MRSA Screening in Maternity: An Audit and Quality Improvement Project

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UNIT PROFILE

Princess Royal University Hospital (PRUH) is an umbrella hospital within the King's College London NHS foundation trust. The hospital covers maternity services over a large geographical area in Kent and South-East London and has a delivery rate of 5000 annually.

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BACKGROUND

Pregnant patients at risk of carrying methicillin resistant staphylococcus aureus (MRSA) should be screened prior to delivery, so that positive patients can be decolonised in case of emergency caesarean section. Local guidelines for MRSA screening in maternity indicate screening all women admitted for an elective caesarean section (LSCS) or those categorised as a high MRSA risk as early as possible in the pregnancy.

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AIMS

To assess local adherence to MRSA screening protocol, and identify whether interventions to increase awareness have resulted in an improvement of screening rates for high-risk women.

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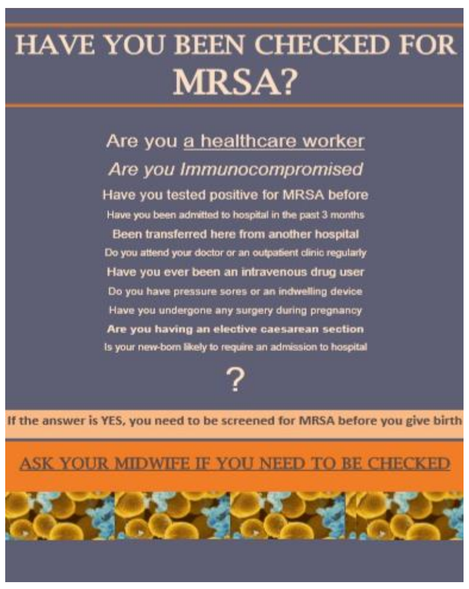
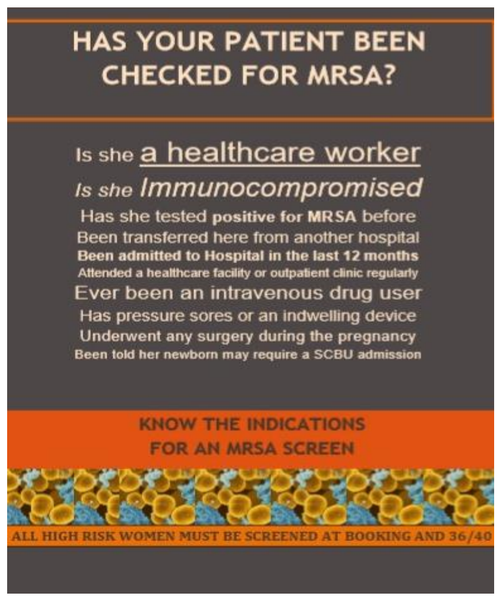
MAKING CHANGES

The following changes were proposed after the initial survey:

- Engagement with key staff at board rounds and ward meetings
- Informative posters created for staff and patient areas
- Alert created for electronic patient records (Badgernet)





Figures 1 & 2: Posters created to be put in place in staff and patient areas on the wards and within antenatal clinics

METHODS

Data was obtained from 64 women admitted to the labour ward of The Princess Royal University Hospital (PRUH) from October 2018 to February 2019.

Women were screened verbally for risk factors (shown above) using a unique proforma, then checks for presence of screening were made using the electronic patient records.

RESULTS

In our initial sampling (n=31) 55% of patients were identified as having risk factors for MRSA; 70% of these patients were effectively screened. 67% of these tests occurred on admission to labour ward. The most common reason for screening was emergency or elective surgery during pregnancy (including LSCS) (7). Post-intervention, effective screening for high risk women remained insignificantly changed at 81% (n=33).

