

Ibuprofen for the closure of Patent Ductus Arteriosus in preterm babies - Network experience from two Neonatal Intensive Care Units

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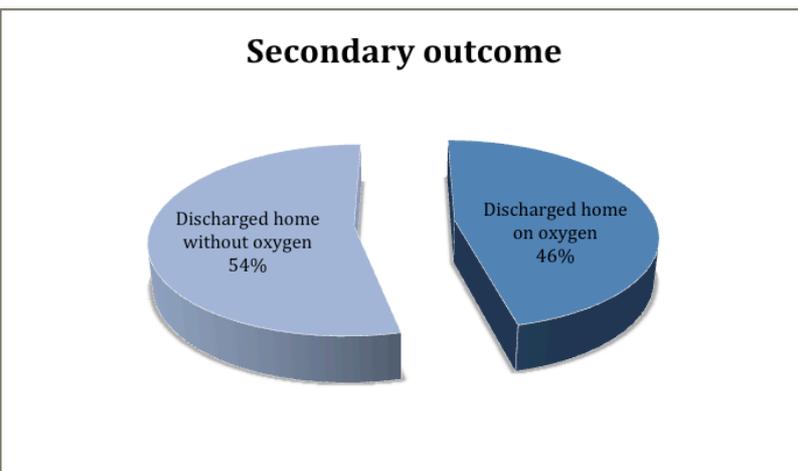
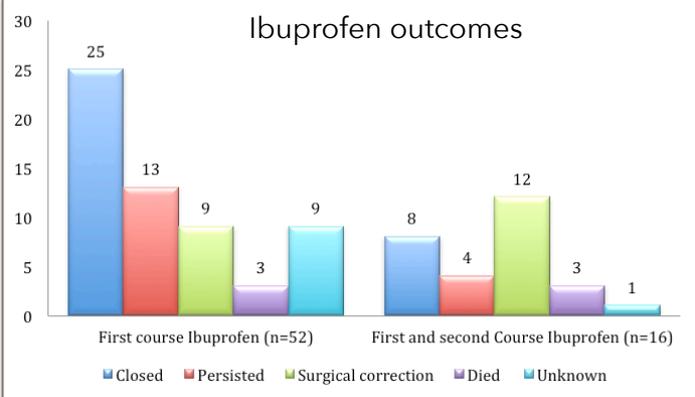
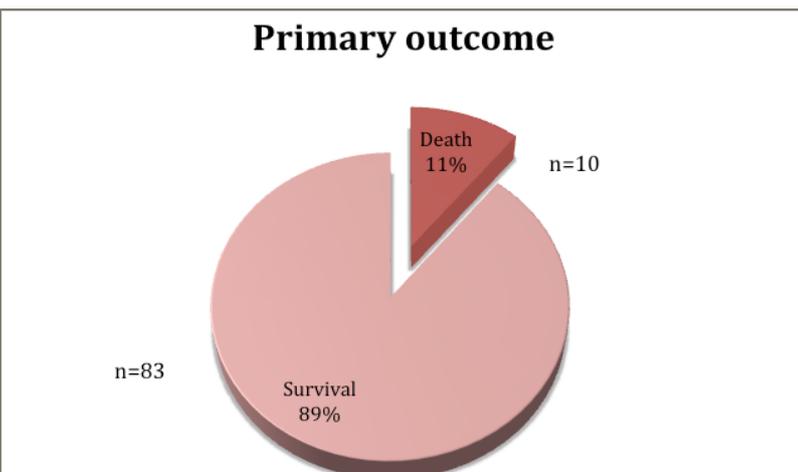
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Background- The use of ibuprofen in the treatment of Patent Ductus Arteriosus (PDA) in preterm babies is well established. PDA has been associated with oxygen dependency beyond 28 days of life .

Of those who received only single course of ibuprofen (n)61, (n) 26 (41%) were found to have no PDA at discharge. Of those who received first and second courses of ibuprofen (n)28, (n)8 (29%)had no PDA at discharge. (n)21 (23%)underwent surgical ligation. 2 of the 4 who had an incomplete course of ibuprofen had spontaneous closure of PDA.

Aim-The purpose of this study was to assess the effect of ibuprofen on the closure of PDA and analyse the incidence of severe chronic lung disease measured by the need for home oxygen.

Method- This was a retrospective analysis of the data collected over a period of 3 financial years from two Neonatal Intensive Care Units in the Southern West Midlands Maternity and Newborn Network. In association with the treatment for PDA, the pre- discharge ECHO was analysed.



Results- There were a total of 93 preterm neonates identified to have had Patent Ductus Arteriosus (PDA) over the 3 years. The primary outcome i.e.death was 11%(n=10)in this cohort.The secondary outcome i.e. babies discharged home on oxygen was 46%(n=43).86%(n=80) were ventilated at the time of treatment.Ibuprofen was commenced on an average on the eleventh day of life.

Conclusion-

The chances of PDA closure with Ibuprofen is noted to be 40%. At least 23% had surgical ligation. Nearly half of those who had PDA had Oxygen dependency at discharge.In this study, the treatment with ibuprofen was commenced after a week of life on an average. We look forward to the randomised controlled study like OSCAR (Outcome of Selective early Closure of Patent Ductus ARteriosus in Preterm Babies) to help address the dilemma of managing PDA in preterm babies.