

# INAUGURAL AUDIT OF MISSED SGA CASES JUNE 2018

Using GAP-SCOR  
an audit tool from the Perinatal Institute



# WHO?

13 randomly selected cases  
Women cared for by all types of LMC



# WHEN?

## March to December 2017

# HOW?



# Case #201800001

(Each case has an anonymised identifier)

- Sri Lankan woman pregnant with 2nd baby
- Non-smoker, non-drinker, normal BMI, normal polycose
- Normotensive this pregnancy
- Cholestasis – on URSO
- Hx of endometriosis
- First birth – EmLSCS at 36/40 in Sri Lanka for PET
- First baby on 10th centile
- Risk factors for SGA?

# MATERNAL SUMMARY

GROW Chart ID **201800001** Gestation **38+0** Birthweight **2380** BW Centile **3.4** Last updated 20/06/2018 23:18:54 ...

Maternal Summary

Fundal Height Measurement

Growth Scan

Birth Details

Taxonomy

Action Plans

**Increased risk factors at booking:** Yes ☐ If yes, please select:

Maternal Risk Factors:

- ☐ Maternal Age  $\geq 40$
- ☐ Smoker (any)
- ☐ Drug misuse

Obstetric History:

- ☒ Previous SGA baby ( $<10$ th centile)
- ☐ Previous stillbirth

Medical History:

- ☐ Chronic hypertension
- ☐ Diabetes
- ☐ Renal impairment
- ☐ Antiphospholipid Syndrome

Fundal Height Measurement Inappropriate

- ☐ BMI  $\geq 35$
- ☐ Large fibroids
- ☐ Multiple pregnancy
- ☐ Other

If other, please state:

If yes, were serial growth scans arranged? Yes ☐ How many? **4** ☐ How frequently? **3-4 weekly** ☐

Gestational ages **28** **32** **34** **36**

**Was a customised growth chart in maternal records?** Yes ☐ Were the maternal characteristics correct? Yes ☐

Was the EDD correct? Yes ☐ Were previous baby details completed? Yes ☐ Were previous baby details correct? Yes ☐

**Were risk factors/complications identified during pregnancy?** No ☐ If yes, please select:

- ☐ Unexplained Antepartum Haemorrhage
  - ☐ Severe Pregnancy Induced Hypertension
  - ☐ PAPP-A  $<0.415$  MoM
  - ☐ Fetal echogenic bowel
  - ☐ Pre-eclampsia
  - ☐ Other
- If other, please state:

If yes, were serial scans arranged?  How many?  How frequently?

Gestational ages

# NZ ALGORITHM & SGA RISK ASSESSMENT

GAP-SCOR risk factors  
correlate with those for  
SGA for NZ, identified  
in the NZMFMN  
Guideline for the  
Management of SGA

## Major Risk for SGA



**Indication for specialist referral**






**Consider low dose aspirin 100mg in evening**









### Maternal Risk Factors

- ☐ Maternal age >40 years
- ☐ Smoker (especially >10/day)
- ☐ Drug misuse

### Previous Pregnancy History

- ☐ Previous SGA baby (<10<sup>th</sup> centile)  
- ☐ Previous stillbirth 

### Maternal Medical History


- ☐ Chronic hypertension  
- ☐ Diabetes with vascular disease  
- ☐ Renal impairment  
- ☐ Anti-phospholipid syndrome  

**Women unsuitable for monitoring by fundal  
height measurement e.g.**

- ☐ Large fibroids 
- ☐ BMI 35+ 

### Current Pregnancy Complications

#### **Early Pregnancy**

- ☐ PAPP-A <0.2 MoM 
- ☐ Fetal echogenic bowel

#### **Late Pregnancy**

- ☐ Pre-eclampsia 
- ☐ Unexplained antepartum haemorrhage 

# FUNDAL HEIGHT MEASUREMENTS

GROW Chart ID **201800001** Gestation **38+0** Birthweight **2380** BW Centile **3.4** Last updated 02/08/2018 04:06:05 ...

Maternal Summary Fundal Height Measurement Growth Scan Birth Details Taxonomy Action Plans

How many fundal height measurements were performed?

Gestation	Plotted on customised chart	Plotted correctly	Growth problem	Recognised	Referral for scan	Time between referral and scan	
30+2	Yes	Yes	1st plot <10th cent	No	Yes - referred di 14		[Edit] x
32+4	Yes	Yes	Accelerated growth	No	Yes - referred di 0		[Edit] x
34+4	Yes	Yes	Slow growth	No	Yes - referred di 1		[Edit] x
36+4	Yes	Yes	Slow growth	No	Yes - referred di 0		[Edit] x
37+4	Yes	Yes	None identified				[Edit] x
							[New]

Were fundal height measurements performed per GAP guideline?  If no, why?



