

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

- 1 National Institute for Health and Care Excellence. *Antibiotics for Early-onset Neonatal Infection*. [CG149]. London: National Institute for Health and Care Excellence; 2012

G143(P) CEREBRAL FUNCTION MONITORING (CFM) AS A PROGNOSTIC BEDSIDE TOOL

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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 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 hypoxic brain injury and it helps in counselling parents

G144(P) HYPOXIC ISCHAEMIC ENCEPHALOPATHY IN TRANSPORT: HOW HAS THE INTRODUCTION OF COOLING AND END TIDAL CO₂ MONITORING AFFECTED OUR PATIENTS?

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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.

		Mortality Group (%)	Survival group (%)
CFM at start of			
Cooling	N = 76	15(20%)	61(80%)
	Severely abnormal	15(80%)	33(54%)
	Moderately abnormal	12(20%)	21(34%)
	Normal	0	7(12%)
CFM progression			
during cooling	N = 74	15	59*(2ECMOtransfer)
	Severe to Severe	11(92%)	8(26%)
	Severe to Moderate	1(8%)	8(26%)
	Severe to Normal	0	15(48%)
	Moderate to Severe	2(67%)	0
	Moderate to Moderate	1(33%)	4(19%)
	Moderate to Normal	0	17(81%)
	Normal to Severe	0	2(29%)
	Normal to Moderate	0	2(29%)
	Normal to Normal	0	3(42%)

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.

G145(P) INDOMETHACIN VS IBUPROFEN TO TREAT PATENT DUCTUS ARTERIOSUS (PDA) IN NEONATES <31 WEEKS GESTATION REDUCED THE INCIDENCE OF NECROTIZING ENTEROCOLITIS (NEC)

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