

Methods In a prospective randomised study, infants with BW 750–1250 grams (g) were assigned to a dietary group. All infants received mother's own milk or donor HM, with donor HM-derived fortifier. Cream group also received a HM-derived cream supplement if the HM tested < 20 kcal/oz (infrared HM analyzer). F/U continued until 36 weeks PMA. Primary outcomes included growth velocities and incidences of NEC and sepsis. Non-inferiority was established if the lower bound of weight velocity exceeded -3 g/kg/day.

Results There were no differences in demographics except trace (p = 0.02). The one-sided 95% lower bound of the confidence interval for the difference in mean velocity (cream-control) was 0.38 g/kg/day.

Abstract O-124 Table 1 Comparison of growth velocities

Parameter	Cream group Control group		p-value (two sample t-test with unequal variances)
	n = 39 (mean ±SD)	n = 39 (mean ±SD)	
Length velocity (cm/wk)	1.03 ± 0.33	0.83 ± 0.41	0.02
Head circumference (cm/wk)	0.90 ± 0.19	0.84 ± 0.22	0.21
Weight velocity (g/kg/day)	14.0 ± 2.5	12.4 ± 3.9	0.03
Weight velocity from regained			
BW (g/kg/day)	15.7 ± 2.5	13.7 ± 4.0	0.02

Conclusions Cream group infants had better weight and length velocity. HM cream-derived supplement should be considered as a supplement to an exclusive HM-based diet.

The Bengt Robertson Award

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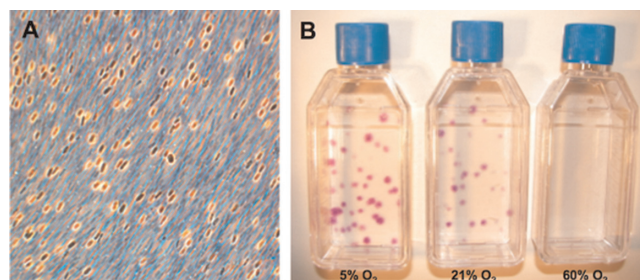
MESENCHYMAL STEM – OR STROMAL CELLS FROM THE DEVELOPING HUMAN LUNG ARE PERTURBED BY HYPEROXIA

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Exposure of the immature lung to oxygen concentrations higher than the ones in utero – relative (room air) or absolute hyperoxia – represents a major risk factor for the development of bronchopulmonary dysplasia (BPD) in preterm infants. Here, we isolated resident CD146^{pos}/GD-2^{neg} mesenchymal stem- or stromal cells (MSCs) from human fetal lungs at the canalicular stage of development (16th–18th week of gestation) to obtain new insights into their behaviour in conditions reflecting normal (5% O₂) and oxygen disrupted (21% and 60% O₂) lung development. We compared them to potentially therapeutic MSCs isolated from the umbilical cord stroma.

First, we were able to show that the mesenchyme of the fetal lung is abundant in MSCs, suggesting an important role of these cells in lung development. Single-cell plating of lung MSCs in physiological hypoxic and ambient oxygen atmospheres revealed profound reductions of colony-forming ability and colony size in normoxic conditions. Furthermore, when exposed to absolute hyperoxic (60% O₂) atmospheres, MSCs lost ability to form colonies, reduced expression of stem cell-restricted proteins like



Abstract O-125 Figure 1 Proliferation and Colony-formation of human fetal lung MSCs depends on oxygen tension

Oct-4 and Sox2, proliferated and switched cytokine secretion profiles towards a pro-fibrotic, pro-inflammatory phenotype. Alterations in the composition of the extracellular matrix were observed. Conversely, MSCs from the umbilical cord secreted high amounts of anti-fibrotic and lung-protecting proteins like PGE2 and stanniocalcin-1.

We conclude that the physiological function of resident lung MSCs is affected by relative and absolute hyperoxia, suggesting a key role of these cells in the immature lung responding to extraterrestrial oxygen conditions.

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End-of-life and Quality of Life

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PARENTS' EXPERIENCE OF FOLLOW-UP CONVERSATIONS IN THE PAEDIATRIC INTENSIVE CARE UNIT (PICU) AFTER DEATH OF A CHILD

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Background Approximately 4% of the children admitted to the PICU at Odense University Hospital, Denmark, dies every year. Parents are invited routinely for a multidisciplinary follow-up conversation in the PICU 4–8 weeks after the child's death. There are no previous studies on parents' experiences of these follow-ups in Denmark.

Aim To identify parents' experience of the follow-up conversation and to investigate whether it is adequate for the needs of parents for a follow-up after their child's death in the PICU.

Methods Semi-structured interviews with 6 pairs of parents 2–12 weeks after the follow-up conversation. The interviews were held in their own homes on the parents' request. Data was analysed using Malteruds' qualitative approach.

