



# Standardising the risk assessment for neonatal BCG vaccination – re-audit in Yorkshire and the Humber

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## INTRODUCTION

Tuberculosis incidence in Yorkshire and the Humber was 8.2 per 100, 000 population in 2015<sup>1</sup>. BCG vaccination of neonates at risk of exposure is recommended by NICE as part of the strategy for reducing the incidence of TB<sup>2</sup>.

An audit carried out in 2012 across 19 maternity units in Yorkshire and the Humber to evaluate the neonatal BCG vaccination programme found significant variation in risk assessment of neonates with most maternity units vaccinating before discharge. However, there was a lack of certainty regarding follow up procedures for vaccination post discharge. A risk assessment tool was supplied to trusts in 2013. This audit closes the audit cycle.

**Aim:** To carry out a regional re-audit of the neonatal BCG vaccination programme with the 19 maternity units in Yorkshire and the Humber.

## METHODS

Gold standards included all trusts having a process in line for assessing eligibility for the vaccine in line with national guidance that is update, as well as a process for providing or signposting the vaccination in those eligible and robust data collection around the number of neonates deemed eligible and vaccinated.

The audit was undertaken with the 13 Acute and Foundation Trust hospitals in Yorkshire and the Humber. A data collection tool used for the previous audit was adapted for re-audit, agreed with the neonatal BCG steering group and piloted.

Antenatal Screening coordinators were approached by email through the Screening and Immunisation team. Telephone interviews lasted between 20 and 40 minutes. Data was collated into excel and analysed – quantitatively and qualitatively for key themes as appropriate.

## RESULTS

### Broad response

A named respondent was interviewed for 11 out of 13 (85%) of the hospital trusts in Yorkshire and the Humber – predominantly Antenatal and Newborn Screening Coordinators. In some cases it was necessary to interview a respondent from maternity services or paediatrics. It was difficult to compare findings directly with the first audit (due to the previous audit being carried out with 19 maternity units).

### Uptake of the risk assessment tool

The audit found ongoing variation in practice. Eight out of 11 respondents (73%) reported that their trusts used the risk assessment tool. Half of those using the risk assessment tool said it had been useful. 7 trusts (64%) had processes in place for reviewing their risk assessment

### Standardisation of the risk assessment process

10 trusts (91%) carried out a risk assessment at booking (68% in 2012). In nine trusts (82%) this was carried out by a midwife. In 55% of trusts someone was responsible for checking that the risk assessment was complete (47% in 2012). 64% of respondents felt that the risk assessment process had improved since the last audit.

### Vaccine delivery has been impacted by the vaccine shortage

Ten respondents (91%) reported that there was a process in place to alert postnatal staff to the need for BCG compared with 90% of units in 2012.

As an incidental finding, 5 trusts discussed the impact of the current vaccine shortage on their processes for vaccination. 8 trusts (73%) are currently running an outpatient clinic to provide the vaccine. However these findings are hard to interpret as methods were not tailored to address this issue.

### Follow-up is mainly through outpatient clinics

All trusts had a process for follow up if babies were discharged without a vaccine. For nine of these the process involved returning to an outpatient paediatric clinic, for the other two it involved either a community immunisation team or the TB nurses. There was variation in processes for babies who did not return.

### Data collection remains limited

Two out of 11 respondents reported that their trust collected the number of children assessed as being eligible for BCG. Three out of 11 reported that their trust collected the number of vaccinations given.

## DISCUSSION

Findings are consistent with research that has previously found variations in practice across the UK<sup>3</sup>. Governance around BCG vaccination is complex, and electronic systems remain limited. The vaccine shortage and lack of data pose ongoing challenges.

Limitations: This audit did not include a detailed examination of local factors, data completeness is an issue and there is potential bias from non-response and the range of professions responding.

## CONCLUSIONS

There is evidence that the recommended risk assessment tool is in widespread use across trusts in Yorkshire and the Humber and it has been found helpful. Some trusts showed good practice in terms of stakeholder engagement in review.

Further work is needed to robustly test the effectiveness of standardised risk assessment and explore the use of the risk assessment tool to support data collection around the number of neonates assessed and eligible to calculate coverage.

## ACKNOWLEDGEMENTS

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## REFERENCES

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