



RETROSPECTIVE STUDY ON CONFIRMED CHORIOAMNIONITIS ON HISTOLOGY

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INTRODUCTION

Chorioamnionitis refers to the inflammation of the chorion and the amnion. It can lead to adverse perinatal outcomes including cerebral palsy and it is one of the leading causes of non hypoxic damage in the fetuses. There are criteria for clinical diagnosis of chorioamnionitis including maternal pyrexia, maternal or fetal tachycardia or both, uterine fundal tenderness, purulent or foul amniotic fluid and elevated C-reactive protein.

AIMS

We have performed a retrospective observational cohort study at Aneurin Bevan University Health Board (ABUHB) to look at maternal and perinatal outcome in confirmed chorioamnionitis on placental histology. Moreover, to also check the CTG changes in chorioamnionitis.

METHODS

The study period included 169 cases from January 2016 to June 2021 (5 and a half years), where placental histology confirmed chorioamnionitis. We excluded <24 weeks so finally we analyzed 161 cases.

We looked at maternal such as mode of delivery, intrapartum and postpartum maternal complications; and neonatal outcomes, namely meconium aspiration syndrome (MAS), admission to special care baby unit (SCBU) and HIE (Hypoxic ischaemic encephalopathy).

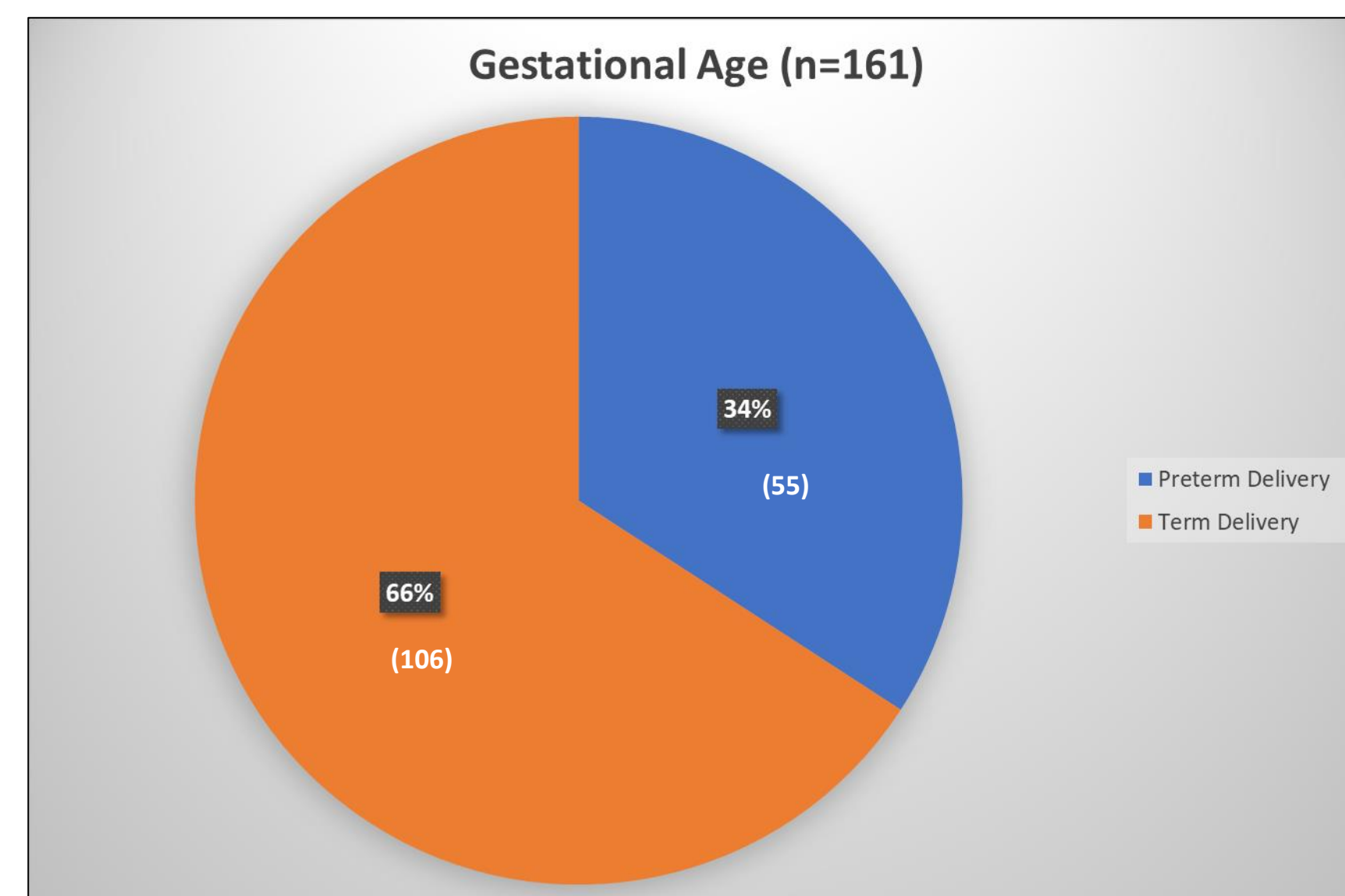
The CTG features of Chorioamnionitis in our study are:

