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Advice on exposure to ionising radiation during pregnancy in children

The British Society of Paediatric Radiology (BSPR), a specialist interest group of The Royal College of Radiologists (RCR), noticed recently that within *Diagnostic Medical Exposures: Advice on Exposure to Ionising Radiation During Pregnancy,*[1] published jointly by the Health Protection Agency (HPA) and the RCR, the guidance on establishing whether females under the age of 16 might be pregnant was unclear (see Practical Implementation, page 8). The guidance currently states, 'Particular problems may be experienced in obtaining this information from females under the age of 16. In such cases, staff should refer to the guidance given by the College of Radiographers in *The Implications of radiographers of the Children's Act'*.

It was found that this is simply a direct reference to the Children's Act and there is no specific clarifying guidance available. To address this, the BSPR has formulated recommendations which have been agreed by the BSPR and by the Board of the Faculty of Clinical Radiology at the RCR. The wording agreed is as follows.

Reasonably excluding the possibility of pregnancy in paediatric practices is difficult

Regulations suggest that, 'when irradiating women of reproductive years in which the primary beam irradiates the pelvic area, appropriate steps should be taken to determine whether she is, or may be, pregnant'.[1]

There are many ethical and social objections for applying this practice to girls under the age of 16. Asking a girl this question without parental consent requires presumption of 'Gillick competency'. It is seems unlikely that this question will always be answered honestly, but if a girl does disclose that she is sexually active, radiologists and radiographers may be faced with a difficult ethical issue. Teenage girls often have irregular menstrual cycles, which may make scheduling of booked investigations difficult. Rigorous application of a ten-day rule for all diagnostic procedures is much more restrictive than is required to comply with current HPA guidance[1] and it may be argued that it is likely to do more harm than good. On occasions when an inadvertent exposure is made during early pregnancy, dosed estimation by a medical physics department usually shows that the risk to the unborn child is insignificant.

The recommendations are as follows:

'The British Society of Paediatric Radiology (BSPR) advice should be based on HPA guidelines.[1] It should be stressed that the risks of diagnostic exposure during early pregnancy are small and no special measures are necessary for most radiographic exposures, but it is always good radiographic procedure to employ accurate beam collimation and use gonad protection when appropriate. For high-dose procedures such as abdominal and pelvic CT and radio-isotope scans, it is sensible to perform elective examinations in the early part of the menstrual cycle, but clinically urgent scans should not be delayed.'

Reference

1. Health Protection Agency and The Royal College of Radiologists. *Diagnostic Medical Exposures: Advice on Exposure to Ionising Radiation During Pregnancy* www.hpa.org.uk/radiation/publications/misc_publications/advice_during_pregnancy.htm (last accessed 2/4/07)

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