

From innovation to impact: Strengthening India's response to neonatal care

Preterm complications are the leading cause of neonatal mortality in the country and contribute to lifelong health challenges, including respiratory illness, developmental delays, and sensory impairments. **Atul Chadha**, Business Head - South Asia (PCS), Growth & Opportunity Driver, Digital Healthcare, GE HealthCare in an interaction with **Express Healthcare** talks about the medical challenges of premature babies and GE HealthCare's neonatal care solutions

With India accounting for over one-fifth of the world's preterm births, why is this such a critical healthcare concern, and what significant challenges are adding to the burden?

India faces the highest burden of preterm births globally, with more than 3 million babies born prematurely each year.¹ Preterm complications are the leading cause of neonatal mortality in the country and contribute to lifelong health challenges, including respiratory illness, developmental delays, and sensory impairments.

The causes are complex and interlinked—maternal anaemia, hypertension, infections, inadequate nutrition, and adolescent pregnancies are common risk factors, compounded by environmental issues such as air pollution and poor sanitation. These medical and social determinants are intensified by systemic healthcare gaps. Access to timely prenatal care, skilled obstetric intervention, and advanced neonatal intensive care remains uneven, particularly in rural and semi-urban areas where specialised infrastructure and trained personnel are limited.

The magnitude of the challenge necessitates deployment of advanced solutions to strengthen the entire continuum of care—from pregnancy to postnatal support. GE HealthCare's maternal-infant care portfolio, including advanced maternal and fetal monitoring systems, scalable neonatal technologies, and AI-enabled



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decision-support tools, is designed to help clinicians detect complications early, manage high-risk pregnancies, and deliver quality neonatal care. This holistic approach supports improved survival rates and healthier outcomes for preterm infants nationwide.

How is GE HealthCare addressing the medical challenges of premature babies, especially those born before 30 weeks?

Premature babies, particularly those born before 30 weeks, face critical health challenges, including underdeveloped lungs, difficulty maintaining body temperature, and vulnerabilities in brain development. Across India, where neonatal infrastructure and specialized care remain uneven, these infants require precise, high-acuity support. GE HealthCare addresses these challenges through its maternal-infant care solutions, designed to provide responsive, compassionate, and clinically advanced care. The Giraffe OmniBed Carestation ensures a stable, warm environment with intelligent thermal controls, while Panda and Lullaby™ Warmers deliver rapid, uniform heat immediately after birth, vital for stabilizing infants in the first critical moments.

For respiratory support, the SLE6000 Ventilator provides gentle, precision-controlled airflow tailored to delicate lungs, and continuous oxygen monitoring through the Clinical View platform

enables clinicians to track SpO₂ levels over time, reducing the risk of complications such as Retinopathy of Prematurity. Beyond technology, GE HealthCare strengthens NICU (Neonatal Intensive Care Unit) outcomes through local clinical training, service partnerships, and guidance on best practices, ensuring hospitals are equipped to deliver high-quality care. By integrating innovative technologies with education and infrastructure support, GE HealthCare empowers clinicians across India to improve survival rates and long-term developmental outcomes for preterm infants, helping these most vulnerable patients thrive.

What differentiates GE HealthCare neonatal care technologies from those of other players, and how are they tailored to India's specific clinical and infrastructure needs?

GE HealthCare's neonatal care solutions are designed to meet the complex and evolving demands of preterm and vulnerable newborns, while also addressing key neonatal care challenges in India, such as uneven infrastructure, high patient volumes, and resource constraints in smaller hospitals. GE HealthCare combines global clinical expertise with locally driven innovation and manufacturing, leveraging our largest global R&D centre in Bengaluru to develop technologies specifically tailored to India's neonatal care environment.