- Persistent rise in baseline foetal heart rate of >10%
- Loss of acceleration and cycling.
- Reduced variability.
- Saltatory pattern.

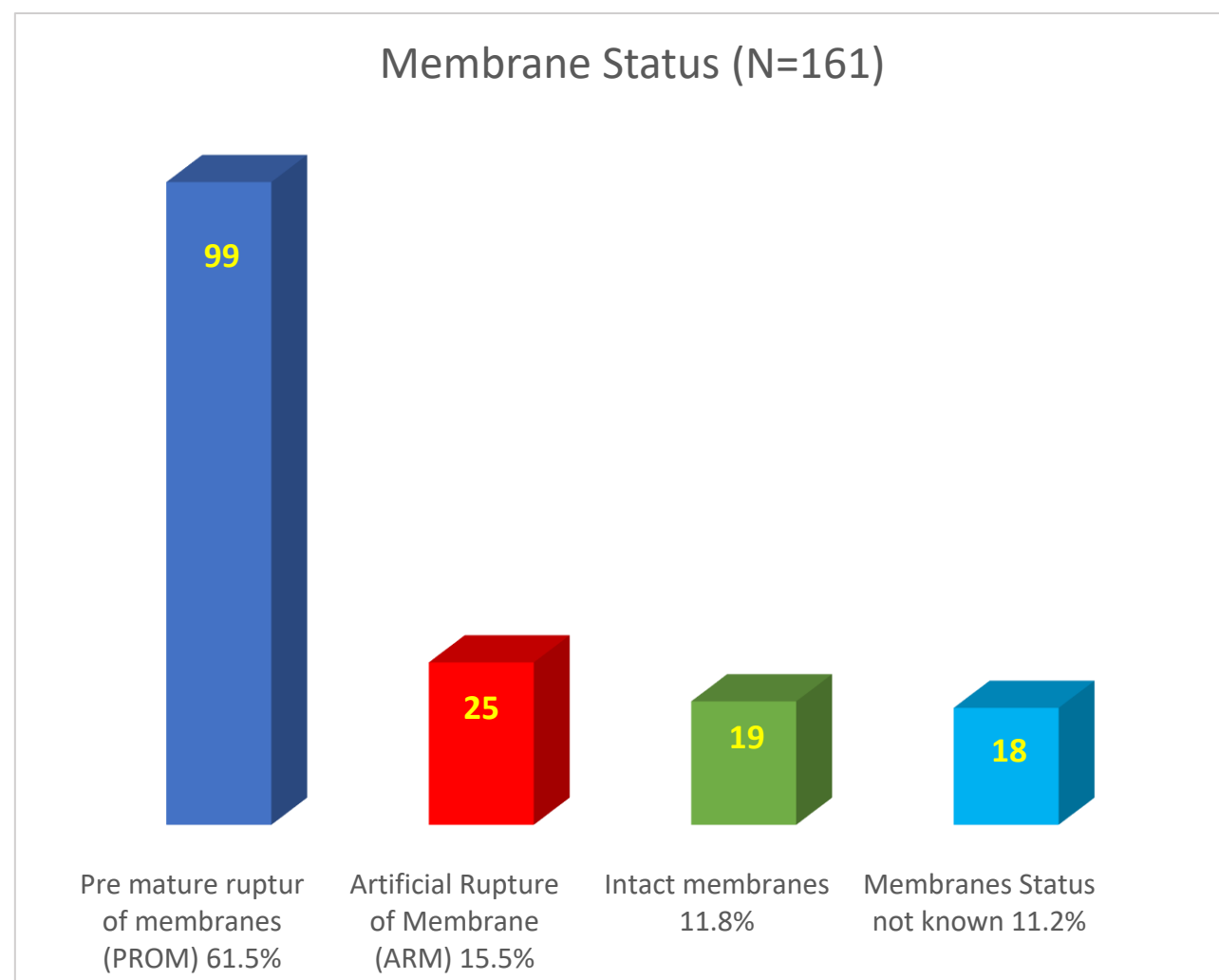


RESULTS

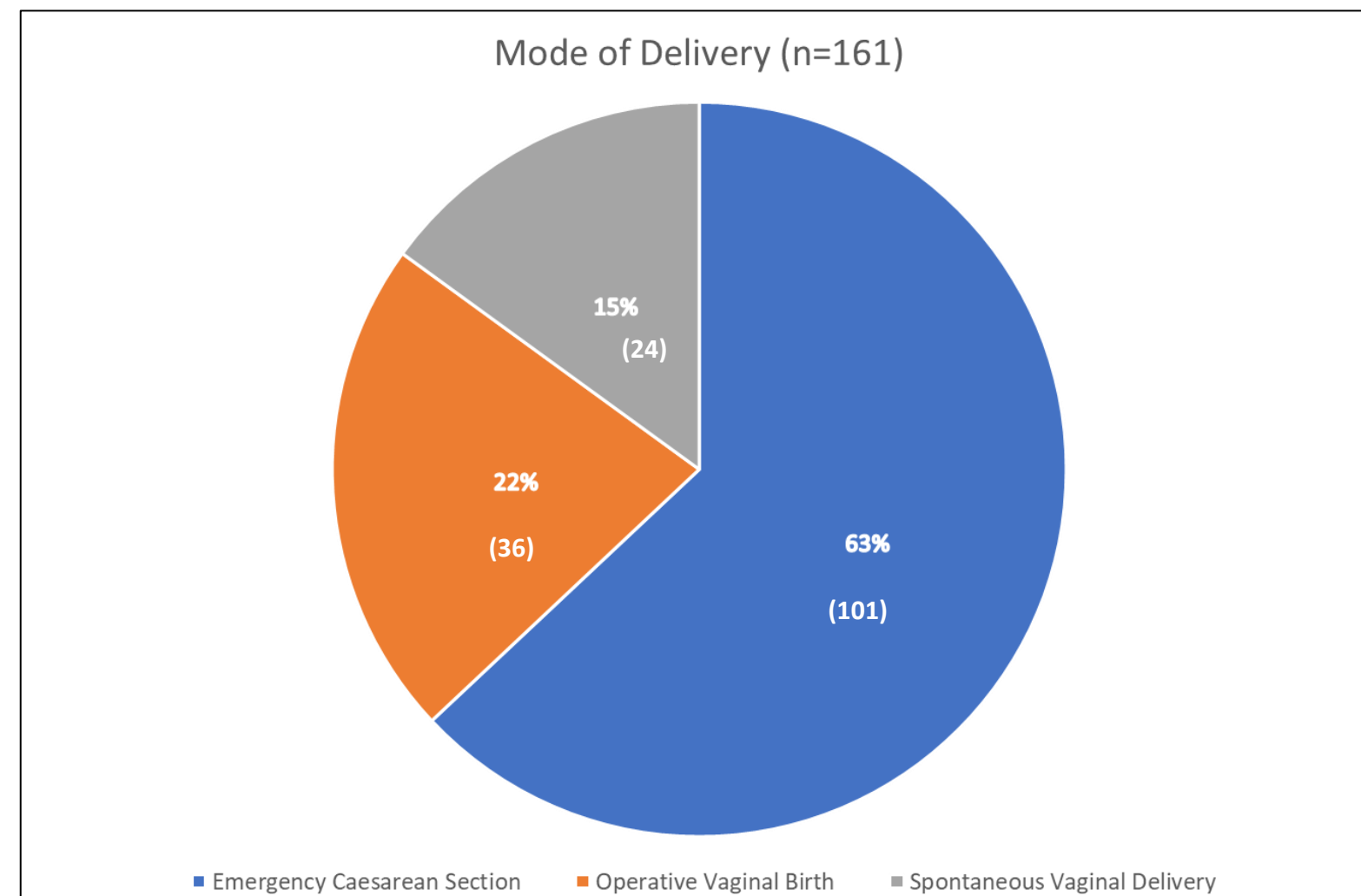
On average in our unit, we have 5500 deliveries per year and analyzed 161 cases (0.5% per year) of chorioamnionitis confirmed on placental histology. Among the 161 cases, 120 were primigravida and 22 were para 1, 11 were para 2, 4 were para 3, 3 were para 4 and 1 was para 8.