# GROWTH SCANS

GROW Chart ID **201800001** Gestation **38+0** Birthweight **2380** BW Centile **3.4** Last updated 20/06/2018 23:18:54 ...

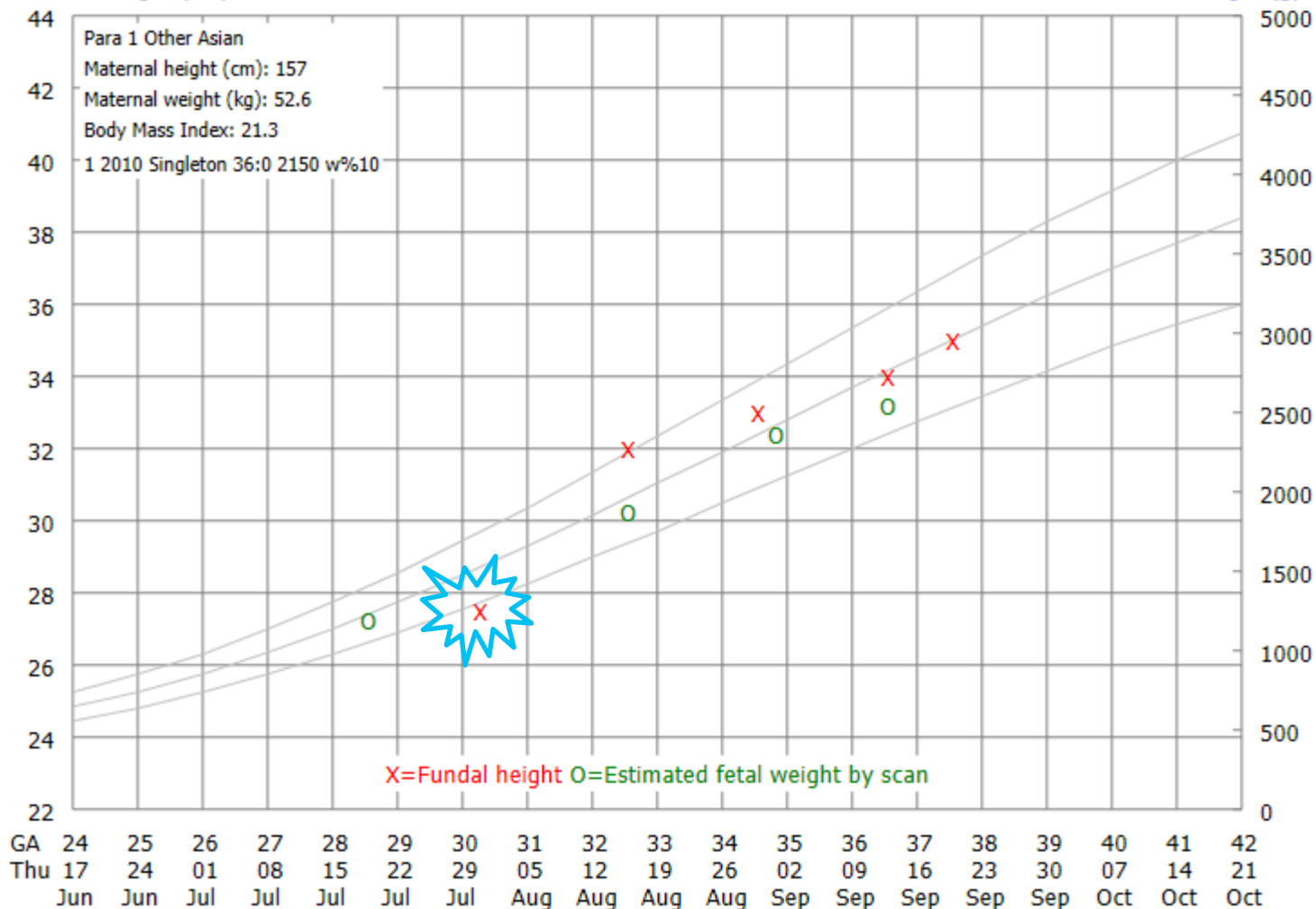
Maternal Summary Fundal Height Measurement **Growth Scan** Birth Details Taxonomy Action Plans

