

Healthcare outcomes of preterm infants in neonatal intensive care units in Latin America

A couple asks about the chances of survival of their unborn premature baby. What can we answer? I often hear my colleagues say that we should always tell the truth to the family.

But, do we abide by this mandate? It is essential that, to provide certain information, we should have it. For this reason, after reading the article by Toso et al. in this issue of *Archivos Argentinos de Pediatría*, my first thought was how important it is to analyze data that reflect the true chances of survival (and morbidities) of preterm infants.¹ When these data are registered in the NEOCOSUR Network, one of the most under-reported benefits is that this forces participating units to have their own data, which should be taken into consideration when counseling families.

Of course, the information obtained from the unit and the entire network is not only important for the simulated case I described in the beginning of this comment. Having your own data is the first step in improving the quality of care and communication with families. The NEOCOSUR Network also gives us the possibility of comparing our units, and these comparisons help us to focus our efforts on improving our weaknesses. Unfortunately, many neonatology units do not record basic outcome data.

The article should make us reflect on several aspects. On the one hand, a certain delight to see that 80% of the mothers had the possibility of receiving at least one dose of antenatal corticosteroids. It is known that this is one of the most cost-effective interventions to improve the prognosis of preterm infants, and such percentage speaks of a growing awareness of obstetricians about the importance of these medications.²

On the other hand, many of us have probably felt frustrated by the lack of progress in the outcomes. A 25% mortality rate in the study population seems very high compared to data from developed countries or some of the other networks.^{3,4} Moreover, we have recently observed, to our surprise, a survival rate of more than 50% among preterm infants born at 22-23 weeks of gestation in some units.^{5,6}

In this study, one of the leading causes of death of preterm infants in the delivery room are

congenital malformations.¹ It is possible that, in other countries, many of the pregnancies with an antenatal diagnosis of severe malformation may have been terminated before viability. This is not the case in Latin America, so that, to a minimal extent, the higher mortality rate may be the result of this phenomenon.

Therefore, we must ask ourselves what are the main reasons for the lack of progress in the outcomes observed in our units. The reasons probably reflect the global problems of the NEOCOSUR Network member countries, although we are aware of the differences among the different neonatology units that make up the network and those in other Latin American countries.

The data provided by this study allow us to verify that infections and acute respiratory conditions are the most important aspects to be optimized to reduce mortality. In this sense, we must direct our efforts to improve the training of both nursing and medical human resources.

Certainly, the socioeconomic reality of our countries also plays a role. Some aspects, such as the shortage of staff in some units—resulting from the lack of professional development incentives and low salaries—are responsible for the high incidence of infections and various errors in daily practice. This should encourage us to make the authorities aware of the importance of addressing health policies in this regard.

Infection prevention and traditional infant care are the cornerstones for improving the survival of preterm newborn infants. In the NEOCOSUR Network, some units have better results than others, and this opens the possibility of working with what is known as benchmarking in the bibliography in English: one of the units may serve as a guide for another in terms of overall care or specific aspects (on-site training).⁷ This may also help to adopt—and adhere to—good practice recommendations, guidelines, etc. As mentioned in the discussion in the article by Toso et al.,¹ implementing and following health care protocols directly improves outcomes.⁸

Most likely, some of the units will request to upgrade or modernize equipment to improve their outcomes and, in some cases, this may be actually necessary. However, we must make it a

point not to misdirect our focus. The number and training of human resources; the homogenization of infant care 24 hours a day, 365 days a year; and the global support of the institution (laboratory, diagnostic imaging, pharmacy) have a much greater impact on the outcomes than a more or less sophisticated device to ventilate or monitor patients.

Another important finding in the article is that it clearly shows that two-thirds of deaths in very low birth weight infants occur during the first week of life.¹ It is not true that neonatology units spend an enormous amount of money and effort on infants who, one way or another, will die. It should be clear then that most of our efforts are targeted at the care of infants who will survive. There is no way to increase survival rates and the quality of survival of small preterm infants that does not involve putting in even more efforts. ■

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REFERENCES

1. Toso A, Vaz Ferreira C, Herrera T, Villarroel L, et al. Mortalidad en recién nacidos de muy bajo peso al nacer en la Red Neonatal NEOCOSUR: causalidad y temporalidad. *Arch Argent Pediatr* 2022;120(5):296-303.
2. McGoldrick E, Stewart F, Parker R, Dalziel SR. Antenatal corticosteroids for accelerating fetal lung maturation for women at risk of preterm birth. *Cochrane Database Syst Rev*. 2020; 12(12):CD004454.
3. Grisaru-Granovsky S, Reichman B, Lerner-Geva L, Boyko V, et al. Population-based trends in mortality and neonatal morbidities among singleton, very preterm, very low birth weight infants over 16 years. *Early Hum Dev*. 2014; 90(12):821-7.
4. Younge N, Goldstein RF, Bann CM, Hintz SR, et al. Survival and neurodevelopmental outcomes among periviable infants. *N Engl J Med*. 2017; 376(7):617-28.
5. Ågren J. The proactive approach to mother-infant dyads at 22-24 weeks of gestation: Perspectives from a Swedish center. *Semin Perinatol*. 2022; 46(1):151536.
6. Dagle JM, Rysavy MA, Hunter SK, Colaizy TT, et al. Cardiorespiratory management of infants born at 22 weeks' gestation: The Iowa approach. *Semin Perinatol*. 2022; 46(1):151545.
7. Soll RF, McGuire W. Evidence-based practice: improving the quality of perinatal care. *Neonatology*. 2019; 116(3):193-8.
8. Balakrishnan M, Raghavan A, Suresh GK. Eliminating undesirable variation in neonatal practice: balancing standardization and customization. *Clin Perinatol*. 2017; 44(3):529-40.