

**NEO FOR  
NAMIBIA**  
HELPING BABIES  
SURVIVE



**TEAM**

- Thomas M. Berger, MD
- Christoph M. Honegger, MD

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

## **MISSION REPORT 2023-2**

### **SHORT VERSION**

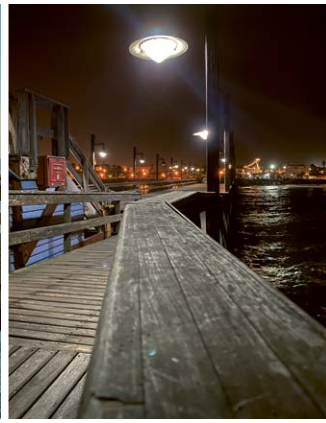
February 25 to March 31, 2023

### **Mission goals**

- To provide a 2-day-seminar on neonatal care and obstetrical emergencies to health care professionals from the Erongo region of Namibia
- To introduce Dr. Christoph M. Honegger to the team of Obstetrics and Gynecology at both Rundu State Hospital and Katima Hospital
- To introduce MTTs Dolphin CPAP devices at Katima Hospital

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## Hospitals visited

- Swakopmund Hospital
- Rundu State Hospital
- Katima Hospital

Swakopmund is a city on the Atlantic coast, 352 km west of the Namibian capital Windhoek.



Swakopmund is situated at the edge of the Namib desert.



## Swakopmund Hospital

As suggested on our previous visit, the Neonatal Unit was moved to a much more spacious location.

Equipment donated by NEO FOR NAMIBIA – Helping Babies Survive: open warming tables, phototherapy units.



The new neonatal unit in Swakopmund: the building is still in its shell, and it appears doubtful that it will be completed by the end of May 2023.



Small group sessions for practical resuscitation training: each participant was taught how to properly position a baby during resuscitation, and how to perform bag-mask ventilation and chest compressions.

# Rundu State Hospital

Prof. Thomas M. Berger and Dr. Christoph M. Honegger were welcomed by Geraldine Beukes, MD, and Emilie Nangura, RN, and the Chief Matron, Martina Haufiku, RN. A planned meeting with the hospital's superintendent and the Regional Director did not take place.

Prem Unit Block A at Rundu State Hospital: often, space is too limited to accommodate all babies.



Prem Unit Block A at Rundu State Hospital: many babies have benefitted from invasive mechanical ventilation since its introduction in July 2019.



Although the box arrived in a dire condition (left), the replacement ventilator donated by Anadinc Medical Systems was in a working condition (right).



**AIRBORNE TV1**


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**HOW TO START**

1. Connect to power, wall oxygen and wall air supply
2. Connect patient tubing and humidifier (same as for EVE TR neo)
3. Attach flow sensor and pressure monitor tubing (different from EVE TR neo)
4. Attach test lung (note: connection is not tight)
5. Turn machine on (the screen below will appear)

**SELECT VENTILATION MODE**

1. Press the mode button (A), if necessary
2. Select the PSV mode (B) (comes closest to the EVE TR neo SIMV with PS mode)



**AIRBORNE TV1**

NEO FOR NAMBIA HEALTH CARE SURVIVE

**ADJUST THE PARAMETERS ON THE MODE SCREEN:**

USE BLUE BUTTON (A): Press - Turn to select parameter, Press - Turn again to adjust value, then Press again to confirm value

1. Set **INSP FLOW** (inspiratory flow) to 8 LPM (liters per minute)
2. Set **BASE FLOW** to 3 LPM (liters per minute)
3. Set **PEEP** to 5 cmH<sub>2</sub>O
4. Set **P INSP** (peak inspiratory pressure) to 20 cmH<sub>2</sub>O
5. Set **TRIG LEVEL** (trigger level) to 4
6. Set **BREATH RATE** to 40 BPM
7. Set **INSP TIME** (inspiratory time) to 0.4 sec
8. Set **OXYGEN** (FIO<sub>2</sub>) to 40%




**AIRBORNE TV1**

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**CHANGE TO THE WAVE SCREEN (A)**

1. The top curve (B) shows the flow-time curve (up: inspiration, down: expiration)
2. The bottom curve (C) shows the volume-time curve
3. The numerics (measured values) (D) are displayed on the right side: MV (Liter) (minute ventilation), V<sub>TE</sub> (ML) (expiratory tidal volume), RATE (BPM) (total respiratory rate), LEAN (kg) and O<sub>2</sub> (%) (FIO<sub>2</sub>)
4. Make sure that the V<sub>TE</sub> (expiratory tidal volume) (E) is in the desired range (4-6 ml/kg); adjust P INSP as necessary



Instructions for the new ventilator were written, laminated and put next to the device.

Christoph M. Honegger, MD, and the OB/GYN team during a morning meeting at Rundu State Hospital.

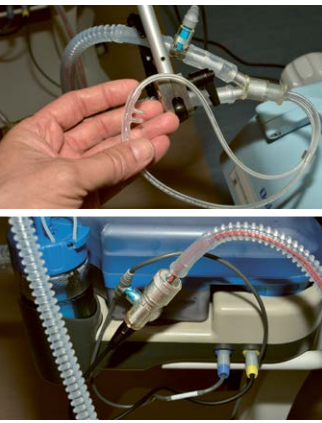




## Katima Hospital

It was nice to return to Katima Hospital for the 10th time. Many things have changed since our first visit in November of 2019. Progress made within only three years has been truly remarkable.

At Katima Hospital, CPAP is now used routinely and a “start CPAP early – wean CPAP gradually” strategy has been successfully implemented.



Explaining the new CPAP device: the MTTs Dolphin® CPAP machine heats and humidifies the inspired air (this requires a heater wire and temperature probes for the patient tubing) and has a more user-friendly patient interface.



As an additional feature, the MTTs Dolphin® has an integrated Masimo pulse oximeter. The two devices were almost immediately put in action.



## Images from Africa

When we travel through Namibia, we are always impressed by the beauty of the country’s landscapes, the vast skies and the wild animals. These images let us relax and recover from the at times exhausting work during our missions.

Images from the Kavango River.

## Donate and help babies survive

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



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