How many growth scans were performed? **4**

Gestation	Reason for scan	EFW	Plotted on GROW chart	Plotted correctly	EFW <10th centile	Management plan initiated	
28+4	Serial growth scans for risk in pregnancy	1195	Yes	Yes	No	N/A	[Edit] x
32+4	Serial growth scans for risk in pregnancy	1878	Yes	Yes	No	N/A	[Edit] x
34+6	Serial growth scans for risk in pregnancy	2374	Yes	Yes	No	N/A	[Edit] x
36+4	Serial growth scans for risk in pregnancy	2550	Yes	Yes	No	Yes	[Edit] x
							[New]

Fundal height (cm)

Weight (g)



Visit date	19/07	31/07	16/08	30/08	01/09	13/09	20/09												
GA	28:4	30:2	32:4	34:4	34:6	36:4	37:4												
Fundal ht		27.5	32	33		34	35												
Fetal wt	1195		1878		2374	2550													

Gardosi NZ, GROW-Chart v8.0, 2012

Printed 01/08/2018 09:00

welcome huaemai | respect manaaki | together tuwhiri | Ahi e hia Angamua

Auckland District Health Board

# BIRTH DETAILS

GROW Chart ID	201800001	Gestation	38+0	Birthweight	2380	BW Centile	3.4	Last updated	20/06/2018 23:18:54	...
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Maternal Summary

Fundal Height Measurement


Growth Scan

Birth Details

Taxonomy

Action Plans

Labour induced	No	Reason labour induced		If other, please state:	
Mode of birth	Elective LSCS				
Apgar score <7 at 5 mins of age:	No	Admission to neonatal unit	No	Accuracy of EFW (%)	17.9

 Discussion and action points

# TAXONOMY

GROW Chart ID	201800001	Gestation	38+0	Birthweight	2380	BW Centile	3.4	Last updated	08/08/2018 00:19:04	...
Maternal Summary	Fundal Height Measurement	Growth Scan	Birth Details	Taxonomy	Action Plans					
Exceeding recommendation for USS - Time between referral and USS exceeds 3 days		First FH plot <10th centile – scan within 3 days								
Inappropriate management, failure to act upon clinical findings - Growth problem not recognised- Failure to recognise normal growth pattern		Reduction of SFH from 90th to 50th centiles between 32+ and 36+ weeks not noted in documentation (luckily already having serial growth scans)								

# ACTION PLANS

GROW Chart ID **201800001** Gestation **38+0** Birthweight **2380** BW Centile **3.4** Last updated 02/08/2018 04:50:04 ...

Maternal Summary

**Taxonomy**

Growth problem not recognised- Failure to recognise normal growth pattern [Edit]

Time between referral [Edit]

Failure to initiate appropriate action [Edit]

[New]

Taxonomy: Growth problem not recognised- Failure to recognise normal growth pattern

Action: Ensure that <80% staff are educated on the use of GROW charts and what to do when growth deviates from the baby's customised growth trajectory

Person/s responsible: GAP lead midwife

By when: [ ] Status: In Progress Action needed: Yes - priority

Action plan complete: [ ]

Overdue actions: [ ]

Evidence: Reduction in the number of "Growth problem not recognised- Failure to recognise normal growth pattern"

OK Cancel

Save Save and exit Delete Cancel

# CHALLENGES

- LMC notes not integrated with Healthware
- SGA questions on Healthware incomplete or completed inaccurately
- Perinatal Institute now require an audit of 30 missed SGA cases every six months, not 10
- This audit is not a big enough sample to make any changes to guidelines or policies

# HOWEVER...

The top two taxonomies in this audit were:

- “No serial scans were booked although identified as increased risk at booking”
- “Growth problem not recognised - Failure to recognise normal growth pattern”

# OUR ACTION PLAN

- implement GAP at our DHB which will;
  - Educate staff and access holders on risk assessment at booking and,
  - Ensure staff and access holders recognise and act on abnormal growth trajectories



# WHERE TO FROM HERE?

- Access to LMC notes
  - Would LMCs be willing to submit their notes if their cases of missed SGA were selected for audit?
- Data entry accuracy improved
  - How do we improve the answering of the SGA questions on the Labour and Birth Summary (yellow form) and in Healthware?



**“Let the smile of this child inspire you.  
There will be children who live because of  
your investment in this work.  
You will never know their names,  
but feel their smiles in your heart”** *Liz Smythe*