

## Introduction

We have previously described pneumothorax (PTX) and pneumomediastinum (PM) in COVID-19. Incidence is approx. 1%, and usually associated with a poor prognosis.

### Reference

Martinelli AW, Ingle T, Newman J et al. COVID-19 and pneumothorax: a multicentre retrospective case series. Eur Respir J. 2020 Nov

19;56(5):2002697

## Methods

With Caldicott approval, all patients with Covid-19 with PTX and PM are flagged to the pleural service for ongoing analysis.

Demographics and outcomes are collected.

### Results

- 46 were identified (Total: 4506, 01/03/20-02/01/22): mean age 57.5 years (range 19-91).
- 37 (82%) male, 45 white Caucasian, 1 South East Asian, 20 ex-smokers, 8 never smokers, 1 current smoker & the rest unknown.
- Respiratory comorbidity was most commonly COPD (12), asthma (4), combined pulmonary fibrosis and emphysema (1), previous TB (1), & active lung cancer (1). Average estimated frailty score was 2 (range 1-6). Mean BMI was 28 (range 18.5-46.7), mean height 1.72m (range 1.55-1.84).
- Average number of days to air leaks is 13.

## Results

29 patients had PTX [16 isolated PTX (including 6 bilateral)] & 22 had PM (4 isolated PNM).

18 patients had concurrent surgical emphysema.

10 patients were intubated at the time of air leak, 16 on CPAP or HFNC, 13 on oxygen, the rest on air.

32 were managed conservatively. Others had a variety of small, large bore and subcutaneous drains and 1 was transferred for ECMO.

There were 10 deaths with 1 directly due to PTX in a 91 yr old, CFS of 6 and intercurrent stroke. 1 was associated with PM, CFS 2 & lung cancer, 1 85 yr old with CFS 4 & COPD, 1 82 yr old with CFS 3 on CPAP & the rest were on mechanical ventilation).