University Hospitals of Leicester NHS Trust

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# Variation in Eye Casualty Attendance during Christmas versus Spring Period:
## A Cross-Sectional Study

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### Introduction:

For over a decade, there has been increasing demand for emergency eye care in the UK.[1] To date, no British study has explored the effect of the Christmas period on Eye Casualty attendance and case mix. This study aims to explore these phenomena at a tertiary hospital.

### Methods:

Cross-sectional study at Leicester Royal Infirmary walk-in Eye Casualty

Data collection

- Two-week data collection periods:
  - Christmas (19/12/2022-01/1/2023)
  - Spring (06/03/2023-19-/03/2023)
- Eye casualty closed Christmas day, open all other days

Main outcome measures

- Number of visits
- Total time in eye casualty (mins)
- Discharge outcome: 1) discharge without follow-up; 2) discharge with routine follow-up; 3) discharge with urgent follow-up; 4) emergency admission.

Statistical analysis

- Case mix divided as non-urgent (outcomes 1-2) and urgent (outcomes 3-4)
- Chi-squared test was used to compare outcome measures across the two study periods.

### Results:

There were a total of 1323 Eye Casualty attendances (Figure 1; Christmas, n=552; Spring, n=771). When excluding Christmas day, mean daily attendances were 42 and 55 in Christmas versus Spring. There were 33% more attendances in Spring (p<0.001). There was no significant difference in mean time in department per patient (Christmas; 116 minutes; Spring, 120 minutes; p=0.79). There was no significant difference in overall case mix across the two periods (p=0.10). However, subgroup analysis of the Christmas period (Figure 2) revealed a 42% increase (p=0.002) in urgent outcomes the week following Christmas Day (26/12/2022-01/01/2023; n=87) versus the previous week (19/12/022-25/12/2022; n=57).

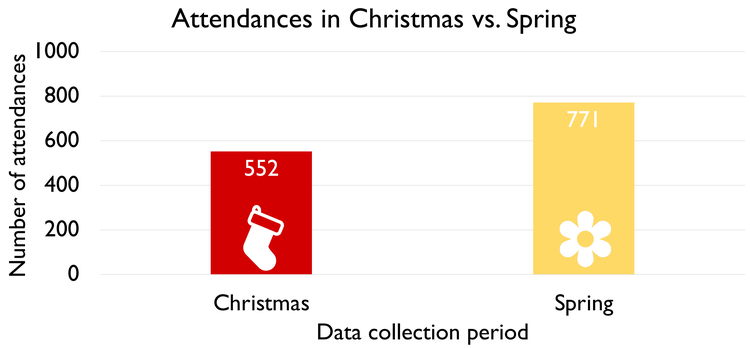



Figure 1: Bar chart to compare attendances in Christmas versus Spring. There were 33% more attendances in Spring (p<0.001).

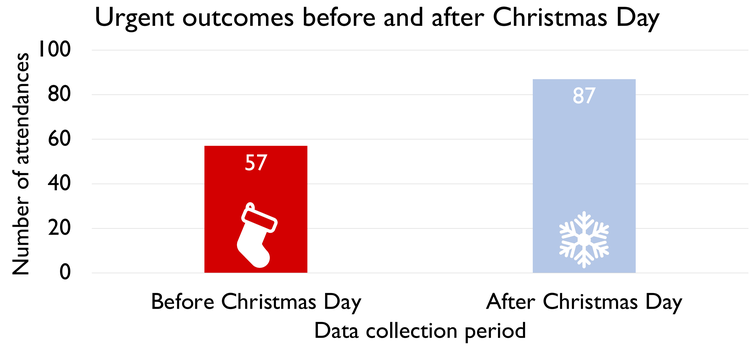



Figure 2: Bar chart to compare urgent attendances before and after Christmas Day. There was a 42% increase in urgent outcomes the week following Christmas Day (p=0.002).

### Conclusion:

Our study found significantly more eye casualty attendances in Spring compared to Christmas. Our subgroup analysis suggests that patients may delay attending eye casualty until the week after Christmas. These findings could help support patient education and optimise Eye Casualty staffing and strategy.

### Reference:

1. RCOphth. Emergency eye care in hospital eye units and secondary care. 2021. https://www.rcophth.ac.uk/resources-listing/emergency-eye-care-in-hospital-eye-units-and-secondary-care/ Accessed 21/04/2024.

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