



**NEO FOR  
NAMIBIA**  
HELPING BABIES  
SURVIVE

**TEAM**

- Thomas M. Berger, MD
- Salome Waldvogel, MD
- Katharina Mäder, RN

**A more detailed report  
can be downloaded from  
[www.neo-for-namibia.org](http://www.neo-for-namibia.org)**

## **MISSION REPORT 2021-3**

### **SHORT VERSION**

October 21 to November 28, 2021

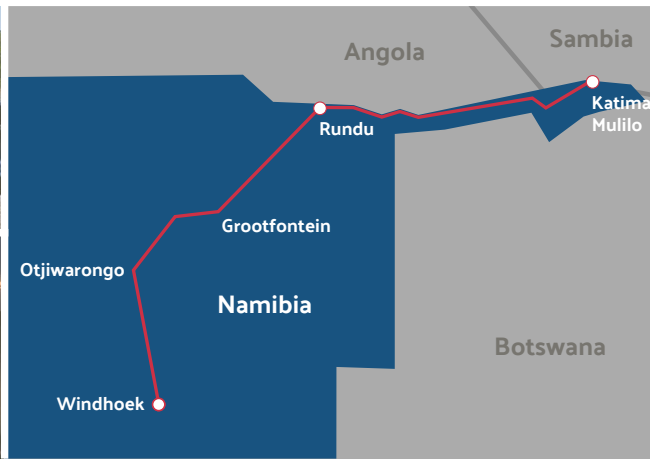
### **Mission goals**

- To support local health care professionals at Rundu State Hospital by helping with daily ward rounds in the new Prem Unit
- To evaluate the quality of care in the new neonatology unit at Katima Hospital
- To train nurses at both hospitals in basic neonatal nursing skills, with a particular focus on proper positioning of sick babies

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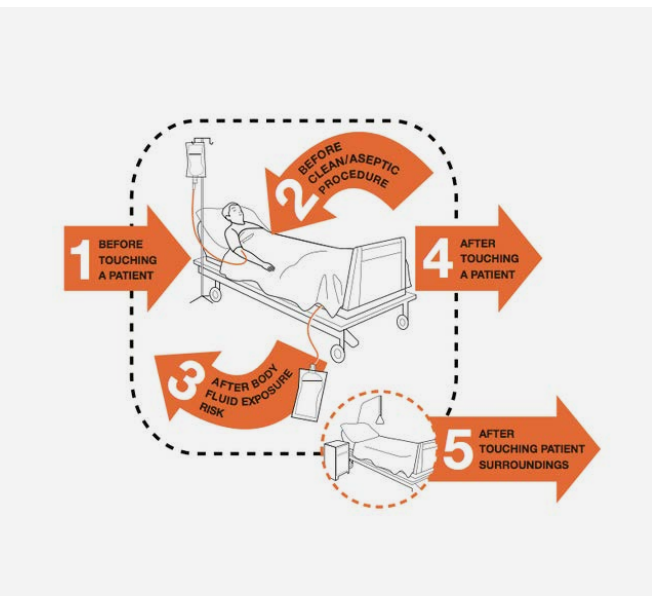




## Hospitals visited

- Rundu State Hospital
- Katima Hospital

With two teams on the ground, a total of 30 full days of on-site support could be provided (Rundu: 25 days, Katima: 5 days).



## Water supply crisis

Unimaginable but true: because the town council had not paid its water bills, NamWater Ltd. decided to cut the water supply in Rundu. The Rundu State Hospital had no running water!

Man-made water supply crisis (left: standard precautions: hand hygiene (source: OpenWHO); right: every morning, water in small plastic bottles was brought to the unit to be used for handwashing).



Solution in sight: drilling for water on the hospital grounds in Rundu to secure uninterrupted water supply.



## Clinical work

Working together with local staff continues to provide us with important insights.

In extremely low birth weight (ELBW) infants, fluid and nutrition management remained challenging because of large insensible water losses and the lack of parenteral nutrition: this infant had a weight loss of 36% from birth weight (Rundu State Hospital).



