Abstract PO-0387 Table 1

Criteria measured	Audit results	TOBY Trial	TOBY Register
A criteria met	95.6%	100% *	
B criteria met	86.7%	100% *	
C criteria met	75%	100% *	
Consultant documented as being involved in cooling decision	77.8% **		
Cooled by 6 h	97.8%	100% *	81%
% of cooled time in target range (33–35*)	86.03%		
	Total – in 15.6%;		
	- Seizures during rewarming – 8.9%		
	- Bradycardia – 4.4%	Total not available:	Total not available:
Adverse events	- Subcutaneous fat necrosis – 2.2%	- Bradycardia – 5%	- Subcutaneous fat necrosis – 1%
Survival to discharge	84.4%	74.2%	67% ***

* TOBY Trial inclusion criteria
** NICE guidance
*** Additional 13% were transferred elsewhere

(I should declare that I have presented this poster in an educational meeting in India. As it has come out nicely, I wish to present the poster again to European audience. I should also declare that information in this case has been used for a case report which has been accepted for publication in a journal. Thank you).

PO-0387 IS IT COOL TO COOL IN A LOCAL (LEVEL 2) NEONATAL UNIT?

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Background and aims Hypoxic Ischaemic Encephalopathy (HIE) is associated with high levels of mortality and disability. A multicenter randomised control trial (TOBY Study), showed therapeutic hypothermia (TH) increased survival without adverse neurological outcome, with only minor adverse events. The study was conducted in Level 2 (local) and Level 3 (intensive care) Neonatal units (NNUs), the majority of TH is now carried out in Level 3 NNUs, which is reflected in national guidance. Exeter and Truro local NNUs cooled 45 infants over a 34-month period. Results are presented.
Methods Retrospective audit of 45 infants who underwent TH for HIE in two local NNUs (Exeter n = 28, Truro n = 17). Cooling practices were audited against TOBY Trial criteria and NICE guidance for the first time.
Results
Conclusions We suggest TH can be carried out effectively and safely in Local NNUs with appropriate training and expertise.

Abstract PO-0388 Table 1 Visual prognosis

		Rate (%)	p-value	Relative Risk	CI95%
	ROP-Laser	25	NS*	1.46	0.43–4.95
	ROP-NT	16.7		0.97	0.10–9.84
Refractive errors	MROP	17.1		1	
	ROP-Laser	0	NS*	NA	
	ROP-NT	28.6		2.34	0.56–9.80
Visual acuity (<0.8)	MROP	12.2		1	
	ROP-Laser	30	NS†	1.02	0.35–3.01
	ROP-NT	28.6		0.97	0.27–3.50
Visual outcome	MROP	29.4		1	

*Chi-square, †Mantel-Haenszel Test for Trend.

PO-0388 LONG TERM FOLLOW UP OF A COHORT OF PRETERM INFANTS DIAGNOSED OF RETINOPATHY OF PREMATURITY

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Background and aims Retinopathy of prematurity (ROP) is still a worldwide leading cause of childhood blindness. We aimed to describe the visual outcome at 5 years in a cohort of preterms diagnosed of ROP.
Method We analysed the data based of preterm infants ≤32 weeks and/or ≤1500g born between January2002 and December2008 with the diagnosis of ROP who were followed up. Visual outcome was evaluated at 5 years using visual acuity (impaired <0.8), strabismus and refractive errors (myopia <-3D or hypermetropia >3D).
Results 71 patients were followed-up (mean age 27weeks and mean weight 951g). 64.8% had moderate ROP (MROP), 15,5% not treated severe ROP (ROP-NT) and 19,7% severe ROP treated with laser (ROP-Laser). At the age of 5 years, 21.1% weared glasses, 14,1% had the diagnosis of refractive errors (1 myopia and 9 hypermetropia). Only one patient, with moderate ROP had strabismus. We did not find differences in the visual prognosis according to the severity of ROP. (Table1)
Conclusions In our cohort, patients with severe ROP (treated or not) do not have a worse visual prognosis at five years than those with moderate ROP. These findings are probably related to the gestational age of the study population.

