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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 transmission. 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 established 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 impossibility of a proper surgical treatment.

**Conclusions** The diagnosis of cardiac malformation is not a problem anymore due to echocardiography but, unfortunately, prenatal diagnosis is still difficult. The most cases are noncyanotic 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<sub>1</sub> 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<sub>1</sub> (PGE<sub>1</sub>) to maintain ductal patency.

**Aims** To evaluate factors influencing, and consequences of, PGE<sub>1</sub> 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<sub>1</sub> was commenced in 50% of infants, 63% of DDCHD group, and 19% of non-DDCHD group.

"Time critical" transfers were significantly associated with PGE<sub>1</sub> use; transfer distance and air/land were not. PGE<sub>1</sub> use was significantly associated with the presence of cyanosis, abnormal pulses and lower initial SpO<sub>2</sub> and PaO<sub>2</sub>.

Ventilation and inotrope use during transfer were significantly higher in infants with DDCHD who received PGE<sub>1</sub>, than those who did not (both P 0.007). Use of PGE<sub>1</sub> significantly shortened length of stay in PPHN but not DDCHD patients. There was no significant difference in death rates between PGE<sub>1</sub> and no-PGE<sub>1</sub> group.

**Conclusions** Although the ability of transport personnel to differentiate DDCHD from PPHN and correctly administer PGE<sub>1</sub> was high, 35% of infants with DDCHD were transferred without PGE<sub>1</sub>. Cyanosis, abnormal pulses and initial hypoxemia influenced the decision to start PGE<sub>1</sub>. PGE<sub>1</sub> 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.