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The Challenges of low-birth-weight newborn management in resource limited country

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The first cry of a newborn resonates with the melody of life, yet for parents expecting premature and low birth weight babies especially in low-resource settings, this melody might be converted into the cry of struggle for survival. Preterm is defined as babies born alive before 37 weeks of pregnancy are completed and the babies born with a birth weight less than 2.5 kg are considered as low birth weight. Despite of the advancement in medical sciences and technology the higher incidence of premature and low birth weight babies is still a serious issue especially faced by the low resource countries. According to WHO fact sheet, an estimated 13.4 million babies were born preterm in the year 2020 ^[1].

Preterm birth complications are among the leading cause of death among children under five years of age ^[2]. The deadly complications include respiratory distress syndrome (RDS), chronic lung disease (CLD), necrotizing enterocolitis (NEC), patent ductus arteriosus (PDA), and intraventricular hemorrhage (IVH) leading to morbidity and mortality ^[3,4].

For the treating physician in case of low birth weight preterm infants, it feels like walking on a tight rope involving a delicate balance between life-saving interventions and minimizing the risk of potential complications. Malnutrition, affecting both mothers and newborns, weakens immune systems and increases susceptibility to infections, further hindering their chances of survival and healthy development. Their fight for survival becomes even harder due to the lack of resources.

The challenges faced during their treatment are multifaceted including inadequate infrastructure, uneven distribution of specialized health centers. The well-equipped neonatal units are usually centralized to the urban areas, which are not easily accessible by the remote rural population. Moreover, the high occupancy rate of these units further exaggerates the worsening situation like scarcity of resources and lack of highly skilled trained staff. The highest cost of specialized treatment like surfactant therapy and assisted ventilation even makes it unsurmountable for non-affording families. The emotional and financial burden can be devastating for the parents. It can lead to difficult choices for the doctors,

prioritizing some interventions over others, maintaining an intricate balance between the resources and potential complications. Despite all these challenges, witnessing the tiny fighters defy the odds and thriving against all the predictions is the reward for physicians beyond measures.

Establishing a network of accessible and well-equipped NICUs, particularly in rural area is of vital importance for ensuring the optimal care to the newborns. Besides the adequate infrastructure, the role of adequately trained nursing staff to take care of critically ill neonates cannot be denied ^[5]. There is a need for sensitizing the general public regarding the preventable factors leading to low birth weight and preterm newborns.

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The Pakistan Demographic and Health Survey revealed that 34% of Pakistani women deliver at home ^[6]. The home deliveries without supervision of skilled birth attendants can result in serious consequences both for mother and baby ^[7]. Our mothers and the whole family must be educated regarding their healthy nutritional status, appropriate birth spacing, regular antenatal visits to the medical health services and planning the child birth in adequately equipped healthcare setups to avoid perinatal complications.

Treating premature babies in Pakistan is a constant battle that is worth fighting. By acknowledging the challenges, investing in solutions, raising awareness about the complications of premature babies, promoting healthy pregnancies, and advocating for policies that support families facing this challenge, we can create a more thriving environment for premature and low birth weight infants.

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