

Dear Colleague

Recent research suggests that given inter-observer variability in ultrasound measurements and the greater variation in early embryonic growth than has hitherto been assumed, a more conservative approach to the diagnosis of early pregnancy loss is warranted.

The studies from Imperial College London, Queen Mary, University of London and the Katholieke Universiteit Leuven, Belgium published in the November 2011 issue of *Ultrasound in Obstetrics and Gynaecology* concluded that current definitions used to diagnose miscarriage could lead to an incorrect diagnosis and they call for clearer evidence-based guidance on detecting miscarriage through ultrasound scans.

Having carefully considered these papers, we recommend adoption of the following interim guidance **with immediate effect**:

1. Ultrasound diagnosis of miscarriage should only be considered with a mean gestation sac diameter  $\geq 25\text{mm}$  (with no obvious yolk sac), or with a fetal pole with crown rump length  $\geq 7\text{mm}$  (the latter without evidence of fetal heart activity)
2. A transvaginal ultrasound scan should be performed in all cases
3. Where there is any doubt about the diagnosis and/or a woman requests a repeat scan, this should be performed at an interval of at least one week from the initial scan before medical or surgical measures are undertaken for uterine evacuation. No growth in gestation sac size or CRL is strongly suggestive of a non-viable pregnancy in the absence of embryonic structures.

These revised values for 'mean gestation sac diameter' and 'crown rump length' do not imply that previously used values were wrong, nor that diagnosis of miscarriage in the past has been unsafe. This interim guidance suggests a more cautious approach is warranted, pending more definitive data becoming available. It extends the criteria included in the RCOG Green Top Guideline No 25, which recommended a conservative approach with mean gestation sac diameter  $<20\text{mm}$  or fetal CRL  $<6\text{mm}$ .

Christoph Lees MRCOG *on behalf of the RCOG Ultrasound Advisory Group*  
Kim Hinshaw FRCOG *Lead author, Green Top Guideline No. 25*  
Philip Owen FRCOG *Chair, RCOG Guidelines Committee*  
David Richmond FRCOG *RCOG Vice President (Standards)*

**19th October 2011**

Notes

The Ultrasound Advisory Group has representation from the Society and College of Radiographers, International Society of Ultrasound in Obstetrics and Gynecology, British Maternal-Fetal Medicine Society, British Medical Ultrasound Society and Royal College of Radiologists. This guidance is endorsed by BMUS, and by the Council of the Society and College of Radiographers.

To view a copy of the RCOG clinical guideline *The Management of Early Pregnancy Loss*, click on the title above or [here](#).

Gerald Chan  
Director, Health Policy and Public Relations

***Royal College of Obstetricians and Gynaecologists***  
*27 Sussex Place*  
*Regent's Park*  
*London NW1 4RG*

Direct line: + 44 020 7772 6446  
Out of hours: + 44 07986 183 167  
Fax: + 44 020 7772 6241  
email: [gchan@rcog.org.uk](mailto:gchan@rcog.org.uk)  
website: [www.rcog.org.uk](http://www.rcog.org.uk)  
twitter page: <http://twitter.com/RCObsGyn>