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Review of practice

Management of Pregnancies with Small For Gestational Age Fetuses (Estimated Fetal Weight < 10TH Centile on GROW)

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Background

- Small for gestational age (SGA) - a birth weight < 10th centile.
- 50–70% of SGA fetuses are constitutionally small, with fetal growth appropriate for maternal size and ethnicity
- Structurally normal SGA fetuses are at increased risk of perinatal mortality and morbidity
- Smoking-Risk factor. Birthweight-200g less compare to nonsmoker
- In England and Wales, 7.0% of live births were low birth weight in 2016, unchanged since 2011.

Background

- GROW programme launched in BCUHB in August 2015
- More women at risk of having SGA babies identified
- No departmental protocol for management of pregnancies with SGA fetuses
- Individual clinician took decision regarding management (daily/alternate day, twice weekly, weekly CTG, Weekly/twice weekly scans, follow up, early induction)
- Increased work load on maternity day assessment unit(follow up visits, scan reviews, CTG monitoring, admission)
- Increased work load to ultrasound scan department(initial scans and follow up scans)→rejected scan request forms→increased anxiety in pregnant women, midwives, clinician

Quality Improvement Project (QIP)

Two phase review (all singleton pregnancies)

1. First phase: Retrospective review – 1st Oct to 31st July 2015

Total number-**58** (included women with EFW on or below 10th centile)

Departmental protocol introduced on 20/9/2016. (After multidisciplinary meeting including consultant O&G (Including Fetal Medicine Consultant), Junior Doctors in O&G, Risk team, Midwives, sonographers).

2. Second phase: Prospective Review 1st Oct 2016 to 31st May 2017

Total number **100** (included EFW below 10th centile)

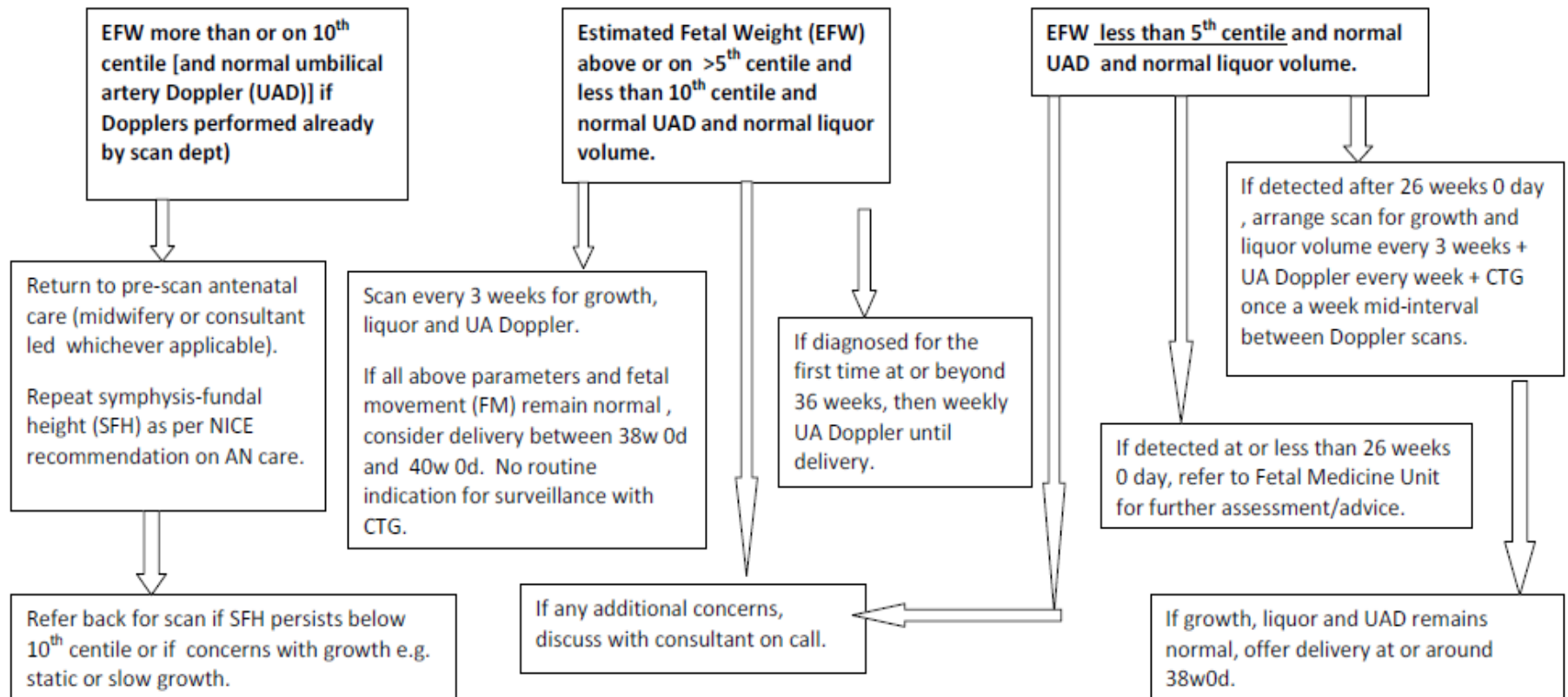
QIP – First phase (restrospective review)

