

## **ROTARY VOCATIONAL TRAINING TEAM UNIVERSITY OF GONDAR COLLEGE OF MEDICINE AND HEALTH SCIENCES Sept 14-26 2015 GLOBAL GRANT**

**Team members:** Karin Davies MD , pediatrician; Patricia Bromberger MD, neonatologist; Elisa Imonti RN, neonatal nurse; Kathy Johnson RRT, neonatal respiratory therapist; Fary Moini, Rotarian, in charge of logistics

**Purpose:** Training of Trainers in Post Resuscitation Care of the Neonate

**Four day instructor course:** Over a 4 day period, 15 health care professionals (3 pediatricians, 2 general practitioners, 2 midwife instructors, 6 nursing instructors and 2 neonatal nurses) were trained in major topics of neonatal care designed to prepare them to become instructors in post-resuscitation care of newborns for their colleagues and students. The curriculum included:

1. Gestational age assessment and recognition of the clinical significance of intrauterine growth characteristics
2. Developmental care techniques for the neonate
3. Nutritional Care of the Preterm Infant including breast feeding, supplemental feedings, nutritional assessment, safe preparation and delivery of intravenous fluids and treatment of hypoglycemia
4. Respiratory care including physical assessment of the respiratory system, use of supplemental oxygen, use of nasal CPAP, treatment of apnea and diagnosis and treatment of pneumothorax
5. Thermal care including prevention of hypothermia in the delivery room and nursery, Kangaroo Mother Care, management of infant temperature using an isolette and methods for warming and cooling infants.

Each module was accompanied by suggested care paths and care bundles which could assist in developing care protocols in the nursery. Active learning techniques including small and large group discussions, skills practice and application of the new skills to clinical scenarios were utilized.

**2 day learner course:** Groups of 5 new instructors were mentored by the Rotary training team as they taught their first learner course. A total of three learner courses lasting 2 days each trained a total of 38 students (4 pediatricians, 5 pediatric residents, 7 midwives, 12 nurses, and 10 neonatal nurses). Teaching methods included brief lectures followed by intensive skills stations using demonstration, return demonstration and scenarios and large group discussion about implementation.

**One day workshop on change:** Dr Carole Leland, PhD, an expert on facilitating change and coaching leadership skills, held a one day work shop on the Dynamics of Change. This workshop was opened up to a larger audience of health care workers and administrative staff of the University of Gondar and was well received. Forty participants from a variety of fields, including nursing, physicians, residents, psychiatry, and nursing administration attended. The workshop included large group discussion, small group activities, personal reflection and role-playing by participants.

**One day NRP provider course for new interns:** The NRP instructors who were previously trained in February 2015 held a one day NRP training for 20 newly arrived interns in pediatrics and obstetrics. The US training team assisted in skills stations and hands-on demonstration, acting a co-trainers and mentors to the Gondar NRP instructors.

**Supplies and equipment:** Training supplies for both ongoing NRP training and the post resuscitation care course were brought by the US team. The medical equipment which was brought related directly to the skills stations which were taught in each module. The use of the medical equipment was introduced in the skill stations which were taught in each module. All instructors and learners received hands-on training in the use of the medical equipment and supplies and were able to practice applications in clinical scenarios in order to facilitate its introduction and implementation in the clinical setting. Medical equipment included cardiac monitors, oximeters, infusion pumps, a suction machine and supplies for nasal CPAP. The participants were also trained on the appropriate use of the isolette which they have in the nursery. Implementation supplies such as oxygen delivery equipment, IV infusion supplies, thermometers and stethoscopes were also supplied to allow early implementation of the techniques discussed.

**Ancillary program for providing “birthing kits” for prevention of hypothermia in the delivery room:** An ancillary program was developed to help the University of Gondar College of Medicine and Health Sciences develop a birthing kit for prevention of hypothermia in the delivery room. This kit includes a gown for the mothers which will allow skin-to-skin warming immediately after delivery, 2 blankets and a hat to dry and warm the baby immediately after delivery. As a separately funded ancillary program, we brought cotton and flannel material to make 250 gowns and 500 blankets. The University, in conjunction with the Gondar Fasiledes Rotary club, will supervise the making of the birthing gowns and blankets for use in the delivery room.

**Course Evaluation:** The curriculum was well-received by the instructors and the learners who felt that it was immediately applicable to their practice and could help to improve the neonatal care. They particularly appreciated the emphasis on “hands-on” learning and practice in the skills stations. Sample responses included “I liked all the modules very much but I particularly appreciated the skills training which will allow me to be perfect in delivering the care” “It is so interesting because learning by doing is best” “I can see learning more and more with this type of training”.

**Problems encountered:** Although we received letters of authorization from the University prior to coming into Ethiopia with medical training equipment and supplies, 3 of our suitcases filled with equipment and supplies were confiscated at customs in Addis. Negotiations are on-going to allow release to the supplies to Gondar University and the university officials assured us that the supplies will eventually be received by Gondar University. Having gone through this process, we will make sure that all the approvals from the Ministry of Health, customs and letters of donation are approved well ahead of our next trip.

**Plans for training trip # 3:** After debriefing with our partners in Gondar, the following was established as a plan for the second part of the neonatal post resuscitation care course which is tentatively planned for April 2016:

A 4 day instructor course to cover 3 topics: Treatment and prevention of neonatal infection

Care of the asphyxiated infant

Early diagnosis and treatment of neonatal jaundice

Our teaching methods will remain the same, including active learning, skills practice with scenarios and the development of care paths and care bundles to guide development of treatment protocols.

Our instructors will teach three learner courses each lasting 2 days while being mentored by the US training team.

Recommended a one day symposium on team work, communication and professional ethics, which are all areas which the Gondar team felt needed to be emphasized in their system. This symposium could be opened up to a larger audience in the Medical and Nursing school communities.

A one day course with obstetricians, midwives and nurses to identify “champions” to roll out important improvements in prevention of hypothermia in the delivery room including skin-to-skin warming, warm resuscitation and warm transport.

PICTURES OF SEPTEMBER 2015 ROTARY VOCATIONAL TRAINING TEAM IN POST RESUSCITATION CARE



Demonstration of IV infusion pump



Return demonstration safe IV fluid preparation



Prevention of hypothermia



Demonstration of Nasal CPAP system



Using suction machine



Practicing Kangaroo Mother Care



Evacuation of pneumothorax



Workshop on "Dynamics of Change"



Role playing in Change workshop



Hands-on practice with cardiac monitor



Practicing technique of breast milk expression



Ethiopian instructors demonstrate use of IV pump



Hands-on practice using isolette



Classroom discussion



Practicing Kangaroo Mother Care



Developmental Care



Instructors University of Gondar



Staying Connected to improve the care of the newborn

