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Complications of Prematurity - An Infographic

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Abstract

Infographics or information graphics are easy-to-understand visual representation of knowledge. An infographic outlining the course of an extremely preterm infant and various potential complications encountered during a neonatal intensive care unit (NICU) stay was developed. This infographic can be used to discuss outcomes of prematurity during prenatal counseling and while the infant is in the NICU.

Commentary

Imminent preterm delivery induces fear and anxiety among parents. This is a time when normal course of pregnancy is cut short and parents are unprepared. A neonatal specialist is often asked to counsel parents and review the course of an extremely preterm infant. At this crucial moment, the consulting Neonatologist has to be honest about outcomes and instill hope. Consulting practices vary widely according to the level of neonatal intensive care unit and experience of the provider ¹. American Academy of Pediatrics published their formal recommendations in 2002 addressing the perinatal consultation for impending delivery of an extreme preterm infant ². The most common scenario is to provide anticipatory information to parents regarding the survival, outcome and care of their preterm infant and thus help them in decision-making. The neonatal research network provides a calculator ³ to assess outcomes based on available data which is often used during counseling.

Following the birth of an extremely premature infant, parents are often dazed, confused and shocked. Neonatal providers talk about new medical terms using abbreviations such as IVH, RDS, NEC, and SIP. The ultimate goal of a prenatal and postnatal counseling of an anxious parent is to provide concise information in a manner which will help them understand the outcomes, risk and benefits of future therapy, immediate and late complications of prematurity.

Can an infographic play a role in the prenatal and postnatal discussion about extreme prematurity?

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An overwhelmed parent may not be able to assimilate the substantial amount of information they are provided. The authors have used an infographic (figure 1) to discuss outcomes of prematurity during prenatal counseling and on postnatal day 2 or 3. Infographics or information graphics are easy to understand visual representation of knowledge. Complex topics can be presented in a simple manner to enhance communication. Infographics is a recently coined term, but the concept has been around since ancient times to bypass the language barrier during communication. McCroire et al. ⁴ have highlighted the use of infographics in the medical field and highlight the use of simple traffic lights to complex arrays as part of communication without language barriers. Presenting complex medical information through infographics may be an effective way of prenatal counseling. Based on the recent report of NICHD outcome data ⁵ we developed an infographic which summarizes the early and late complications of prematurity. The figure also highlights some of the routinely used management options and can be used as an additional tool during standardized prenatal and postnatal communication ⁶. The infographic can also be revisited periodically during the course of the NICU stay.

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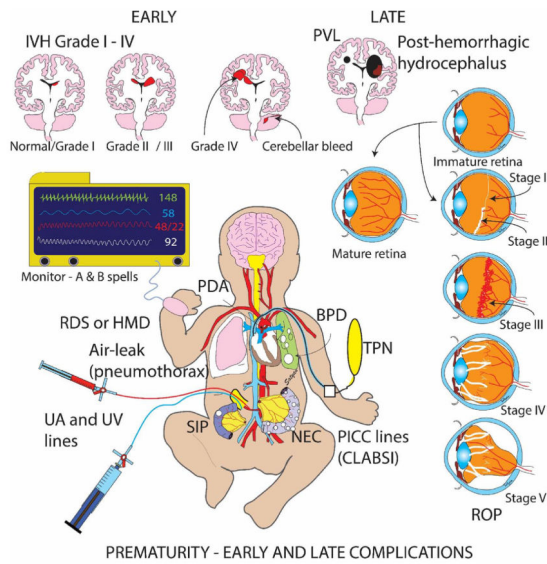
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**ABBREVIATIONS:**

- A & B – Apnea and bradycardia
- BPD – bronchopulmonary dysplasia
- CLABSI – central line associated blood infection
- IVH – intraventricular hemorrhage (bleeding in the brain)
- NEC – necrotizing enterocolitis
- PDA – patent ductus arteriosus (a fetal channel shunting blood from the aorta to the lungs)
- PICC line – percutaneously inserted central catheter (a small tube placed in the baby's vein and threaded to reach a large blood vessel near the heart)
- PVL – periventricular leukomalacia
- RDS – respiratory distress syndrome; or HMD – hyaline membrane disease – refers to immature lungs with surfactant deficiency
- ROP – retinopathy of prematurity
- SIP – spontaneous intestinal perforation
- TPN – total parenteral nutrition
- UA – umbilical arterial (line used to monitor blood pressure and draw blood for lab studies)
- UV – umbilical vein (line used to provide nutrition and fluids)

Figure 1. Infographic used for counseling of parents. The figure summarizes and explains the early and late complications of prematurity.