Invasive mechanical ventilation (Rundu State Hospital): it can save lives if done properly, but it can also harm patients if knowledge and skills are insufficient.

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Properly secured and positioned endotracheal tube (left), adequately taped nasogastric tube (right): covering the basics is essential (Rundu State Hospital).

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Proper positioning of babies is important (top row: no support, no boundaries; bottom row: linen rolls and gentle boundaries should be used to build a nest to provide containment and promote tactile stimulation) (Rundu State Hospital).

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Prone positioning in a baby on CPAP: even with Hudson prongs, babies can be placed on their bellies (Rundu State Hospital).

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Twins share an incubator in the neonatal ward at Katima Hospital.

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A very low birth weight (VLBW) infant is nursed in prone position in the new neonatal ward at Katima Hospital.

**Bilirubin threshold values (in  $\mu\text{mol/l}$ ) for phototherapy**

Age in hours	Birth weight > 2500 g	Birth weight 1500 g - 2500 g	Birth weight < 1500 g
0 - 24 h	150	150	100
24 - 48 h	250	BW/10	BW/10
48 - 72 h	300	BW/10	BW/10
> 72 h	350	BW/10 + 50	BW/10 + 50

### Fluid and nutrition therapy

On day of life (DOL) 1 start with

- Total fluids (TF) of 40-60 ml/kg/d for **term babies**
- Total fluids (TF) of 60-80 ml/kg/d for **preterm babies**
- Start enteral feedings in all infants with 10-20 ml/kg/d in all infants
- Give the difference to the TF as IV fluids (remember: Neolyte® contains only glucose and electrolytes, but no protein, no fat)

Increase TF by 20-30 ml/kg/d every day (whenever possible by increasing enteral feedings by 20-30 ml/kg/d) until a TF goal of 160-200 ml/kg/d is reached  
IV fluids can be started to be reduced when TF of 160-200 ml/kg/d is reached

**Remember to use birth weight to calculate the fluid requirements as long as the current weight is less than birth weight, thereafter us the current weight!**

## Teaching

Ongoing teaching is of utmost importance: reinforcing good practice and discouraging wrong beliefs. To aid with the management of neonatal jaundice, Salome Waldvogel, MD, and Katharina Mäder, RN, came up with the idea to distribute laminated pocket cards describing the essentials of jaundice management and the calculation of adequate provision of fluid and nutrition.

Salome Waldvogel, MD, and Katharina Mäder, RN, created pocket cards to support local health care professionals.

Meeting with the Executive Director Ben Nangombe November 16, 2021

**Feedback Session**

**13<sup>th</sup> mission (since 2015)**

Team members

- Prof. Thomas M. Berger
- Salome Waldvogel, MD (2<sup>nd</sup> visit)
- Katharina Mäder, RN (2<sup>nd</sup> visit)

Activities (current mission)

- Rundu State Hospital
- Katima Hospital
- Teaching
- Ward rounds
- Update statistics

Meeting with the Executive Director Ben Nangombe November 16, 2021

**Mortality rates - Rundu State Hospital (01.2021 to 10.2021)**

Total number of admissions: 840

Meeting with the Executive Director Ben Nangombe November 16, 2021

Expected annual rates (Based on figures of 01-10.2021)

> 8'500 deliveries

990 admissions  
794 inborn (65 deaths)  
196 outborn (33 deaths)

2012-2015  
Mortality rate 14.7%

2012-2015  
Mortality rate 8.0%

**50% reduction in mortality rate for inborn infants (compared to 2012-2015)**

117 deaths } **53**  
64 deaths }

Meeting with the Executive Director Ben Nangombe November 16, 2021

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In 2021, on average, there is **1 additional survivor every week!**

## Feedback to the MHSS

While highlighting the great impact NEO FOR NAMIBIA - Helping Babies Survive has had on survival rates both at Rundu State Hospital and Katima Hospital (50% reduction and 40% reduction, respectively), Prof. Thomas M. Berger also pointed out several persisting challenges.

Slides from the feedback session with the Executive Director, Dr. Ben Nangombe.

## Donate and help babies survive

[neo-for-namibia.org/donate](https://neo-for-namibia.org/donate)



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