Identification of foetal growth restriction and induction of labour – before and after implementation of the Safer Baby Bundle

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Introduction: In October 2020, Queensland hospitals began implementing the Safer Baby Bundle (SBB) with the goal of reducing preventable stillbirths. A key element of the bundle is improved detection and management of foetal growth restriction (FGR).
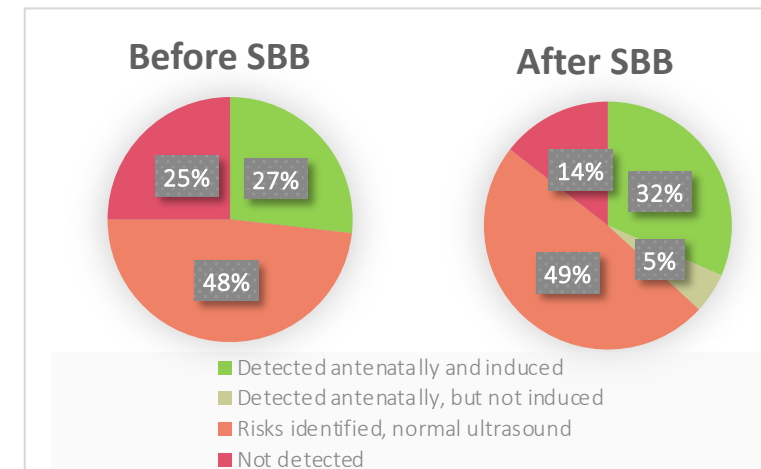
Aim: To determine the proportion of small for gestational age (SGA) infants which were identified antenatally compared to those which were undetected until birth, before and after the SBB was implemented. Our secondary aim was to identify the timing and foetal outcomes of induction of labour for FGR.

Methods: A retrospective clinical audit was conducted at a regional hospital. Data including maternal FGR risk factors, antenatal investigations, mode of delivery, and neonatal outcomes were collected via chart review for all singleton births from June to September 2020 and 2022.

Results: 6.7% (133/1985) of babies born during the study periods were SGA. There was no difference between the proportion of SGA babies which were identified antenatally between the two cohorts. There was a trend towards increased ultrasound monitoring and induction for suspected FGR following the SBB, however this was not significant. There was no difference in rates of severe SGA, admission to NNU and Apgar < 5 at birth between women who were induced for FGR compared to those who had SGA babies identified at birth.

Discussion: The SBB appeared to increase ultrasound monitoring of women with risk factors for FGR, however this did not improve detection of FGR or foetal outcomes.

Proportion SGA detected antenatally

Before SBB
- 27% Detected antenatally and induced
- 48% Risks identified, normal ultrasound
- 25% Not detected

After SBB
- 32% Detected antenatally and induced
- 5% Detected antenatally, but not induced
- 49% Risks identified, normal ultrasound
- 14% Not detected

Legend:
- Detected antenatally and induced
- Detected antenatally, but not induced
- Risks identified, normal ultrasound
- Not detected

Induction for suspected FGR

Characteristic	Before SBB	After SBB	P value
	N=22	N=34	
Level 2 or 3 SBB risk factors	13/21* (61.9%)	20/34 (58%)	0.4
Appropriate monitoring according to SBB	7/13 (53.8%)	15/18 (83.3%)	0.07
SGA at birth	15/22 (68.2%)	24/34 (68.6%)	0.8
Median gestation at induction	265 (37+6)	269 (38+3)	0.3

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