

## Is first-trimester crown–rump length associated with birthweight?

### Authors' Reply

Sir,

We wish to thank Dr Tiran Dias and Professor Basky Thilaganathan<sup>1</sup> for their comments on our recent publication about the association between crown–rump length (CRL) and birthweight.<sup>2</sup>

They comment on our method to date pregnancies following *in vitro* fertilisation (IVF). Indeed, gestational age (GA) was calculated by adding 14 days to the number of days between the date of oocyte retrieval and the date of ultrasound examination. This seems an appropriate method because fertilisation was performed on the day of oocyte retrieval in all women. Moreover, this method remains reliable whatever the timing of embryo or blastocyst transfer later on. Moreover, we must emphasise that there were no ovum donations or frozen embryos in our cohort.

Second, and more importantly, they hypothesise that such misdating, rather than early variation in fetal growth, could create an artificial association between early and late growth. This has already been suggested by Smith.<sup>3</sup> To prevent such spurious associations, they suggest that we should look at the association with bodyweight once pregnancies have been dated by the CRL measurement. This is a good point but was already performed in our study, as stated in the second paragraph of the Results section 'This relationship persisted when GA was calculated from CRL ( $b = 0.13$ ,  $P = 0.02$ )'.

We understand that our work challenges the traditional view stating that physiological variations in fetal size emerge during the latter half of pregnancy. However, we believe that our data add to a growing body of evidence that complications of late pregnancy, such as abnormal growth, may be the ultimate consequence of conditions that have their origins in the very earliest weeks of gestation and precede the first ultrasound examination. ■

### References

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- 2 Salomon LJ, Hourrier S, Fanchin R, Ville Y, Rozenberg P. Is first-trimester crown–rump length associated with birthweight? *BJOG* 2011;118:1223–8.
- 3 Smith GC. First trimester origins of fetal growth impairment. *Semin Perinatol* 2004;28:41–50.

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## Beyond the numbers: reporting potentially avoidable perinatal deaths

Sir,

We read with interest the short communication on review processes for the assessment of standards of care in stillbirths by Tang et al.<sup>1</sup> We would like to bring to the attention of your readers similar work that has been undertaken reviewing perinatal and maternal deaths in New Zealand. The Perinatal and Maternal Mortality Review Committee (PMMRC)<sup>2</sup> reports annually on all perinatal and maternal deaths in New Zealand. This year's report was published in July 2011, and included 721 perinatal-related deaths (from 20 weeks of gestation to 28 days after birth) and 14 maternal deaths for 2009.<sup>3</sup> For the first time our report also included an assessment of whether or not the perinatal deaths were considered to have been potentially avoidable. We have also recently published our system for classifying contributory factors and potential avoidability for 4 years of data on maternal deaths (49 deaths in total).<sup>4</sup> Our classification differs from other approaches as it includes barriers to accessing and engaging in care, as well as management and organisational issues, personnel issues, geography and environmental factors. The maternal deaths were assessed by a central working party of the PMMRC, whereas the 721 perinatal deaths were assessed by local teams of clinicians, which typically included senior midwives, obstetricians and neonatologists or paediatricians. We are currently undertaking further research to validate this classification system by comparing local review with an expert review panel. Using this approach we found that one-third of maternal deaths and 14% of perinatal deaths (15% of stillbirths) were potentially avoidable. The most common categories of contributory factors found in both maternal and perinatal death reviews were barriers to accessing and engaging in maternity care, and lack of knowledge and skills among personnel. We can now direct our attention to these issues in our efforts to reduce both perinatal and maternal mortality in New Zealand. A copy of the tool can be found in the PMMRC 2011 report,<sup>3</sup> and in the paper on maternal mortality review.<sup>4</sup> ■

### References

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- 2 Perinatal and Maternal Mortality Review Committee. [www.pmmrc.health.govt.nz/moh.nsf/indexcm/pmmrc-home](http://www.pmmrc.health.govt.nz/moh.nsf/indexcm/pmmrc-home).
- 3 PMMRC 2011. Perinatal and Maternal Mortality in New Zealand 2009. Fifth Report to the Minister of Health July 2010 to June 2011. Wellington: Ministry of Health; 2009. [[www.pmmrc.health.govt.nz/moh.nsf/Files/pmmrcfiles2011/\\$file/pmmrc-5th-report-2009.pdf](http://www.pmmrc.health.govt.nz/moh.nsf/Files/pmmrcfiles2011/$file/pmmrc-5th-report-2009.pdf)]. Last accessed 31 August 2011.
- 4 Farquhar CM, Sadler L, Masson V, Bohm G, Haslam A. Beyond the numbers: classifying contributory factors and potentially avoidable

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