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...a seedling for the future growth of NEPAS...

Official Newsletter of Nepal Paediatric Society

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Dear colleagues,

It is most heartening that we are coming out with the second volume of the newsletter. We have come out with the four issues of the first volume and it has been well received even though we expected more responses in the form of comments. We have a dynamic young editorial team and I'm sure they will continue their excellent work with changes and new ideas added in each issue. We have a major article by the PULSE team this time and this would be an excellent example for how to document future major activities and events that we organize.

I'm also coming to the end of my term as President with the final major event the NEPAS conference being held in March 2014. We hope to have a strong international participation during this conference with Ambica Memorial Oration given by Prof. Masood Sadiq, renowned paediatric cardiologist from Pakistan, NEPAS oration by our own outstanding and one of the most sought after paediatrician Prof. Ramesh Kant Adhikari, Prof. Bromberg, an authority on Infectious Diseases from USA, also participants from Bangladesh, India, Japan, Pakistan, Sri Lanka, UK, USA along with our own renowned speakers and also speakers from allied disciplines like dermatology, dental, nephrology, adolescent health etc. I look forward to participation from all the NEPAS members and also from anyone interested and working in the field of child health.

Efforts to regenerate the association of paediatricians of the South Asia region took firm footing with the organizing of a SAARC Summit on child health in New Delhi on November 16 and 17, 2013 with the efforts of IAP and its president and secretary Dr. C P Bansal and Dr. Sailesh Gupta respectively. The summit was attended by representatives from Bangladesh, India, Nepal, Pakistan, and Sri Lanka with presentations on status of newborn, under five and adolescents of the region and a whole afternoon devoted to the formation of SAPA (South Asia Pediatric Association). Nepal has agreed to host the secretariat and so the secretary and the treasurer will be from Nepal that is, I as the secretary and Dr. Kailash Sah as the treasurer. We also suggested the name of Dr. Laxman Shrestha the president elect as representative in the SAPA executive board representing NEPAS.

We have included quality health care as part of the theme for conference and I was fortunate to attend two events related to the theme. I attended the WHO meeting in New Delhi on how to achieve quality health care for maternal, newborn child and adolescent health care and an event organized by the Nepal Medical Council on Continuing Professional Development (CPD) which is going to be historical pioneering effort for the region. Both these events will be efforts to improve the standard of health care in Nepal and we in NEPAS have to chuck out the role we can play.

As other activities continue we must work hard to prepare for the upcoming conference and make it a grand success for which I take this opportunity to request all for your full support and participation.

Wishing all a very happy prosperous successful and peaceful year 2014.

**Dr. Jyoti Ratna Dhakhwa**  
President NEPAS



### Quote of the issue:

Health is the vital principle of bliss, and exercise, and of health

-James Thomson



## MY STORY OF PAEDIATRICS and CHILD HEALTH: KCH, IOM, NEPAS and IOCH

Dr. Manindra R Baral  
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Professor in Child Health

### 10+6

After nearly 3 years of stay in Scotland, I returned from UK in 1969 with specialisation in Paediatrics. I reported to Health Ministry and was posted to Bir Hospital which had 10 paediatric beds. I joined

the bandwagon of 6 paediatricians- Drs PL Rajbhandari (PLR), YB Shrestha (YBS), BR Pandey (BRP), DL Singh (DLS), H Dixit (HD) and myself (MRB) making 10+6. Kanti Hospital, popularly known as Russian Hospital – a 50 bed general hospital built with Russian assistance was handed over to the Health Ministry to be run by Nepali doctors. Kanti Hospital became a white elephant to the government and in July 1970 it was decided to convert it into a 100 bed Paediatric Hospital, not as a felt need for better child care but as a compulsion to solve the problems of paediatricians of whole country totalling 6 mentioned above. Senior most Dr. PLR was crowned with Medical Superintendent of the hospital. Thus Kanti Hospital became Paediatric Hospital overnight.

