

# CARING FOR PREGNANT WOMEN WITH DIABETES WHO REQUIRE CORTICOSTEROIDS IN NORTHERN NSW: ARE WE GETTING IT RIGHT?

## BACKGROUND

Corticosteroids are administered when a premature birth is imminent to enhance foetal lung maturity to decrease respiratory distress in the newborn, however, the rates of newborn hypoglycaemia have been found to be significantly increased especially if the woman has diabetes in pregnancy.

In 2016, the “Diabetes in Pregnancy – Management of Blood Glucose Levels (BGLS) During Corticosteroids Therapy Guideline” were developed in NNSWLHD and recommended continuous insulin infusion for women with diabetes in pregnancy receiving corticosteroid therapy for imminent pre-term birth. It was unclear the extent to which this guideline was being implemented or the impact on neonatal and maternal outcomes.

The aim of the study was to explore the impact on neonatal and maternal outcomes of the administration of corticosteroids and continuous insulin therapy for women with diabetes and imminent preterm birth, compared to corticosteroid therapy only.

## METHODS

A descriptive comparative study was conducted across three maternity facilities in NNSWLHD.

A clinical audit of retrospective data for the 6 years between 2013-2019 was conducted.

## RESULTS

The medical records of 135 women and their newborns were identified and audited that matched the criteria between the years of 2013 to 2019. 59 women were identified as receiving continuous insulin and 88 women were admitted to hospital after receiving the steroids to be monitored.

There was no association between receiving IV infusion and admission to the SCN for risk of/hypoglycaemia,  $p = 1.00$ . Whilst results show that there was no association between the guidelines and admission to special care nursery, the guideline was followed only 48% of the time.

## CONCLUSION

This study adds to the growing evidence that more research is required in reference to best practice of the administration of corticosteroids and continuous insulin therapy for women with diabetes and imminent preterm birth compared to corticosteroid therapy only, including the timing of corticosteroids and birth in relation to gestational age.

## IMPLICATIONS FOR PRACTICE/ RECOMMENDATIONS.

This research supports the First 2000 day's framework as it aims to evaluate current clinical treatment on maternal and newborn outcomes by examining the evidence of newborn hypoglycaemia at birth as a result of corticosteroid and continuous insulin therapy.

## KEYWORDS

Corticosteroids, Diabetes in Pregnancy, Insulin, Special Care Nursery, Neonatal outcomes, Threatened Preterm Labour, Gestation Diabetes, Threatened Pre-term Labour



**Jacinta Felsch**  
Northern NSW Local Health District

[Jacinta.Felsch@health.nsw.gov.au](mailto:Jacinta.Felsch@health.nsw.gov.au)

Jacinta is a Registered Nurse and Midwife that holds a position in Northern NSW LHD as a Clinical Midwifery Consultant.

Her passions include education and research to promote better outcomes for women and patients accessing health care services.

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