

Follow-up assessment of preterm
infants in the district of Huye,
South Rwanda: preliminary results

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KMC-conference at Kigali*

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Background 1

- Research initiated by NGO UMUBANO-IMPORE and by Catholic University of Rwanda (Faculty of Public Health & Health Nutrition)
- Sponsored by CUR, project August10 (Dr. Ide, Belgium) and LUMOS (University Hospital KULeuven, Belgium)
- Principal Investigator:

Professor Dr. Luk CANNOODT

Background 2

In the world

- Prematurity = 2nd leading cause of U5 mortality*
- 60% of neonatal death are associated with LBW
- 2.7% of preterm infants suffer from moderate or severe impairment
- Moderate and severe prematurity = greatest risk of disability*

**Every Newborn: An Action Plan to End Preventable Deaths; A Promise Renewed (2013)*

Background 3

In Rwanda

- Improving health of preterm and LBW infants = a top priority in the MNH roadmap in Rwanda (2013-2017)
- **August 2010:** Introduction of neonatal unit in Kabutare DH
- **January 2011:** creation of KMC unit in Kabutare
- Several neonatal deaths could be prevented
- *New question: What happens with preterm infants after having been discharged alive?*



Objectives

- 1) To describe to what extent and how long KMC was being practiced after the preterm and LBW newborns left the hospital
- 2) To give an overview of when and how they have received planned and/or unplanned contact with healthcare professionals during their first year of life
- 3) To document the survival rate of these infants in the community
- 4) To conduct a verbal autopsy for those who died
- 5) To assess their current health status

Methods

- Cross-sectional study
- 196 babies discharged alive from Kabutare DH between January 2011 and December 2012
- Collection of data in registers and files in Kabutare DH (2011-2012)
- Survey among mothers (including verbal autopsies) and CHWs (focus group)
- Assessment of health status of study population (nutrition, growth, sight, hearing, psycho-motor development, other diseases)

Ethical Issues

Confidentiality

- Data was de-identified at time of collection with names and replaced by study numbers. No individual names will be included in any analysis or report.

Informed consent

- The mothers of infants were asked to sign an informed consent

Ethical approval

- Protocol approved by Rwanda National Ethic Committee(RNEC), May 2014

Results 1

Survey of 106 mothers

Practice of KMC in Kabutare DH

- 83% confirmed they started KMC in Kabutare DH
- 78% stayed at least one day in the KMC unit
- 25% stayed at least one month in the KMC unit

Practice of KMC in the community

- 82% of the mothers continued the KMC practice at home
- 69% of those continued KMC practice at least 1 month up to 3 months

Results 2

Intensity of KMC practice in the community

- 46% of the mothers who practiced KMC at home did so at least 5 hours during the day
- 83% of the mothers who practiced KMC at home did so also during the night
- 26% of those did so more than 30 nights
- 42% of those who practiced KMC at night did so at least 5 hours each night

Results 3

- 57% of the KMC practicing mothers were confronted with difficulties to practice KMC at home
- Main reason for not practicing KMC at home: Obligated to work in the fields
- Other reasons: sleepless nights, sickness problems, partner disagreed, having twins, lack of equipment

Results 4

Verbal autopsy of 25 out of 26 who died :
Mortality rate : $26/132 \times 100 = 19.7 \%$

- 3 died the first day after discharge from hospital
- A total of 11 babies died during the first week after coming home
- The remaining 11 died between 1 week and 3 weeks after discharge from the district hospital

Results 5

- Eight infants who died were born with a weight of <1.5 kg
- 15 infants died at home
- Observed signs before death: **difficulty breathing (14 = 56 %)**, fever (7 = 28 %), diarrhea (2 = 8 %), cough (6 = 24 %), unconscious (5 =20 %), bulging fontanel (5 =20 %).
- Fourteen (56 %) of the infants who died did not receive any medication

Conclusions

- In District of HUYE, practicing KMC in the community is frequently done, but at various levels of intensity
- The main obstacle for practicing KMC is the obligation to work in the fields
- Respiratory problems are the most important observed sign before death of preterm infants discharged in the community

Recommendations

- Increase the support in health facilities for mothers with babies at risk (sensitization of family before discharge from the hospital)
- Standardize a close follow-up after discharge
- A link must be established between the hospital and the community via Health Centers to track all the infants at risk
- Increase sensitization of mothers: Integrate messages on newborn danger signs in the MCH week, increase sensitization to seek health care immediately when their preterm or LBW infants become sick, and to participate in regular and standardized assessment

Aknowledgements

Also contributed to preparation of this presentation:

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Thank you!

