

【Field Report】**Neonatal resuscitation in areas with limited healthcare resources**

Takeshi Utsunomiya¹⁾、Chiyoko Hashimoto²⁾、Misuzu Nakajima²⁾、Minoru Akiyama³⁾

1) Japanese Red Cross Kyoto Daiichi Hospital、2) Technical support for TA Networking Corp. 、3) Medical Excellence JAPAN

Abstract**Purpose**

The authors had the opportunity to work for the Japan International Cooperation Agency (JICA) technical cooperation project named "Project for Improving Maternal and Child Health Services through Strengthening the Health Network System" being implemented in Santa Cruz Department, Bolivia. They supported facilitator training for neonatal resuscitation which aimed at strengthening the risk-based neonatal care in secondary medical facilities of the target area.

This study aimed to investigate the current condition of neonatal resuscitation in the Province of Santa Cruz, Bolivia, and to propose measures to address the constraints of medical resources. Approximately 8% of newborns born require resuscitation, and oxygen and continuous positive airway pressure (CPAP) ventilation are administered in cases of respiratory distress. If these treatments can not improve the distress, ventilatory management through tracheal intubation is required but cannot be administered in secondary hospitals in Bolivia due to the lack of ventilators.

Medical facilities in Santa Cruz Province are classified into primary, secondary, and tertiary, and newborns who are difficult to treat are transported to tertiary hospitals. However, the beds at tertiary hospitals are always full, it is challenging to accept transfers. The authors investigated the implementation of neonatal resuscitation in secondary hospitals at a neonatal resuscitation workshop held as part of the JICA technical cooperation Project.

Method

The survey was conducted during the Neonatal Resuscitation Facilitator Training held on December 4 and 5, 2024, at the Japanese Hospital in Santa Cruz City. Physicians. The nurses from secondary hospitals were interviewed about treatment options for newborns with respiratory problems.

Results

Although tracheal intubation was possible in all secondary hospitals, it became clear that no ventilators were available, and CPAP could only be performed at one of the five hospitals. To address the inability to perform CPAP in many secondary hospitals, a disposable T-piece

resuscitator available in Bolivia was distributed to each hospital, and the use of this resuscitator was demonstrated at the neonatal resuscitation facilitator training.

Conclusion

When conducting neonatal resuscitation workshops in areas with limited healthcare resources, it is essential to fully understand the healthcare resources at the participants' facilities and to provide practical, low-cost alternatives.

Keywords: neonatal resuscitation, continuous positive pressure ventilation, healthcare resources,