fetal (OR 2.49; 95% CI 1.33–4.65), placental (OR 2.83; 95% CI 1.52–5.29), and maternal prenatal conditions, such as hypertensive disorders (OR 3.05; 95% CI 1.69–5.52), addictions (OR 10.57; 95% CI 2.25–49.48), and prior complications of pregnancy (OR 2,61; 95% CI 1.18–5.76). GR newborns had increase risk of resuscitation (OR 2.81; 95% CI 2.83–4.32), immediate transfer to intensive care unit (OR 2.38; 95% CI 1.56–3.65), and were more prone to acute neonatal consequences, such as perinatal asphyxia (OR 3.26; 95% CI 1.96–5.43). Compared with normally grown, GR newborns had increase risk for neonatal adaptive problems, such as hypothermia (OR 2.02; 95% CI 1.11–3.68), hypoglycemia (OR 2.94; 1.85–4.68), and polycythemia (OR 5.09; 95% CI 2.25–11.52).

Conclusions The clinician's challenge is to identify real, at-risk GR fetuses, because of a hostile intrauterine environment. Once FGR has been detected, the management of the pregnancy should depend on a surveillance plan that maximises gestational age with minimising the risks of neonatal adverse outcome, avoiding iatrogenic prematurity. Immediate management in delivery room should be focus on adequate resuscitation of a depressed newborn, insuring normal physiologic transition, and preventing acute neonatal adaptive problems.

PO-0702 WITHDRAWN

PO-0703 WITHDRAWN

PO-0704 WITHDRAWN

PO-0705 UMBILICAL ARTERY BLOOD GLUCOSE AND ACIDEMIA LEVELS IN AT TERM NEONATES

KA Simbi, P Guerrini, G Straface, V Zanardo. *Division of Perinatal Medicine, Policlinico Abano Terme, Abano Terme (Padova), Italy*

10.1136/archdischild-2014-307384.1341

Stress of delivery results in marked elevations of catecholamine levels and activates fetal gluconeogenesis.

We examined by ABL90 FLEX Radiometer analyzer (Copenhagen, Denmark) glucose and acidemia levels in umbilical artery blood at birth in 341 spontaneous and 25 vacuum extractor at term vaginal deliveries (VD) and in 85 elective and 49 emergency of term caesarean sections (CS), respectively performed at the Policlinico Abano Terme (Abano Terme, Italy) from January to June 2013.

The mean (±SD) average neonatal blood glucose at birth was 95.0 (±20.6) mg% in the spontaneous VD group, 101.4 (±30.6) mg% in the vacuum extractor VD group, 69.9 (±13.8) mg% in the elective CS group and 85.4 (±16.1) mg% in the emergency CS group. The VD by vacuum extractor group had significantly increased neonatal cord blood glucose values ($p < 0.001$) and a significantly lower cord blood pH than the other groups ($p < 0.001$). Conversely, the elective CS group showed significantly reduced neonatal cord blood glucose values ($p = 0.004$) and significantly higher cord blood pH than the other groups ($p < 0.001$). In addition, glucose levels in the total population and in the VD by vacuum extractor group were significantly negatively correlated with pH ($r = -0.094$, $p = 0.036$ and $r = -0.594$, $p = 0.007$, respectively).

In conclusion, the stress of labour increases both umbilical cord blood glucose and acidemia levels in term neonates.

PO-0706 CARDIOPULMONARY RESUSCITATION AT BIRTH AND OUTCOMES IN EXTREMELY PRETERM BABIES LESS THAN 26+0 WEEKS GESTATION

R Kumar, SV Rasiah, A Singh. *Neonatal Intensive Care Unit, Birmingham Women's NHS Foundation Trust, Birmingham, UK*

10.1136/archdischild-2014-307384.1342

Background Cardiopulmonary resuscitation (CPR) at delivery is associated with poor outcome. The British Association of Perinatal Medicine (BAPM) guidelines do not advocate active CPR± drugs in babies at extremes of viability.

Aim To review the outcome of babies who received CPR± drugs at delivery and their subsequent outcomes.

Methods The Badger electronic records were interrogated for babies born less than 26^{+0} weeks gestation, if they received CPR ± drugs and their subsequent outcomes.

Results 13 of the 122 babies born < 26^{+0} weeks gestation had CPR± drugs at delivery. Their outcomes are shown in the table below.

