Newborn Health Reloaded
Shaping our babies’ future
Shaping future for our babies, families and society

around 10% of all newborn babies are born preterm

690,000 babies/year in EU

matthias.keller@kinderklinik-passau.de
Shaping future for our babies, families and society

Disability-adjusted life years (DALYs):
lost years of life + years of life with disability

- heart diseases 11,8 %
- injury 11,2 %
- cancer 7,6 %
- HIV/AIDS 3,3 %

DALY due to preterm birth = 3,1 %

1990-2010: a systematic analysis for „Global Burden of Disease“

matthias.keller@kinderklinik-passau.de
No solution?
Yes, we can.

Opportunities and challenges for the care of newborn babies
Yes, we can..., but there are significant variances between centers, regions and countries.

Death: 5 – 25- 30%

Complications/diseases:
- NEC: 2–14 %
- ROP: 10-50 %
- BPD: 20-89 %
- IVH III-IV/PVL: 26-60%

Quality Indicators but Not Admission Volumes of Neonatal Intensive Care Units Are Effective in Reducing Mortality Rates of Preterm Infants
Niels Rochow, Erin Landau-Crangle, Sauyoung Lee, Holger Schünemann, Christoph Fusch, PlosONE 2016
Is it acceptable that survival and the chance of healthy growing depends to that extend on the place of birth within Europe?

What are the differences?
Yes, we can....

NO lack of knowledge

but there are always reasons and a lot of barriers …
Yes, we can....

Peri-/Neonatal care

Medical care
Developmental care
Family integrated care

Translating knowledge into clinical practice!
NeoPAss, a multi-professional clinical care pathway program for family integrated care

- a management tool
- based on evidence and standards of care for patients and families,
- in which the different tasks (interventions) by the professionals involved in the patient & family care
- are defined, optimized and sequenced in a clinical care pathway.
Yes, we can....

Key elements:  
- focus on the family’s overall journey  
- improve interfaces in a network
Yes, we can....

Key element: multidisciplinary communication and standards of care

- Concept:
  - Goals
  - Background
  - References
  - Indicators
  - References

- Standard Operating Procedures
  - Checklists
  - Documentation
  - Information material

Team of Experts:
- Neonatologists
  - Team member
  - Expertteam
- Palliative Care
  - Team member
  - Expertteam
- Nursing
  - Team member
  - Expertteam
- Lactation consultation
  - Team member
  - Expertteam
- Psychology
  - Team member
  - Expertteam
- Parental coaching
  - Team member
  - Expertteam
- Social service
  - Team member
  - Expertteam
- Ethics
  - Team member
  - Expertteam
- Follow-up team
  - Team member
  - Expertteam

matthias.keller@kinderklinik-passau.de
Yes, we can....

Key element: case- & care management from belly to the age of 2 years

Case & Care Management

matthias.keller@kinderklinik-passau.de
Yes, we can....

Function: clinical care pathway program for family integrated care

Structure: Family integrated care center

Concept Implementation Adaption and Improvements

2012 2013 2014 2015 2016 2017
Watch yourself

- https://www.youtube.com/watch?v=xey9DWeFLvk
Yes, we can.

Opportunities and challenges for the care of newborn babies
BPD:
Published Data: 5-89%
Passau: around 2-4%

NEC:
Published Data: 2–14%
Passau: around 1-2%

IVH III-IV/PVL:
Published Data: 26-60%
Passau: around 5%

ROP
Published Data: 10-50%
Passau: around 5-10%

BAQ, Bavaria, Germany
Check: outcome

Quality index for the care of preterm born infants
(Death, ROP, BPD, NEC, PVL, IVH)

30-50% less complications than the german average since intervention!

BAQ, Bavaria, Germany
Presence of parents are NOT a risk factor but protective for infection of the baby
Yes, we can.

Opportunities and challenges for the care of newborn babies
Yes, we can....

Factors of success

- Creating **meaninfullness and one vision** for all partners involved
- Focused on one goal ...
- Common action (owner, administration, medical director, team)
- Fundsraising campaign and ensuring support of the regional population and politicians
Factors of success

- Translating knowledge into clinical practice using standards of care and clinical care pathways
- Focusing on processes: Child, families and team members
- Focusing on needs: Child, families and team members
- Focusing on interfaces and collaborations in a perinatal network
- Humans in a middle sized specialized unit
Yes, we can....

there are a lot of barriers …,

but more reasons to act....
Yes, we can....

The best investment ever....

prenatal  perinatal  neonatal  pediatric

Doyle, Heckman et. al. 2007 Early Childhood Intervention: Rationale, Timing and Efficacy*
Warm welcome!
For the best start in life.

EFONI - European Foundation for the Care of Newborn Infants
Example: a clinical care pathway based in standards of care on nutrition

**Motivation:**
In communication by doctors and nurses emphasis of the significance of breastfeeding. Image film for breastfeeding in preterm infants.

**Identification**
- Early first skin to skin contact already in the delivery room or early in neonatology

**Lactation consulting**
- Motivational enhancement by early approach guiding the family of the child

**Early rooming-in**
- Continuation of lactation consulting and skin to skin contact

**Structured tube weaning**
- Early initiation of breast-feeding. Reinforcement of the family in terms of breastfeeding and exclusive breast feeding in spite of preterm birth. Show of breastfeeding as normal natural form of nutrition of the infant.

**Positive reinforcement of the effort of the family through early visible and tangible use of colostrum**
- Positive reinforcement of the family with regard to the pumped milk quantity and quality of breast milk for the child.

**Continuation of lactation consulting nutritional counseling.**

**Example:** a clinical care pathway based in standards of care on nutrition

NeoPAss

matthias.keller@kinderklinik-passau.de