Objectives Training for the performance of amniocentesis is challenging because this may compromise fetal and maternal health, increase procedure associated risk and failures, and can be associated with patient apprehension and anxiety. The advent of non-invasive prenatal diagnosis has further complicated the situation by reducing the number of patients available for invasive procedures. Training for basic skills in the procedure and ongoing maintenance and upgrading of skills has, consequently, has shifted to amniocentesis simulators. The learning curve has been shifted from real-life patient scenarios to the simulation laboratory. This allows for safer training, reduces the need for repeat interventions for failed procedures, reduces the need for constant supervision by senior staff and increases the number of punctures that can be practiced and supervised. Currently available simulators include electronic and mechanical versions. These are expensive or have been too cumbersome to make on a regular basis. A new inexpensive (under 2 Euros) and effective simulator is presented.

Methods The amnion and contents are simulated by a water filled condom and fetus-shaped commercial toys. Maternal tissues are simulated by ultrasound gel and kitchen grade plastic clingfilm. These are placed in a disposable food container that is at least five inches deep. The gain of confidence by trainees is assessed by post-training questionnaires. Improvement in technical skills is assessed by a Trainee Supervisor and includes techniques of holding the transducer and needle, identifying the target, visualising the entire needle path on the screen, optimising ultrasound settings and smooth aspiration of fluid content.

Results All trainees reported increased confidence, with a greater gain reported by new trainees compared to audit trainees. Supervisor given scores improved when the number of punctures was increased from 10 per trainee to 30 per trainee.

Conclusion Simulator training on a low cost model is feasible and allows for adequate initial training and ongoing skills supervision.