Results: Admission levels of S100B and NSE differed according to diagnosis and illness severity ($P < 0.0001$). IIT did not affect the time course of these markers. Patients experiencing hypoglycemia during intensive care had higher S100B and NSE from admission onwards than those without hypoglycemia. In the nested case-control study, both markers decreased after hypoglycemia ($P = 0.001$ and $P = 0.009$), unlike in the “controls” on matched days.

Conclusions: IIT in PICU did not evoke neurological damage detectable by circulating S100B and NSE, despite increased incidence of hypoglycemia. Elevated markers in patients with hypoglycemia were not caused by hypoglycemia itself, but rather reflect an increased risk of hypoglycemia in the most severely ill. This risk is difficult to capture by the classical illness severity scores.

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PREDICTING DEATH DESPITE THERAPEUTIC HYPOTHERMIA IN INFANTS WITH HYPOXIC-ISCHEMIC ENCEPHALOPATHY (HIE)

S. Sarkar¹, I. Bhagat², R.E. Dechert¹, J.D. Barks¹

¹Department of Pediatrics, Division of Neonatal-Perinatal Medicine, University of Michigan Health System, ²Pediatrics, St. Joseph Mercy Hospital, Ann Arbor, MI, USA

To avoid offering false hope to parents it is important to identify potentially untreatable cases of HIE for whom cooling may not be of benefit. **Objective:** To determine pre-cooling attributes that could predict death in infants with HIE despite cooling.

Methods: 85 infants of ≥ 36 weeks' gestation who received cooling for HIE were reviewed. Logistic regression analysis was performed using pre-cooling clinical/ laboratory variables with HIE related death during first 9 months of life as primary outcome.

Results: Thirteen (15%) of 85 infants with HIE died during 9-18 months follow up despite cooling. In all, 27 of 85 infants were asystolic at birth but only 12 of these infants had Apgar of zero at both 5 and 10 minutes. Univariate analysis identified Apgar of zero at 5 minutes and at 10 minutes, $\text{pH} < 6.7$, base deficit > 22 mmol/L, and absent spontaneous movement as being significant but on multivariate analysis, only Apgar score of zero at 10 minutes ($p < 0.001$, OR 51.7, 95% CI 9.9 - 269.5) remained significantly associated with primary outcome. Of 12 infants who were asystolic at and beyond 10 minutes of life, 9

died from HIE, 2 had spastic quadriplegia at 18-24 months, and one had extensive encephalomalacia on brain MRI.

Conclusions: Among all pre-cooling variables, only 10 minute Apgar score is independently associated with death despite cooling. Furthermore, infants who remain asystolic at 10 minutes and beyond are unlikely to survive despite cooling, and the rare survivor is likely to survive with severe disability.

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EARLY DIAGNOSIS OF POSTOPERATIVE COMPLICATIONS AFTER LIVER TRANSPLANTS IN CHILDREN

G.J. Wildeboer¹, H.R. Geerts², B.L. de Groot², E.D. Ponne², G.J. Wildeboer²,
Boys from the Pediatric IC

¹Kinder IC (CA59), UMCG, ²Pediatric Intensive Care, Beatrix Children's Hospital, University Medical Center, Groningen, The Netherlands

Introduction: The UMCG is the only medical centre in the Netherlands that has performed liver transplants on children since 1982. In the last few years a lot has improved in the treatment thereof.

At this current moment approximately 15 children are being transplanted each year. The survival rate has improved by 50%.

During these admissions pitfalls may occur that can lead to postoperative complications!

Aim: To give insight on the means used to recognize post operative complications in early stages in children after liver transplants.

Methods: Protocols have been developed in which post operative parameters concerning monitoring, blood results and radiology imaging have been described. Nurse observation and interpretation parameters are of further essential significance. These are mainly directed towards prevention of infections, timely detubation, and keeping up with the fluid balance and temperature of the patient. Adjacent to that, the in research phase TEG-study, offers important information about the coagulation.

Results: Working according to protocol makes it possible to perceive and intercept complications in early stages. Moreover we aim at thrombosis, infections and liver failure. In pediatric care parents are indissolubly attached to their child. This makes

parental involvement in children's admissions of essential value.

