

Does the Number of Emergency Department Attendances to a Hospital Influence Health Care Regulator Ratings?

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Abstract

The pressure on healthcare systems means that maintaining quality of care can be challenging. Hospitals which receive high volumes of patients through their Accident and Emergency Departments are susceptible to the impact of exit block which has been shown to impact on the standard of care provided. This study examined the hypothesis of whether trusts with higher rates of emergency attendances, received lower quality ratings from their health regulator.

The number of A and E attendances per trust was compared with the most recent care quality commission (CQC) ratings for each trust. In relation to the Overall rating there was a clustering of Outstanding ratings at levels of attendance less than 200,000. However, statistical analysis showed an insignificant trend. Similar patterns were seen for the sub-domains "safe" and "well-led". While there was no direct relationship between A&E attendances and CQC ratings there appears to be a threshold of 200000 attendances, above which, a rating of outstanding becomes difficult to achieve.

We highlight the issue of exit block and crowding which may result in challenges for the trust as a whole and not just for Emergency Department. It may also be useful for health regulators to be mindful of underlying health system issues in their evaluation of hospitals.

Keywords: *Emergency Care, Regulation, Health Services, Quality*

INTRODUCTION

The pressure on health care systems means maintaining quality of care can be challenging. Hospitals which receive high volumes of patients through their Accident and Emergency (A and E) Departments are susceptible to the impact of exit block which has been shown to impact on the standard of care provided [1]. The Care Quality Commission (CQC) are the independent regulator of health and social care in the trust and rate the overall performance of hospitals, as well as the sub-domains of "Safe", "Effective", "Caring", "Responsive" and "Well-led" This study examined the hypothesis of whether trusts with higher rates of A and E attendance receive lower CQC ratings.

METHOD

Using the Health and Social Care Information Centre; Provider Level Analysis for HES Accident and Emergency Attendances for 2014-2015 [2]; the number of A and E attendances per trust was compared with the most recent CQC ratings for each trust in order to answer these questions [3]. No comparison was performed on trusts whose last evaluation fell before CQC changes to their evaluation process in 2014.

Analysis was performed using open office calc. Initially, the CQC rating system was converted into numerical data: (1 = Outstanding, 2 = Good, 3 = Requires Improvement and 4 = Inadequate). Departments were ranked by number of attendances to allow grouping, as variation of attendance occurred by a factor of

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34. Number of attendances was then plotted against CQC rating. Statistical analysis was performed via calculation of regression co-efficient. Finally, hospitals were grouped by number of attendances and CQC mean rating was calculated.

RESULTS

In relation to the Overall rating there was a clustering of Outstanding ratings at levels of attendance less than 200,000 (see Figure 1). However, statistical analysis showed an insignificant trend with a regression coefficient of only 0.09.

Similar patterns were seen for the sub-domains with no statistically significant trend between attendance and rating (Figure 2 is an example for the domain "Safe").

Analysis by grouping attendance bands is shown in Figure 3, to which standard deviation bars have been added. The ratings do not show statistical correlation with attendance values.

CONCLUSION

This data indicates that while there is no direct relationship between A&E attendances and CQC ratings there does appear to be a threshold effect. It is possible to obtain an Outstanding when attendances number less than 200000 and a large number of departments obtained a Good rating within this attendance range, with one department managing a good rating for the domain "Safe" with just over 250000 attendance. It is notable that departments which were outliers in terms of receiving over 300000 attendances all received "Requires Improvement" or "Inadequate" ratings.

There are limitations to statistical approach taken in this study. The values (1- 4, outstanding to inadequate respectively), are not true statistical values, as they do not represent a continuous variable. Also the analysis is limited to the number of attendances in a department and does not take into account the resources of a department in terms of staff and space to cope with that loading. It is likely other factors such as crowding, capacity and staff morale all would affect CQC rating.