Summary of the review findings

- Average number of scans following diagnosis of SGA-3.62
- Average number of follow up visits-8.62 (Patients had daily, alternate day, twice weekly, weekly CTGs)
- Induction of labour-54%
- Caesarean section-42% (Emergency-22%, Elective-20%)
- SCBU admission -12%

Guide to management of SGA fetus (EFW <10th centile) on GROW chart (Version 7; 20.09.2016)

NOTE : If there is evidence of fetal growth retardation, then frequency of ultrasound and management will depend on individual circumstances.



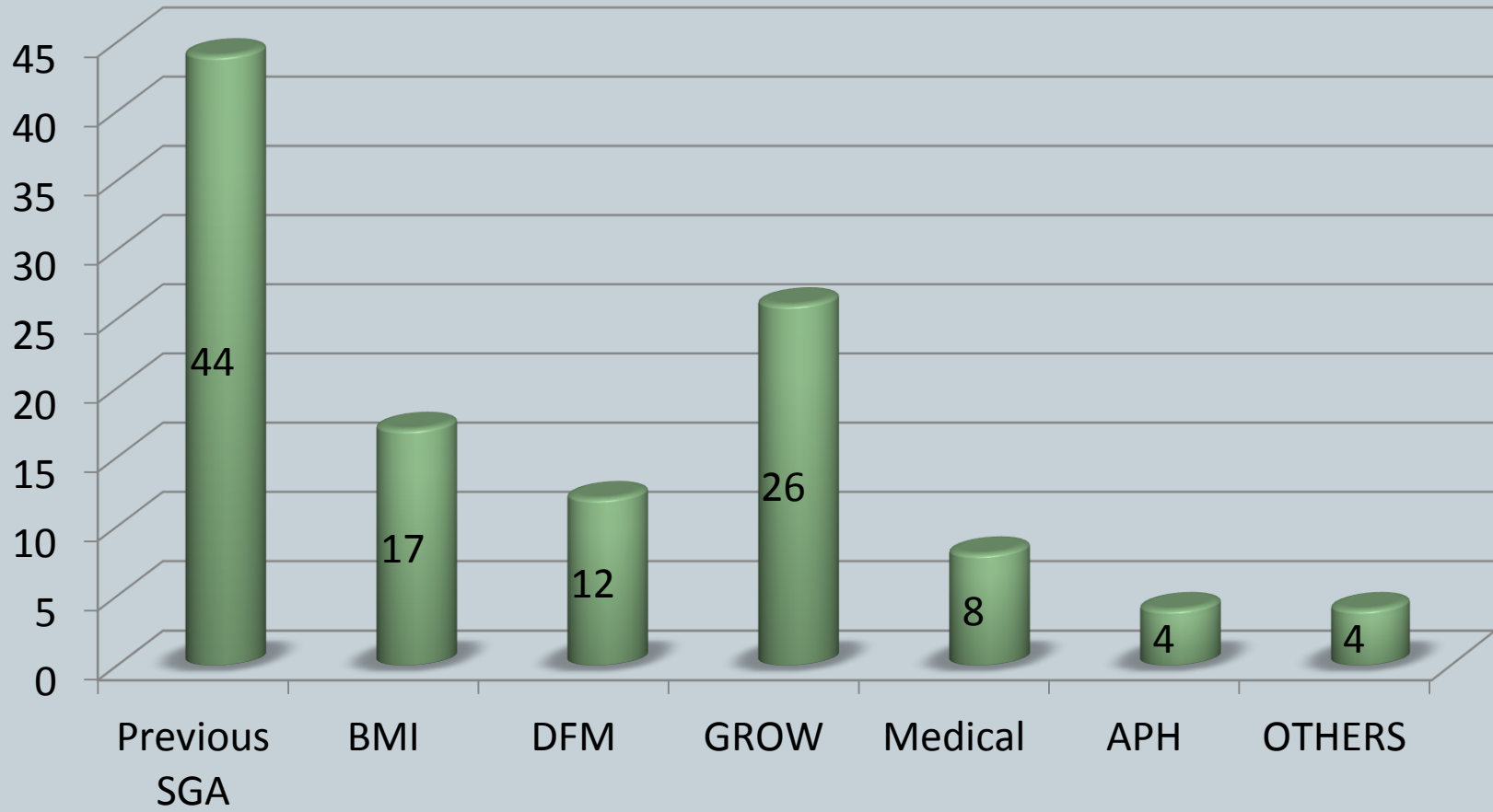
NOTE : If there are any specific concerns about fetal movements or abnormal ultrasound findings with a SGA fetus with EFW <5th centile between 26 weeks 0 day and 28 weeks 0 day, then discuss with a Fetal Medicine consultant.

