Background

In England, multiple pregnancies make up around 1.5% of pregnancies but account for 5% of stillbirths, 10% of neonatal deaths and 15-20% of all neonatal admissions.

The National Institute for Care and Excellence (NICE) first published antenatal care guidelines for multiple pregnancies (Clinical Guideline 129) in 2011 and followed these with eight quality standards (NICE QS46) in 2013. These aim to improve the quality and consistency of clinical care provided, however eight years on from the first guidelines there is still an excessive variation in their implementation across maternity units.

The Maternity Engagement Project

The central hypothesis of the Maternity Engagement Project was that by providing support to implement NICE QS46, maternity units would increase their level of adherence to NICE quality standards, and this could lead to reduced rates of stillbirth, neonatal death, neonatal admissions and emergency caesarean sections as well as considerable cost savings.

With funding from the Department of Health and Social Care, Tamba’s Maternity Engagement Project successfully delivered a three-year project which worked with 30 maternity units across England to identify and implement changes to improve antenatal care for multiple pregnancies, in line with NICE QS46.

Units were audited and supported to implement an agreed action plan. Follow up re-audits were carried out one year later to assess the changes made and their impact. In total there were 40 statistically significant positive findings which clearly demonstrate that both Tamba’s support and the NICE guidelines work. All trusts should ensure they are following NICE QS46 and Tamba can help.

Key findings

■ 65% of units saw a reduction in their neonatal admissions rate for multiples in 12 months. Across all units there was an average reduction of 5.8 percentage points. This relates to 200 fewer admissions across the 23 units where data was available.

■ There was an instance of increased adherence to NICE guidelines being linked to a decrease in neonatal deaths for multiples in one unit in just 12 months. There is evidence to suggest leadership support and closer adherence to the Quality Standards results in lower stillbirth rates. There is strong evidence that over a longer period implementing the Quality Standards can lead to a considerable fall in stillbirth rates.

■ At re-audit, one unit saw a statistically significant reduction in their neonatal death rate (from 3.2% to 0%, p=0.0336).

■ At re-audit there was some evidence (p=0.0257) of stillbirth rates being lower for sites with a
At baseline, increased adherence to QS46 statement seven (discussions by 24 weeks on preterm labour and birth) and eight (discussions by 32 weeks on timing and delivery) was correlated with a lower stillbirth rate in larger units (r=-0.89, p=0.02 and r=-0.9, p=0.01 respectively).

Although in the 12 months between audits there was not a significant change in multiple stillbirth rates, the evidence from St George’s University Hospital, which was an exemplar unit and an early adopter of NICE QS46, saw a 70% reduction (from 14 per 1000 in 2012 to 4 per 1000 in 2016) in stillbirths over a five year period. Over a longer period of time (2000-2019) and with an increased cohort, comparing the pre implementation 32/2250 vs. post implementation 5/1147 rates, the result becomes statistically significant (p=0.008).

60% of units saw a reduction in their emergency caesarean section rate for multiples in 12 months. Across all units there was an average reduction of 3.1 percentage points. This relates to 105 fewer emergency C-sections over 26 units where data was available.

100% of units re-audited increased their overall adherence to NICE QS46 between the baseline and follow-up audits. Units that implemented a higher proportion of the actions to improve care practice identified by Tamba, tended to see a greater increase in their overall adherence to NICE QS46.

Nine out of ten professionals in units that had completed the project agreed that “if we hadn’t done the Maternity Engagement Project we would not have achieved as much positive change”.

If all units in England (157) implemented similar changes to increase adherence in NICE QS46, within a year neonatal admissions could be reduced by 1,308 with a cost saving of £8 million. Emergency caesarean sections could be reduced by 634 and up to 100 stillbirths across the UK could be prevented.
Conclusion

Tamba’s Maternity Engagement Project has shown that in the best case, after five years, the lives of up to 100 stillborn babies could be saved every year if all maternity units across the UK follow NICE QS46. This would result in a twin stillbirth rate of 1.85 per thousand which is below the 2016 singleton stillbirth rate of 3.86. The evidence from the Netherlands is that it is possible to reduce the twin stillbirth rate to a rate lower than the singleton rate. In addition, at least £8m of financial savings would be made in England. Tamba can support units to achieve these positive outcomes.

Recommendations

These findings will be of interest to individual trusts and maternity teams looking to implement NHS England’s Saving Babies Lives Care Bundle which explicitly recommends using the NICE guidance for multiple pregnancies. Furthermore, the CQC’s hospital inspection framework checks whether units are delivering care for multiple pregnancies in accordance with this guidance.

Care in multiple pregnancies will be under the spotlight like never before. Various reviews are already underway including: a maternity unit level audit of care based on professional and patient feedback across the UK, an MBRRACE confidential enquiry into twin stillbirths and neonatal deaths and updates to NICE guidance.

Tamba would urge every health professional to work with their maternity safety champions and use the Tamba resources available to ensure their trust is effectively implementing NICE QS46. We encourage all trusts that have taken part in this project to continue their improvement.

We also call on NHS England to ensure that Local Maternity Systems are aware that this project can make a considerable contribution to meeting the Department of Health’s Better Births ambition for continuity of carer, and that twin and triplet pregnancies continue to be explicitly recognised in commissioning frameworks, tariff requirements and care bundles.