Using National Early Warning Scores to Predict Length of Stay and Appropriate Use of Short Stay Medical Teams

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Introduction

• NEWS scores have previously been validated as a tool to predict in hospital cardiac arrest and identify the deteriorating patient (Williams et al 2012) but have not previously been validated as a useful tool for predicting patient outcomes on admission.

• Short stay medical teams can be useful if facilitating early discharges but often involve high turnover of staff and therefore have limited continuity of care.

Methods

• Retrospective case note analysis of all patients who had been referred to the acute medical team at Northwick Park Hospital during December 2016.

• Data gathered including NEWS score on admission to hospital and outcomes – length of stay, mortality, critical care admission and readmission within 30 days of discharge.

Results

1868 patients analysed with NEWS scores on admission ranging from 0 to 17 with a median of 2 as shown.

Conclusion

• Our data suggest that there is an association between NEWS on admission to hospital and outcomes including mortality and length of stay.

• This suggests that NEWS on admission is a useful tool to help stratify the best place of care for patients admitted under medical teams whether this is need for higher dependency care or likelihood of early discharge.

• This is supported by other hospitals work which has also shown NEWS to be useful in identifying unwell patients at triage (Keep et al 2015) on presentation to hospital as well as predicting longer term outcomes (Alam et al 2015).

• Our low critical care admission rate at NEWS 11 to 14 is likely to be due to our patients having extensive co-morbidities and that intensive care treatment was felt inappropriate.

• There have been unintended benefits from having this data set as it has allowed us more insight into the cohort of patients we are admitting and as such can tailor services more appropriately and safely. For example, we have found that patients presenting with chest pain rarely have a high NEWS and are often discharged rapidly which has shown that a chest pain assessment unit under the cardiology team would be safe and improve direct access to specialist care thus reducing length of stay.

References

