

Surveillance of Small for Gestational Age Neonates at Mater Dei Hospital, a local teaching hospital in Malta

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Introduction

- Intrauterine growth restriction is defined as a fetal weight below the 10th percentile for a given gestational age and can be identified using umbilical artery Doppler (UAD).
- According to the Royal College of Obstetricians and Gynaecologists (RCOG) GreenTop Guideline No. 31, UAD is the primary surveillance tool for those mothers who have risk factors for a small-for-gestational-age baby.
- Risk factors for an SGA neonate include the following:

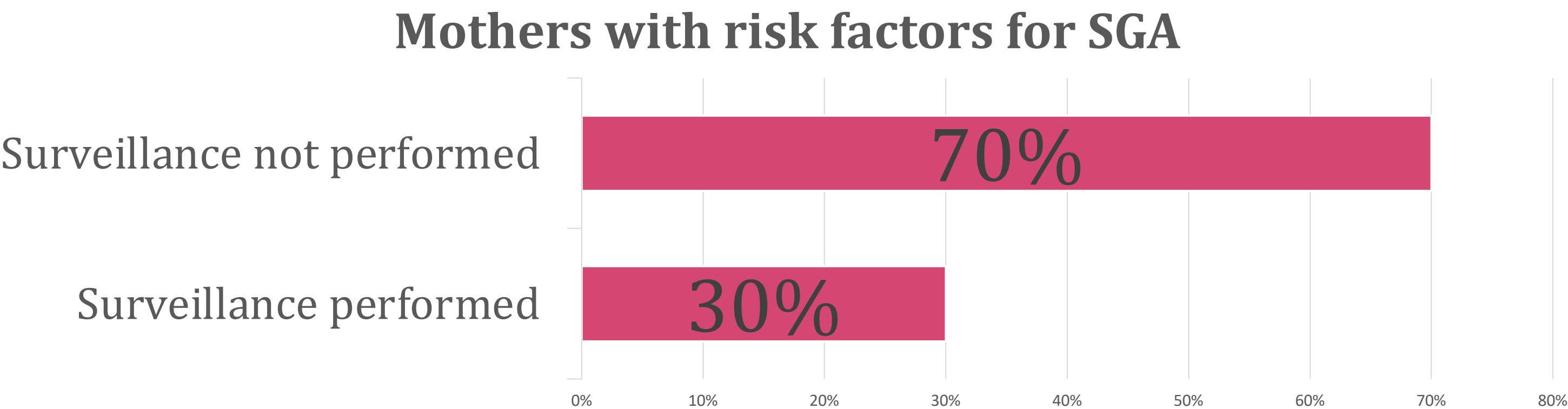
Maternal risk factors
• Age > 40 years, Smoker, Drug misuse
Previous pregnancy history
• Previous SGA baby, Previous stillbirth
Maternal medical history
• Chronic hypertension, Diabetes, Renal impairment, Antiphospholipid syndrome
Unsuitable for monitoring fundal height
• Large fibroids, BMI >35
Current pregnancy complications
• Pregnancy-induced hypertension, Pre-eclampsia, Unexplained antepartum haemorrhage

