Birmingham (UK) Regional Severe Asthma Service (BRSAS) Dendrite clinical registry and included baseline demographic, current employment, and asthma-specific health data on employed patients (see figure). Recorded occupations for each included patient were processed by: (i) assigning a 4-digit SOC-2010 code, (ii) applying the OASJEM (job exposure matrix¹) to determine likelihood of exposure to airway irritants and respiratory sensitizers, and (iii) assigning a 'physical demand' category (sedentary to very-heavy), using the Dictionary of Occupational Titles (DOT²).

Results Data from $n=548$ patients were included (53% of severe asthmatics were employed, 86% of those working full-time); median age=44 (IQR=33–52), females=367 (67%), Caucasian ethnicity=453 (84), current smokers=27 (5), median IMD decile=5 (2–7), median BMI=30 (25–35), ≥ 1

Abstract P55 Figure 1

major comorbidity=204 (37), median%predicted FEV₁=80 (58–96). The most frequently identified occupations were: office administrator=48 (10), nurse=43 (9), care assistant (personal or institutional) =34 (7), teacher=21 (4), teaching assistant=18 (4). Using OASJEM 186/504 (37) patients may be exposed to ≥ 1 respiratory sensitizer or airway irritant, and 140/504 (28) to both categories. Physical demand of work was categorised as follows: sedentary=186/504 (37), light=220 (44), medium=88 (17), heavy=10 (2). Patients employed in medium or heavy physical work had median% FEV₁/FVC=66 (52–79), median%predicted FEV₁=75 (50–96), and median ACQ7score=2.9 (2.0–3.7).

Conclusion Clinicians should enquire about, and exclude, work-related inhalational exposures that may cause or exacerbate symptoms in patients with severe asthma. Clinicians should also be aware of unrecognized work disability, since many patients are employed in physically demanding roles, despite the presence of airflow obstruction and poor asthma control.

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Cough: is it a problem and what can we do about it?

P56 CHRONIC COUGH IN GERMANY: PREVALENCE AND PATIENT CHARACTERISTICS

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Introduction Prevalence and characteristics of chronic cough (CC) in Germany are poorly understood.

Aims and objectives The study aims to estimate prevalence and characterize a cohort of patients with chronic cough in Germany.

Methods German adults (n=15020) completed the National Health and Wellness Survey. CC was defined as daily cough ≥ 8 weeks. Respondents with CC were compared to those without CC on the following measures: Demographics, Health-Related Quality of Life (HRQoL) [Short Form 12 (SF-12): SF-6D utility index score, Mental Component Summary (MCS) score, Physical Component Summary (PCS) score], productivity loss [Work Productivity and Activity Impairment questionnaire]; anxiety [General Anxiety Disorder Scale-7], and depression [Patient Health Questionnaire-9]. All data shown p<0.01 unless stated.

Results Of participants, 5.1% (weighted) and 4.9% (unweighted) reported CC during the previous 12 months. Compared to non-CC respondents, CC patients were older (52 vs. 50 years) with similar proportion of females (54% vs. 51%, p=.22). CC patients were more likely to have a smoking history (71% vs. 54%) and less likely to exercise (55% vs. 61%). CC patients were more frequently employed (45% vs. 56%), although employed CC patients reported greater impaired productivity (47% vs. 25%). HRQoL was lower for CC patients in the SF-6D utility score (0.62 vs. 0.72), MCS

(42.5 vs. 47.9), and PCS (42.8 vs. 49.2). CC patients were more likely to be obese (30% vs. 21%), and experience symptoms of severe depression (7.2% vs. 2.5%) and anxiety (9.7% vs. 3.1%).

Conclusions In the past year, 4.9% percent of German adults report suffering from CC. Relative to non-CC respondents, CC was associated with poorer general health (e.g., higher BMIs, increased smoking, less exercise), poorer mental health, lower HRQoL, and reduced productivity.

Please refer to page A191 for declarations of interest related to this abstract.

P57 PATIENT GLOBAL IMPRESSION OF SEVERITY SCALE CHARACTERISES SYMPTOM SEVERITY IN CHRONIC COUGH

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Introduction The Patient Global Impression of Severity (PGI-S) scale is a simple validated, single-item, self-reported categorical scale. The PGI-S is used to assess the severity of different clinical conditions, including as an outcome measure in clinical trials and in economic modelling. The aim of this study was to investigate the relationship of an adapted PGI-S scale to commonly-used specific measures in chronic cough, assessing both severity and health-related quality of life (QoL).

Methods Prospective study of consecutive patients with chronic cough being investigated at a specialist cough clinic. Participants completed cough severity visual analogue scale (VAS) (0–100 mm; higher scores indicate higher severity), Leicester Cough Questionnaire (LCQ) QoL (3–21; higher scores indicate better health status) and PGI-S (0–5: 0=no cough, 1=minimal, 2=mild, 3=moderate, 4=severe, and 5=very severe) at a clinic visit.

Results 304 participants completed the assessments; median (IQR) age 59 (47–67) years, 218 (72%) female, duration of cough 51 (24–123) months and mean (SD) FEV₁94.0 (19.7)% predicted. The distribution of reported PGI-S severity ratings

Abstract P57 Figure 1 Cough severity analogue scale (a) and cough-specific health status LCQ (b) ranges for Patient Global Impression of Severity categories