

Transmission Based Precautions Time to rethink our Focus

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Introduction

For many years, transmission based precautions (TBP) have been practiced for patients with known multi drug resistant organisms (MDRO). However it is clear that patients captured for TBP are only the tip of the iceberg and TBP comes with its own risk to patient safety. Recent studies have shown that TBP may not be required for otherwise well patients colonised with VRE or MRSA.

Aims

Following a review of the risk, we determined that if stringent standard precautions are adhered to, the risk of transmission should be minimal if TBPs are relaxed in certain situations

Methodology

The TBP policy was amended with discontinuation of red precautions and implementation of yellow precautions (strict contact) only.

Red contact precautions (previously used for patients with VRE without increased transmission risk) did not require a long sleeved gown and PPE was applied when direct contact with patient occurred. Following the change in TBP, these patients are now managed in standard precautions.

Yellow contact precautions are more stringent than red consisting of a long sleeved impervious gown, to be applied upon entering a patient room. These precautions are now implemented in **all** patients whom have known transmission risk factors such as diarrhoea, uncontained faeces/stoma, in addition to all patients with multi resistant gram negative bacteria (MRGN).

In May 2018, a 45-bed renal unit was chosen to pilot a new TBP procedure. A point prevalence survey was completed to ascertain the burden of VRE both pre and post implementation of the changes to contact precautions.

The following bundled approach was taken with the change in precautions:

- Hand hygiene observational audits in line with local and national policy.
- Educational support-7 sessions –Capturing 81 staff. Emails circulated to all heads of departments outlining change.
- Improved access to PPE (personal protective equipment) at point of care. Stations installed outside all patient rooms (**Figure 1**).
- Weekly reviews of cleaning using fluorescent marking (**Figure 2**).
- 20 staff completed observational audits on compliance with standard precautions following the introduction of change of precautions in November 2018 (**Figure 3**).
- Patient and staff satisfaction was also investigated.