Abstract PO-0706 Table 1

Gestation	23 weeks	24 weeks	25 weeks
N	18	59	45
n with no CPR at delivery	17	53	39
n CPR alone at delivery	1	2	4
IVH (Grade 3/4) in babies with CPR alone	1:1 (100%)	1:2 (50%)	2:4 (50%)
n with CPR and drugs at delivery	0	4	2
IVH (Grade 3/4) in babies with CPR and drugs	0:0	3:4 (75%)	2:2 (100%)
CPR alone in outborn babies	1 (100%)	1 (50%)	2 (50%)
CPR and drugs in outborn babies	0	4 (100%)	1 (50%)
Died	14	25	12
n Survived	4 (22%)	34 (57%)	33 (73%)
Survival Inborn:Outborn	3:1 (75%)	24:10 (70%)	22:11 (66%)

Conclusion CPR± drugs was more likely in outborn babies. Grade 3 or 4 intraventricular haemorrhage (IVH) and mortality were significantly increased in these babies. This emphasises the importance of *in-utero* transfers of these babies to a tertiary neonatal intensive care unit.

PO-0707 IDENTIFICATION OF HIGH RISK CLINICAL PARAMETERS FOR PREDICTING SURVIVAL OF HOSPITALISED NEONATES-AN OBSERVATIONAL STUDY

H Singh, RK Soni, G Singla. *Pediatrics, Dayanand Medical College and Hospital, Ludhiana, India*

10.1136/archdischild-2014-307384.1343

Background and aims The early identification of severity of illness is important for prioritising treatment to reduce mortality and morbidity in neonates but it is sometimes difficult to assess. Most of the available neonatal scoring systems have certain limitations. None of the existing scoring systems can predict neonatal outcome by assessing only clinical parameters without

including any laboratory investigations. Hence this study aimed to identify high risk clincial parameters helpful in Predicting outcome of hospitalised neonates.

Design and setting Prospective, Clinical, teaching hopital based observational study.

Methods All the 344 neonates at admission were assessed on the basis of various clinical parameters.

Statistical analysis

Comparision between means by ANOVA. Odds ratio with 95% CI. Multiple logistic regression analysis, Positive and negative predictive values, sensitivity, specificity of each significant variable. significance level p ≤ 0.05.

Results Variables significantly associated with mortality were: HR (OR-3.27, CI -1.56–6.83, p-0.0016), RR (OR-5.61, CI -2.26–13.96, p-0.0002), SPO2 (OR-12.17, CI -4.60–32.72, p-<0.0001), CFT (OR-24.31, CI -7.39–79.94, p- < 0.0001), hypo/hyperthermia (OR-3.58, CI -1.66–7.70, p-0.001), birth weight (OR-2.13, CI -1.05–4.33, p-0.037), sensorium (OR-21.07, CI-8.30–53.48, p-0.0001), activity (OR-44.55, CI -6.01–330.26, p-0.0002), pallor (OR-0.15, CI -0.07–0.33, p- <0.0001), cyanosis (OR-0.10, CI -0.04–0.25, p-0.0001), bleeding (OR-0.29, CI -0.10–0.80, p-0.016), dehydration (OR-4.70, CI-1.99–11.09, p-0.0004), respiratory distress (OR-2.43, CI -1.18–4.96, p-0.015), murmur (OR-0.25, CI -0.09–0.70, p-0.008), abdominal distension (OR-0.16, CI -0.07–0.33, p- <0.0001), hepatomegaly (OR-0.07, CI -0.02–0.17, p-0.0001), tone (OR-37.12, CI -8.66–158.99, p-0.0001)/ (OR-18.2, CI-2.32–142.91, p-0.005), absent Moro's (OR-14.43, CI-5.74–36.28, p-0.0001).

Conclusions Outcome of neonates can be predicted at the time of admission, using simple, easily assessed bedside clinical parameters.

