Northumbria NHS Foundation Trust Perinatal Mortality Review 2015-2017

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BACKGROUND

In November 2017, MBRRACE published its first perinatal enquiry since 1995. Nationally, it has been observed that mortality rates are falling, however the UK has one of the highest stillbirth and neonatal morbidity rates amongst its Western counterparts [1].

Subsequently, the RCOG developed a quality improvement programme, "Each Baby Counts'. This aims to review all perinatal morbidity and mortality across the UK, and disseminate learning points nationally to improve overall care [2].

In the latest MBRRACE review, Northumbria Healthcare Trust has been highlighted as a region with perinatal and neonatal mortality rates above the national average. This was the trigger for developing our own triennial review, aiming to seek out and target problem areas of care, and develop strategies to improve quality of care and perinatal outcomes.

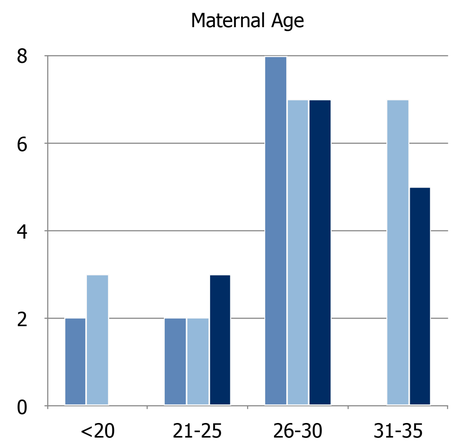
METHOD

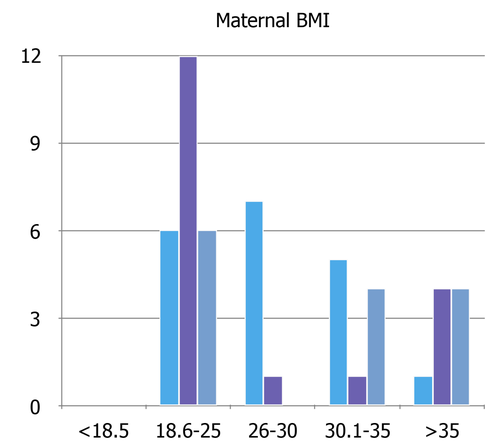
Retrospective data collection, using departmental registers for late miscarriages, stillbirths and neonatal deaths between 2015-2017. The data for each year was analysed for trends, and outcomes were measured against local guideline standards.

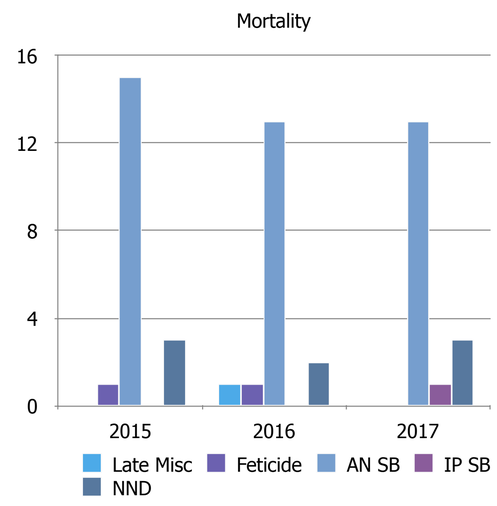
Learning points for each year have been identified, and a comparison across all three years was made to develop recommendations for improvements in patient care and trigger discussions amongst healthcare professionals to develop strategies to address these.

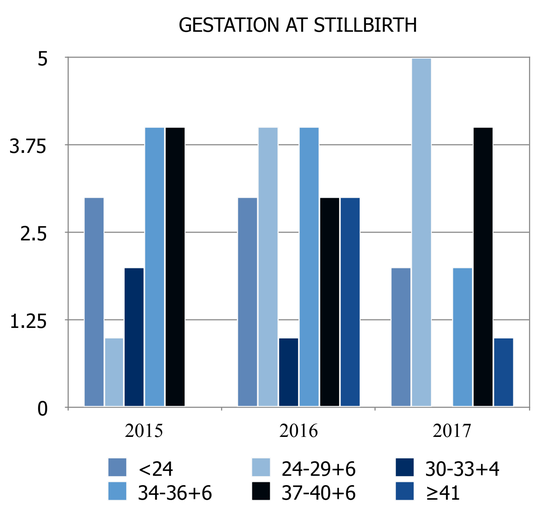
SUMMARY OF OUTCOMES

- Maternal age is increasing: 50% increase in women aged ≥35yrs
  - Modal age range is women aged 26-30yrs
  - Overall distribution of age is unchanged
- Maternal BMI is increasing: 50% increase in BMI ≥30kg/m^2
  - Modal range is BMI 18.5-25kg/m^2
  - Overall distribution shows a progressive increase in BMI at booking
- All women were of White British ethnicity
- 40% of mothers were smokers, consistently across all three years
- Primips are most at risk: approximately 50%
  - 30% of patients were para 1, 18% para 2, 4% ≥ Para 3
  - Overall prevalence decreases with increasing parity
- 72% were booked as high risk, 25% were booked as low risk, 2% unbooked
  - Modal high risk triggers: medical comorbidity, BMI, previous SGA, Previous CS
  - Modal antenatal Risk factors: Hypertension, SGA, Reduced fetal movements, infection, fetal anomaly
- Review if cases, identified failures to meet local standards in the following areas:
  - Diabetes care
  - SGA/ FGR pathways
  - Reduced FM
  - Early labour/ intrapartum care
  - Management of hypertensive disease









RECOMMENDATIONS

The development of antenatal clinic and pregnancy assessment unit "quick reference" packs to assist and prompt healthcare professionals with clinical assessments and care planning

The development of antenatal high risk pathways "check lists" to insert in to maternity handheld notes, acting as a point of reference for healthcare professionals, improve the quality of standardised care and streamline referrals.

An improvement or review of patient information resources; ensuring that literature is up to date and consideration to developing a local "Maternity Book" to help educate and empower patients to participate in shared-care decision making.

To create more opportunities for healthcare professional training, with local skills drills and scenario-based training for management of acute obstetric conditions.

CONCLUSIONS

This review was carried out within a relatively limited time scale, and has highlighted a broad focus for improvements in care.

Retrospective analysis means that the data captured may not provide a completely accurate representation of care within the trust. Missing notes and limited data prevent analysis of call perinatal morbidity and mortality to be reliably completed.

In order to optimise quality improvement, it may be of benefit to assess/ audit each area of concern individually, e.g. raised BMI, reduced fetal movements and small for gestational age care. These can be referenced against guideline standards to assess compliance with pathways using local audits, to develop specific strategies for improving care. The overall standard of care could then be re-assessed by repeating the triennial review and observing changes in outcomes. Equally, these reviews could be used to look further back and improve our knowledge and understanding of perinatal care needs locally.

The authors would hope that triennial reviews could be held serially within the trust, similarly to those published by MBRRACE-UK. In doing so, we hope to be able to demonstrate an ability to learn from events, and develop effective strategies to minimise further risk and improve the overall quality of our care.

REFERENCES

1.Draper, E. S., Kurinczuk, J. J., Kenyon, S., MBRRACE-UK Perinatal Confidential Enquiry Term, Singleton, Intrapartum Stillbirth and Intrapartum-Related Neonatal Death; MBRRACE-UK Collaboration 2017.

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