Objective
Our objective was to compare the effect of a semi-automatic fetal biometry assist tool on the time and keystrokes required for fetal biometry during obstetric ultrasound exams.

Methods
We conducted a case-cohort study. Images from ultrasounds in the second and third trimesters were collected for each of the fetal biometric measurements required for estimated fetal weight including biparietal diameter (BPD), occipital frontal distance (OFD), head circumference (HC), abdominal circumference (AC) and femur length (FL). The images were used to collect measurements manually and using a semi-automatic fetal biometry assist tool (Philips Healthcare). The time and the number of keystrokes required to complete the measurements were abstracted from the ultrasound system. The measurements conducted using the semi-automatic fetal biometry assist tool were then evaluated to assess if the fetal anatomy was properly detected.

Results
96 ultrasound examinations were compared using the manual and semi-automatic measurements of fetal biometry. Statistically significant differences between all measurements except for the AC were noted for the time and for all measurements for the number of keystrokes using the semi-automatic fetal biometry assist tool.

With the use of the semi-automatic fetal biometry assist tool,
- the average duration of all measurements combined decreased by 6.88 seconds (95%CI 5.80, 7.95)
- the number of keystrokes for all measurements combined reduced by 4.93 (95%CI 4.52, 5.35)

The detection of fetal anatomy required for biometry using the semi-automatic fetal biometry assist tool was accurate identifying correctly
- 93%, 97%, 98%, 96% and 85% of measurements for BPD, OFD, HC, AC and FL respectively

Conclusion
The use of a semi-automatic biometry assist tool significantly improved the efficiency of fetal biometry measurements required for obstetric ultrasound and was highly accurate.