NCEPOD: A review of the care received by patients receiving acute non-invasive ventilation

A review of the use of non-invasive ventilation at Worthing Hospital (2004 – 2014)

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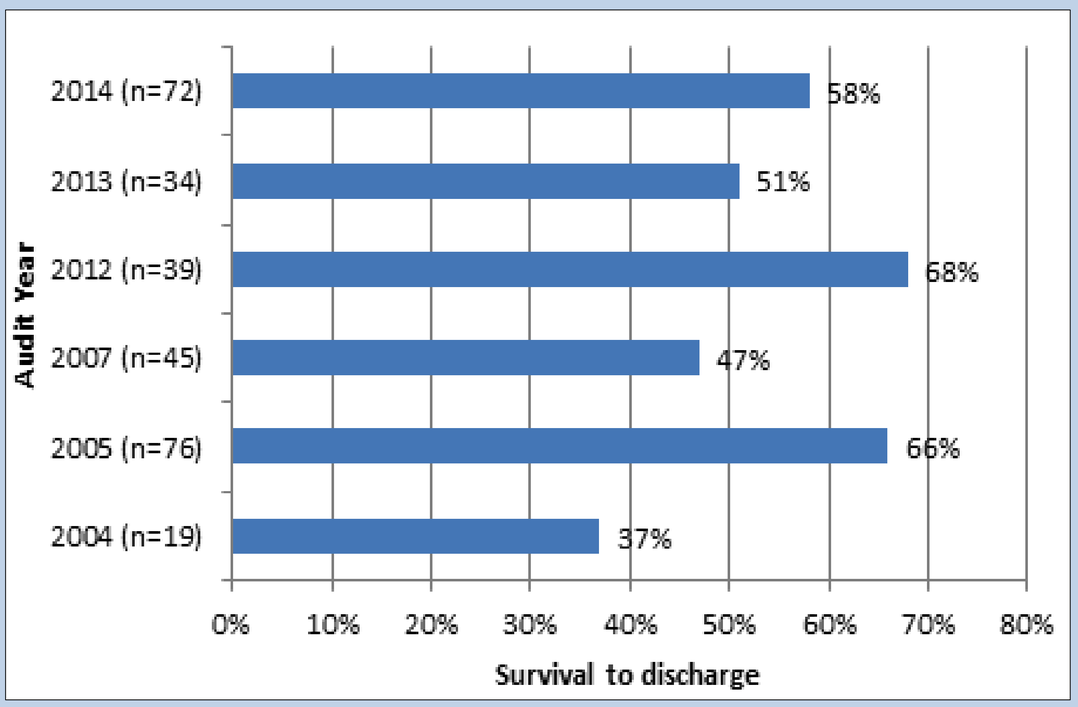
Aim:

- To review the outcome data from six audits (n = 285)of acute non-invasive ventilation (NIV) that span this ten year period at Worthing Hospital.
- The primary aim was to assess the survival to discharge rates.

The landmark YONIV study showed NIV *can* be delivered outside of high dependency care units with survival to discharge rates of eighty percent (Plant 2000).
Our acute NIV service was reorganised in 2005 to comply with BTS guidelines. In addition, there have been more global changes to acute care provision in our hospital.



Service changes	Implications to NIV service
Electronic prescribing (2015)	May be contributing to oxygen toxicity
Clinical matron role expanded to include **bed management** (2012)	De-skilling and less patient interaction due to expanded job roles
European Working Time Directive enforced to 48 hours (2009)	Less continuity of care and more rota changes
A**cute care model** for hospital admission was initiated (2008)	Less continuity of care Less respiratory “In reach”
European Working Time Directive enforced to 56 hours (2007)	Less continuity of care and more rota changes
Clinical matrons trained to lead the NIV service twenty-four hours per day. They worked to both a **protocol** that aided patient selection and an **NIV prescription chart** (2005)	Positive changes to adhere to BTS guidelines
Modernising medical careers. SHO rotations much shorter (2005)	Not enough time to hone clinical skills
European Working Time Directive enforced to 58 hours (2004)	Less continuity of care and more rota changes

Results:

- Survival to discharge rates ranged from 37% to 68%.
- Patient survival has worsened since 2012.

Conclusions

- Our local **survival to discharge rates** do not mirror the 80% rates achieved in the YONIV study, nor have they been maintained in the face of service reorganisation.
- The introduction of a novel **acute care model** and other service changes may have contributed to these findings.
- **Can NIV really be delivered appropriately** to this cohort of patients within the current acute care model with its associated levels of nursing and medical support?