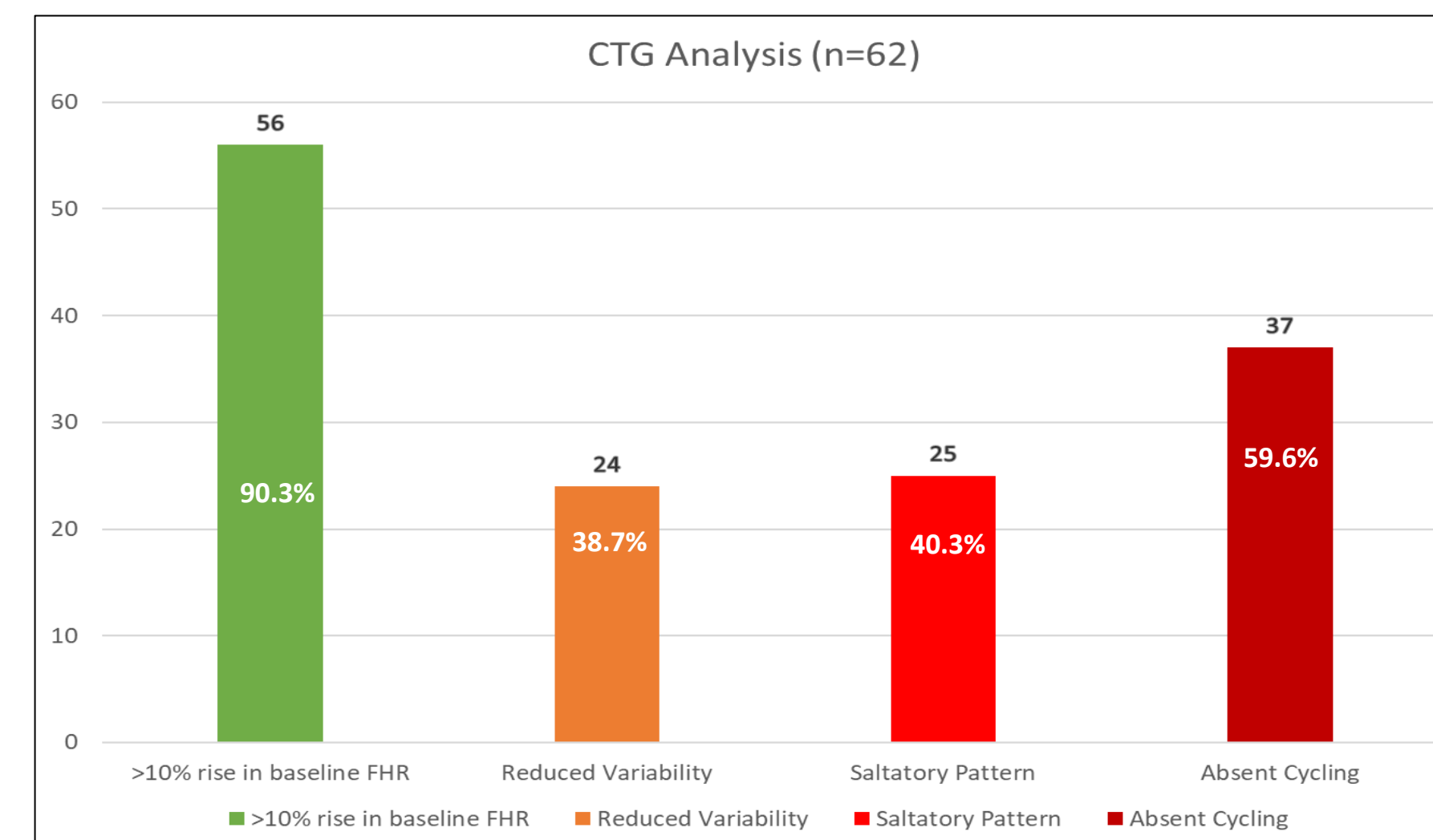
In our study, we observed that 34% (55 cases) of chorioamnionitis cases are associated with pre-term labour, and among these, 23% (38 cases) were associated with preterm premature rupture of the membrane.



