

DON'T TAKE YOUR EYE OFF THE BALL

- CHALLENGES IN SUSTAINING IMPROVEMENT

Ellen le Roux (1), Johannette Leite (1), Anel Botha (1), Yolanda Walsh (2,3)

1. Mediclinic Panorama 2. Mediclinic Southern Africa 3. Best Care...Always!

CONTEXT

Mediclinic Panorama is a 387-bed private hospital in the Northern Suburbs of Cape Town. The hospital has four adult Critical Care Units.

As part of the Best Care...Always! campaign, the hospital began implementation of the prevention of the Ventilator-Associated Pneumonia² (VAP) bundle in the General Critical Care Unit (GCCU), and the Cardiothoracic Critical Care Unit (CTCCU) in June 2012. The bundle was not introduced in the other critical care units as patients were infrequently ventilated there.

Staff in both units received training regarding the components of the bundle. Initially the unit manager of each department was responsible for the implementation of the bundle, but this was soon handed over to a champion in each department. A daily prompt in the form of a bedside checklist was implemented. This was completed as part of the daily assessment. The purpose of this document was to act as a reminder for staff to assess whether the elements of the bundle were adhered to. In March 2013 the use of a standardised mouth-care pack was introduced, and a mouthcare protocol was developed and implemented by the champion in the GCCU, and later spread to the CTCCU. The elements of the bundle were incorporated into standard practice, and recorded on the patient's flow chart and in his/her documentation.

Mediclinic Panorama had a median VAP rate of 6.4/1 000 ventilator days prior to the implementation of the bundle. Within two months of the bundle being implemented, the median VAP rate dropped to 0/1 000 ventilator days.

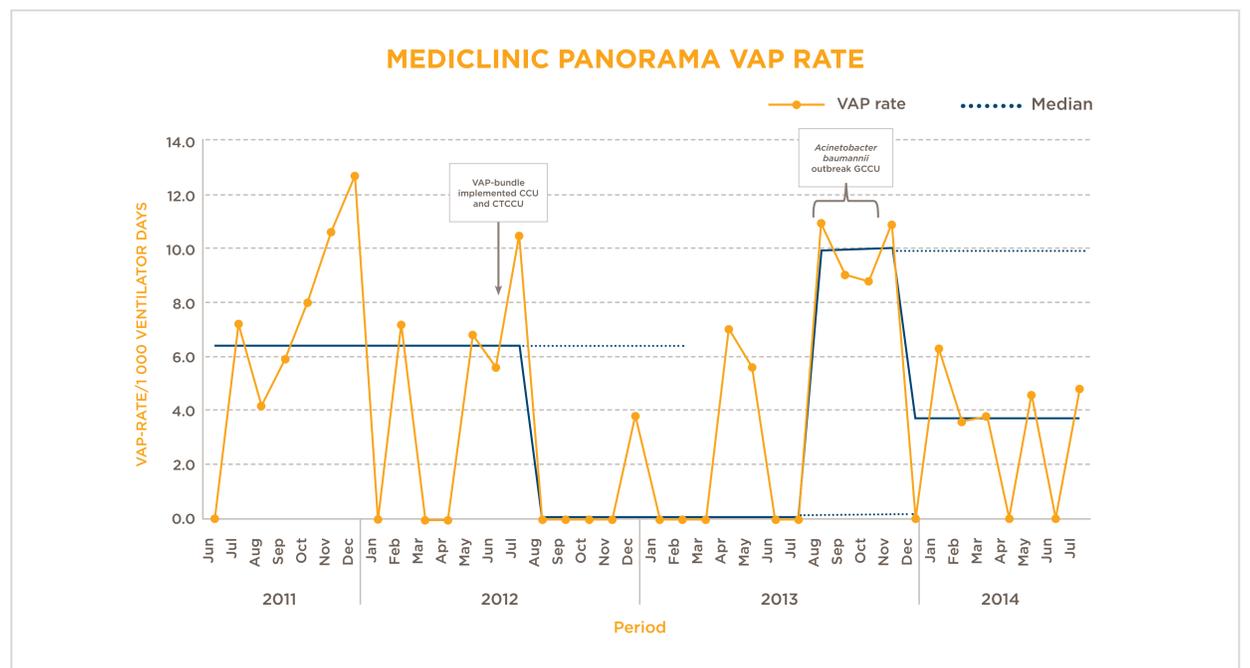
PROBLEM

The problem has been sustaining the initial gains. The initial improvement was sustained for a year. However, in August 2013 an *Acinetobacter baumannii* outbreak in the GCCU contributed to an increase in the median VAP rate to 10/1 000 ventilator days. After the outbreak was contained, the median VAP rate decreased to 3.7/1 000 ventilator days, and while this was lower than the pre-bundle implementation rate, it did not return to our initial post-implementation rate.

INTERVENTION

During the *Acinetobacter baumannii* outbreak in the GCCU, interventions were aimed at containing and eradicating the outbreak. The VAP bundle continued to be implemented as before in each unit but the VAP rate

Figure 1



increased on account of the outbreak. During this time we realised that although feedback on Healthcare Associated Infection (HAI) rates was being given at various meetings, this information was not filtered down to staff at unit level, and the Welsh Safety Calendar was therefore introduced in the units and proved to be very visual, effective, and easily understood. However, this was not enough to get us back to our previous best performance.

Each department had their own challenges in ensuring compliance with the VAP bundle: in the GCCU maintaining head of bed elevation was a problem, and in the CTCCU compliance with the mouthcare protocol was problematic, but despite monitoring compliance with bundle elements, little was done to improve compliance with these elements. Nonetheless, the VAP rate improved after the outbreak was contained, which made it seem as if our overall performance had improved, but we were not measuring this against our initial gains.

Furthermore, by this time, the focus on reducing the HAI rate in our hospital had moved away from this bundle, as the improvement team shifted their focus to the implementation of other bundles.

MEASUREMENT OF IMPROVEMENT AND RESULTS

Compliance to the bundle was done by means of audits or spot checks. Compliance to the bundle in these two units varied.

Hospital VAP rates were plotted on a Run Chart and Run Chart rules were used to determine statistical significance³. The Run Chart tells the story of our VAP journey with the initial dramatic improvement in VAP rates following the introduction of the VAP bundle, the increase in the VAP rates corresponding with the *Acinetobacter baumannii* outbreak and our failure to return to our previous best performance (Figure 1).

CHALLENGES AND LESSONS LEARNT

Quality improvement is a continuous process. Improvements that have been made can be derailed very easily. Measuring is not enough if you don't respond to what your data is showing you – and you need to keep the whole story in mind to return to and sustain your best performance.

MESSAGE FOR OTHERS

It is important that the improvement team 'keep their eye on the ball', and don't lose sight of the goals. There are many demands on healthcare workers' time and attention, and it is easy to move on from a project once improvement has been demonstrated. Sustaining improvement involves continued attention and focus.

CONFLICT OF INTEREST

None.

1. Best Care...Always! www.bestcare.org.za

2. Getting Started Kit: Prevention of Ventilator-Associated Pneumonia in Adults and Children How-to Guide. Institute for Healthcare Improvement www.ihl.org

3. Perla, R.J. Provost, L.P. and Murray, S.K. The run chart: a simple analytical tool variation for learning from variation in healthcare processes. BMJ Qual Saf 2011 20: 46-51. Downloaded from qualitysafety.bmj.com on January 31, 2011