



Kanti Children's Hospital, Nepal

Reporting period: April 1, 2017 – June 30, 2017

Prepared by: Ganesh Shrestha, Program Manager

Pragya Gautam, Program and M&E Coordinator

Organization: Real Medicine Foundation Nepal (www.realmedicinefoundation.org)

Project title: Kanti Children's Hospital

Project location: Kathmandu, Nepal



April–June 2017

Real Medicine Foundation
11700 National Blvd., Suite 234
Los Angeles, CA 90064
+1.310.820.4502

Background

Kanti Children's Hospital is the only government referral level children's hospital in Nepal and provides medical care to children up to age 14. The targeted number of children to be served directly and indirectly by the hospital is approximately 10,068,900 each year (34.9% of total population, Nepal Population Report, 2016).

The administration of the hospital is overseen by Kanti Children's Hospital Development Board, which is an autonomous body under the Ministry of Health. The hospital is heavily dependent on the government for financial support and human resources. Thus, although Kanti Children's Hospital provides free health services to financially challenged patients, there are always constraints with regard to the availability of funds, which makes it challenging to provide medical support to every child that is referred to the hospital. Recently, the hospital development board decided to upgrade the Intensive Care Unit (ICU) from 8 beds to 52 beds. The hospital has also started a triage area in the Emergency Unit.

RMF Support to Kanti Children's Hospital

Shortly after the April 2015 earthquake, Real Medicine Foundation started its support of Kanti Children's Hospital by donating \$408,000 worth of medicines, medical supplies, and laboratory supplies. RMF also continues to support a blood bank, lodging, food, transportation, medicines, laboratory services, and other necessities for needy patients and their families.

Summary of Activities

395 patients in the Emergency Unit and 77 patients in the neonatal ICU (NICU) were treated in Kanti Children's Hospital between April and June of 2017. In the NICU, neonatal sepsis was the most common diagnosis (31 cases) followed by premature birth (18 cases), hypoxic-ischemic encephalopathy (7 cases), and CHILD syndrome (7 cases). In the Emergency Unit triage, 35 patients were classified code red (immediate action required for survival) whereas 360 patients were classified code yellow (sick but not life-threatening condition).

RMF-Supported Staff

In response to the request of Kanti Children's Hospital Development board, RMF expanded its efforts in Kanti Children's Hospital in June 2017, by supporting two additional nurses. RMF also recruited two pediatric surgeons as new Medical Officers.

RMF is now providing the hospital with a total of 3 Medical Officers and 4 Registered Nurses. The three doctors provide services in the Central ICU Department, and the nurses work in the Emergency Unit triage and medical wards.

RMF Nepal's New Medical Officers and Registered Nurses:



Dr. Rajesh Sah is from Janakpur, a town of historical significance in Nepal. He is a pediatric surgeon registered with the Nepal Medical Council and has 11 years of extensive experience in the medical profession. After earning his MBBS at the Medical College of Zhengzhou University, China in 2003 and his postgraduate degree in pediatric surgery from King Edward Medical University, Pakistan, Dr. Sah worked in numerous medical institutes, hospitals, and private clinics, as well as working with national and international non-governmental organizations throughout Nepal. Dr. Sah has also taught MBBS students at Janaki Medical College and worked as a training coordinator for various contraceptive surgeries.

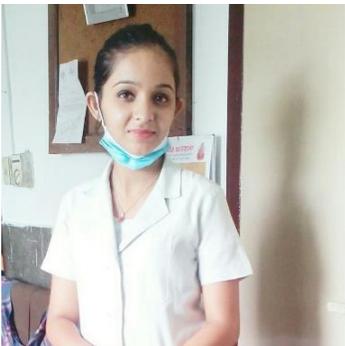
Dr. Sah is a dexterous surgeon and an expert in the management of pediatric general and gastrointestinal surgery. His work includes complex pediatric surgical cases, such as urological and oncological cases and congenital defects. With a great deal of training throughout his career, Dr. Sah has also had his research articles presented at conferences and published in journals.

Now as an RMF Medical Officer, Dr. Sah is providing his valuable services to the needy children in the surgical ward, burn ward, and surgical ICU of Kanti Children's Hospital.



Dr. Raj Kumar Singh is from Kathmandu, and he is a pediatric surgeon registered with the Nepal Medical Council. He holds an MD from Chuvash State University, Russia and completed his postgraduate studies, specializing in pediatric surgery, at Shaheed Zulfiqar Ali Bhutto Medical University, Pakistan Institute of Medical Sciences, Islamabad, Pakistan in 2016. After specialty registration with the Nepal Medical Council, he began working in Kanti Children's Hospital as a volunteer, since pediatric surgery is considered a critical subject and is available mainly in Kathmandu, the country's capital city.

