



Poster Presentations: Pregnancy Outcome

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Comparative analysis of SGA defined by customised GROW Charts and the UK-WHO neonatal weight charts to assess association with indicators of adverse pregnancy outcome

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Introduction Birthweights of babies born in the UK are currently assessed by two methods: the customised standard recommended by the RCOG and used in the national hand held maternity record ('Green Notes'), and the UK-WHO neonatal weight standard recommended by the RCPCH and used in the parent held record ('Red Book'). The two methods often give different results. We set out to examine the association between SGA defined by either method and four indicators of adverse outcome.

Methods SGA was defined as <10th centile based on (i) the UK-WHO standard for boys and girls (Stat Med. 1998;17:407–29), (ii) the customised centile calculator using GROW (gestation related optimal weight), adjusted for baby's sex as well as maternal height, weight, parity and ethnic origin (www.gestation.net). The data were derived from a regional database of 143 536 singleton pregnancies.

Results SGA rates were 13.2% (GROW) and 11.5% (UK-WHO). The majority of cases were SGA by both methods, but 30.4% were SGA by GROW only, and 19.9% were SGA by UK-WHO only. The GROW-only SGA group had significant associations with stillbirth (OR 3.6, CI 2.8–4.7), early neonatal death (2.6, 1.6–4.4), Apgar score <7 (1.9, 1.6–2.3) and admission to NICU (2.6, 2.2–3.0). In contrast, the group of babies SGA by UK-WHO only did not have significant associations with either of the four outcome measures.

Conclusion GROW improves the identification of SGA babies with an increased risk of adverse perinatal outcome, and reduces the SGA categorisation of babies that have no increased risk.