Abstract PO-0708 Table 1 Statistically significant association of clinical parameters with mortality

Clinical variables	Odds ratio (OR)	95% Confidence interval (CI)	p-value
Abnormal HR (>160/min or <100/min)	3.27	1.56–6.83	0.0016
Abnormal RR (>60/min or <30/min)	5.61	2.26–13.96	0.0002
Abnormal SpO_2 (<90%)	12.17	4.60–32.72	<0.0001
Prolonged CFT (≥3 sec)	24.31	7.39–79.94	<0.0001
Moderate hypothermia/ hyperthermia	3.58	1.66–7.70	0.001
Low birth weight (<2500 gm)	2.13	1.05–4.33	0.037
Decreased consciousness level	21.07	8.30–53.48	<0.0001
Reduced/no activity	44.55	6.01–330.26	0.0002
Moderate/severe pallor	0.15	0.07–0.33	<0.0001
Central cyanosis	0.10	0.04–0.25	<0.0001
Bleeding	0.29	0.10–0.80	0.016
Dehydration	4.70	1.99–11.09	0.0004
Chest recessions	0.05	0.01–0.23	0.0001
Respiratory distress	2.43	1.18–4.96	0.015
Cardiac murmur	0.25	0.09–0.70	0.008
Abdominal distension	0.16	0.07–0.33	<0.0001
Significant hepatomegaly	0.07	0.02–0.17	<0.0001
Hypotonia	37.12	8.66–158.99	<0.0001
Hypertonia	18.2	2.32–142.91	0.005
Incomplete/absent Moro's reflex in term	17.25	4.88–60.97	<0.0001
Absent/sluggish DTR's	14.43	5.74–36.28	<0.0001
Short hospital stay (≤ 7 days)	15.08	4.51–50.50	<0.0001

PO-0708 IDENTIFICATION OF HIGH RISK CLINICAL PARAMETERS FOR PREDICTING OUTCOME OF HOSPITALISED NEONATES-A PROSPECTIVE OBSERVATIONAL STUDY

[1]H Singh, [2]RK Soni, [1]G Singal. *[1]Pediatrics, Dayanand Medical College and Hospital, Ludhiana, India; [2]Community Medicine, Dayanand Medical College and Hospital, Ludhiana, India*

10.1136/archdischild-2014-307384.1344

Background and aims The early identification of severity of illness is important for prioritising treatment to reduce mortality and morbidity in neonates but it is sometimes difficult to assess. An overall subjective assessment of the severity of underlying illness is useful in final decision making. Most of the available neonatal scoring systems have certain limitations namely : i. These are not a one time asessment and data collection extends over a number of hours. ii. Are complex, labour intensive, expensive and include a large number of investigations. iii. Limited to certain category of neonates.

None of the scoring systems can predict neonatal outcome by assessing only clinical parameters without including any laboratory investigations. Hence there is a need for a study to predict neonatal outcome at admission. involving only clinical parameters. This study aimed to identify high risk clincial parameters that will be helpful in Predicting outcome of hospitalised neonates.

Material

Design and Setting Prospective, Clinical, teaching hopital based observational study.

Subjects A total of 344 neonates included, at admission.

Methods All the neonates at admission were assessed on the basis of various clinical parameters and history. These included vital sign (HR, RR, CFT, Temp), activity, cry, pallor, icterus, cyanosis, bleeding, anterior fontanel, congenital malformations, respiratory distress, cardiac murmur, hepatomegaly, neonatal reflexes, weight, gestational age, seizures.

Statistical analysis Mean and SD were computed; comparision between mean was done by ANOVA. Odds ratio with 95% CI were calculated for each parameter. Multiple logistic regression analysis was carried out Positive and negative predictive values, sensitivity, specificity of each significant clinical variable were calculated. The significance level was taken as p value ≤ 0.05.

Results Variables which were significantly associated with outcome in terms of mortality on univariate analysis (Table) were: HR, RR, SPO_2, CFT, hypo/hyperthermia, low birth weight, abnormal conciousness level, reduced or no activity, moderate or severe pallor, cyanosis, bleeding, dehydration, respiratory distress, cardiac murmur, abdominal distension, hepatomegaly, hypo/hypertonia incomplee/absent Moro's/DTRs and hospital stay of <7 days.

On multiple logistic regression the significant independent clinical parameters for mortality were : HR, RR, O_2 saturation, CFT, hypo/hypothermia, LBW, decreased sensorium level, reduced or no activity, moderate/severe pallor, cynosis, bleeding, dehydration, respiratory distress, cardiac murmur, abdominal distension.

Conclusions Outcome of neonates can be predicted at the time of admission, using simple, easily assessed bedside clinical parameters.