

RETROSPECTIVE ANALYSIS OF NEONATE AND EVALUATION OF MATERNAL CHARACTERISTICS OF BABIES NEEDING MDT DISCUSSION IN NORTH CUMBRIA IN 2023

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INTRODUCTION

The study presents a comprehensive analysis of cases discussed during the joint perinatal morbidity and mortality meetings (PMM) throughout 2023 at North Cumbria NHS Foundation Trust, United Kingdom. A total of 2,507 births occurred over the year, with 18 babies (0.77%) requiring discussion in the perinatal mortality meeting (PMM). This retrospective analysis examines both maternal and foetal characteristics.

AIM

Identify trends and potential areas for improvement in maternal and perinatal care.

METHODS

Total no of births – 2507. 18 (0.77%) babies needed to be admitted to special baby care unit (SCBU). The maternal characteristics evaluated among the babies that needed presentation at the PMM are age, maternal BMI, parity, ethnicity, medical and social problems in pregnancy. Fetal characteristics are gestational age, neonatal infections or intrapartum infections, mode of delivery, time spent in special care and need to transfer to tertiary care.

CONCLUSION

The study shows that in 2023 mental health problems are the major health issues, whilst it was diabetes in 2022. The study highlights that RDS (33.33%) remains the highest reason for neonatal admission, followed by congenital abnormalities (27.77%). However maternal age and BMI did not have a significant association. This study has limitation of gestational age due to the level of neonatal unit in North Cumbria. Neonatal complications like RDS, hypoglycaemia, hypothermia and hypotension emphasize the importance of vigilant monitoring and proactive management in the immediate postnatal period to prevent adverse outcomes. MDT meetings based on the identified on the identified areas of improvement can enhance the overall quality and safety of perinatal care delivery.

RESULTS

- 0.77% of total deliveries were admitted versus 0.37% in the year 2022
- 60% of mothers were 30-35 years of age – same as that in 2022

Maternal factors: Total no of mothers – 15 (3 of them are twins)

- 80% of them were multiparous versus above 90% in 2022
- 20% were nulliparous versus 10% in 2022
- BMI 40% has BMI & gt 30 – same as in 2022

Maternal disease

- Hypertension in pregnancy - 2 (13%)
- PET – 6.5%
- PIH- 06.5% versus 20% in 2022
- Maternal infection 6.5% versus 10% in 2022
- Anxiety and depression in 5 (33.33%)

Social service involvement in 3 (20%)

Other factors

- Epilepsy, recurrent UTI, Anaemia, Low PAPPA, PIH, PET, Substance abuse – 1 case of each (6.6%)
- Smokers – 2 (11.11%)

Mode of delivery

- 2 spontaneous vaginal delivery (11.11%)
- 1 vaginal breech delivery(5.55%)
- 15 CS babies in 12 CS (83.33%)

Percentage of twin babies – 33.33%

Foetal characteristics

- 13 (72.22%) preterm VS 50% in 2022
- 5 (27.77%) term
- Extreme preterm was at 27+6 weeks breech vaginal delivery and 2 other pre-terms from twin CS
- At 32+6 weeks, all 3 of them had full neonatal optimization and at 34-37 weeks – 10 babies of which 4 are from twins

Others are:

- Diaphragmatic hernia, Gasrtochisis, Right sided pleural effusion with left sided chylothorax, William Bourne Syndrome, Foetal anaemia, HIE- grade 1 – 1 each (5.55%)
- RDS, Hypoglycemia – 6 each (33.33%)
- Hypothermia – 2 (11.11%)