Median (IQR) birth weight and gestational age were 3250g (2450–4300) and 38weeks (38–42) respectively. Fifty-eight percent of newborns were male. Rapidly rising of oxygen saturations and PI values after cardiac interventions were observed in all patients (SaO_2 %, before: 79±6.6, after: 87.9±2.9, p=0.001) (PI before: 0.4±0.1, after: 1.1±0.2, p=0.001). A significant decrease in NT-proBNP levels (pg/mL) were seen after therapeutic interventions too(before: 1547±629, after: 911±262, p=0.001). Six patients (17.6%) required surgical intervention. The median (IQR) day of mechanical ventilation was 7days (2–21). Proven sepsis (n=8.23%), chronic lung disease (n=5.14%), pulmonary hemorrhage (n=4,%11), and pneumothorax(n=3.8%) are the most detected complications. Mortality rate was 20% (n=5).

Conclusion Peripheral tissues are sensitive to alterations in perfusion. PI monitoring of these tissues could be an early marker of hypoperfusion. PI has significantly improved in correlation with SpO2 after therapeutic interventions. Assessment of PI and NT-proBNP values could be used by monitoring peripheral tissues in critically ill newborns with CHD.

1147 RENAL IMPAIRMENT BY INDOMETHACIN FOR PDA IN VLBW INFANTS

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The Aims of our study were to identify the risk factors of using indomethain to very low birth weight infants (VLBWIs) during treatment of PDA.

A retrospective review was undertaken of 95 VLBWIs who were born between January, 2008 and December, 2009, at Seoul National University Hospital NICU. Of the 158 infants, 103 infants were treated with indomethacin and 8 were excluded because one's mother had azotemia and 7 patients died within the first week of life. Patients were classified by renal insufficiency (RI) and normal renal function (NRF) group. RI group was defined as having oliguria or elevation of serum creatinine level over from 1st dose of indomethacin administration until 2 days after finishing the course.

Fourty-nine infants were RI group and 46 were NRF group. Administration duration was longer (2.5±2.0 days vs. 1.5±1.1 days, p=0.007) and number of dosages (5.1±2.8 days vs. 4.0±2.2 days, p=0.048) and cumulative dose were higher in RI group (0.85±0.52 mg/kg vs. 0.64±0.44 mg/kg p=0.040). Most of the clinical characters were not different between groups but dopamine administration rate (28.6% vs. 8.7%; p=0.013) and serum potassium level before administration of indomethacin (6.1±1.5 mEq/L vs. 5.1±1.6 mEq/L p=0.005) were significantly elevated in RI group.

Hyperkalemia before administrating indomethacin and frequency/dose of indomethacin are related to occurrences of RI during indomethacin administration. Therefore, renal function monitoring and combined drugs which can influence the renal function should be monitored during treatment of PDA.

1148 A COMPARISON OF TWO STRATEGIES FOR THE MANAGEMENT OF PATENT DUCTUS ARTERIOSUS (PDA)

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Background and Aims The management of PDA in extremely preterm infants is controversial and there is no agreed optimal approach. Strategies that are commonly used include prophylactic, early asymptomatic or late symptomatic therapy. We describe our experience in changing from prophylactic indomethacin to late symptomatic treatment with ibuprofen.

Methods We collected data on all babies admitted < 28 weeks' gestation and/or < 1000g from an electronic patient database. We compared PDA diagnosis management, demographics and clinical outcomes in two six month time periods: period 1 was when we used a prophylaxis strategy with indomethacin and period 2 when we changed to late symptomatic treatment with ibuprofen.