After retirement of PLR, the post of KCH Medical Superintendent was offered to YBS who politely refused the offer as it was next to impossible to run a National Tertiary Children's Hospital with a budget of only 13 lakhs – of which 9.5 lakhs was for salary only. Upon refusal by YBS, I was appointed on that post and I took it up as a challenge. With help and support of everyone right from the then PM, planners, administrators, whose children were looked after by me, I could succeed next year to make a yearly budget provision of more than a crore for the hospital.

### KCH

On assumption of post of the chief of hospital, first came the annual budgetary increase, then my next task was to name Kanti Hospital as Kanti Children's Hospital (KCH) so that it is identified as National Hospital for sick children and to bring under a development board by law. Kanti Hospital was named after grand Queen Mother and it was not easy to insert **Children's** after Kanti. The cabinet meeting unknowingly passed the proposal submitted by Health Ministry as Kanti Children's Hospital Development Board and automatically became semi-autonomous Kanti Children's Hospital.

In March 1979, I was sent to United Kingdom for WHO Fellowship of 3 month's training in Neonatal Medicine. Upon my return I was running around and looking for perspective donors including UNICEF to help establish NICU at KCH. Dr. Ranendra Prakash B Shrestha (RPBS) was back from UK after completing membership in Paediatrics and joined KCH. I requested him to help me and take up the challenge of establishing NICU. He readily accepted to start from zero. An incubator donated by German Nepal Friendship Association was lying idle in the store but needed repair. A beginning was made, one old cabin room was allocated and NICU was started with this incubator and heaters were made available to warm up the room.

### IOM, KCH and Japanese Grant

IOM was built with Japanese Grant Aid. Because of its proximity with KCH, written agreement was made to use KCH facilities for the training of MBBS and other categories of health workers of IOM and no children's bed provision was made at IOM under Japanese Grant Aid. A separate teaching unit was allocated to IOM Paediatric Faculty. The Paediatric Faculty of IOM and KCH Consultants worked hand in hand when MBBS course at IOM started in 1978. Mr. Ram Shanker Shrestha the then Chairman and I approached a very influential Japanese Diet Member and friend of Nepal Mr. Ryutaro Hashimoto, who had come to Kathmandu for a private visit. Both of us requested him to help upgrade KCH. Mr. Hashimoto pleaded our cause to Japanese Government which yielded fruitful result. The first grant aid was totally utilised to establish and equip NICU and install oxygen plant. The subsequent second grant completely changed face of KCH. In my long association with KCH, I had few achievements but lot of satisfaction. KCH needs continuity of Grant Aids in order to replace old worn out equipments with new and further infrastructure development.

### NEPAS

During my second term of NMA Presidentship, I had pleaded with the executive committee of NMA to work for bringing different sub-speciality under the umbrella of NMA. This was not agreeable to NMA. As Paediatricians wanted to have their own association I tendered my resignation from second term NMA Presidentship and started ground work to form Nepal

Paediatric Society (NEPAS). With great effort of Dr. Ramesh Kant Adhikari (RKA) and myself, NEPAS was duly registered on 14 June 1981-the very first specialist organisation. The very first NEPCON of an international nature was organised held within a year of its formation.

Thanks to private Medical Colleges, more than a dozen now, paediatric services is now available in the far and near of the country. KCH does not have to work now beyond its capacity and capability. Many of them have started Post Graduate in Paediatrics and Paediatricians are increasing in numbers and so the NEPAS members. NEPAS has done good things in the past including ORT and IMCI activities. It has still many, many roles to play. It has to get IOCH (Institute of Child Health) established in the country.