Dr. Singh is now working as an RMF Medical Officer in the surgical department of Kanti Children's Hospital. He provides service in the surgical ward, burn ward, and the surgical ICU. Dr. Singh is a very hardworking and keen surgeon, who selflessly serves the needy children. With more than 8 years of experience in a reputable, multi-specialty hospital of Nepal, he has had a great deal of training, including handling of medico-legal problems, clinical management of HIV/AIDS, etc. Dr. Singh expects to further sharpen his surgical skills at Kanti Children's Hospital and is thankful to RMF for supporting him.



Rusa Giri is from Baudha, Kathmandu, and she is a nurse registered with the Nepal Nursing Council. Rusa completed her Proficiency Certificate Level (PCL) in Nursing, first division, at the Nepal Institute of Health Science Baudha in 2016. She then began volunteering as a registered nurse in the medical ward of Kanti Children's Hospital.

Rusa is now an RMF Nurse working in the medical ward of Kanti Children's Hospital, and her duty is to receive the admitted children from different sources, assess the children, formulate nursing diagnoses according to the assessment, implement care, and evaluate the effectiveness of her care. It is also Rusa's responsibility to assist the senior nurses and doctors with different procedures, keep record of inventories at the ward, and be ready for any emergency. Rusa expects to learn much from the rich sources of knowledge available in the hospital, which will help her to grow in both her personal and professional journey.



Samita Shrestha is a registered nurse from Kathmandu. She completed her Proficiency Certificate Level (PCL) in Nursing at BP Memorial Health Institute and Research Center in 2017 and volunteered in the surgical ward of Kanti Children's Hospital for 3 months before joining RMF's team.

Samita now works as an RMF Nurse in the triage area of the Emergency Department of Kanti Children's Hospital. She receives the children at the Emergency Department, assesses their condition, and classifies the urgency of their case: requires immediate medical action for survival (code red), sick but not

life-threatening condition (code yellow), less severe condition that can wait awhile (code green), or dead on arrival (code black), and sends the patient to the respective color zone for treatment.

In her spare time, Samita is a social worker providing services through the LEO Club of Kathmandu, Jorpati. She is a member of the club.

Looking Ahead

RMF will continue our long-term support of Kanti Children’s Hospital. Our current support consists mainly of human resources, but we are also strategically providing the hospital with funding for necessary equipment, facilities, and are looking into affiliation with international hospitals.

With this in mind, Kanti Children’s Hospital has formally requested that RMF increase its support for the expanding ICU department:

1. ICU beds for the CICU (Central Intensive Care Unit)
2. Fully equipped cardiac catheterization laboratory
3. Additional staff for the CICU and emergency triage area
4. Financial support for children’s first phase treatment

Patients Admitted to Kanti Children’s Hospital ICU: April–June 2017

Total number of patients in Neonatal ICU

| SN | Disease | April | May | June | Total |
|--------------|---------------------------------|-----------|-----------|-----------|-----------|
| 1 | Neonatal Sepsis (NNS) | 11 | 11 | 9 | 31 |
| 2 | Premature Birth | 5 | 7 | 6 | 18 |
| 3 | Hypoxic-Ischemic Encephalopathy | 3 | 3 | 1 | 7 |
| 4 | CHILD Syndrome | 2 | 4 | 1 | 7 |
| 5 | Neonatal Jaundice | 1 | 3 | 0 | 4 |
| 6 | Meconium Aspiration Syndrome | 2 | 2 | 0 | 4 |
| 7 | Respiratory Distress Syndrome | 2 | 1 | 1 | 4 |
| 8 | Perinatal Asphyxia | 0 | 1 | 1 | 2 |
| Total | | 26 | 32 | 19 | 77 |

As the nurses in the Emergency Unit triage were appointed in late April, only reports from May and June are included in the following tables:

Condition Urgency Classification Numbers May–June 2017

| SN | Month | Code Red | Code Yellow | Total |
|--------------|-------|-----------|-------------|------------|
| 1 | May | 20 | 198 | 218 |
| 2 | June | 15 | 162 | 177 |
| Total | | 35 | 360 | 395 |

Emergency Unit Patient Numbers by Age

| Age | May | | June | | Total |
|--------------------|-----|--------|------|--------|-------|
| | Red | Yellow | Red | Yellow | |
| Neonate (<28 days) | 3 | 74 | 7 | 57 | 141 |
| Infant (<1year) | 3 | 34 | 3 | 26 | 66 |
| 1–5 years | 9 | 49 | 3 | 40 | 101 |

| | | | | | |
|--------------|-----------|------------|-----------|------------|------------|
| 5–10 years | 3 | 27 | 1 | 22 | 53 |
| 10+ years | 2 | 14 | 1 | 17 | 34 |
| Total | 20 | 198 | 15 | 162 | 395 |

Success Stories

1. Baby of Rama Tamang

Rama Tamang’s baby was received in the Emergency Unit triage area of Kanti Children’s Hospital on June 7. The baby was 37 days old and seriously ill. He was brought to the hospital as a referral case from Bharatpur Hospital in the Chitwan District of Nepal. In response to his severe distress, RMF Nurse Sita identified his immediate treatment needs, tagged the baby with code red tag, and urged the pediatrician to attend to the case. The baby was provided with continuous oxygenation and intravenous access. The attending physician immediately consulted with the doctor in the pediatric ICU who admitted the child at once. The child was still in severe distress and his oxygen saturation level was falling. He was immediately intubated and transferred to the pediatric ICU for further management with a diagnosis of sepsis.



