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Abstract (poster session)

MRSA PCR spearheads a successful health-care-associated infection programme at a teaching hospital in northwest England: a cost economic model supporting government aims of cost saving, improving quality, driving efficiency and safety in patient care

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Background: Rapid and accurate identification of MRSA in hospital admissions is essential for timely decisions on optimal treatment, isolation/bio-burden reduction, and reducing the potential for cross transmission/self-acquisition, patient harm/mortality. Significant reductions in MRSA infections including bacteraemias can be used to realise cost savings. Blackpool Teaching Hospitals has a successful HAI programme spearheaded by MRSA PCR. Significant reductions [80%] in MRSA bacteraemia and non-bacteraemic infections have been reported in last 3-years. We present a case for improving efficiency, productivity and quality outcomes by using health informatics and statistical process control (SPC)-based analysis of all MRSA infections including key indicators - re-admissions, mortality and length of stay. Details to be presented. Methods: SPC based analysis, data entry and testing, analyses of key indicators and cost modelling using local costs with relation to MRSA infections Results: Preliminary data available at time of submission shows: Reduction in total MRSA infection bed-days by 73% [827 in 07/08 to 222 in 10/11]; MRSA surgical site infections bed-days by 69.8% [691 in 07/08 to 208 in 10/11]. Reduction in readmissions with MRSA infection from 3 to 1/month [07/08 to 10/11]. Infection control database results: MRSA bacteraemias in Blackpool Teaching Hospital (BTH) reduced from 1.33 to 0.27/10,000 bed-days [2007-08 to 2010-11] compared to National [1.19 to 0.5/10K bed-days] & northwest [1.09 to 0.5/10K bed-days]. Optimisation of glycopeptide usage with >50% reduction. Conclusions: Savings of £50M over 3-4 years must be made by BTH as part of the Government's aim to deliver £20 billion (4%) efficiency savings in the NHS by the end of 2014-15. Reduction in HAIs and other quality initiatives have been used to close a 24 bedded ward driving savings of approx £970K. The SPC-based analyses and health informatics project is set to analyse in detail the savings from reductions in HAIs using local costs.

Figure 1. MRSA Bacteraemias per 10,000 Bed Days

