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Teaching advanced technical skills to novice anaesthetists is challenging, particularly when there is a risk of significant complications.[1] Equally, learning advanced technical skills, by practicing on patients, can be stressful for trainees and may impair performance.[2] Simulation is increasingly used in medicine,[3-5] is recognised by the Royal College of Anaesthetists in their curriculum[6] and may play a role in addressing these issues.

The Genesis Epidural-Spinal Injection Simulator[7] is a part-task trainer which can be used to replicate both spinal and epidural anaesthesia. The model consists of a base section with integral iliac crests; and a removable vertebral core. The core has bony landmarks, ligaments (replicating supraspinous, interspinous and ligamentum flavum) and a tubular centre representing meninges, filled with pressurised saline 'CSF' (Fig. 1).

We had previously evaluated the M43B Lumbar Puncture Simulator-II for training purposes,[8-9] and felt that the Genesis back simulator might offer an even more realistic feel of anatomy when performing epidural and spinal anaesthesia. We wanted to formally evaluate this using the same methodology we had used previously. We sought local research ethics committee approval but it was deemed not necessary for this study. Consultant obstetric anaesthetists were asked to perform both spinal and epidural placement using the Genesis Epidural-Spinal Injection Simulator (Epimed, Dallas, Texas, USA). Structured feedback forms were completed immediately afterwards, grading the fidelity of the simulator for key aspects relating to the procedures using a Likert Scale (0-very unrealistic, 1-unrealistic, 2-neutral, 3-realistic and 4-very realistic). We also asked whether the model would be useful for training (0-strongly disagree, 1-disagree, 2-neutral, 3-agree, 4-strongly agree) and for free text comments. The simulator was prepared per the manufacturer's instructions. All components were new at the start of the study. Manufacturers recommend a single core should provide good conditions for up to 500 uses.

Consistent with local practice, epidural insertion was performed with an 18-gauge Tuohy needle (Portex Ltd, Hythe, Kent, UK) and a loss-of-resistance to saline technique. Spinal insertion was performed with a 25-gauge Sprotte (with 20-gauge introducer) needle (Pajunk UK Medical Products Ltd, Tyne & Wear, UK). Insertion

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