## IOCH

It was in 1994 during Mr. Man Mohan Adhikari's premiership, I approached him with a plea for the establishment of Institute of Child Health (IOCH). The cabinet in principle approved the establishment of IOCH and a task force was formed. The task force submitted the report in time which went through many Premiers and Health Ministers but the establishment of IOCH has not been materialised so far. As children like women cannot vote, fight election, form the pressure group and raise their voice, NEPAS should not be a silent spectator but practice advocacy for child health and development. Paediatricians should not remain in the four walls of hospital and with their organisation-NEPAS should come out it to play constructive role in areas of child right and health and continue the struggle to get IOCH established.

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## &lt;GUEST ARTICLE&gt;

# Paediatric Universal Life-Saving Effort (PULSE): Bridging the Gap. Building Futures

**Dr. Marilyn Kioko MD, Vice President, PULSE**  
**Dr. Loiusdon Pierre MD FAAP, President, PULSE**

## Introduction

The United Nations in the year 2000 issued a global challenge to end poverty by 2015 with the Millennium Development Goals (MDG). Of the eight, we embrace goal 4 [Child Health] as a global health initiative, believing that we can decrease infant and child mortality by addressing health inequalities, by increasing access to acute health care, building and strengthening local capacity to promote sustainability and forming partnerships with multiple sectors to achieve these goals. In June 2010, Paediatric Universal Life-Saving Effort, Inc (PULSE) was created to channel our collective resources, skills and talents towards this cause. The organization, registered in the State of New York in September 2010, was created out of necessity to address substantial disparity in access to quality, specialized intensive care services for children in developing countries, with the recognition that a significant amount of childhood mortality is from preventable causes.

**Operation:** Our model utilizes pro-bono professionals who donate their time and skill set to advance knowledge and training in acute and intensive care for children worldwide. Our medical volunteers are paediatric intensive care physicians and nurses, who share a similar interest in international medicine and global outreach. Many have participated in international medical missions in various countries and/or work in medically underserved communities within the United States. To date 22 paediatric acute care specialists have participated in our global health teams.

**Location:** We currently have four work sites in Kenya, Haiti, Nepal and El Salvador, and will extend our capacity to Nigeria in 2014. Our model employs establishing a central hub for teaching and training, and development of a Paediatric Intensive Care Unit (PICU) that serves a larger urban population but is inclusive of training for medical staff from the surrounding region. However, the similarity in the initial collaboration among these sites was the absence of a fully operational PICU, and no formal paediatric critical care training.

**Training:** The education tools utilized are standardized across these sites and are in-line with international best-practice guidelines for recognition and assessment of an acutely ill child, stabilization and resuscitation. Volunteers from our organization are certified instructors with international credentials to certify health care workers in the principles of basic life support (BLS) paediatric early assessment recognition and stabilization (PEARS), paediatric advanced life support

(PALS), Neonatal Resuscitation Provider (NRP) courses and the paediatric fundamentals of critical care support (PFCCS). These programs are recognized by the American Heart Association, the American Academy of Paediatrics and the Society of Critical Care Medicine.

Since 2010 we have begun a step-wise and step-up teaching initiative within the various teaching hubs to certify doctors and nurses with these standardized education tools and equip them with the fundamentals needed for paediatric intensive care clinical practice. The second phase is to identify local health care practitioners to become certified instructors in the various courses to expand their reach, and reduce the cost associated with mobilizing international trainers. In 2012 we identified 4 instructors in Kathmandu Nepal, and have begun the process of training trainers, with the second course held at Kathmandu Medical College in July 2013, where 3 of the 4 instructors taught the PFCCS critical care course alongside our faculty.

**Infrastructure:** Some of the hospitals where we began working already had the structure of an Intensive Care Unit and the basic machinery that providing critical care entails, but the vast majority did not. We began with the installation of patient monitoring equipment to include continuous ECG and pulse oximetry monitoring, intravenous infusion pumps and portable suction. We also provided disposal oxygen delivery devices, bag-valve mask resuscitators, nebulizer kits and machines, and provided in-service on correct use. The challenges faced in all locations where there was not an ICU already in place was the lack of piped oxygen and compressed air to the room in order to facilitate the use of mechanical ventilators.