PO-0389 OUTCOME OF VERY PRETERM CHILDREN AT SCHOOL AGE: RESULTS FROM THE AREA-BASED ITALIAN ACTION FOLLOW-UP STUDY

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Background and aims Children born before 32 weeks of gestational age (GA) have increased risk of neurological, sensory, cognitive and behavioural problems. The latter become evident at school age, but follow-up is rarely continued up to this time. We present preliminary results of ongoing follow-up at school age of the Italian ACTION area-based cohort.
Methods All infants born <32 weeks GA in 2003–2004 in three regions (Lazio, Tuscany and Friuli Venezia-Giulia) and survived to school-age were invited. The Kaufman Assessment Battery second edition (KABC-II) and selected items of NEPSY-II were used to assess cognitive and neuropsychological development. Only results for Lazio and Trieste area in FVG, where follow-up is already completed, are included (n 390, response rate 58%).
Results Fifty-six percent of children (n 218) were males; 35% (1379 were ≤28 weeks GA. About 8% (n 30) had cerebral palsy; six children (1.5%) were blind or almost blind, and 12 (3.1%) required hearing aids. Twenty-two percent of children had KABC-II Mental Development Index (MPI) below average (29.9% in children born ≤28 weeks gestation, p = 0.008). Lower MPI scores were associated with impaired neuropsychological abilities.
Conclusions While most children have cognitive level within normal range, lower KABC-II and NEPSY-II scores were found particularly in the more preterm group. Sensorimotor abilities were the most frequently compromised neuropsychological functions.
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PO-0390 EFFECT OF HYPOTHERMIA ON AMPLITUDE-INTEGRATED ELECTROENCEPHALOGRAM IN INFANTS WITH PERINATAL ASPHYXIA

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Background The amplitude-integrated electroencephalogram (aEEG) is reliable for early prediction of outcome in asphyxiated neonates. Hypothermia influences the positive predictive value (PPV) of early aEEG delaying normalisation of background pattern.
Methods Forty-one neonates with hypoxic ischaemic encephalopathy (HIE) Sarnat stage II (n = 24 normothermia (NT), n = 17 hypothermia (HT)) were included into analysis.

Firstly aEEGs of the first 3 days (d) of life were analysed for both groups (background pattern, sleep-wake cycling and seizure activity; descriptive analysis and calculation of a combined aEEG-score).

Secondly aEEG parameters were correlated with postnatal clinical parameters, severity of neuroimaging abnormalities and neurodevelopmental outcome.

Finally, the PV of aEEGs was compared between the groups.
Results The rate of pathological aEEGs on d1 showed no significant difference between the groups (pathological aEEG: 64% HT, 71% for NT). On d3, the rate was significantly lower in the HT group than in the NT group (18% HT, 57% for NT, p = 0.045).

There was a significant difference in outcome: in the HT group 82% showed a normal outcome, compared to 43% in the NT group.

The PPV of a combinded aEEG-score was higher on d1 in the HT group than in the NT group and increased in both groups from d1-d3.

The lack of sleep-wake cycling in children treated with HT significantly correlated with severity of neuroimaging abnormalites (p = 0.05) and pathological outcome (p = 0.03). In contrast, there was no correlation between seizure activity and outcome.
Conclusion Our results reflect published data, underlining the importance of aEEG as early outcome predictor in neonatal HIE.

PO-0391 LONGITUDINAL DEVELOPMENT OF LANGUAGE SKILLS IN PREMATURE INFANTS USING BAYLEY SCALES OF INFANT DEVELOPMENT-III. EFFECT OF PARENTAL EDUCATION

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Background Preterm infants are at increased risk for language delay. Children in low socioeconomic status environments are exposed less often to experiences that promote language development. Parental education level has been associated with language scores.
Aim To assess the influence of sociodemographic variables on the longitudinal development of language skills in a cohort of premature infants.
Method Bayley-III scales were applied in 120 preterm infants (≤ 32 weeks) at a mean corrected age of 12 and 36 months. Preterm infants were divided in 2 groups according to their GA: A (n = 59, 24–28 wks), B (n = 61, 29–32 wks). All developmental assessments (n = 240) were performed by one researcher.
Results Mean (SD) Bayley-III Language scores [composite (CSs) and Subscale: Receptive (RS), Expressive (ES)] for the 2 groups are shown in the table. Group B showed a significant increase in CSs and subscale RS, ES scores overtime while Group A scores were stable for the CS and ES. There was a significant correlation between CSs, RS, ES language scores and parental education level only for the group B. No correlation was found with other demographics or complications of prematurity.
Conclusion Our findings argue that language development depends upon the grade of prematurity. ELBW infants show lower language performance not improving overtime as compared to VLBW. The more immature the less influence of parental education level. Very early language intervention with speech therapy may be especially important for the ELBW infants.

Abstract PO-0391 Table 1

Language scale	Group A GA:26.4(1.1), BW:978(194)		Group B GA:30.6(1.2)BW:1370(350)	
CSs 12mo	91,24±16.22	p = 0.17	90.61±17.29	p = 0.0075
CSs 36mo	94,96±19.67		97.20±18.5	
ES 12mo	8.8 ±2.9	p = 0,6	8.08±3.2	p = 0,04
ES 36mo	8.7±3.2		9.01±3.07	
RS 12mo	8.37±2.95	p = 0,034	8.65±3.2	p = 0,008
RS 36mo	9.47±3.74		9.93±3.5	