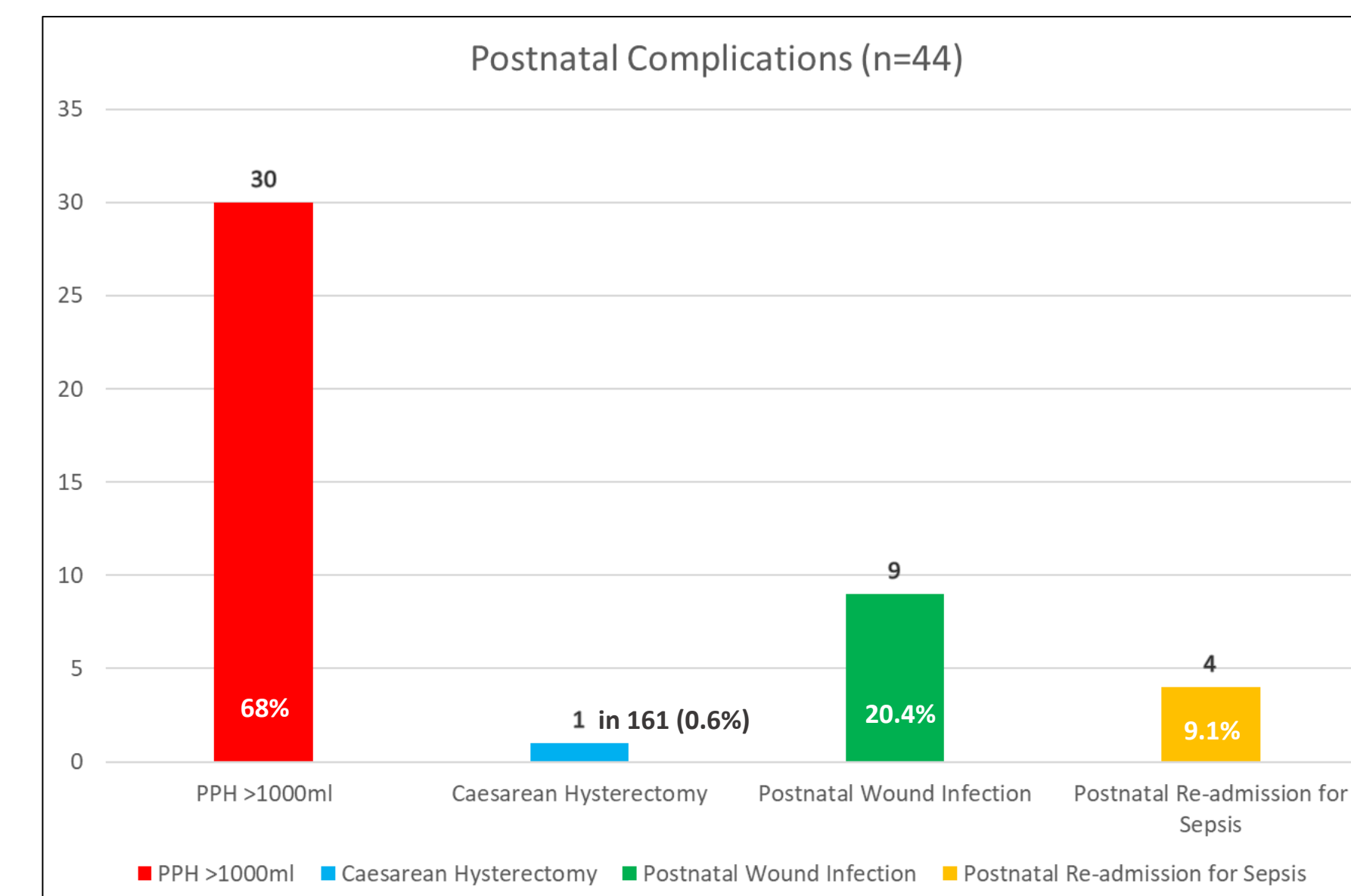
We identified 99 cases had PROM, however, chorioamnionitis developed in women of intact membranes.



