were: 4 inadequate samples, 2 atypical cells, 10 benign fibrosis and 2 other benign findings. The surgical procedures undertaken included 15 video-assisted thoracoscopies, one robotic and two open biopsies. Mean post-surgical follow-up was 35.5 weeks.

Of the 18 patients who underwent surgical biopsies, there were three true-positives (all mesothelioma), four false-negatives (diagnosed with mesothelioma during follow up; 3 following USG biopsy, 1 following LAT) and 11 true-negatives (benign pleuritis). The sensitivity of a surgical biopsy for mesothelioma following a negative USG or LAT biopsy was 42.9% (figure 1). The sensitivity of USG or LAT biopsies, for a malignant or non-malignant diagnosis, was 91% for either investigation.

All 4 with inadequate samples and both with atypical cells at initial biopsy were diagnosed with mesothelioma (3 at surgery, 3 during follow up). None of three patients with anterior mediastinal pleural thickening were diagnosed with a malignancy.

Discussion Surgical biopsies in a general cohort are highly sensitive (>0.9). Our findings suggest they are significantly less sensitive in those with prior negative USG or LAT biopsy. However, sensitivity was good in the subgroup of patients with inadequate samples or atypical cells at initial histology. Further studies are required to devise the optimum pathway for investigating possible mesothelioma following negative USG or LAT biopsies.

'Shake it off’ – Recovery from COVID-19

**S16** RECOVERY, BURDEN OF SYMPTOMS AND HEALTH RELATED QUALITY OF LIFE (HRQOL) AT 1-YEAR POST COVID-19 HOSPITALISATION IN PATIENTS WITH PRE-EXISTING AIRWAYS DISEASES: RESULTS FROM A PROSPECTIVE UK COHORT STUDY (PHOSP-COVID)

10.1136/thorax-2023-BTSabstracts.22

Background The medium and long-term impacts of COVID-19 in patients with pre-existing airways diseases are unknown.

Aim To assess recovery, burden of symptoms and HRQoL in COVID-19 survivors with pre-existing airways diseases up to 1-year post-hospitalisation.

Methods PHOSP-COVID is a large prospective multi-centre UK study of hospitalised COVID-19 survivors who attended 2 research visits at 5-months & 1-year post-discharge. Recovery assessed by answering ‘Do you feel fully recovered from COVID-19?’ Burden of symptoms assessed using validated questionnaires (GAD-7 for anxiety and PHQ-9 for depression) and a study specific Patient Symptoms Questionnaire (PSQ) with a numeric scale of 0–10 to evaluate burden of breathlessness, cough and fatigue. HRQoL assessed by EQ-5D-5L Utility

Abstract S15 Figure 1 Outcomes of 18 surgical referrals following Ultrasound-Guided Pleural Biopsies (USG Bx) and Local-Anaesthetic Thoracoscopy Pleural Biopsies (LAT Bx)

Abstract S16 Figure 1 Change in HRQoL (EQ-5D-5L Utility Index) from pre-COVID to five months and one-year visits by presence or absence of pre-existing airway diseases. * p values calculated using student t-test
Index (UI). Pre-COVID estimates completed for EQ-5D-5L (UI) and PSQ assessments.

**Results** Overall, 479/2100 (22.8%) had pre-existing airways diseases (346 asthma, 122 COPD and 21 bronchiectasis). At 1 year, 20.4% of the airways group reported full recovery vs 33.2% in the non-airways group (p<0.001). Likelihood of reporting full recovery was similar between patients with COPD and asthma. The airways group were more likely to have features of: anxiety (29.1% vs 22.0% p=0.002), depression (31.2% vs 24.7%, p=0.006), breathlessness (mean PSQ scale 3.7 (SD 2.7) vs 2.4 (SD 2.5), p<0.001), cough (mean PSQ scale 2.1 (SD 2.5) vs 1.3 (SD 2.1), p<0.001) and fatigue (mean PSQ scale 4.3 (SD 3.0) vs 3.3 (SD 2.9), p<0.001). The pre-COVID estimate of EQ-5D-5L (UI) in the airways group was lower than non-airways group, 0.74 (SD 0.27) vs 0.84 (SD 0.21) p<0.001 respectively, however the delta change difference was similar between the two groups at 1-year, -0.09 (SD 0.24) vs -0.11 (SD 0.22) p=0.351. Patients with COPD had lowest baseline HRQoL and the highest baseline burden of breathlessness, cough and fatigue but minimal delta change at 1-year compared to the asthma and non-airways groups.

**Conclusion** Significant burden of symptoms observed in COVID-19 survivors with pre-existing airways diseases at 1-year post discharge. Only 1/5 of patients with pre-existing airways diseases felt fully recovered at 1-year and despite reduced baseline HRQoL, the magnitude of decline was similar to the non-airways group.

**S17 GREATER ADIPOSITY IS ASSOCIATED WITH NON-RECOVERY AT ONE YEAR FOLLOWING HOSPITALISATION FOR COVID-19: RESULTS FROM A PROSPECTIVE UK COHORT STUDY (PHOSP-COVID)**

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**Background** Previous reports have described obesity as a major risk factor for non-recovery following hospitalisation for COVID-19.

**Aims and Objectives** To assess body composition differences between individuals who have either recovered or not following hospitalisation with COVID-19.

**Methods** Adult survivors of hospitalisation for COVID-19 across 35 UK sites were recruited. Body composition was assessed using either BIA or DXA at median 5 months after discharge from hospital with whole body lean and fat mass values combined from modalities. Participants were grouped according to their response to the question ‘Do you feel fully recovered from your COVID-19 illness?’ at 12 months.

Abstract S17 Figure 1 panels a) – d) showing mean and 95% C.I. values for body composition measured at five months after discharge among men and women grouped by those reporting being recovered or not at one year followup.