

Cooling for Transfer: An Integrated Care Pathway for London (CoolTrip)

Yinru Lim, Oliver Walker, Aishin Lok, Nandiran Ratnavel

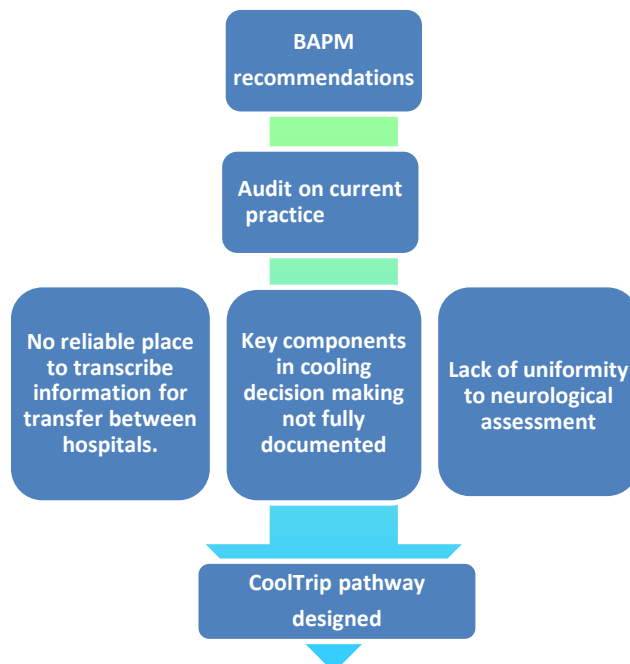
The London Neonatal Transfer Service (NTS) uplifts over a hundred babies each year for cooling treatment for hypoxic ischaemic encephalopathy (HIE). We are involved in the stabilisation and transfer of these babies and help support the communication and decision-making process between cooling centres and local units. In line with the recommendations from the British Association of Perinatal Medicine (BAPM) framework 'Therapeutic hypothermia for neonatal encephalopathy', a timely referral and transfer process with accurate information is necessary. We present the key findings of our recent audit of service performance and the new care pathway for London that has been launched to address these findings: CoolTrip.

Audit Methods

- Retrospective audit June 2017 – July 2019
- All babies transferred within London for cooling
- Data was obtained from local discharge letters, BadgerNet information and transport documentation.

Audit Results

- 51 out of 170 babies (30%) did not achieve target temperature within the 6 hour recommended window
- Quality of documentation –
 - Criteria A was well documented.
 - Criteria B - 24% of babies had incomplete documentation of neurological assessment
- Of those who had full documentation of neurological assessment, 45% did not actually meet Criteria B.



CoolTrip pathway introduced in 2021

Domain	Stage 1	Stage 2	Stage 3
Seizures	Name	Common focal or multifocal seizures	Uncommon (excluding desaturation) or frequent seizures
Consciousness	Normal	Lethargic	Unresponsive to external stimuli
Activity (when awake or aroused)	Active	Depressed activity (inability to stimulate)	No activity whatsoever
Posture	Moving and maintains a number of positions	Less than active	No activity whatsoever
Tone	Normal or hypertonic and jittery	Hypotonic either focal or general	Desaturate with or without stimulation
Primitive reflexes	Suck vigorously	Weak suck	Completely flaccid like a rag doll
Autonomic system	Normal Moro	Weak suck	Completely flaccid like a rag doll
	Pupils normal size, reactive	Pupils constricted - <3mm but reactive	Pupils fixed and dilated
	Heart rate >100	Heart rate usually <100	Heart rate inconsistent
	Normal respirations	Periodic irregular breaths	Completely apnoeic requiring ventilation
CIRCLE ALL THAT APPLY			
Has sedation / anticonvulsant been given prior to assessment?	No	Yes	Please state drug name and time given here
Examiner Name/sign/ date			

Standardised section for documentation of neurological assessment

Decision Making Matrix Tool – to help local teams identify babies who meets criteria for cooling and trigger appropriate and timely discussions with their network cooling centre

- Pathway also includes –**
- Sections for documentation of communication between teams and with parents
 - Clinical management checklist
 - Temperature control checklist

Conclusion

The London NTS's unique involvement in the transfer of babies with HIE has allowed us to identify opportunities for service improvement. From our audit, a standardised documentation (the Cooltrip Pathway) has been designed to help support local clinical decision making and facilitates accurate record keeping that can be easily transferred between hospitals. This pathway has been accepted and rolled out for use within the London neonatal network and a post-implementation review will be carried out.