Objective
To assess the relationship between pre-labour fetal cardiac output and the risk of intrapartum compromise in appropriately grown singleton term fetuses.

Methods
Fetal cardiac function was performed by conventional 2D and Doppler ultrasound in assessment of the systolic and diastolic function including assessment of flow velocity across the inflow and outflow tracts. The results obtained were then used to calculate the stroke volume and cardiac output.

Results
Fetuses delivered by caesarean section for intrapartum compromise had the lowest left cardiac output compared to the right side (160.9 ml/min/kg vs 293.7 ml/min/kg, p = 0.003). Furthermore, fetuses with left cardiac output < 10th centile was up to three times more likely to be delivered by emergency caesarean section for fetal compromise when compared with those > 10th centile (Relative Risk = 2.769; 95th CI: 1.454 - 5.272; p = 0.001). There were no fetuses delivered by caesarean section for fetal distress with a LCO > 90th centile (negative predictive value 100%).

Conclusion
Assessment of fetal cardiac output can identify fetuses that are at risk of emergency operative delivery for intrapartum compromise.