Rama Tamang intubated and ready to transfer to PICU

2. Dilip Budhathoki



Dilip Budhathoki with burn injuries

Dilip Budhathoki was brought from Rolpa to Kanti Children’s Hospital. Rolpa is a remote hilly district located in the midwestern region of Nepal. The people of Rolpa live in hardship, and facilities such as up-to-date schools and health centers are only a dream for its denizens. Moreover, villagers must walk several days to access health facilities as there is no other form of transportation available.

One evening when Dilip Budhathoki’s mother was preparing dinner, her toddler son was playing and accidentally hit a cooking utensil which was on fire. Oil was being heated to make curry for the dinner, and the hot oil splashed all over Dilip’s face and body. The 2-year-old boy was immediately rushed to the nearest health center, but the facilities were not equipped to handle his case. The wound was dressed, and he was given some analgesic syrup, but they recommended he be taken to a better health facility. Upon inquiring, they came to know that better treatment can be sought at Kanti Children’s Hospital in Kathmandu, so they brought Dilip here. Upon his arrival at the Emergency Unit of Kanti Children’s Hospital, it 3 days had already passed since the burn injury. RMF Nurse Nirjala immediately tagged the child with a code red tag and urged the doctor to attend to the case. Dilip was diagnosed with a 15% 2nd degree burn, and because the burn was on his face, his case was prioritized. After a surgical consultation, the child was admitted to the Burn Ward.

3. Baby of Devi Gurung

A baby born to mother Devi Gurung and father Milan Gurung was brought to the Emergency Unit of Kanti Children’s Hospital with difficulty breathing and prematurity. The baby was born far too early and weighed 1500g at birth. She was previously treated in another hospital and was referred to Kanti Children’s Hospital for further management.

An RMF medical officer immediately attended to the patient's consultation request and sent out all the necessary laboratory tests. On examination, the baby was pale, ill-looking, and in distress. The baby began medication, intubation, and mechanical ventilation. The patient was in critical condition and required intensive care. For 7 days, she continued mechanical ventilation after which her distress decreased, and she was fit to extubate. However, her blood count was also low, and she required a blood transfusion. A few days after admission the baby also developed jaundice.



Condition of Devi Gurung's baby improving after treatment at NICU of Kanti Children's Hospital

After a long-term stay at the neonatal ICU (NICU) during which she was treated with various medicines, monitored closely, and received meticulous care from RMF doctors and other staff, the baby's condition slowly improved, which was evidenced by weight gain, a decrease in distress, and improvement of her jaundice symptoms. Once the patient's condition was stable, she was discharged from the ICU. The child's parents were very grateful to RMF doctors for their dedication to the treatment of the child and thanked them for giving their dying child new life.

4. Baby of Mausami Tamang

Mausami Tamang's baby was transferred to the NICU from the Emergency Unit. Upon arrival, the parents explained that the baby's skin was yellowing, and he even refused to feed. Because feeding refusal is a major symptom of neonatal sepsis, he was immediately admitted to the NICU where his bilirubin level was found to be very high. RMF doctors assessed the child, sent for all routine and special laboratory tests, and started the baby on intravenous infusion. He also received phototherapy, a special treatment modality for jaundice in newborns, as well as antibiotics to treat the existing infection. After a few days under the continuous scrutiny of RMF doctors, the child showed a marked improvement; he was gaining weight and his bilirubin levels were decreasing. After 10 days, the child was discharged from the NICU.



Mausami Tamang's baby being treated with phototherapy



Mausami Tamang's baby healthy and ready from discharge from NICU

5. Baby of Sumita Shah

Sumita Shah's baby was brought from Dhanusa District of Nepal to Kanti Children's Hospital. The child was 6 days old on arrival. Along with breathing difficulties, the baby also had severe infection with brain injuries due to lack of oxygen (hypoxia). The baby was immediately intubated in the Emergency Unit, and after undergoing blood tests he was transferred to the NICU for further care. RMF doctors took scrupulous care throughout the child's treatment. After 5 days of mechanical ventilation and well-timed antibiotics, the patient was improving, as evidenced by weight gain and an increase in appetite. The child was discharged after 8 days.



Sumita when admitted to the NICU



Sumita ready for discharge from the NICU