Imputation for missing values confirmed these results. Hypoglycemia evoked by TGC did not negatively affect neurocognitive outcome.

Conclusion Despite hypoglycemia, TGC in PICU did not harm neurocognitive development 4 years later.

151 CARDIAC FUNCTION AT THE AGE OF 7 YEARS OF REGIONAL BIRTH COHORT OF EXTREMELY LOW BIRTH WEIGHT INFANTS (< 1000G)

doi:10.1136/archdischild-2012-302724.0151

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Aim Assessment of long-term cardiac complications in the regional cohort of extremely low birth weight (ELBW) children born in 2002–2004.

Material and Methods The study group comprising 81 children born as ELBW infants with the median birthweight of 890g (25th–75th percentile: 760–950) were evaluated at the mean age of 7 years. The control group included 40 children born full term. Echocardiography and 24-hour ambulatory blood pressure measurements were performed.

Results

Abstract 151 Table 1 M-mode variables (presented as z-score)

	ELBW	Control	p
RVDd	-1.49±1,25	-0.31±0,91	<0.001
LVIDd	-0.53±1,26	0.13±0,94	0.01
Ao	0.24±1,23	0.83±1,03	0.02
LA	-0.93±1,07	-0.15±1,02	<0.01

Abstract 151 Table 2 Results of 24-hour blood pressure monitoring

	ELBW	Control	p
24-h mean MAP(mmHg)	79±5.9	77±4.4	0.2
Systolic BP load(%)	28±22	16±14	<0.01
Diastolic BP load(%)	27±20	17±10	<0.01
Mean HR(bpm)	93±8	87±7	<0.001

Abstract 151 Table 3 LVM, LVMI and cardiac index

	ELBW	Control	p
LVM(g)	48.8±15,5	65.1±15,4	<0.001
LVMI(g/m2.7)	32.4±9,2	35.7±8,3	0.08
Stroke index(/BSA)	41.8±15,3	47.9±12,5	0,04
CI (l/m2)	3.6±1,2	3.8±1,04	0.49

Conclusions The former ELBW children have smaller heart's diameters and to reach the same cardiac index their heart rate is faster. Moreover, the former ELBW children have higher blood pressure comparing to their peers.

152 PREDICTIVE FACTORS FOR SURVIVAL AFTER PAEDIATRIC OUT-OF-HOSPITAL CARDIAC ARREST: A UK MULTICENTRE COHORT STUDY

doi:10.1136/archdischild-2012-302724.0152

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Introduction Survival after paediatric out-of-hospital cardiac arrest (OHCA) is poor, even amongst those who are successfully resuscitated and admitted to PICU. Better prediction of survival would be of benefit to clinical teams and to research teams designing trials. This study aimed to identify predictive factors for survival to inform the design of a post-OHCA intervention trial.

Method Retrospective, cohort study of 155 infants and children (1 day to 16 years) admitted to 3 UK PICUs after OHCA (2004–2010). Variables relating to a) the resuscitation period (Utstein) and b) the post-resuscitation period were included in two multivariate stepwise regression models to identify predictive factors for survival to PICU discharge.

Results 32% (50/155) children survived to PICU discharge. Resuscitation variables individually associated with improved survival included; presenting in a shockable rhythm, shorter duration of arrest, return of spontaneous cardiac output prior to arrival in the emergency department and lower number of epinephrine doses. Post-resuscitation variables individually associated with improved survival included; higher arterial pH, lower blood lactate, lower maximum glucose, higher base excess and responsive pupils. Results of multivariate stepwise regression models are reported in table.

Conclusion This large UK study is the first to identify lactate as one of the key predictors of paediatric OHCA survival in patients admitted to PICU. Development of an accurate prediction tool would assist trial design and prognostication after paediatric OHCA.

Table: Multivariate logistic regression models of survival after paediatric OHCA.

Variable	Odds Ratio for survival	95% CI	P value
Model 1: Resuscitation factors			
No epinephrine (versus one or more doses of epinephrine during resuscitation)	11.98	2.31-61.99	0.003
VF/VT (versus PEA/asystole/bradycardia)	3.95	0.96-16.27	0.057
(Model 1: Area under receiver operating curve = 0.67)			
Model 2: Post-resuscitation factors			
Two unresponsive pupils (versus reactive)	0.19	0.07-0.52	0.001
Blood Lactate (per 1.0 mmol/L increment)	0.85	0.75-0.97	0.015
(Model 2: Area under receiver operating curve = 0.83)			

CI: confidence interval. VF:Ventricular fibrillation, VT ventricular tachycardia, PEA: pulseless electrical activity

153 VISUOSPATIAL AND EXECUTIVE FUNCTION IN ADOLESCENT PATIENTS WITH CONGENITAL HEART DISEASE

doi:10.1136/archdischild-2012-302724.0153

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Background and aims Visuospatial deficits have been described for 8 year-old patients with congenital heart disease (CHD) after bypass surgery based on the performance in the Rey-Osterrieth complex figure test (ROCFT). It is unknown whether these deficits persist into adolescence and which scoring systems is optimal to score performance in the ROCFT. We therefore performed ROCFT in adolescent CHD patients and healthy controls, and compared performance according to three different scoring methods.

Methods We examined 53 adolescents (mean age 13.7 years, 44% male, 50% cyanotic CHD) with CHD after open-heart surgery