Objective
The purpose of this study was to investigate the relationship between cerebroplacental ratio (CPR), mode of delivery and birth weight at all gestational ages. It is well documented that a CPR of <1.08 is a marker of placental insufficiency, and this study has tried to establish whether this is a marker that can be used at all gestational ages and birth weight to predict mode of delivery.

Method
A retrospective cohort analysis from one centre looking at 81 births from 2017-2019 at a district general hospital was performed. Patients were selected using a CPR <1.08 as a search strategy. Outcome measures included labour induction, mode of delivery, birth weight centile and neonatal outcome.

Results
- 81 fetus’s had a CPR <1.08 over the 2 years.
- There were 80 live births and 1 still birth at 36+5 weeks gestation.
- 50% (n=40) were delivered <37 weeks with a median gestational age of 37 weeks at delivery (range 28+6-41+6 weeks).
- Of those delivered prematurely 85% were born via caesarean section (CS) and 15% vaginally; compared with the rates at term which were 42% and 58% respectively. Overall the CS rate was 63%.
- All that were delivered vaginally had multiparous mothers.
- Of the term cohort 22 underwent induction of labour; 6 went on to have a category 2 CS for fetal distress.
- 44% of babies had a birth weight under the 10th centile.
- 37% were admitted to the neonatal unit and there were no neonatal deaths.

Conclusion
Cerebroplacental ratio of <1.08 is strongly associated with caesarean section as a mode of delivery, even in term pregnancies that have a normal for gestational age estimated weight.