QIP – Second phase (prospective)

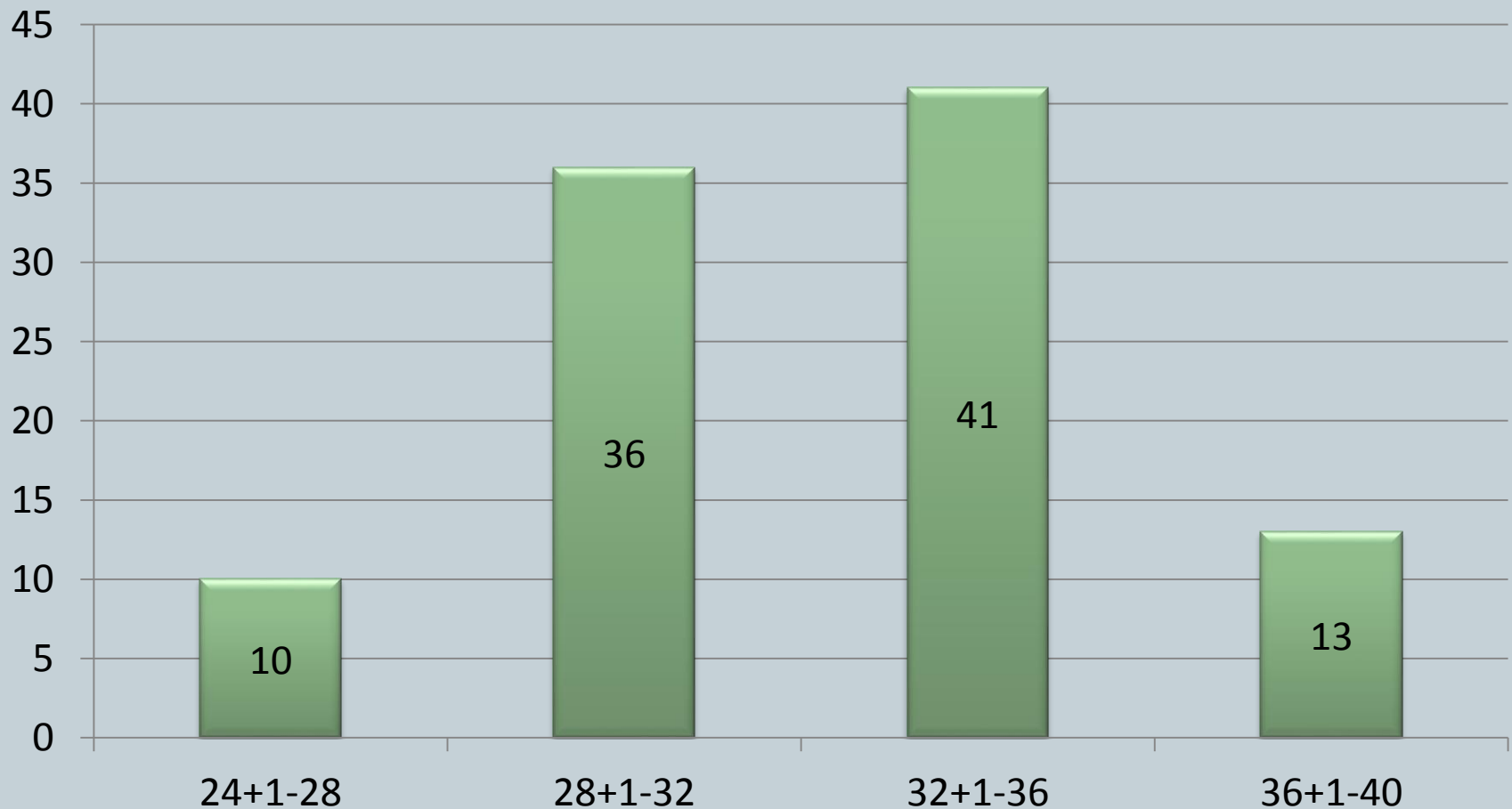
Aims :

