

NeoPAss[®], a systematic approach for implementation of family integrated care in the NICU

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In recent years the benefit of family integrated care in the NICU has been demonstrated to be of major benefit for short and long-term outcome of preterm born infants. However depending on the country and cultural background there is still a lack of a broad implementation of this knowledge into clinical practice. Major reasons are resistance to change, anticipated needs of (financial and economic) resources and even more fundamental the way experienced neonatologists and the whole NICU staff are able and willing to re-think neonatal care, appreciate and recognize family integrated care as an integral part of excellent neonatal care. The implementation of family integrated care in a unit is challenged by variation of clinical practice, lack of coordination, lack of definition of interfaces and responsibilities and variation in communication skills.

From 2012 till 2014 our team developed the NeoPAss[®] program. This is a multi-professional clinical care pathway program for family integrated care, in which the different tasks (interventions) by the professionals involved in the family and neonatal care are defined, optimised and sequenced starting from prenatal consultation to after care after discharge.

The aim of the program is to improve neonatal outcome by

1. Re-centre the focus on the family's overall journey, rather than the contribution of each specialty or caring function independently. Instead, all are emphasised to be working together, in the same way as a cross-functional team.
2. Ensuring a continuum of care from prenatally and until after discharge
3. Encouraging multidisciplinary communication and care planning
4. Facilitating multidisciplinary audit and prompt incorporation of improvements in care into routine practice
5. Enabling new staff to learn quickly the key interventions for specific conditions and to appreciate likely variations.
6. Establishing and implementing clinical care pathways.

The NeoPAss[®] program was developed by multi-professional teams. It combines classical care and case management with elements of quality management. Thus for each component of the clinical care pathway such as e.g. prenatal consultation, nutrition, palliative care, psychological support and parental coaching standard operating procedures (SOP), forms for documentation and information material (e.g. movie for the importance of mother milk nutrition for the preterm infant) was developed and integrated in an overall database, accessible to all members of the NICU. This and education of all team members facilitated to ensure standardised high quality of care, independent of the time action required and thus the physical presence of the expert team (e.g. lactation consultation). Family individual needs are assessed according to the International Classification of Functioning, Disability and

Health (ICF) by standardized forms, support is priorities and provided by team members. Assessment, planning of support, provision of support and evaluation of success is coordinated by a care manager, which accompanies the family from prenatally till after discharge.

Results: After implementation of the program the rate of children receiving mother milk at discharge increased from 42 to 75 % in preterms < 28 weeks of gestation age (GA) and from 60 % to 90 % in preterms from 28 to 32 GA. The time to full enteral feeds defined as 130 ml/kg *d decreased from 11 to 7 days accompanied by a significant reduction of the duration of central venous line, the rate of nosocomial infection, reduced rate of necrotizing enterocolitis and reduced rate of IVH. The length of stay was reduced by one week and the rate of re-admission within the first two months of life declined from 18% to 6% in preterms < 32 GA. In addition transition from hospital to home life was significantly improved. The need for home visits after discharge declined by 30 %. There is also a tendency that parents included in the NeoPass[®]-program reported higher levels of perceived self-efficacy than parents in other hospitals in Germany. Furthermore there is a tendency that this higher level of self-efficacy persists at about three months post-treatment. Perceived self-efficacy in parenting is defined as one's belief in one's own capabilities to reach a desired goal. In general it is associated with mental health e.g. fewer symptoms of depression and anxiety and with higher levels of positive parenting practices.

Conclusion: First data after implementation of the NeoPass[®] program show a clear benefit without any noticed adverse effects. In addition the care pathway supported inter-professional teamwork and improved documentation, communication and relations. However, implementation of family integrated care programs requires professional change management in order to be successful.

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The neopass program is available in german on www.neopass.de

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