Conclusion: We use protocols that can help detect complications in an early stage after liver transplants.

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HOW DO PARENTS EXPERIENCE THE DEATH OF A TWIN IN THE PERINATAL/ NEONATAL PERIOD?

M. Goggin

Neonatal Unit, St. George's Healthcare NHS Trust, London, UK

Background and aim: Mortality rates are higher in twin than singleton pregnancy, therefore proportionally more parents of twins face the tragedy of bereavement. Perinatal death is a painful experience for any parent. For parents who lose a twin their experience is additionally complicated by the need to grieve for one baby and celebrate the life of the other. This study sought to describe the lived experience of parents. Understanding the experience may help health care professionals to provide care that is appropriate, timely and meet the parents' needs.

Methods: A phenomenological approach was utilised. Semi-structured interviews were conducted with seven parents, whose time since death ranged from six months to six years. Interviews were audio-taped, transcribed and analysed. A second interview sought to validate the findings. The findings are presented as a rich description of the lived experience.

Results: Loss of a twin is a complex experience. Parents experienced feelings of sadness, isolation, 'being robbed', difficulty in separating as evidenced by retention of the ashes, ambivalence in both living the loss of one twin and parenting the survivor and ambivalence by others towards the parent's loss. Time, space and energy must be negotiated in order to grieve. Timing of information and support is crucial to the parent, counselling in the immediate period post loss is felt by many parents to be intrusive.

Conclusions: Parents ask for a parent-centred as opposed to professional-centred approach to care. This would help parents prepare for the emotional journey resulting from their loss.

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RISK OF CONGENITAL HEART DEFECTS FOR CHILDREN CONCEIVED FOLLOWING ASSISTED REPRODUCTIVE TECHNOLOGIES. A POPULATION BASED EVALUATION

K. Tararbit¹, L. Houyel², D. Bonnet³, C. De Vigan¹, N. Lelong¹, F. Goffinet^{1,4}, B. Khoshnood¹

¹UMR S953, Recherches Épidémiologiques sur la Santé Périnatale et la Santé des Femmes et des Enfants, Inserm, UPMC, Université Paris-6, Paris, ²Service de Chirurgie des Cardiopathies Congénitales, Hôpital Marie Lannelongue, Le Plessis Robinson, ³Centre de Référence M3C-Necker, Université Paris Descartes, ⁴Maternité Port Royal, Hôpital Cochin Saint-Vincent-de-Paul, Assistance Publique Hôpitaux de Paris, Université Paris-Descartes, Paris, France

Background: Children conceived after ART have higher risks for adverse birth outcomes. Insufficient data exist regarding the specific risk for CHD.

Objective: To estimate the risk associated with Assisted Reproductive Technologies (ART) for congenital heart defects (CHD), CHD without chromosomal abnormalities and CHD subgroups defined based on anatomo-embryologic criteria.

Methods: We used data from the Paris Registry of Congenital Malformations on 5,599 cases of CHD and 3,985 malformed controls including a heterogeneous group of malformations for which no known associations with ART were reported in literature. ART included inductors of ovulation only, in vitro fertilization and intracytoplasmic sperm injection.

Results: Exposure to ART (all methods combined) was higher for cases than controls (4.7% vs. 3.6%, p=0.008) and was associated with a 40% increase in the maternal age, socioeconomic factors and year of birth-adjusted odds of CHD without chromosomal abnormalities (Adjusted-OR 1.4, 95%CI 1.1-1.7). ART was specifically associated with significant increases in the odds of malformations of great vessels and outflow tracts (Adjusted-OR 1.7, 95%CI 1.2-2.4), of anomalies of atria and atrial septal defects (Adjusted-OR 1.8, 95%CI 1.1-2.8) and of conotruncal CHD and double outlet right ventricle (Adjusted-OR 1.7, 95%CI 1.1-2.7). In general, we found specific associations between methods of ART and subgroups of CHD.

Conclusion: Risk of CHD was higher in children exposed to ART as compared to malformed