1. To find out indication for first scan-Which led to the diagnosis of SGA
2. To find relation of EFW and actual birth weight
3. To see whether introduction of a new protocol had any effect on plan of follow-up management (attendance in day unit; CTG; ultrasound scan)
4. Gestational age at birth (any increase in prematurity)
5. Rate of intervention (IOL, CS)
6. Rate of admission to SCBU
7. Financial savings, if any

Indications for first scan

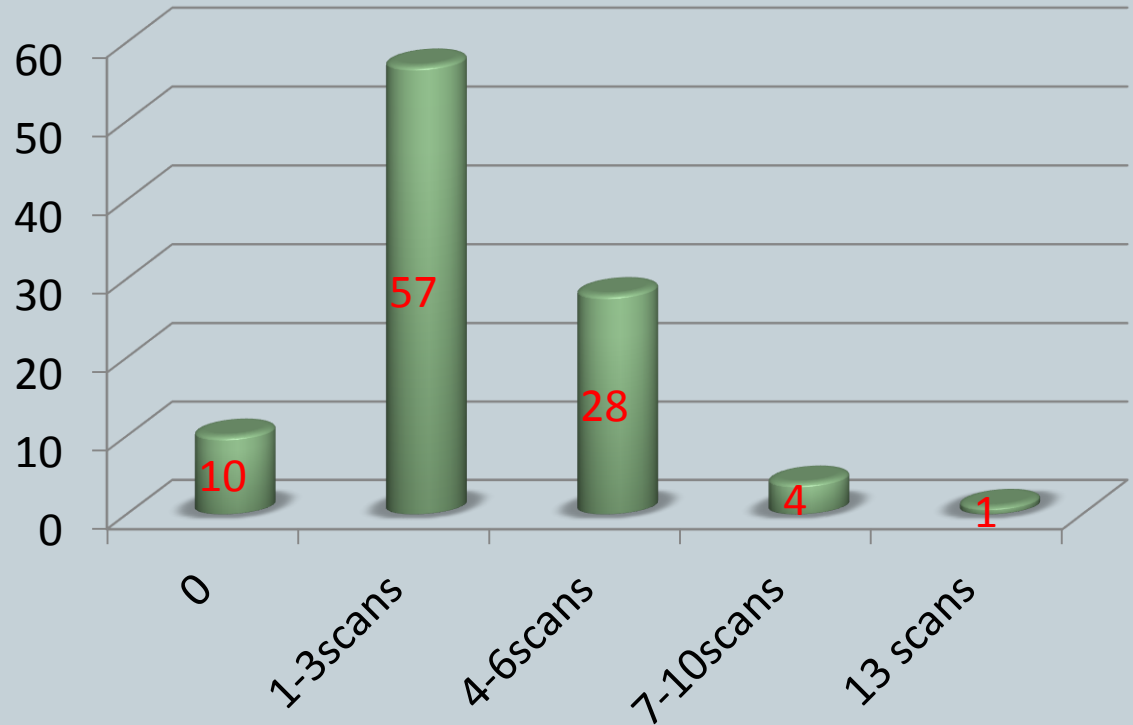


Gestational Age at Diagnosis of SGA



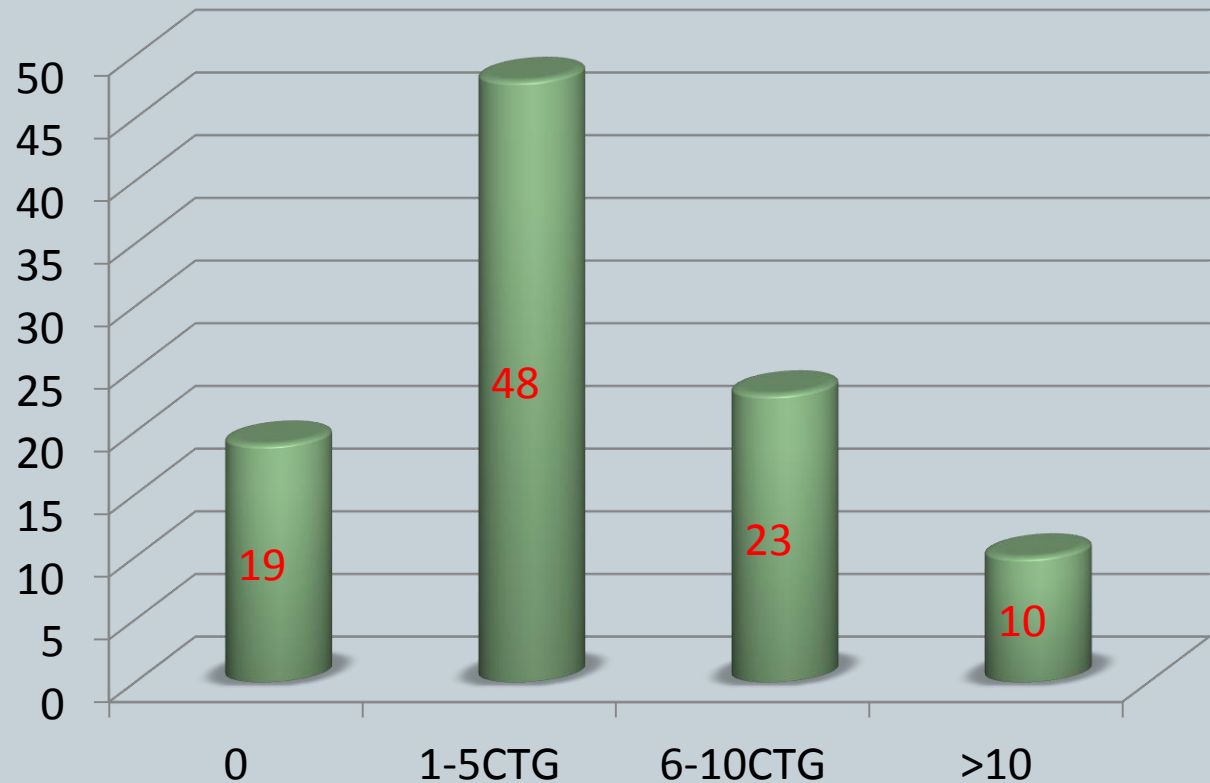
Number of further ultrasound scans

- 0=10
- 1-3=57
- 4-6=28
- 7-10=4
- 13-1(Max)
- Total scans-267
- Average-2.67



Numbers of CTG following diagnosis of SGA

- 0 -19
- 1-5=48
- 6-10=23
- >10=10
- Max-31



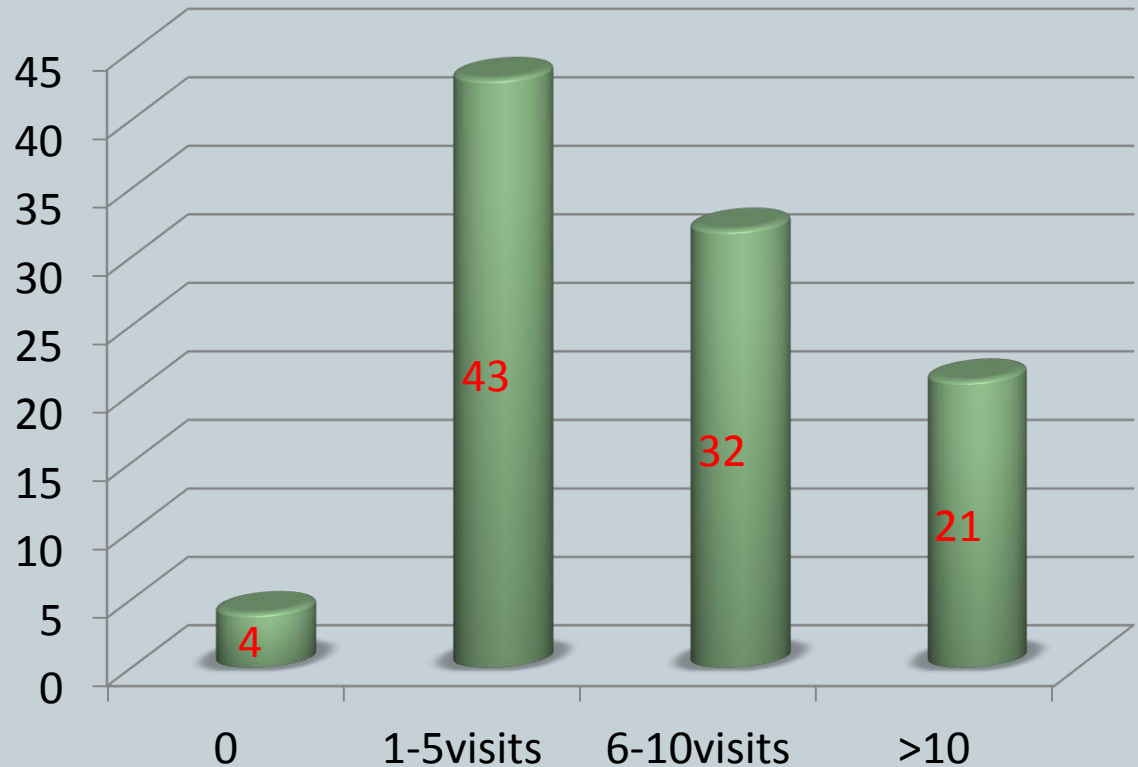
Number of visits to obstetric day assessment unit