## PULSE in Nepal

The relative duplication of a PICU as it is known to the developed country may not be readily implemented and will be subject to the criticism of not being cost effective. However, it is desirable that a limited number of fully equipped paediatric intensive care units exist in resource-limited environments, and critical that the health system collaborate with local and international stakeholders in a focused effort to develop the framework. Starting in 2007, educational and clinical missions to Kathmandu by a consultant Intensivist and Neonatologist associated with PULSE provided some insight into how we could assist hospitals in the region to develop the field. During the first mission in 2007, we interacted with professors

at the Tribhuvan University, provided consultation with the hospital administration for the design of a paediatric intensive care unit and introduced the concept of bubble CPAP in the treatment of respiratory distress syndrome (RDS) in neonates, which paediatricians at Tribhuvan later demonstrated success in its use in curbing 28-day mortality and preventing the development of chronic lung disease, mirroring the shift from mechanical ventilation in developed countries to providing early CPAP for premature, low-birthweight infants with RDS, and surfactant deficiency.

The first organized PULSE mission to Nepal was in March 2012, in which the first PFCCS course in Nepal was held at Kathmandu Medical College. From the moment our team arrived in Kathmandu we were made to feel comfortable by the friendship towards us and encouraged by the eagerness to learn, and share their experience with us. Although there are many very well trained paediatricians in Nepal, there are very few paediatricians with formal neonatal and paediatric intensive care training. The group of trainees that we interacted with came from different regions, and represented various medical centers in Nepal. We look forward to returning

to Nepal to conduct more courses and certify local instructors to carry on the work of intensive care capacity building.

In 2013 we conducted a needs assessment via an anonymous survey distributed to members of the Nepal Paediatric Society aiming to highlight the perceived scarcity of critical care services and identify barriers in delivery of paediatric critical care in this region. We received and analyzed 65 responses from paediatricians and paediatric post-graduate trainees from 18 teaching institutions in Nepal which documents the scarcity of PICU beds and significant disparities among institutions caring for critically ill children. There are highly effective low cost modalities of treatment that are not available to health care practitioners in these hospitals. Some areas where we observed deficiencies were in access to cost-effective devices such as bubble CPAP for infant respiratory support, intraosseous needles for rapid access for fluid and blood pressure support, and appropriate monitoring devices to assist in anticipation and guide timely intervention. Furthermore, integrating teaching facilities through cross training of medical personnel and improved inter-hospital transport and communication may provide for better resource utilization.

## <SYNDROME OF THE ISSUE>

# Treacher Collins Syndrome

- **Introduction**-A rare disease characterized by typical cranio-facial deformity.
- **History**-Named after English surgeon and ophthalmologist Edward Treacher Collins in 1900
- **Etiology**-Unknown exactly. Mutations in TCOF1, POLR1C, POLR1D gene, transmitted as autosomal dominant disorder.
- **Incidence**-1 in 50,000 live births.
- **Features**-  
Typical facies:  
  - Eyes-Downward/slanting/drooping lateral eyelids/sparse eyelashes
  - Ears-Small, malformed or absent/defective conductive hearing
  - Facial-Micrognathia, underdeveloped cheek bones
  - Dental-tooth agenesis, enamel deformity, malposition of maxillary first molars
- **Diagnosis**-Clinical
- **Differential diagnosis**- Acrofacial dysostosis, Goldenhar syndrome
- **Treatment**-Symptomatic management/surgical interventions for the craniofacial deformities.
- **Prognosis**-Good if complications are well managed.

