33% of cases antibiotics were prescribed within one hour of decision making. In 95% of cases antibiotics were administered within one hour of prescription.

**Conclusion** Administration of antibiotics within one hour of decision making proved difficult. Thought that most delay arises during transfer for cannulation, prescription of antibiotics was also delayed and therefore administration. Further exploration of this delay and appropriate resolutions will improve administration times of antibiotics and therefore treatment outcomes in suspected neonatal infection.

**REFERENCE**


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**Method** Single centre cohort study of referrals for tertiary care with HIE 1996–2013. Using the transport database and retrieval documentation we reviewed CO2 on departure from the referring unit and arrival at the tertiary unit before and after the introduction of end tidal CO2 (ETCO2) monitoring. We also reviewed temperature on departure and arrival before and after the introduction of cooling as a recognised treatment modality. We ask whether distance travelled affects data.

**Results** There were 148 referrals for transfer. 52/148 were referred after introduction of cooling, 35% were at the desired temperature (33–34 degrees) at departure from referring unit increasing to 40% on arrival at the tertiary unit. 21/148 were referred after the introduction of ETCO2 monitoring. Before the introduction of ETCO2 25% of babies had a CO2 in the desired range (5–7 kPa) at departure increasing to 33% on arrival (not all babies had values documented). Following the introduction of ETCO2 25% of babies had a CO2 in the desired range at departure rising to 50% on arrival. Travelling a shorter distance did not inevitably lead to a decreased ability to alter temperature or CO2 in transit. There was a slight tendency to over-ventilate and babies were more likely to be above the desired temperature during transport.

**Conclusion** Some units are further away from the tertiary centre. Although cooling as an entity has been adopted by peripheral units there is potential for more aggressive targeting of desired temperature before the transport team arrives and during transfer. ETCO2 allows us to manage CO2 better but there is room to be more targeted both by the referring unit and also in transport. The effect cooling equipment in transport would have on our data is yet to be addressed.

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**Background and aims** CFM is routinely used for monitoring babies undergoing Therapeutic Hypothermia. There is limited evidence linking the relationship of the change in the CFM trace during cooling to Mortality or HIE changes on MRI. We aim to assess any such link.

**Results** Study period 5 years (Sept 09–Aug14). Total number 76. CFM and MRI. CFM trace was persistently severely abnormal at the end of the cooling period in (19/76 =25%). In this group 47% died, 47% had HIE changes on MRI and one baby (6%) had normal MRI. However in babies where CFM normalised at the end of cooling (35/76 = 46%), there was no mortality. MRI scans were normal in 43% and 37% had HIE changes on MRI.

**MRI** In mortality group (n = 15), 11 babies died before undertaking MRI. HIE changes were found in 4 babies (100%) who had MRI. In the survivor group, MRI was performed in 98%. Scans showed HIE changes in 50% and 35% were normal.

**Conclusion** Analysis that persisting severely abnormal CFM tracing at the end of cooling is indicative of high probability of mortality and/or HIE changes on MRI. Although normalisation of CFM pattern is not associated with any mortality from our data, it does not preclude the HIE changes on MRI. We believe that CFM is a helpful bedside diagnostic tool for assessing extent of hypoxia brain injury and it helps in counselling parents.

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**Hypotheses**

**Hypoxic Ischaemic Encephalopathy in Transport: how has the introduction of cooling and end tidal CO2 monitoring affected our patients?**

**Method** Single centre cohort study of referrals for tertiary care with HIE 1996–2013. Using the transport database and retrieval documentation we reviewed CO2 on departure from the referring unit and arrival at the tertiary unit before and after the introduction of end tidal CO2 (ETCO2) monitoring. We also reviewed temperature on departure and arrival before and after the introduction of cooling as a recognised treatment modality. We ask whether distance travelled affects data.

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**Conclusion** Some units are further away from the tertiary centre. Although cooling as an entity has been adopted by peripheral units there is potential for more aggressive targeting of desired temperature before the transport team arrives and during transfer. ETCO2 allows us to manage CO2 better but there is room to be more targeted both by the referring unit and also in transport. The effect cooling equipment in transport would have on our data is yet to be addressed.

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**Background** Hypoxic Ischaemic Encephalopathy (HIE) occurs in 1/500 babies and can lead to cerebral palsy. Treatment focuses on preventing secondary brain injury. Early cooling and strict CO2 control may have a positive effect on neurodevelopmental outcome. Optimal management of babies born outside of tertiary units during retrieval could improve their outcome.

**Method** Single centre cohort study of referrals for tertiary care with HIE 1996–2013. Using the transport database and retrieval documentation we reviewed CO2 on departure from the referring unit and arrival at the tertiary unit before and after the introduction of end tidal CO2 (ETCO2) monitoring. We also reviewed temperature on departure and arrival before and after the introduction of cooling as a recognised treatment modality. We ask whether distance travelled affects data.

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