- 0=4
- 1-5=43
- 6-10=32
- >10=21

Max Visit-39

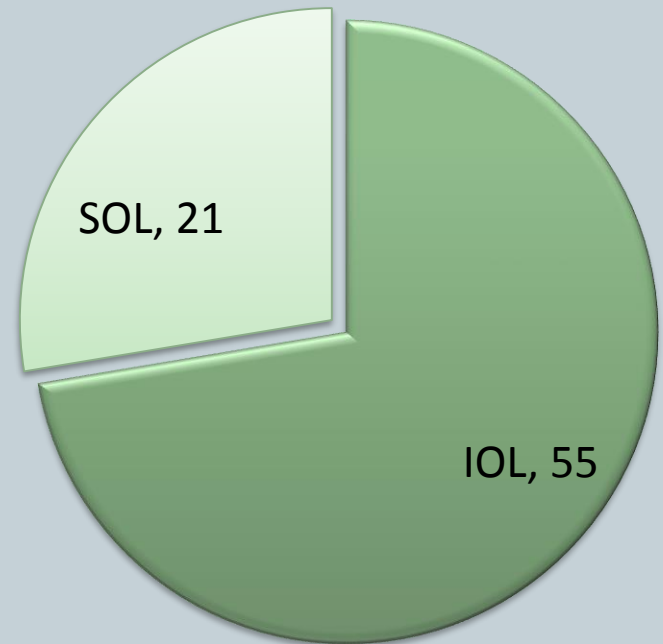
Total visits-681

Avg no. of visit=6.81



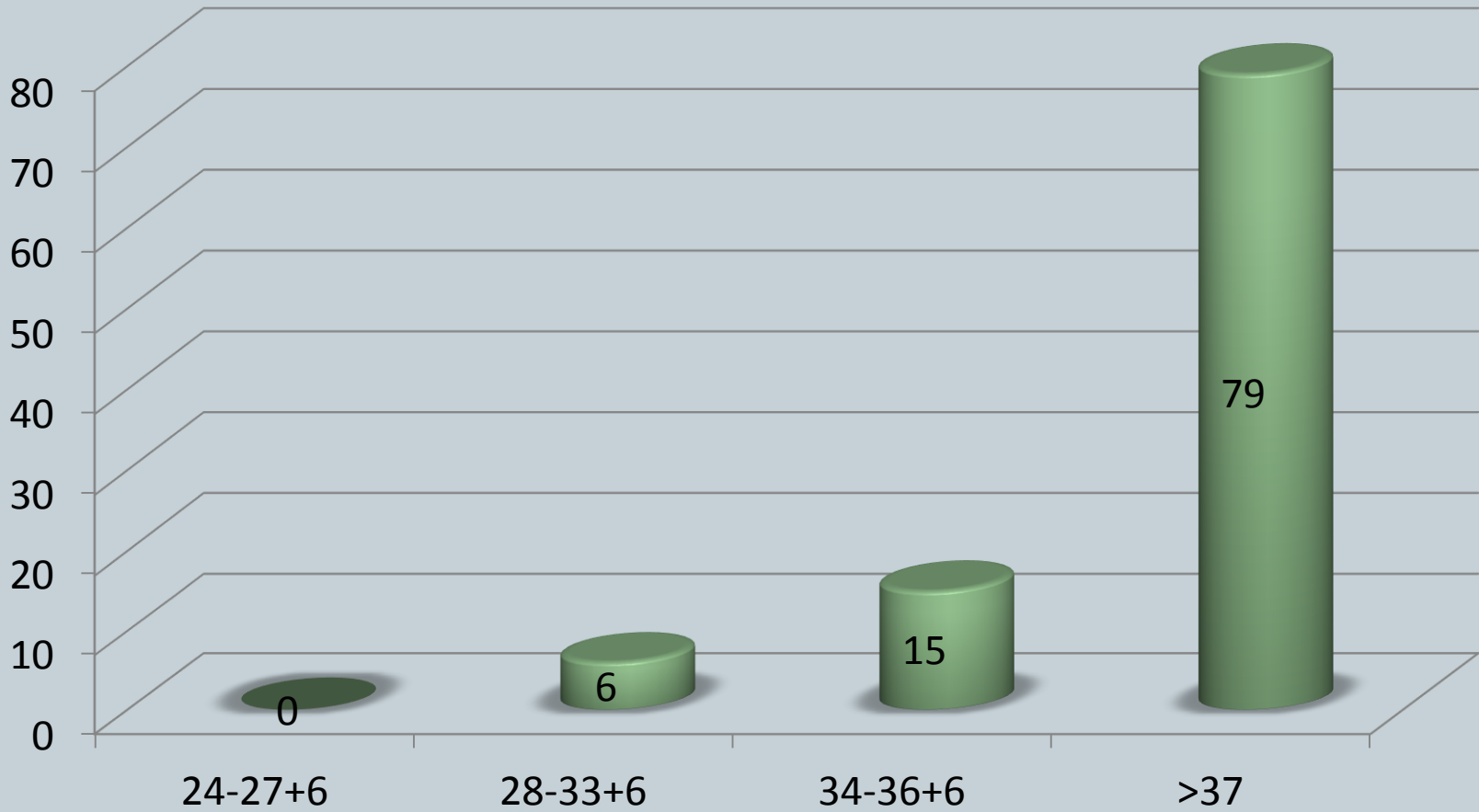
Induction of Labour

- IOL-55 (out of a total of 100)
- Spontaneous Labour-21
- 15 Elective C/S
- 9-Emergency c/s
(Not in Labour)



Out of 55, 32 IOL done with sole indication
As SGA (others-SROM,PET,DFM etc)