Method

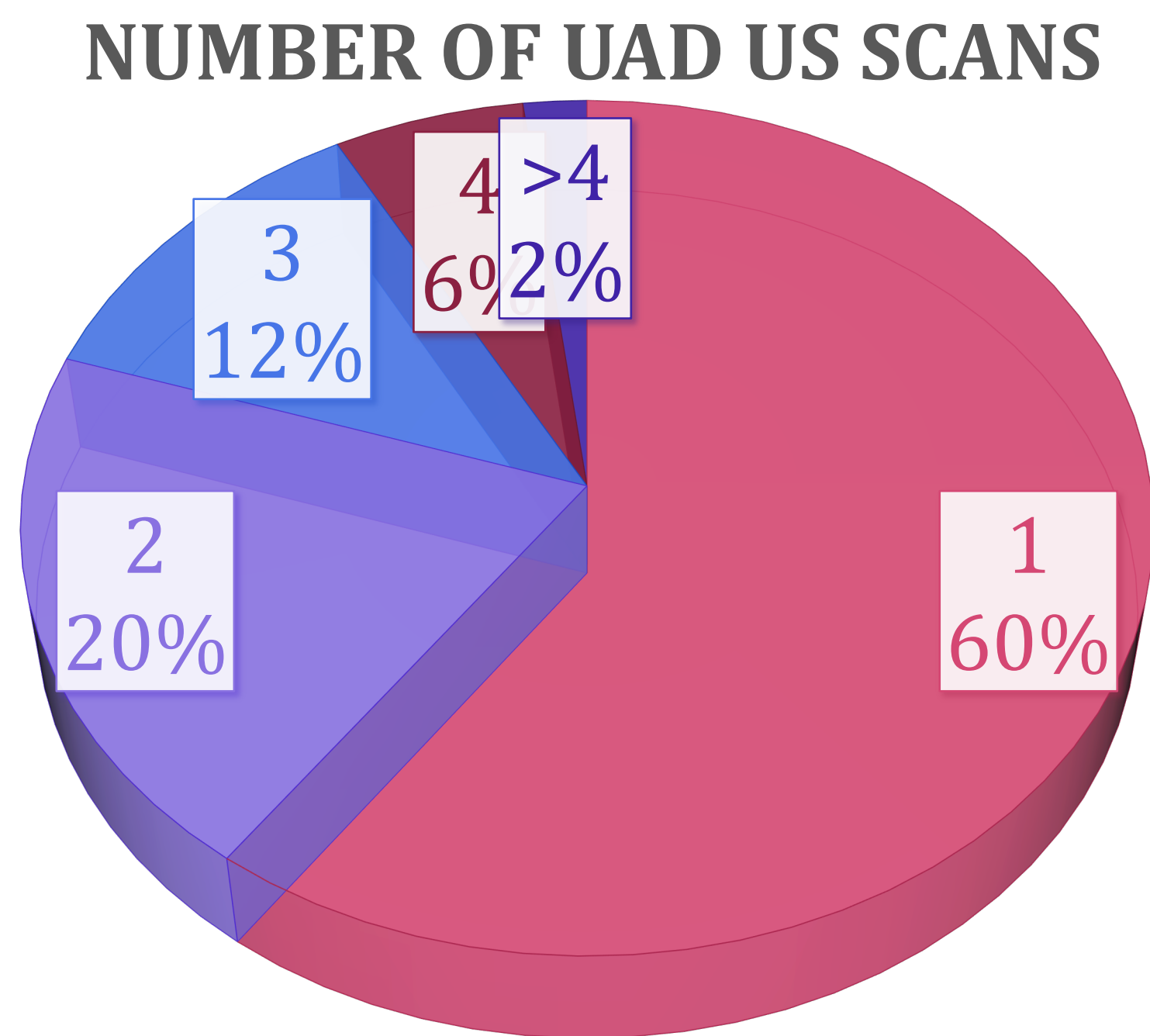
- A prospective study was carried out in a local teaching hospital between May and June 2021.
- Approval was gained from the ethics board.
- Data were collected from patients’ files and collected according to a data proforma.
- All women attending Central Delivery Suite (CDS) were included in this audit. Microsoft Excel was used for our audit proforma.

Results

- **Five hundred and ten (510)** neonates were delivered during this period.
- 33% of patients (n=169) had at least one risk factor as mentioned above.
- 30% underwent surveillance with UAD at least once during their pregnancy



- The majority of patients only had one UAD done (60%) and a total of 2% (n=1) had >4 UAD performed.



- Out of the 50 patients who underwent UAD, 14 had less than 2.5kg neonatal birth weight.
- From a total of 169 deliveries, only 5 neonates had a birth weight of less than 2kg. Of these 2 had adequate surveillance scans. Therefore, the majority of the neonates had adequate weight and a good outcome.

- There were 13 neonates <2.5kg who had no surveillance whatsoever during pregnancy.

Discussion of Results

- From this audit, it was concluded that surveillance for small for gestational age neonates is not being performed as per Green-top Guideline No.31 set by RCOG.
- On the other hand, only 5 neonates had less than 2kg birth weight. Therefore, most of the neonates had adequate weight and a good outcome.

Learning Points & Conclusion

- Failure to include patients for surveillance may be due to several reasons such as the following:
 - a. Failure to identify the risk factors at booking and during antenatal care
 - b. Loss to follow-up
 - c. Failure to identify SGA – need to use customised growth charts to identify SGA - <10th centile
 - d. More awareness at every level re-SGA
 - e. The need to implement a protocol
- Abnormal UAD is associated with increased morbidity and mortality and thus, increased surveillance is of utmost importance.
- Currently in the process of developing departmental guidelines

References

- Royal College of Obstetricians and Gynaecologists. The Investigation and Management of the Small– for–Gestational– Age Fetus. Green–top Guideline No. 31 2nd Edition | February 2013 | Minor revisions – January 2014

Acknowledgements

- We would like to thank the Obstetrics Department for their help in the compilation of this study.
- We would also like to thank Ms Miriam Mifsud Portanier (Senior Radiographer) for her invaluable help.

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