

# Impact of the COVID-19 pandemic on acute otolaryngology inpatient activity at a tertiary referral centre: a retrospective analysis.

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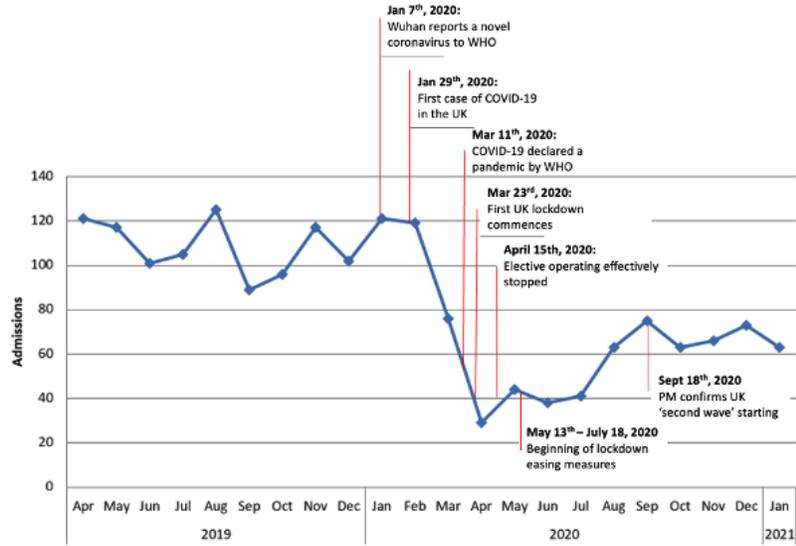
September 24, 2021

## Abstract

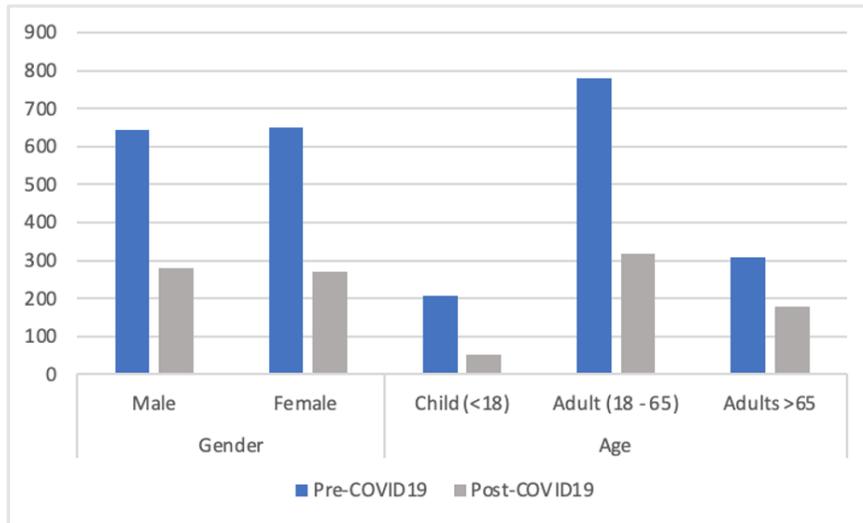
**Objective** To determine the impact of the COVID-19 pandemic on acute admissions and inpatient activity at a tertiary referral centre. **Design** Retrospective review of coding-based inpatient electronic records. **Setting** An otolaryngology and head and neck surgery department at a UK major trauma and tertiary referral centre. **Participants** Otolaryngology patients admitted as an emergency over a period of 12 months pre-COVID19 (01/04/2019-31/03/2020) and 10 months post-COVID19 (01/04/2020-23/01/2021). **Main outcome measures** Baseline characteristics, admission rates, length of stay (LoS), overall mortality and 30-day mortality. **Results** 1844 records were reviewed; (1293 pre-COVID19, 551 post-COVID19). Admissions across all age groups were reduced, with an increase in mean age from 40.4 to 47.4 years ( $p=0.001$ ). LoS remained unchanged (3.74 vs 3.82 days,  $p=0.251$ ). Epistaxis remained the most common presentation, with an increased LoS compared to the pre-COVID19 cohort. GP referrals reduced from 18.0% to 4.2% ( $n=233$  vs  $n=23$ ,  $p<0.001$ ) and ED referrals proportionally increased from 60.9% to 75.3%, ( $n=787$  vs  $n=417$ ,  $p<0.001$ ). Critical care admissions were higher in the post-COVID19 cohort (OR 1.82 (1.11-2.99) [95% CI],  $p=0.017$ ). There was no significant difference in overall mortality between groups ( $n=74$ , 5.7% vs.  $n=33$ , 6.0%;  $p=0.844$ ). Thirty-day mortality increased from 0.9% ( $n=12$ ) pre-COVID19 to 2.3% ( $n=13$ ) post-COVID19 ( $p=0.03$ ). **Conclusions** This study demonstrates significant changes and a reduction in acute otolaryngology presentations. Our findings suggest that sicker, frailer patients were admitted during the pandemic. This study highlights important considerations for acute otolaryngology care moving forward after the pandemic.