Results

Abstract 1148 Table 1 Patient characteristics and clinical outcomes

	Period 1	Period 2	p
N	37	44	
Birth weight (g)	875 (710–940)	820 (706–940)	0.08
Gestation (wk)	26 (25–27)	26 (25–27)	0.85
Symptomatic PDA	13 35%)	19 (43%)	0.46
Late treatment of PDA with IBU/IND	6 (16%)	15 (34%)	0.07
Duct ligation	3 (8%)	1 (2%)	0.32
Severe IVH (grade 3/4)	6 (16%)	8 (18%)	1.0
Chronic lung diease at 36 weeks PMA	24 (65%)	26 (60%)	0.59
Death	11 (31%)	13 (30%)	0.92

Conclusions Changing from a strategy of indomethacin prophylaxis to selective, late symptomatic treatment of PDA with ibuprofen did not result in a significant increase in babies with severe IVH, chronic lung diasease or those needing duct ligation.

1149 TREAT THE PDA? COMPARISON OF THE OUTCOME IN TREATED AND RESTRICTIVE TREATED VLBW INFANTS

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Background Management of PDA is discussed controversial. In 2008 we changed our regime from restrictive treatment of PDA to treatment of PDA.

Aim Comparing the outcome of VLBW-Infants with two therapeutic PDA regimes: A restrictive treated and B treated PDA.

Method Historical cohort- study of VLBW infants born between 2005 and 2007 (group A: n=120; treatment of PDA only if weight gain was inadequate (< 10g/kg/d in spite of optimized nutrition) and between 2008 and 2010 (group B: n=126; treatment of "hemodynamic significant" PDA, diagnosed on the basis of reverse diastolic flow in the Truncus coeliacus or renal arteries < day 3). Other NICU guidelines were not changed but probiotics for NEC-prophylaxis started in 2011. Outcome measures: rate of NEC, BPD, IVH, neurological outcome (Laewen questionnaire).

Results In group A the rate of ductus closure was significantly lower than in group B (A: 19/53, B: 29/45; p<0.01). PDA rate in both groups did not differ significantly (A: 53/120; B: 45/126; p=0.67). Surgical closure rate was 9% in both groups. The incidences of NEC, BPD and IVH were not different between groups. The results of the neurological outcome were not significantly different, but follow up reached only 60% so far.

Conclusions Changes in practice of PDA treatment in VLBW infants resulted in a 28% increase in frequency of medical or surgical closure of PDA without change in short or long term neonatal outcome. Further controlled randomized studies are needed to confirm our results on restrictive treatment of PDA.

1150 THE INCIDENCE AND RISK FACTORS OF THE CONGENITAL CARDIAC MALFORMATIONS IN NEWBORN

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Introduction Congenital malformations are still a major cause of morbidity and mortality in newborns in Romania. The significant incidence and the difficulties of the management of this pathology are a reality which requires more attention and efforts.
Objective The aim of the study was to determine the incidence of congenital cardiac malformations (CCM) between 2000–2010, the risk factors and distribution of the CCM.
Material and method It was a retrospective study which included all the newborns with CCM who were admitted in our hospital. We had proceeded: clinical exam, laboratory tests, ECG, echocardiography.
Results From a total of 105968 children, 863 had congenital cardiac malformations (0.81%). The main risk factors were: teratogenic factors (diabetes mellitus and alcoholism), cromosomal defects, multifactorial transmision. The most frequent malformations were noncyanotic as atrial septal defects and ventricular septal defects (88.06%) vs cyanotic defects (11.93%). In most of the cases the diagnosis was estabilished after birth and only 1.73% (nr=15 cases) had prenatal diagnosis. The outcome of children was: 504 newborns (58.40%) had needed medical treatment but no surgical corrective procedures, 223 (25.84%) had had paleative or corrective surgical treatment and 136 (15.75%) had died because of complications or of the imposibility of a proper surgical treatment.
Conclusions The diagnosis of cardiac malformation is not a problem anymore due to echocardiography but, unfortunatly, prenatal diagnosis is still difficult. The most cases are noncyanothic malformations. The outcome is related with the type of CCM, complications and possibility of a proper treatment.

1151 INTERNATIONAL SURVEY ON THE USE OF PROPHYLACTIC INDOMETHACIN IN EXTREMELY PRE-TERM INFANTS

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Background Prophylactic trials with indomethacin have consistently revealed short term benefits like a decreased need for PDA ligation (RR 0.51), decreased incidence of pulmonary haemorrhage (RR 0.35), and serious IVH (RR 0.66).