Gestational Age at delivery



Mode of Delivery

Vaginal Delivery
70

Caesarean Section
30

SVD
66

OVD
4

Emergency
15

Elective
15

Kiwi
3

Forceps
1

Not in
labour
7

Early
labour
7

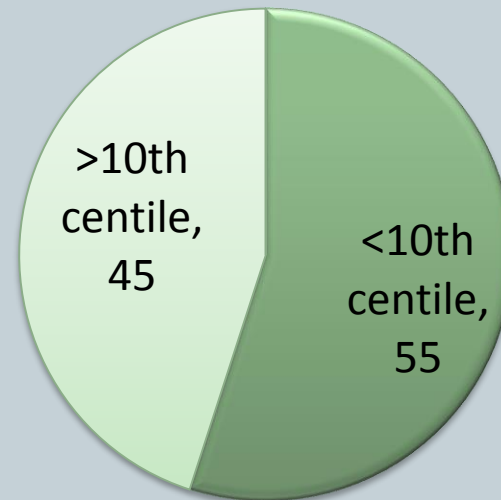
Second
stage
1

Birth weight

- <10th centile-55

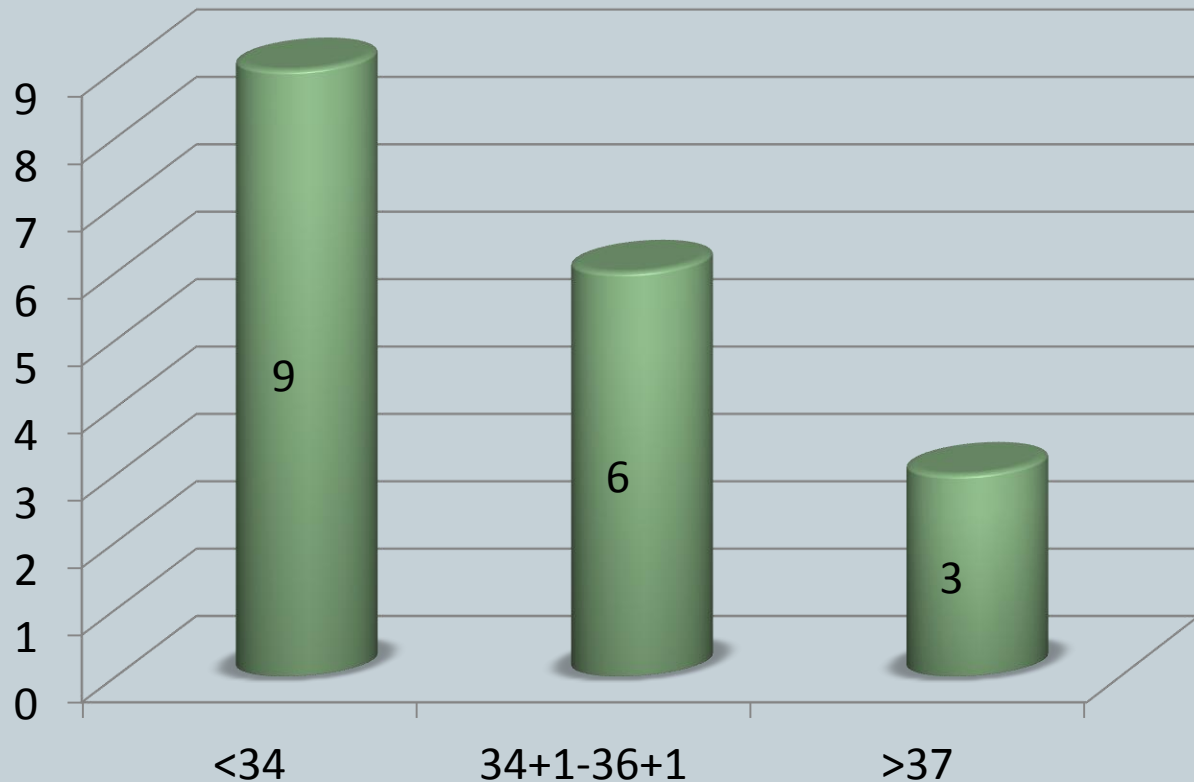
(37 babies had birth weight < 5th centile, and 18 babies had birth weight between 5th-10th centile)

- >10th centile - 45



SCBU admission

- 15 babies were admitted to SCBU.
9/15-due to prematurity
- 8-C/S
- 7-VD



Comparing two reviews

Audit	No	Birth weight (<10centile)	Average scan	Visits	IOL	c/s	ELCS EMCS	SCBU
Retrospective (pre-protocol)	58	62%	3.65	8.62	54%	42%	22% 20%	12%
Prospective (Post protocol)	100	55%	2.67	6.81	55%	30%	15% 15%	15%

Summary

- Mode of delivery-70% of women had vaginal delivery
- 30% of women had C/S out of which 15%emergency
- (Comparable to general rate despite being high risk category, SGA babies with stood process of labour)
- Gestation at Delivery:79% delivery after 37weeks, No delivery<28weeks
- Admission to SCBU-15%
- 37% smoker in this cohort of patients (general pregnancy population;12-20%)
- Annual cost savings of above £62000(calculation courtesy Quality Improvement department BCUHB)

Conclusion

- New protocol for management of SGA on the GROW programme reduced work load and number of attendance by women.
- No adverse outcome.
- Significant cost savings.

THANK YOU