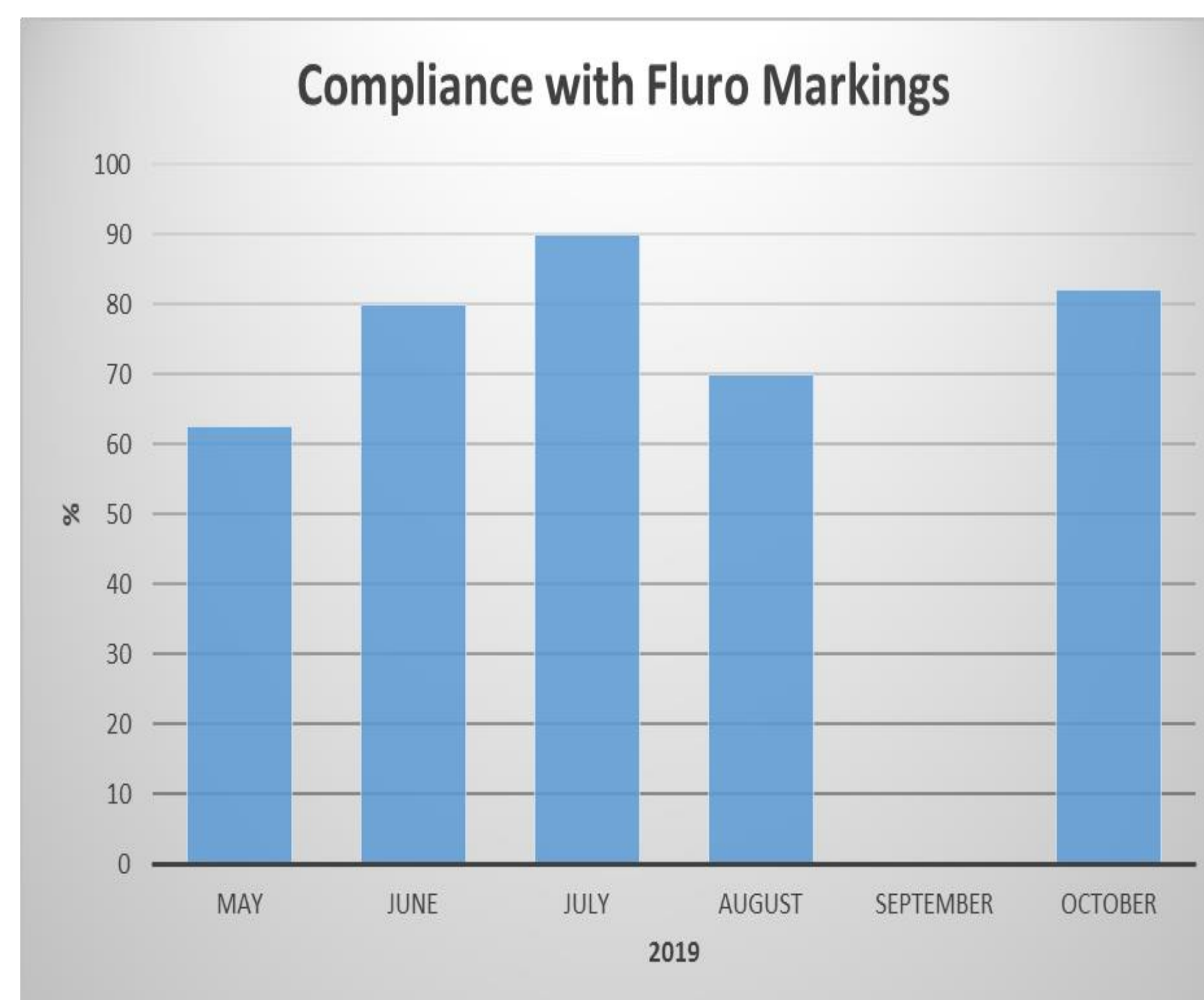
PPE station

Figure 1



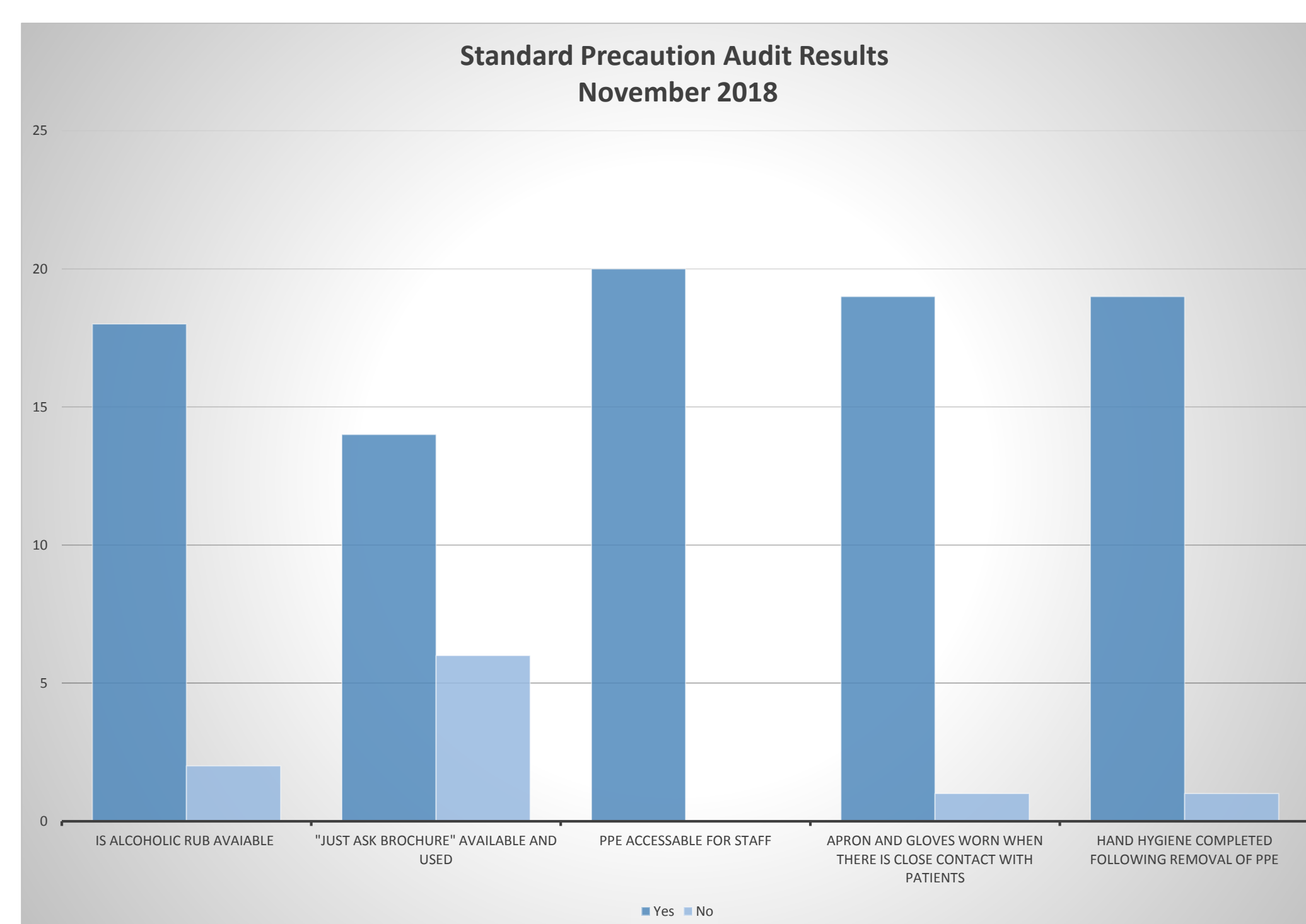
Fluoro marking compliance

Figure 2



Standard precautions audit results

Figure 3

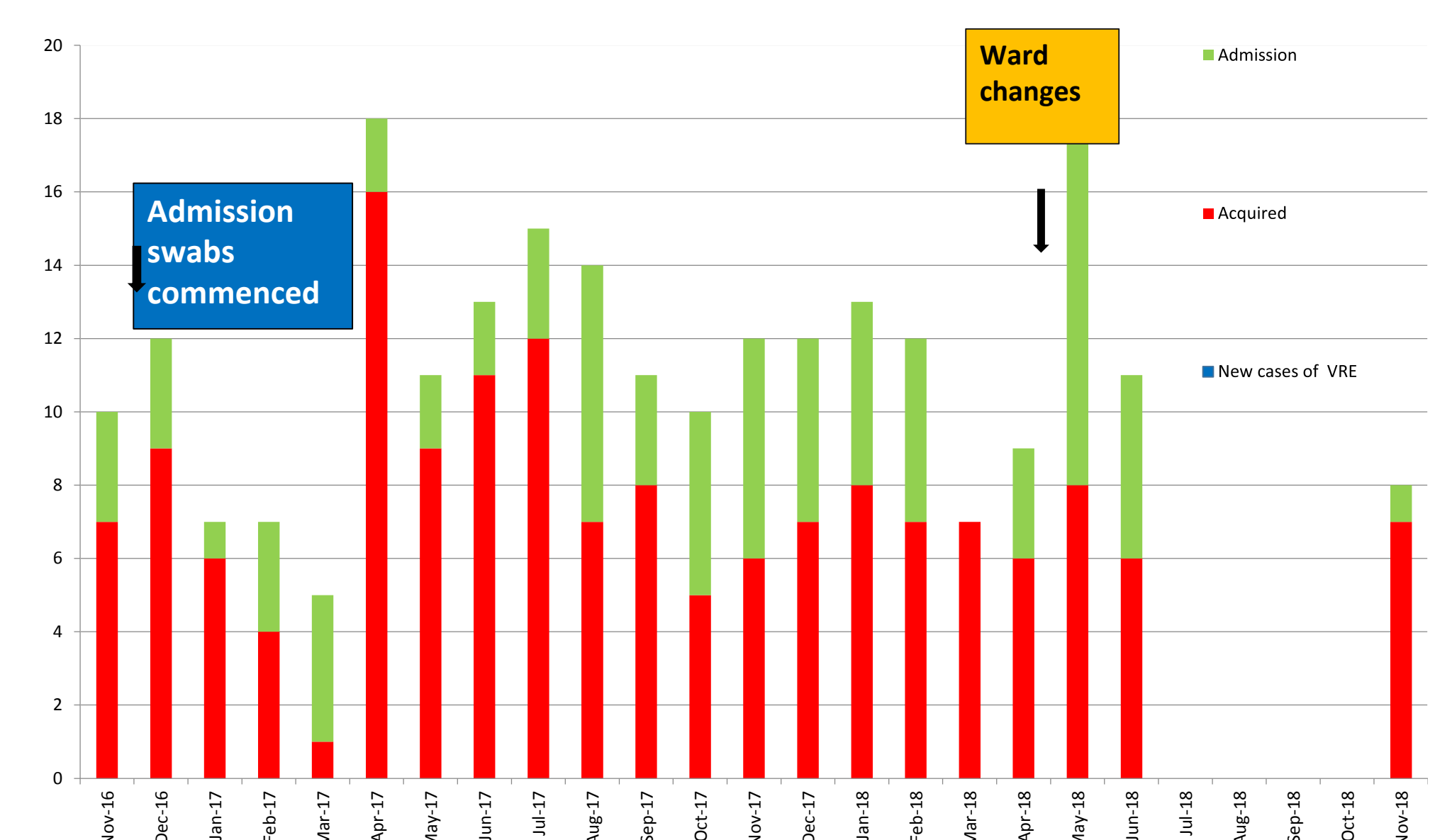


Results

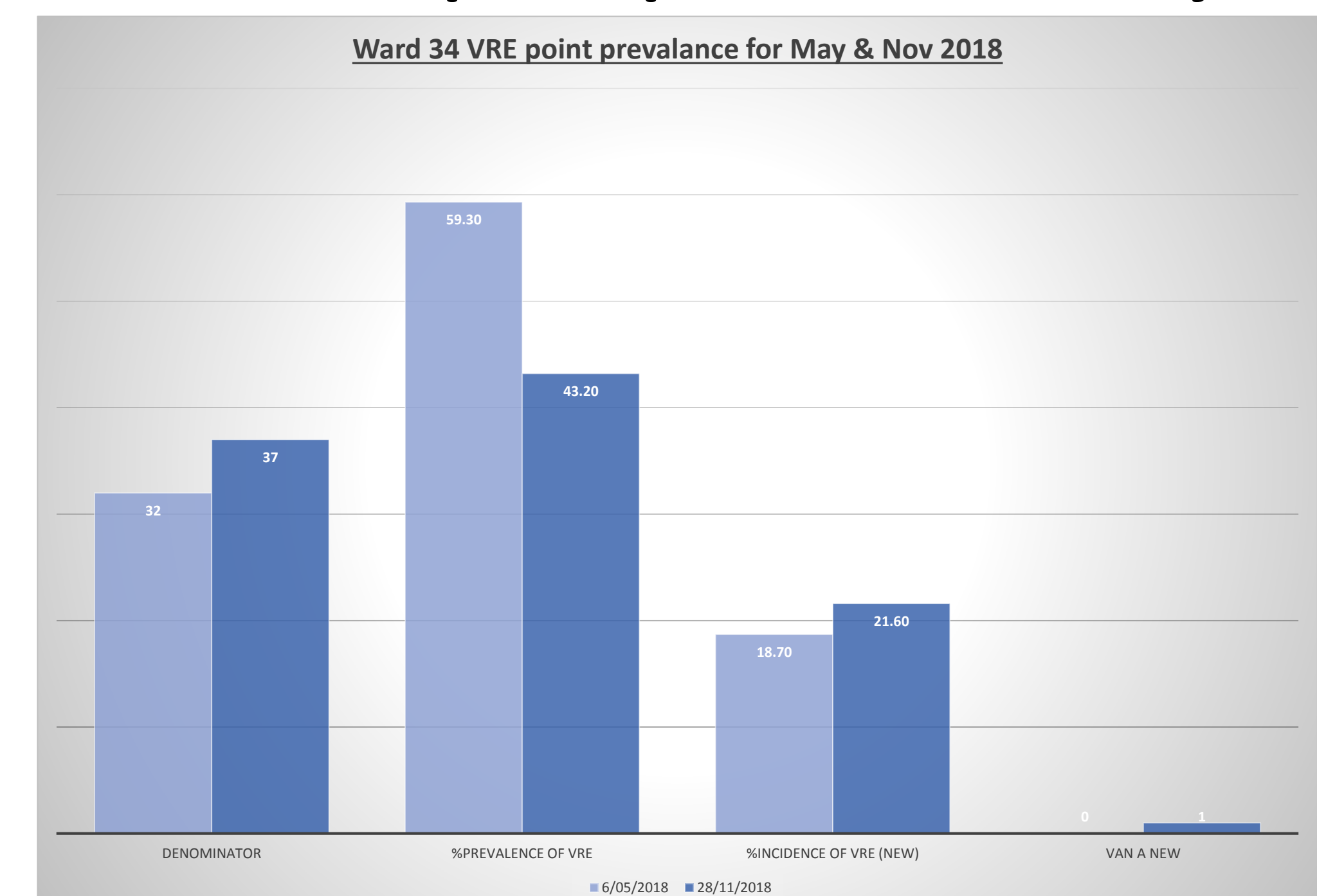
There was no difference in incidence of VRE with the TBP changes ($p=0.7$) and both staff and patient satisfaction improved.

Staff reported that the decreased burden on requirement for single rooms and contact precautions created a more manageable workload

New cases of VRE



Results of point prevalence study



Conclusion

The implications were that patients with VRE would now be managed with standard precautions if there were no additional transmission risk factors. This reduced the demand on already limited single rooms and placed the emphasis on standard infection control practices

Changes to TBP have the opportunity to improve patient safety and quality without impacting on transmission risk if standard precautions are stringently practiced. Single room have been known to be associated with increased falls risks and loneliness amongst other issues such as poorer communication with staff.

References: *Discontinuing contact precautions for multidrug resistant organisms: A systematic literature review and meta analysis.* Marra.et .al 2018

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