



INTRODUCTION

- Decreased foetal movements (DFM) occurs in up to 15% of pregnancies and is a common reason for emergency assessment [1].
- DFM is associated with
 - Increased perinatal mortality
 - Increased emergency delivery
 - Low neonatal Apgar scores [2, 3].
- The primary aim was to evaluate the identification of new risk factors, intervention and birth outcomes in women presenting with DFM.

METHODS

- Retrospective cohort study on women presenting with DFM over 6 months from November 2018 (Excluded: multiple pregnancies, gestation <28 weeks, not delivered at our hospital)
- Data collected on demographics, obstetric history, risk factors for perinatal morbidity/ mortality (prior to and post presentation), labour and birth outcomes.

RESULTS

- 4636 presentations to our Maternity Assessment Unit (MAU). 1058 of these were for DFM, 23% of our MAU workload.
- 654 women qualified for our study. 259 had >1 presentation.

CHARACTERISTIC	% OF TOTAL (n)
Mean maternal age	30.5 years old
Country of Birth	
Australia	40.5% (265)
Other Oceania	4.9% (32)
Europe	3.6% (24)
Asia	44.2% (289)
Africa, Middle East	5.4% (35)
Americas	1.4% (9)
Gravidity	
Primigravida	43.1% (282)
Multigravida	56.9% (372)
Body Mass Index (BMI)	
<18.5	2.5% (16)
18.5-25	53.5% (304)
>25	44.0% (288)

Figure 1: Gestation at first presentation after 28 weeks

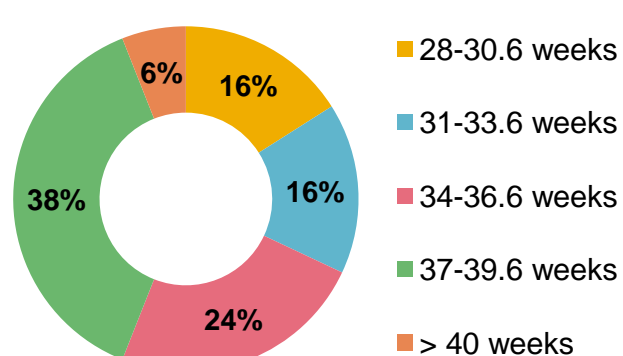
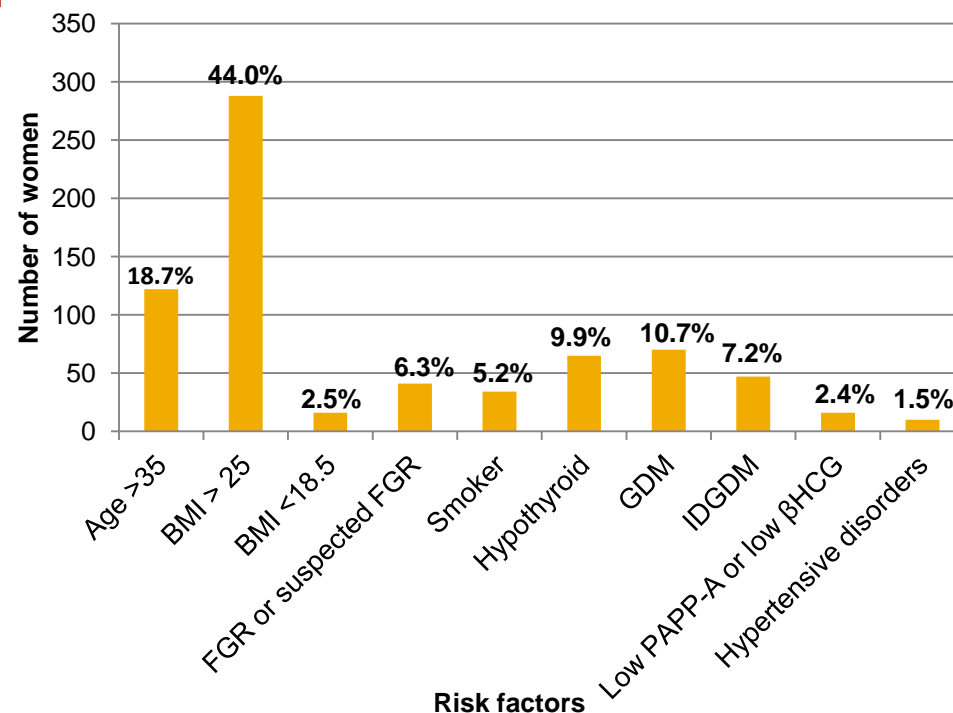


Figure 2: Risk factors prior to first presentation with DFM



FGR = Foetal growth restriction, GDM = Gestation Diabetes Mellitus, IDGDM = Insulin Dependent GDM, LGA = Large for Gestational Age

Table 2: Labour and birth outcomes

OUTCOME	% OF TOTAL (n)
Mean gestation at delivery	39.1 weeks
Onset of labour	
Spontaneous labour	28.9% (189)
Induced	54.6% (357)
No labour	16.5% (108)
Mode of birth	
Vaginal birth	60.1% (393)
Emergency caesarean section	27.8% (182)
Elective caesarean section	12.1% (79)
Preterm births (<37 weeks)	3.8% (25)
Birth weight	
<10 th centile	9.9% (65)
>90 th centile	4.7% (31)
APGAR <7 at 5min	0.6% (4)
Stillbirth	0