It is plausible that large departments are more susceptible to exit block and crowding and therefore the resulting challenges this produces for the trust as a

whole. This adds further weight to calls from the Royal College of Emergency Medicine (the United Kingdom standard setting organisation in Emergency Care) to address problems of flow by using whole systems approaches. [4]. It may also be useful for the CQC and other regulatory bodies to consider the underlying health system in their evaluation of hospitals and determine the underlying causes of failing to meet standards and quality indicators.

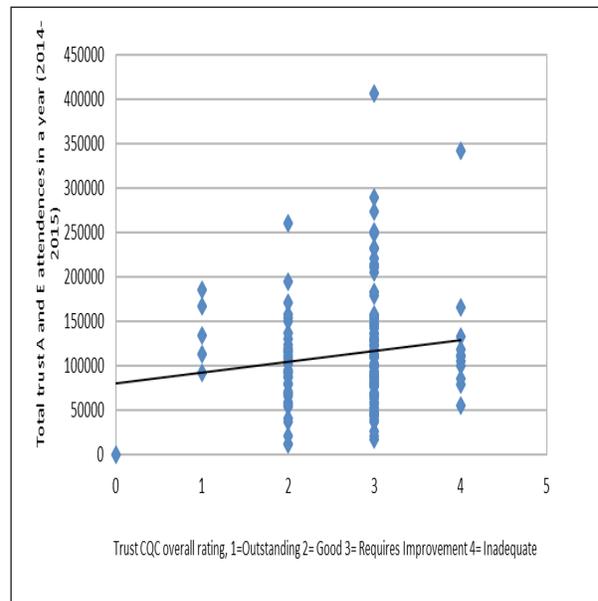


Figure 1. A graph showing distribution of trust CQC overall ratings according to trust A and E attendances per year.

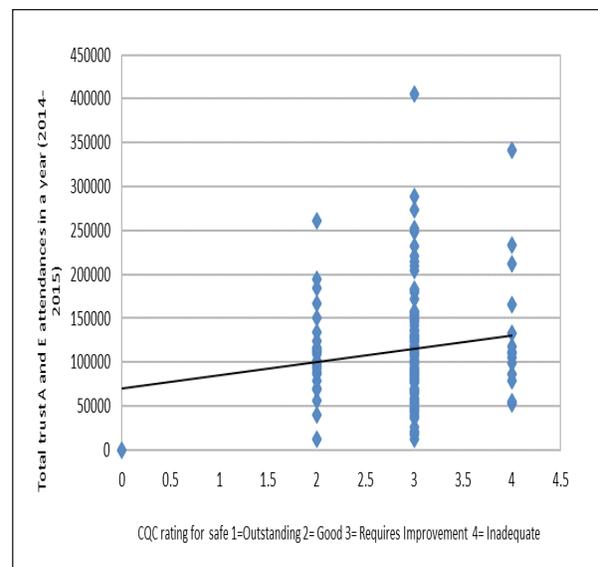


Figure 2. A graph showing distribution of trust CQC ratings for the domain "Safe" according to trust A and E attendances per year

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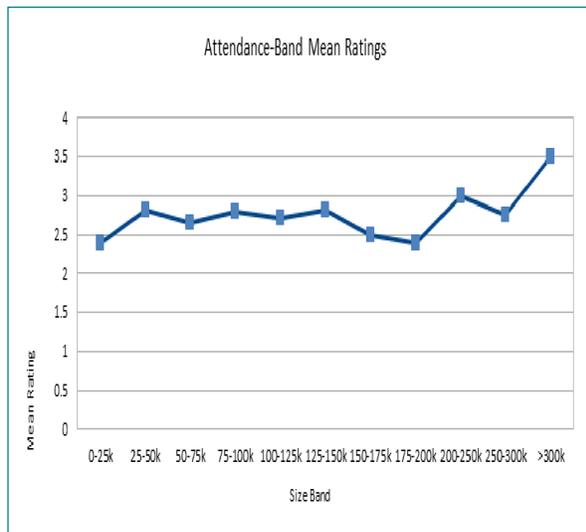


Figure 3. Mean rating of overall trust CQC ratings plotted against trust grouped by number of attendances.

REFERENCES

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- [3] Ratings taken directly from <http://www.cqc.org.uk/>
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