Our portfolio supports the

full continuum of neonatal care, from delivery to discharge. The Giraffe OmniBed Carestation integrates incubator and warmer functionalities, providing a consistently controlled, neuroprotective environment, while paired with the Giraffe Shuttle, it ensures safe intra-hospital transport with stable thermal regulation and continuous monitoring. For resource-limited settings, solutions like the Lullaby Warmer Prime and Lullaby Incubator deliver reliable, easy-to-use thermal care, and the BiliSoft Phototherapy System treats neonatal jaundice effectively without interrupting mother-baby bonding.

Designed for durability, energy efficiency, and operational simplicity, these solutions bring advanced neonatal care to both high-end NICUs and smaller hospitals. By combining technology, clinical insight, and local adaptation, GE HealthCare is helping clinicians across India deliver safer, more effective care for the country's most vulnerable newborns.

How is GE HealthCare supporting skill development among clinicians to ensure the effective use of high-end

neonatal tech across India?

Ensuring that advanced neonatal technologies are used effectively across India requires more than just state-of-the-art equipment—it demands skilled clinicians. GE HealthCare supports this through structured training programs that give healthcare professionals practical experience in managing critical newborn care needs, including temperature stability, respiratory support, and neurodevelopmental monitoring. Recognizing the diverse healthcare landscape, we extend learning beyond major cities through digital platforms like e-learning modules, webinars, and mobile-accessible resources, helping clinicians in smaller towns and rural areas stay updated on best practices.

We also work closely with hospitals, medical colleges, and government initiatives to integrate neonatal training into broader healthcare education, fostering consistent standards and long-term clinical capacity. Complementing these programs are refresher courses and certification updates, ensuring professionals are equipped to apply evolving clinical guidelines effectively. By

combining technology with continuous learning and mentorship, GE HealthCare empowers clinicians across India to provide high-quality, responsive care, enhancing survival and outcomes for preterm babies.

How is GE HealthCare collaborating with ecosystem players to address neonatal care challenges in India?

Expanding access to quality neonatal care requires strong partnerships across the healthcare ecosystem. At GE HealthCare, we work closely with private hospitals, government stakeholders, and academic institutions to address the complex challenges of neonatal care in India. These collaborations go beyond supplying technology by focusing on clinical integration, workforce development, and sustainable innovation. With private healthcare providers, we co-create solutions that include custom NICU workflows, standardised clinical protocols, and targeted training programs ensuring that advanced neonatal care tools are used effectively, particularly in the treatment of extremely premature infants.

Under initiatives like the Government of India's

Production Linked Incentive (PLI) Scheme, our local manufacturing capabilities support the development of high-end medical technologies in India. We also align with national programs such as the Ayushman Bharat Digital Mission to enable digital health integration, data-driven care, and remote monitoring in underserved areas. In partnership with public hospitals, we help deploy affordable and reliable solutions to strengthen neonatal care in district hospitals and special newborn care units (SNCUs).

Through our academic collaborations, we offer structured training in neonatology, critical care, and fetal medicine covering everything from simulation-based learning to certification programs. These partnerships reflect our commitment to building a stronger, future-ready neonatal care ecosystem across India.

What is GE HealthCare's long-term vision for advancing neonatal care in India over the next 5-10 years?

Our vision is to create a future where every newborn, regardless of where they are born, has access to high-quality, precise care. We are

advancing this goal by developing intelligent, connected medical technologies tailored to the unique needs of fragile neonates. Our efforts focus on expanding access across India, from large hospitals to smaller care settings in tier 2 and 3 cities, ensuring timely interventions for even the most premature babies. By empowering clinicians with smarter tools and actionable insights, we aim to advance more responsive, personalized care.

Beyond technology, we are committed to strengthening the broader healthcare ecosystem. Through education programs and partnerships with healthcare providers, academic institutions, and government initiatives, we aim to build clinical capacity where it is needed most. Additionally, we are deepening our investments in local R&D to ensure our solutions are not only clinically advanced but also affordable and locally relevant. Together, these efforts lay the foundation for a more equitable, resilient, and high-quality neonatal care system across India.

Reference

<https://pmc.ncbi.nlm.nih.gov/articles/PMC10434923/>

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