

manage this and future pandemics. We should also look at indigenous manufacturing of high quality PPEs, point of care diagnostics and ICU equipment as these are crucial part of pandemic preparedness.

Finally, the pediatrician treating the sick child is a susceptible adult and due care must be taken by all pediatricians while examining children, particularly those with respiratory symptoms. Use of appropriate PPE, postponing routine visits (immunization visits can be continued as per WHO guidelines), allowing only one attendant with the child in the clinic, frequent sanitizing of the clinic, educating the clinic staff and parents accompanying children, appropriate use of telemedicine, avoiding throat examination, spacing out appointments, hydroxychloroquine prophylaxis are some ways in which pediatricians can minimize the risk to themselves. For pediatricians serving in ICUs, following strict guidelines issued by IAP [7] and government is of utmost importance.

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REFERENCES

1. Kulkarni R, Kinikar A. Lessons learnt from the H₁N₁ 2009 pandemic – The Pune experience. *Indian Pediatr.* 2010;47:810-1.
2. World Health Organization. Novel Coronavirus 2019. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus2019>. Accessed on April 4, 2020.
3. Dong Y, Mo X, Hu Y, Qi X, Jiang F, Jiang Z, et al. Epidemiological characteristics of 2143 pediatric patients with 2019 coronavirus disease in China. *Pediatrics.* 2020. Available from: <https://pediatrics.aappublications.org/content/pediatrics/early/2020/03/16/peds.2020-0702.full.pdf>. Accessed on April 4, 2020.
4. Shanker V. Measles immunization: Worth considering containment strategy for SARS-CoV-2 global outbreak *Indian Pediatr.* 2020 Mar 29 (published online). Available from: <https://www.indianpediatrics.net/CONVID29.03.2020/CORR-00153.pdf>. Accessed on April 8, 2020.
5. Yadav U, Pal R. Challenging times for children with transfusion-dependent thalassemia amid the COVID-19 pandemic *Indian Pediatr.* 2020; Apr 7 [Published online]. Available from: <https://www.indianpediatrics.net/CONVID29.03.2020/CORR-00155.pdf>. Accessed on April 8, 2020.
6. Press Information Bureau, Government of India, Ministry of Health and Family. Preventive measures on swine flu. Available from: <http://pib.nic.in/newsite/PrintRelease.aspx?Relid=115710>. Accessed on April 8, 2020.
7. Chawla D, Chirla D, Dalwai S, Deorari AK, Gantras A, Gandhi A, et al. Perinatal-Neonatal Management of COVID-19 Infection - Guidelines of the Federation of Obstetric and Gynecological Societies of India (FOGSI), National Neonatology Forum of India (NNF), and Indian Academy of Pediatrics (IAP). *Indian Pediatr.* 2020 Apr 1. [published online]. Available from: <https://indianpediatrics.net/CONVID29.03.2020/SA-00154.pdf>. Accessed on April 4, 2020.

Pediatric Palliative Care: An Innovative Approach to Pediatric Care for Children With Life-Threatening Conditions

Pediatric palliative care (PPC) is a specialized comprehensive care approach for children living with life-limiting and life-threatening illness. The focus is providing relief from the symptoms and the stress of the illness. The goal is to improve quality of life for both child and the family. The specially trained team which consists of a doctor, nurse, counsellor and sometimes, depending on resources, physiotherapist, play/music therapist, religious person, work together with other doctors of the

child as an extra layer of support. Palliative care is appropriate at any age and at any stage of illness and it can be provided along with curative treatment or as standalone.

The American Academy of Pediatrics states that “*the components of palliative care are offered at diagnosis and continued throughout the course of illness, whether the outcome ends in cure or death*” [1]. Access to palliative care is being considered a human right [2] and most pediatric hospitals in developed countries are working towards integrating the program to demonstrate better standards of care.

The palliative goals of care depending on the diagnosis and condition of the child can vary from supportive care during curative treatment to symptomatic management and end of life care. Children with these chronic illnesses might experience multiple

crises requiring intensive care which are stressful to them and their families. The palliative care team provides additional support during emergencies and health crises, while also helping to address the challenges of daily living. Therefore, an integrated palliative care program ideally consists of out-patient, in-patient, hospice and home care to maintain continuum of services. However, there are many successful PPC models across the world which have a different combination of these services.

A study published in 2017 estimated the global need for PPC to be 21.6 million, with 8.2 million children needing access to specialist palliative care service provision [3]. In India, these authors estimate that there are 1.6 million children in need of specialized pediatric palliative care [3]. Presently, there are very few trained PPC specialist doctors in India, which is both due to the lack of awareness about the existence of such a specialty, and limited provisions for training in this specialty. As

some centers are now providing training in this speciality, we feel that more young pediatricians need to take-up this specialty by utilizing available training facilities, so that the quality of life of children with life-threatening conditions can be improved.

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REFERENCES

1. American Academy of Pediatrics. Committee on Bioethics and Committee on Hospital Care. Palliative Care for Children. *Pediatrics*. 2000;106:351-7.
2. Brennan F. Palliative care as an international human right. *J Pain Symptom Manage*. 2007;33:494-9.
3. Connor SR, Downing J, Marston J. Estimating the global need for palliative care for children: A cross-sectional analysis. *J Pain Symptom Manage*. 2017;53:171-7.

Melioidosis Presenting with Membranous Tonsillitis and Erythema Nodosum

A 12-year-old boy presented with fever and cough of 12 days and painful skin lesions on legs for two days. He did not have any pre-existing medical illness, history of contact with soil, or groundwater. He presented in July, which is monsoon season in coastal Karnataka. On examination, his weight was 30 kg (75th percentile), height was 130 cm (50th to 75th centile), and vitals were stable. Oral examination revealed red and swollen tonsils with an exudative membrane on the medial surface. He had multiple erythematous, tender, nodular lesions of 10-20 mm size on bilateral lower limbs consistent with erythema nodosum. Systemic examination was unremarkable. Baseline blood tests showed hemoglobin of 10.5 g/dL, total leukocyte count of $11.8 \times 10^9/L$ (P 80%, L 16%), platelet count of $241 \times 10^9/L$, erythrocyte sedimentation rate of 42 mm/h and C-reactive protein of 96 mg/dL. Throat swab and blood culture were sent, and he was prescribed intravenous amoxicillin/clavulanic acid and amikacin. His throat swab isolated *Burkholderia pseudomallei*, hence antibiotics were changed to intravenous ceftazidime (120 mg/kg/day). The child improved with resolution of symptoms over the next four days. He received ceftazidime for 10 days and was discharged on oral trimethoprim-sulfamethaxazole

(6mg/kg of trimethoprim) for three months. The child is well at six month follow-up.

Melioidosis, caused by soil saprophyte *B. pseudomallei*, is an endemic infection in India [1]. Due to diverse clinical manifestation and lack of routine bacteriological detection methods, melioidosis stays under-diagnosed and under-reported [2]. Typical clinical



Fig. 1 Erythematous nodular lesions seen on the lower limbs.