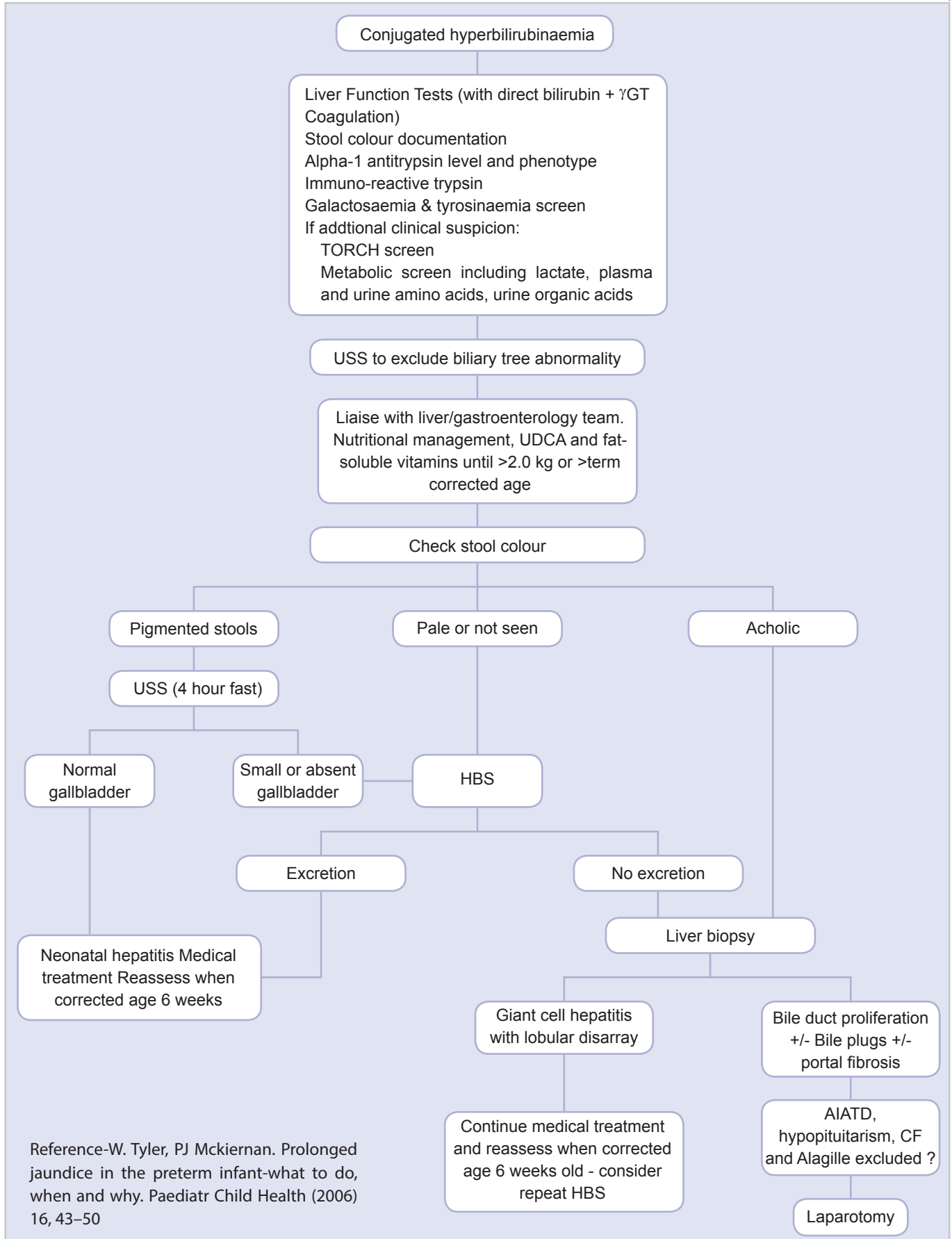


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<APPROACH OF THE ISSUE>

# Approach to Neonatal Cholestasis



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Regional Meeting on Improving Quality of Care for Reproductive-Maternal-Newborn-Child-Adolescent Health (RMNCAH), 16 to 18 December 2013, New Delhi



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