

Perinatal Institute comment on TAMBA twin growth charts

The Perinatal Institute has been receiving enquiries about new growth charts for twins, commissioned and promoted by TAMBA. The charts are based on a Southwest Thames study published in 2015 [1] and provide reference values for fetal head, abdomen and femur length measurements.

We cannot recommend these charts because of the following main concerns:

1. New charts should undergo rigorous evaluation against outcome, to assess safety and benefit, before they are introduced into clinical practice. We are not aware that any validation has taken place. The need for caution has been highlighted in a recent editorial in AJOG [2].
2. The charts show growth curves that are significantly lower than those for singletons. They are based on reference values derived from the whole population, not only from uncomplicated pregnancies. Therefore, they do not represent a normal growth standard but one that may have been affected by an unspecified number of pathological factors. This concept is particularly important in twin pregnancies as they have a substantially increased number of complications.
3. The pattern of slow growth from 30-32 weeks in many (but not all) twin pregnancies may be pathological, due to late onset fetal growth restriction associated with placental insufficiency. Adjusting the curves downwards may reduce recognition of pregnancies at risk and lead to false reassurance.
4. The charts also take a one size fits all approach, ignoring individual variation. There is now some evidence of benefit from customising the growth standard also for twin pregnancies [3,4].

The main issue however remains as to whether lowering the standard for twins may result in missed warning signs of fetuses at risk. We maintain that the default position should be that singleton and twin babies have the same growth potential (up to twin 'term' at 37 weeks). Until there is evidence to the contrary, we recommend continued use of singleton customised GROW charts also for twin pregnancies.

References

- [1] Stirrup OT, Khalil A, D'Antonio F, Thilaganathan B. on behalf of the Southwest Thames Obstetric Research Collaborative (STORK). Fetal growth reference ranges in twin pregnancy. *Ultrasound Obstet Gynecol* 2015;45:301-7. [http://refhub.elsevier.com/S0002-9378\(17\)30442-8/sref27](http://refhub.elsevier.com/S0002-9378(17)30442-8/sref27)
- [2] Gardosi J. Toward safe standards for assessment of fetal growth in twin pregnancy (editorial). *Am J Obstet Gynecol* 2017;216:431-3 [http://www.ajog.org/article/S0002-9378\(17\)30442-8/pdf](http://www.ajog.org/article/S0002-9378(17)30442-8/pdf)
- [3] Odibo AO, Cahill AG, Goetzinger KR, Harper LM, Tuuli MG, Macones GA. Customized growth charts for twin gestations to optimize identification of small-for-gestational age fetuses at risk of intrauterine fetal death *Ultrasound Obstet Gynecol* 2013;41:637-42. <http://onlinelibrary.wiley.com/doi/10.1002/uog.12404/abstract>
- [4] Ghi T, Prefumo F, Fichera A, et al. Development of customized fetal growth charts in twins. *Am J Obstet Gynecol* 2017;216:514.e1-17. [http://refhub.elsevier.com/S0002-9378\(17\)30442-8/sref1](http://refhub.elsevier.com/S0002-9378(17)30442-8/sref1)