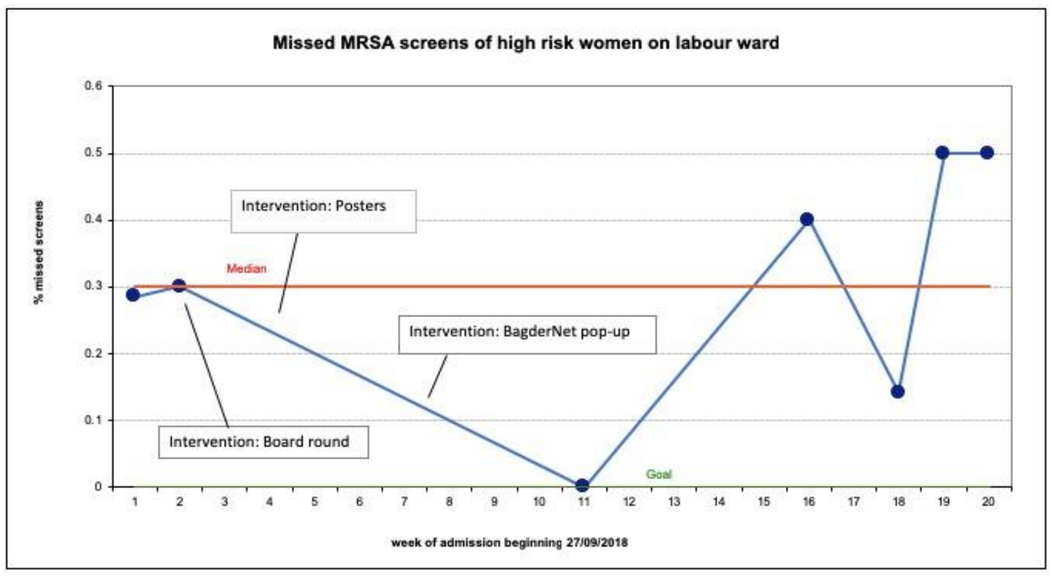
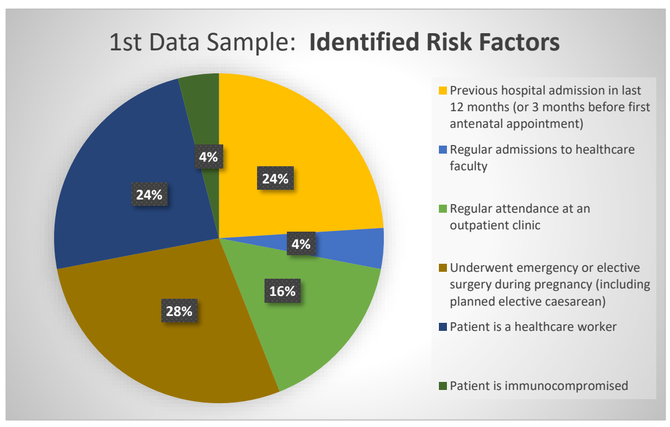


Figure 3: Run chart illustrating incidence of missed MRSA screens alongside timing of interventions



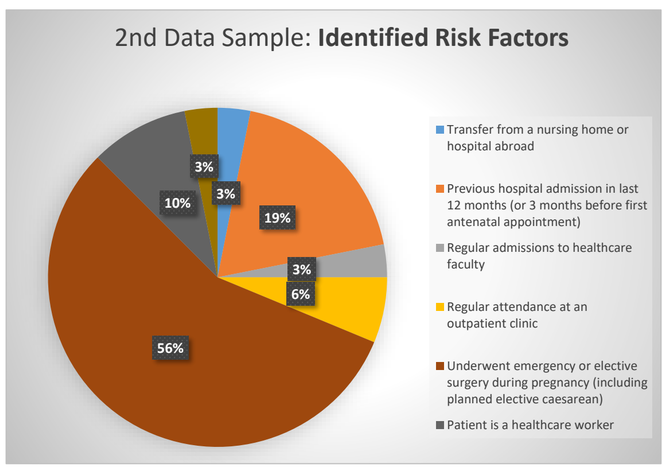


Figure 4 & 5: Pie graphs showing proportions of present risk factors for the first and second datasets

CONCLUSIONS & DISCUSSION

Over half of the sample population were at high-risk of MRSA colonisation, signifying the importance of antenatal identification and adherence to screening guidelines. Only 33% of patients who received screening did so during their antenatal care, implying some clinics may not be following the screening protocol and could benefit from intervention.

Although no improvements have yet been demonstrated, it will take significant time for our interventions to present in the labour ward population due to the 36 week gap between clinic and admission.

References

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