Figure 4: Indication for induction of labour or early caesarean section

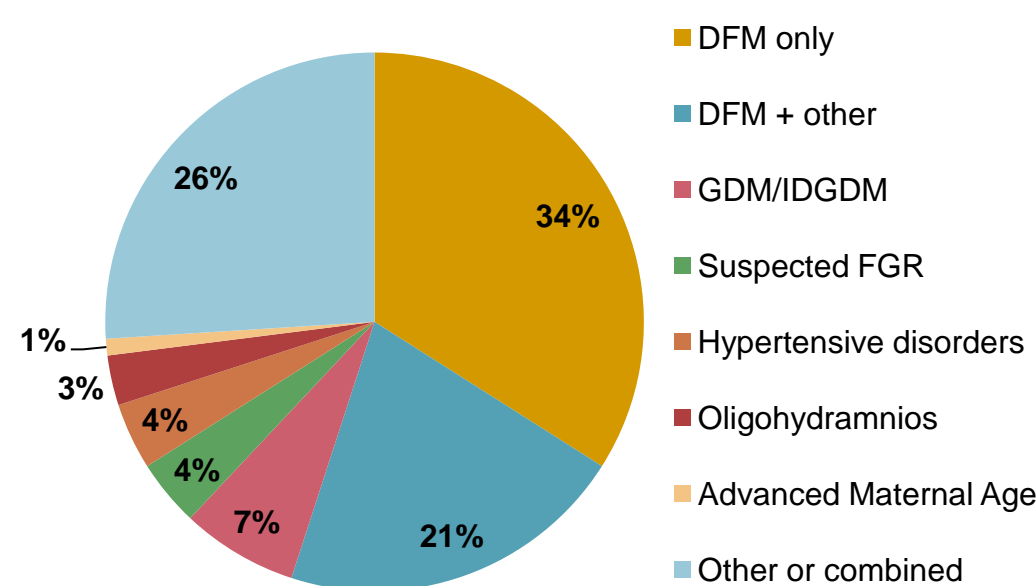
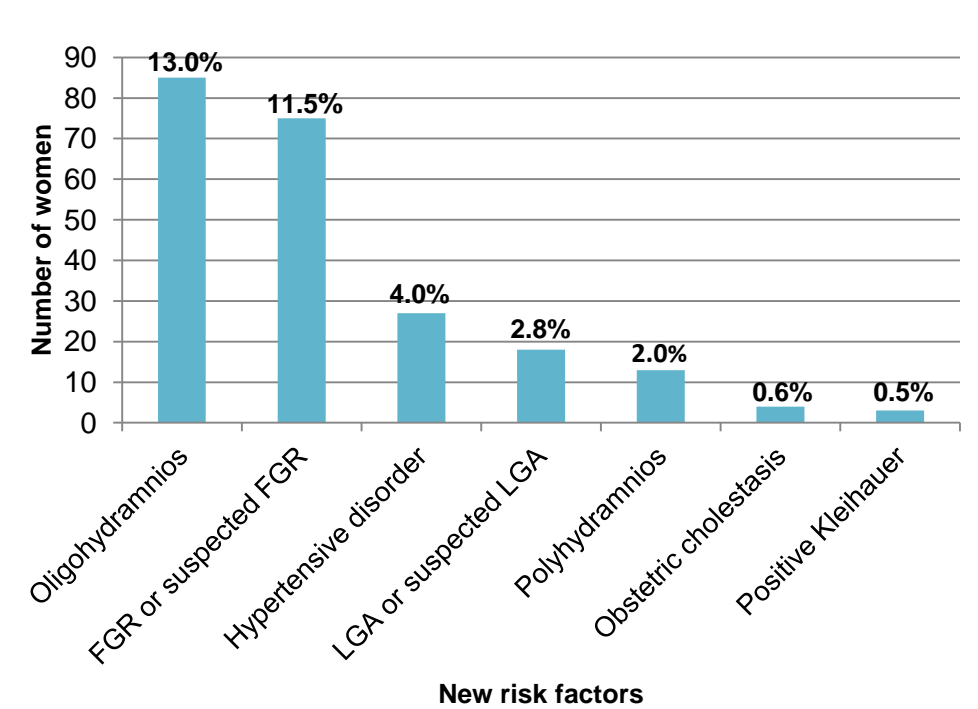


Table 3: Risk factors, interventions and outcomes for women with single vs multiple presentations with DFM

	SINGLE PRESENTATION	MULTIPLE PRESENTATIONS	p value
Number of women	395	259	
Pre identified risk factor/s	70.9% (280)	70.3% (182)	p >0.1
Newly identified risk factor/s	26.8% (106)	34.0% (88)	p >0.1
Induction of labour for DFM only	8.1% (32)	42.9% (111)	p <0.01
Birth weight <10 th centile	11.4% (45)	7.7% (20)	p >0.1
APGAR <7 at 5 mins	0.3% (1)	1.2% (3)	n/a

p value calculated using Chi Square Test. p <0.05 considered significant.

Figure 3: Newly identified risk factors after first or subsequent presentation with DFM



DISCUSSION

- Our cohort included a considerable proportion of women born in Asia (44.2%) as well as women with a BMI > 25 (44.0%). (Table 1)
- 11.5% (n=75) of women were newly diagnosed or identified as suspected FGR after presentation with DFM. Of these, 38.7% (n=29) delivered low birth weight babies. (Figure 3)
- 66.5% of women with DFM were planned for induction or early caesarean. DFM was the sole indication in 34% of cases (Figure 4).
- There was no significant difference in new risk factors or low birth weight between the single vs multiple presentation groups. However, there was a significantly higher induction rate (62.5%) for DFM in the multiple presentation group. (Table 3)

CONCLUSION

- Our study highlights the high rates of intervention for women presenting with DFM, especially recurrent presentations. This emphasises the need for inclusion of clear management strategies in our local protocols to improve our clinical practice.

REFERENCES

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- Suboptimal care in stillbirths - a retrospective audit study. *Saastad E, Vangen S, Frøen JF Acta Obstet Gynecol Scand. 2007; 86(4):444-50.*
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