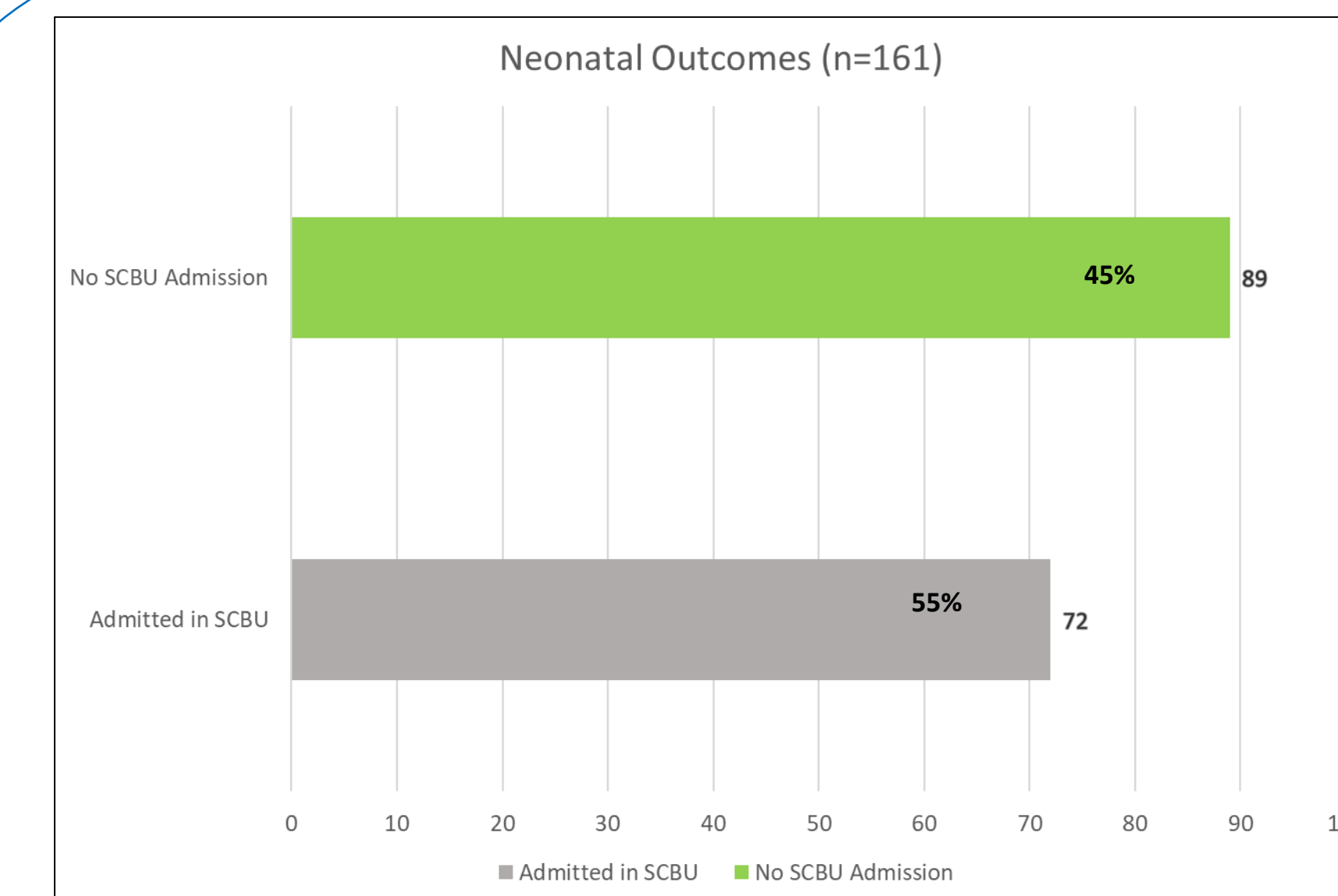
We have observed that chorioamnionitis in labour is associated with a higher incidence (63%) of emergency caesarean section.



Among the 62 cases of chorioamnionitis, 56 CTG traces showed a >10% increase in the baseline foetal heart rate. Absent cycling is the second most prevalent feature, present in 37 cases in our study. We have also observed that reduced variability and saltatory pattern are associated with chorioamnionitis as well.



The most common complication is post-partum haemorrhage (>1000mls). Post natal wound infections and post natal readmission for sepsis are also common. The caesarean hysterectomy rate in our women with chorioamnionitis was 0.6%



Most of the babies were healthy and 45% (n=72) of the babies were admitted to SCBU, where 1 had low umbilical artery pH (<7.0) and 3 had HIE 2-3. However, there were no intrapartum or neonatal deaths due to chorioamnionitis.

Discussion and Conclusion

In our study chorioamnionitis is associated with pyrexia, pre-labour rupture of membranes, increased caesarean section and increased admission to SCBU.

The CTG changes of chorioamnionitis in our study were similar to existing literature on chorioamnionitis.

The CTG changes during the intrapartum period were analyzed by two obstetricians who have reviewed each CTG.

Early recognition of CTG changes in chorioamnionitis with adequate training in physiological interpretation of CTG in our unit and timely intervention had resulted in better neonatal outcomes.

References

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