Results The analysis revealed the following themes: The way back to the PICU

Certainty and clarity

Close and known relationships

Completion of the stay in the PICU

Conclusions The parents were experiencing nervousness before the follow-up conversation, but were all pleased to have participated in these follow-ups. It was meaningful to the parents that the follow-up conversation was interdisciplinary, since it was possible to get answers to questions both about treatment and care. It was important that the staff involved in the follow-up conversation was the same that had been present through the hospitalisation and at the time of death of the child. It was very important that parents were invited to the follow-up conversation. Parents experienced the follow-up conversation as being a

completion of the course in the PICU, regardless the length of the hospitalisation.

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HOW GOOD IS LIFE AFTER HEART TRANSPLANTATION, CHILDREN'S PERCEPTION

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Background and aims In children with end-stage heart disease heart transplantation (HTx) offers a good therapeutic option with favourable outcomes. Patients are expected to improve in general health, but unfortunately little is known about the health-related quality of life (HRQoL) after HTx, which is also influenced by factors such as the psychosocial adaptation of children and parents. We aimed to better understand children's HRQoL after HTx with the aim to give them adequate support.

Methods Between 2000 and January 2014 28 children underwent successful heart transplantation at our institution. All patients older than 8 years (n = 21) were asked to complete a validated and reliable questionnaire, the Child Health Questionnaire-Child Form 87 (CHQ-CF87) questionnaire themselves.

Results 76% of the patients participated; median age was 15.2 years (range: 13.6–19.6), median time after HTx was 31 months (range 7–134). All children attended school. Even though they scored comparable to normative data on most of the subscales, their general health perception (GHP) (50.0 vs. 74.6, p < 0.0001) and physical functioning (PF) (91.7 vs. 96.8, p = 0.038) was significant lower than in healthy children.

Conclusion In children after HTx, overall HRQoL, especially on the psychosocial scales, seems to be good. Only the subscales general health perception and physical functioning were significant lower. This might be explained by their chronic need for treatment, follow-up and concomitant diseases frequently seen in HTx patients. Nevertheless, in order to learn dealing with their situation all children should be supported by a specialised multi-disciplinary team, including psychologists and child life specialists.

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BLESSING OF CURSE: HOW DO PARENTS PERCEIVE THE HEALTH RELATED QUALITY OF LIFE OF THEIR CHILD AFTER PAEDIATRIC HEART TRANSPLANTATION?

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Background and aims For children and young adults with end-stage heart failure or other severe heart diseases paediatric heart transplantation (HTx) means a good therapeutic option. Parents have to decide for or with their children whether they want them to be transplanted. Congenital heart disease *per se* has a major influence on the child's and the family's life. Relatively little is known about the psychosocial impact of HTx. Therefore

we aimed to better understand how parents perceive the health related quality of life (HRQoL) of their child.

Methods Between 2000 and January 2014 28 children have received a successful heart transplantation at our institution. All parents (n = 56) were asked to complete the Child Health Questionnaire-Parent Form 50 (CHQ-PF50).

Results 42 parents (n = 22 female, n = 20 male) of 22 patients (median age mothers: 46 years, median age fathers: 51 years) answered the CHQ-PF50 questionnaire. Two parents were divorced. All children lived with at least one parent. On most of the CHQ-PF50 subscales parents gave significantly lower ratings on their child's HRQoL compared to parents of healthy children. Only on the subscales general behaviour and family cohesion scores were comparable to normative data. On most scales mothers gave significantly lower, thus more unfavourable ratings, than the fathers.

Conclusion Paediatric HTx has a major impact on the HRQoL of the affected families. In order to improve HRQoL further follow-up and more psychological support not only for the patient but also for the whole family's needs to be offered as routine care.

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RACIAL DIFFERENCES IN PARENTAL EXPECTATIONS AND SATISFACTION REGARDING NURSING CARE IN THE NEONATAL INTENSIVE CARE UNIT (NICU)

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Background Nurses play a pivotal role in parental support and education in the NICU, but it is not known if parental satisfaction and expectations about nursing care differ between racial groups.

Methods A prospective cohort was constructed of infants born at a gestational age ≤ 35 weeks, who presented within 2 months after NICU discharge to The Children's Hospital of Philadelphia primary care network between 7/1/09 and 12/31/11 (N = 249, 52% white, 42% Black). We administered a survey on trust, communication, NICU course, and expectations from the medical system. Qualitative responses about NICU nursing care were imported into ATLAS.ti to highlight key themes and relationships between race and satisfaction with NICU nursing care.

Results During the open-ended survey questioning, 120 (48%) parents commented on nursing. 58% of the comments were positive, with black parents more negative (58%) than white parents (33%). Parents of different races sought different behaviours from nurses. Black parents were dissatisfied with how nurses supported them, wanting compassionate communication and nurses that treated them "like family". White parents were dissatisfied with inconsistent nursing care and lack of respect for parental involvement, wanting education about their child's short and long-term needs. Both groups described a chaotic NICU environment with high nursing turnover, making it difficult to build trust and relationships.

Conclusions Racial differences in satisfaction and expectations were found with NICU nursing care. Practices to account for these differing needs will allow nurses to better support families through a premature birth and engage parents in their child's health care.