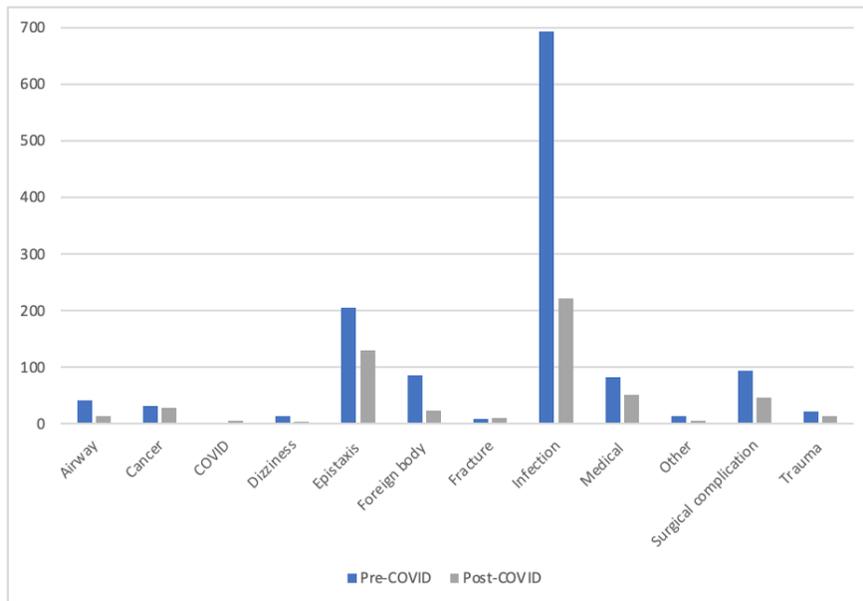
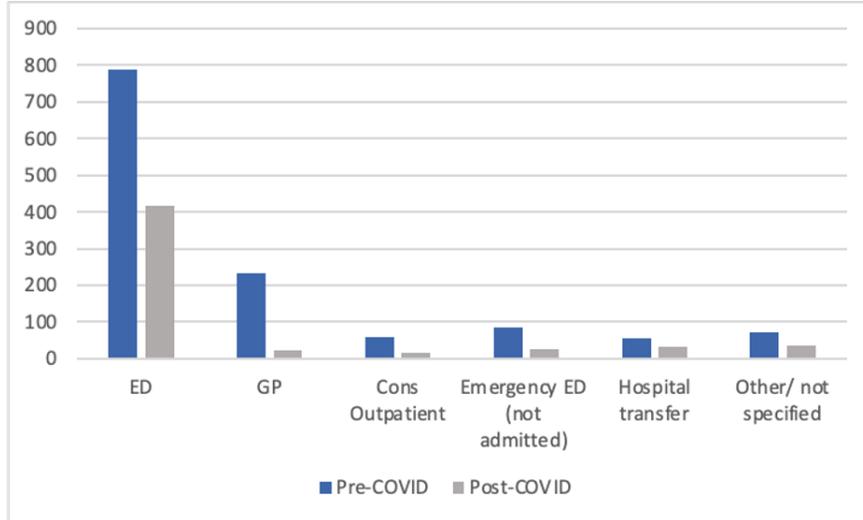
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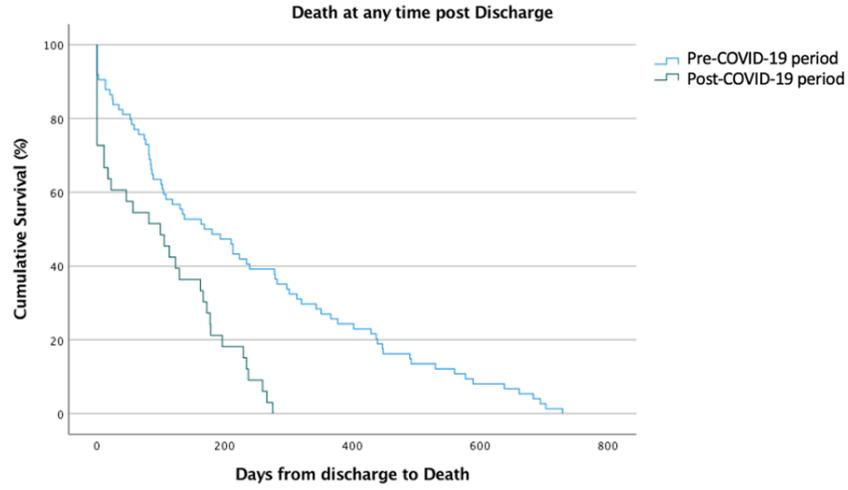
Manuscript.docx available at <https://authorea.com/users/435028/articles/538333-impact-of-the-covid-19-pandemic-on-acute-otolaryngology-inpatient-activity-at-a-tertiary-referral-centre-a-retrospective-analysis>



--- Key event or public health measure  
 --- Unplanned/emergency admissions under ENT







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Table 1.docx available at <https://authorea.com/users/435028/articles/538333-impact-of-the-covid-19-pandemic-on-acute-otolaryngology-inpatient-activity-at-a-tertiary-referral-centre-a-retrospective-analysis>