

An Educational Programme to Improve Peripheral Intravenous Cannulation at Portsmouth Hospitals NHS Trust

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Introduction

A poor cannulation technique and inadequate continuing care of peripheral lines are causative factors in the development of bacteraemia¹.

The provision of effective educational initiatives about peripheral lines to healthcare staff are essential to promote patient safety and enhance patient outcome through service improvement².

Aims of the educational programme

Portsmouth Hospitals NHS Trust had a poor MRSA record, with 73 cases recorded in 2005. The Trust identified that there was a need to develop Trust-wide educational initiatives to attempt to decrease the MRSA rate.

Educational programme

The educational programme considered both cannulation techniques and continuing care, and included the following components;

- Advocating a full aseptic technique rather than a no-touch technique
- Standardisation of equipment throughout the Trust – including cannulae, dressings, bungs and giving sets
- Development of a competency-based framework for cannulation, with a training and assessment package
- Support from key staff – including the Chief Executive and Medical Director
- Education of junior doctors and nurses at Induction
- Drop-in CPD sessions and education at nursing hand-overs
- On-ward audits and peer audits using high impact interventions
- Provision of an iv team for advice and support

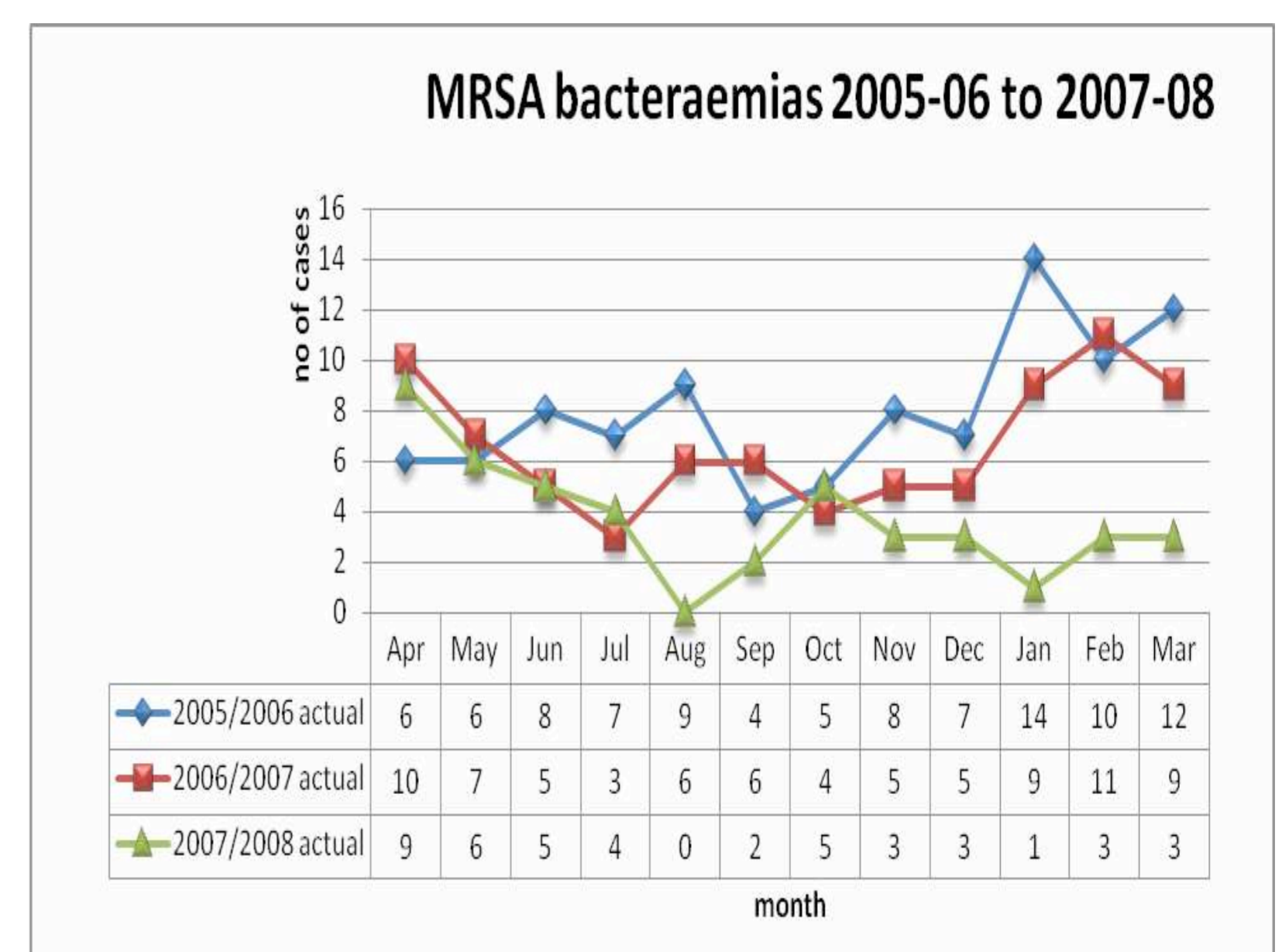
Results

From January 2007 to September 2008, 241 RGNs were trained in formal training sessions. A further 430 attended drop-in updates.

From July 2007 to September 2008, 394 medical staff received IV updates. Of these, 85 were FY1s who also received additional training at induction.

This resulted in a decreased rate of MRSA bacteraemia (Figure 1). The Trust also saved ~£100,000 through standardisation of equipment.

Fig 1: MRSA count from 2005-2008 at Portsmouth Hospitals NHS Trust



Discussion

An important part of the educational programme was specifically targeting new FY1s and FY2s at hospital induction sessions. This was fully supported by the Chief Executive and Medical Director, with the junior doctors being told that they would not receive a reference if they failed to attend this training. The importance of educating junior doctors about peripheral intravenous cannulation has been demonstrated³.

The educational initiatives were targeted to specific healthcare professionals, with nurses strongly encouraged to challenge poor techniques by doctors. This was highly supported by the iv team and Consultants.

References

1. Health Protection Agency. National Confidential Study of Deaths Following Meticillin-Resistant *Staphylococcus aureus* (MRSA) Infection. *Health Protection Agency* 2007
2. Department of Health. Winning Ways: Working together to reduce Healthcare Associated Infection in England. *Crown copyright* 2003
3. Stolarek I. Procedural and examination skills of first-year postgraduate doctors do not improve with clinical experience alone. *The New Zealand Medical Journal* 2007; 120: 1253