The use of indomethacin prophylaxis increased after Ment trial while decreased after TIPP trial as no long term improvement in neurodevelopmental outcome was reported. However, TIPP trial was under-powered to study long term neurodevelopmental outcome.
Aims and objectives To find out the current practice on use of prophylactic indomethacin in extremely pre-term infants.
Design and methods Questionnaire based international survey from 51 tertiary neonatal units across 9 countries (including United Kingdom, USA, New Zealand and Australia). The neonatologists were contacted via email or telephone to find out current practice on use of prophylactic indomethacin in extremely pre-term infants.
Results 5 of 51 (10%) tertiary neonatal units use prophylactic indomethacin in extremely pre-term infants. In the UK 3 of the 44 units (6.8%) use prophylactic indomethacin. 2 units in the USA use prophylactic indomethacin.

Practice varies across the units – 2 units use prophylactic indomethacin for all infants < 28 weeks of gestation while other units use on targeted infants.
Conclusion Use of prophylactic indomethacin declined after TIPP trial but it's use has further declined because of unavailability (short of supply from manufacturer). In the UK use of prophylactic indomethacin has declined from 5 to 3 centres recently. Our survey also showed that some neonatal units would like to use prophylactic indomethacin but indomethacin is not available currently.

1152 PROSTAGLANDIN E_1 USE IN THE TRANSFER OF INFANTS WITH SUSPECTED DUCT DEPENDENT CONGENITAL HEART DISEASE

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Background Transport of infants with suspected duct dependent congenital heart disease (DDCHD) represents a diagnostic and therapeutic dilemma, specifically in relation to use of prostaglandin E^1 (PGE_1) to maintain ductal patency.
Aims To evaluate factors influencing, and consequences of, PGE_1 use in transport of infants with suspected DDCHD or persistent pulmonary hypertension (PPHN).
Methods Retrospective study of infants' ≤10 days old with suspected DDCHD/PPHN transferred to the Royal Children's Hospital, Melbourne, by NETS (Victoria) identified from transport and hospital databases.
Results Of 142 eligible infants, 81 had DDCHD, 51 had PPHN and 10 had neither. Diagnostic accuracy of DDCHD by transport team was 77%. PGE_1 was commenced in 50% of infants, 63% of DDCHD group, and 19% of non-DDCHD group.

"Time critical" transfers were significantly associated with PGE_1 use; transfer distance and air/land were not. PGE_1 use was significantly associated with the presence of cyanosis, abnormal pulses and lower initial SpO_2 and PaO_2.

Ventilation and inotrope use during transfer were significantly higher in infants with DDCHD who received PGE_1, than those who did not (both P 0.007). Use of PGE_1 significantly shortened length of stay in PPHN but not DDCHD patients. There was no significant difference in death rates between PGE_1 and no-PGE_1 group.
Conclusions Although the ability of transport personnel to differentiate DDCHD from PPHN and correctly administer PGE_1 was high, 35% of infants with DDCHD were transferred without PGE_1. Cyanosis, abnormal pulses and initial hypoxemia influenced the decision to start PGE_1. PGE_1 may improve outcome in PPHN.

1153 BRAIN NATRIURETIC PEPTIDE (BNP) MEASUREMENT IN THE PREDICTION OF PATENT DUCTUS ARTERIOSUS (PDA) SEVERITY AND NEED FOR LIGATION

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Aim Has Brain Natriuretic Peptide (BNP) role in the prediction of Patent Ductus Arteriosus (PDA) severity and need for ligation.
Method

- Prospective study
- July 2010 to Feb.2011
- Single tertiary neonatal unit
- BNP level was done in babies < 30 wks with the diagnosis of PDA.
- Data was collected from SEND database and medical notes.

Results

- 35 babies of which one baby was excluded as sample was unsuitable.
- Male: Females 1.25:1
- Birth weight ranges from 410 gm to 1200 gm.
- Based on the BNP value babies are divided into 4 groups.