Introduction
Abnormal diameters of the great vessels are known to be markers of congenital heart diseases, e.g. tetralogy of Fallot, truncus arteriosus and coarctation of aorta. In order to improve prenatal detection of these forms of congenital heart defects, we include the great vessels diameter in the routine fetal ultrasound examination.

Objective
To construct centile nomograms for aortic and pulmonary artery diameters in the second and third trimesters.

Method
The patients recruited all fulfilled the following criteria: (1) known last menstrual period with regular cycles, (2) no fetal anomalies, (3) no pregnancy complications, (4) live birth at term, (5) birth weight above the 5th and below the 95th centile for gestation.
Pulmonary and aortic diameters were measured by transabdominal ultrasound on long-axis views of the great vessels. Measurements of the great vessels were taken at the level just above the aortic and pulmonary valves during ventricular systole. The relationship between the mean of each measurement and gestational age was modelled by a fractional polynomial regression.

The procedure for selecting the best fitting model was based on minimising the deviance as in the appendix of Royston and Wright (1998). Similarly a standard deviation (SD) curve for each measurement was estimated by regressing the ‘scale absolute residuals’ on gestational age, again using fractional polynomial. The 5th and 95th percentile of the measurement at each gestational age is given by means ± 1.645 SD. All analyses and graphics were made using software STATA version 13.

Results
150 cases were recruited. Diameters range from 2.1mm (aortic) and 2.5mm (pulmonary artery) at 18 weeks of gestation to 6.5mm (aortic) and 9.7mm (pulmonary artery) at 39 weeks of gestation.

Conclusion
We conclude that the diameter of the great vessels grows linearly with gestational age in normal fetuses.