

An Analysis of the Emergency Department Performance at the Royal Lancaster Infirmary

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Abstract

The Emergency Department (ED) at the Royal Lancaster Infirmary (RLI) experienced dramatically varying workloads and performance levels over the period January 2019 to December 2021. The purpose of this study was to analyse ED data from that period in order to understand the changes in performance levels and their causes, with a view to aiding RLI management to better understand and to manage ED performance in the future.

Preliminary results were presented to and discussed with the domain experts in order to ensure that the results made practical sense, and to identify any further investigations that could be undertaken. The following conclusions emerged:

- i. In comparison to the pre-Covid performance levels (January 2019 to March 2020), waiting times tended to improve when Covid was at its worst. But this situation did not last long before waiting times returned to pre-Covid levels, and then began to exceed them from July 2021 to December 2021.
- ii. This worsened performance mainly affected the admitted patients, and in particular their times between being treated and their departure from A&E. The time spent on trolleys by these patients also increased substantially since March 2021.
- iii. However the waiting times of non-admitted patients were very similar before and after Covid, implying that causes that would have affected these patients (as well as admitted patients), i.e. staff shortages within A&E or turn-round times for tests and imaging, were not any more problematic. Hence the evidence in the data strongly indicates that the drop in performance between the pre-Covid and post-Covid phases is mainly attributable to problems associated with finding beds for patients needing to be admitted to hospital.

The study has so far concentrated on analysing ED performance during the period around Covid from January 2019 to December 2021. There is clearly scope for extending the approach in a number of directions.

- a. Early in 2022 a Same Day Emergency Care unit was introduced at the Royal Lancaster Infirmary. Extending the study to include ED activity since that date would mean that the effects of this new facility on patients' pathways through ED could be evaluated.
- b. ED performance has been a long-term area of concern in many NHS trusts (and indeed worldwide), and this level of concern has heightened in recent months. The analyses prototyped in this study could be used to provide the basis for routinely undertaking 'diagnostic analyses' of ED performance at the Royal Lancaster Infirmary that would enable causes of congestion to be quickly recognised and potential solutions to be identified.
- c. A full picture of emergency care services at any NHS trust needs to combine analyses of the NHS's Emergency Care Data Set alongside the ED pathway dataset used in this study. A potential lesson from the study reported here is that there is scope for considerable insight into problems and their potential solutions if analyses extend beyond simply reporting of performance to include 'diagnostic analyses' of the available data.