

Maternal and neonatal outcomes in prolonged low risk pregnancies – a regional centre audit.

Matteo Di Carlofelice¹, Steve Abbey¹

Department of Obstetrics & Gynaecology, Tweed Valley Hospital, NSW.



Health
Northern NSW
Local Health District

Introduction

In 2022, 91% of babies in Australia were born at term and only 0.7% post-term from 42+0 weeks¹. Prolonged pregnancy has been associated with maternal and neonatal morbidity². Much of the literature fails to differentiate low and high risk population groups. The rate of prolonged pregnancy and special care nursery admissions within our unit is higher than state average.

Aim

Investigate the maternal and neonatal outcomes in low-risk singleton births in prolonged versus full-term pregnancies in a single regional centre to aid patient decision making and reduce special care nursery admissions.

Methods

Retrospective cohort audit from 2022 to 2024 inclusive. Gestational groups included full-term (39+0 – 40+6 weeks), late-term (41+0 – 41+6 weeks) and post-term ($\geq 42+0$ weeks). Exclusion criteria included multiple pregnancy, breech, previous caesarean, hypertension, diabetes, cholestasis, chorioamnionitis, placental abruption and fetal growth restriction. Maternal outcome measures included mode of birth, OASI and PPH. Neonatal outcome measures included stillbirth, birthweight, Apgar score <5 at 5 minutes, special care nursery admission >24 hours and shoulder dystocia.

References

- (1) Australian Institute of Health and Welfare. Australia's mothers and babies [Internet]. Canberra: Australian Institute of Health and Welfare, 2024 [cited 2025 Mar. 20]. Available from: <https://www.aihw.gov.au/reports/mothers-babies/australias-mothers-babies>
- (2) Doherty L, Norwitz ER. Prolonged pregnancy: When should we intervene? Current Opinion in Obstetrics and Gynecology. 2008;20:519-27.

	Full-term (n = 2537)	Late-term (n = 723)	Post-term (n=82)
Age, mean (SD)	31 (± 5.07)	31.04 (± 4.93)	33.20 (± 4.83)
Stillbirth, n (%)	3 (0.12%)	0%	0%
Birthweight (grams) mean (SD)	3549.05 (± 412)	3702.28 (± 393)	3828.44 (± 457)
Apgar score <5, n (%)	7 (0.28%)	5 (0.69%)	2 (2.44%)
SCN for >24 hours, n (%)	235 (9.26%)	106 (14.66%)	17 (20.73%)
Labour type			
Spontaneous, n (%)	1146 (45.17%)	222 (30.71%)	26 (31.71%)
Augmentation, n (%)	444 (17.5%)	134 (18.53%)	10 (12.2%)
Induction, n (%)	947 (37.33%)	367 (50.76%)	46 (56.1%)
Mode of birth			
Vaginal, n (%)	1872 (73.79%)	397 (54.91%)	42 (51.22%)
Instrumental, n (%)	371 (14.62%)	139 (19.22%)	16 (19.51%)
CS, n (%)	294 (11.59%)	187 (25.86%)	24 (29.27%)
Complications			
Shoulder dystocia, n (%)	168 (6.62%)	67 (9.27%)	9 (10.98%)
OASI, n (%)	99 (3.9%)	27 (3.73%)	4 (4.89%)
PPH, n (%)	553 (21.80%)	240 (33.2%)	24 (29.27%)

Discussion

Prolonged pregnancy in our unit has higher frequencies of adverse maternal and neonatal outcomes which aligns with NSW Health Policy for induction of labour recommendation from 41+0 – 41+6 weeks. This local evidence can be considered by women making choices regarding late pregnancy. The small sample size may limit the statistical significance of these findings.