

Methods In this retrospective open cohort analysis of the Clinical Practice Research Datalink (CPRD) database from 1979–2019, patients with asthma (≥ 18 years of age) were followed from the first recorded prescription of SCS until occurrence of death or end of follow-up. Mortality data was collected through linkage with death registration data from the Office of National Statistics. A time-to-event design with multivariable Cox proportional hazard models adjusting for confounders was used to assess the association between measures of SCS exposure (average daily exposure and cumulative dose) and overall and cause-specific deaths. Hazard ratios (HRs) were calculated for overall and each key adverse outcome-related mortality.

Results Of 9,413 patients with asthma with SCS exposure who were followed for up to 28 years (median 8.7 years), 1,762 died. The most frequent primary cause of death was respiratory disease (30%). The mortality rate was 14–21 per 1000 person-years across SCS-related adverse outcomes of interest with incidence ratios ranging from 1.8 to 2.1. Dose-response relationships of average daily SCS exposure and cumulative SCS with higher risk of death were observed (figure 1). Patients exposed to a cumulative dose ≥ 10 g of SCS were more than twice as likely to die compared with those with < 0.5 g. Patients with an average daily exposure ≥ 7.5 mg/day were almost 4.6 times more likely to die compared with those with < 0.5 mg/day.

Conclusion In patients with asthma, greater cumulative and average daily SCS exposure was associated with increased mortality.

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COVID-19 RELATED CHANGES IN OUTPATIENT CPAP SET-UP PATHWAYS FOR OSA ARE LINKED WITH DECREASED 30-DAY CPAP USAGE

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Introduction The COVID-19 pandemic led to changes in CPAP set-up pathways. Prior to the pandemic, patients received face-to-face (f2f) education, and trialling of CPAP with experienced healthcare professional support. However, trialling CPAP is an aerosol generating procedure and thus became severely limited by infection control guidelines. We aimed to see the impact the necessary practice changes had on CPAP usage.

Methods We conducted a multi-centre retrospective service evaluation of secondary care sleep units. We collected data on consecutive patients commenced on CPAP in July–August 2019 (pre-pandemic) and July–August 2020 (post first-wave). We recorded baseline demographics, sleep study results, CPAP set-up and first follow-up information.

Abstract S6 Table 1 Baseline characteristics from patients. Data are expressed as mean \pm standard deviation, median (first quartile, third quartile) or number (percentage), as appropriate

| | 2019 | 2020 | |
|--------------------------|-------------------|-------------------|-------------|
| Age (years) | 53.4 \pm 13.6 | 53.4 \pm 13.3 | |
| Gender | Female | 206 (33.2%) | 185 (32.6%) |
| | Male | 414 (66.8%) | 380 (67.0%) |
| Ethnicity | White | 476 (76.8%) | 383 (67.5%) |
| | Asian | 18 (2.9%) | 12 (2.1%) |
| | Black | 10 (1.6%) | 10 (1.8%) |
| | Other | 7 (1.2%) | 5 (0.9%) |
| | Unknown | 109 (17.6%) | 157 (27.7%) |
| BMI (kg/m ²) | 34.9 (30.6, 41.0) | 34.8 (29.5, 40.4) | |
| ESS | 11.2 \pm 5.5 | 11.8 \pm 5.2 | |
| ODI | 23.0 (14.1, 43.0) | 21.5 (13.0, 41.8) | |

BMI=body mass index, ESS=Epworth sleepiness score, ODI=oxygen desaturation index $\geq 4\%$.

Results In total, we included 1,187 patients from eight centres who were set-up on CPAP, with 620 set-up in 2019, and 567 in 2020. Patient characteristics of the two groups were comparable (see table 1). In 2019, CPAP set-up was f2f, with CPAP machine turned on, in 613 patients (98.9%). By contrast, in 2020, only 6 (1.1%) patients had set-up f2f with CPAP turned on, with 403 (71.1%) set-up f2f without CPAP being turned on, and 158 (27.9%) set-up remotely. Thirty-day CPAP usage fell significantly from a mean \pm standard deviation of 4.8 \pm 2.6 in 2019 to 3.9 \pm 2.7 hours/night in 2020 (mean effect -0.9 hours/night, 95% Confidence Interval (CI) -1.2 to -0.5 , $p < 0.0001$). This effect was similar following multivariable adjustments for age, mode of CPAP set-up (f2f or remote), sex, baseline Epworth Sleepiness Scale (ESS), log Oxygen Desaturation Index 4% (ODI) and centre (-0.6 hours/night, 95% CI -1.2 to -0.3 , $p = 0.0006$). CPAP usage was lower with both f2f and remote set-up in 2020, compared with 2019. However, in 2020, CPAP usage was also worse with remote set-up compared to f2f set-up (mean effect -0.6 hours/night, 95% CI -1.1 to -0.1 , $p = 0.03$).

Discussion Pathway changes that include set-up without trialling CPAP f2f, particularly remote set-up, were associated with clinically relevant reductions in CPAP usage at 30 days. Changes in practice to reduce risk of infection to patients and staff during CPAP set-up were necessary, but should not be accepted as being equivalent to traditional evidenced-based methods of CPAP set-up.

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ESTIMATING THE POTENTIAL IMPACT OF RESIDUAL EDS ON THE QOL OF PATIENTS WITH OSA AND, FOR THE FIRST TIME, THEIR PARTNERS, USING A TIME TRADE-OFF METHODOLOGY

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Introduction and Objectives Excessive daytime sleepiness (EDS) is a common symptom of obstructive sleep apnoea (OSA), persisting in 9% to 22% of patients despite primary airway therapy (residual EDS). EDS can impair work productivity and driving ability, and negatively impact quality of life (QoL) of patients and their partners.