Born Safely in 2023

Nascer com Segurança em 2023

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Immediately after delivery, a physiological process of oxygen delivery transitions from the placenta to the neonatal lungs.[1] Although the vast majority of newborn infants make this transition from intrauterine to extrauterine spontaneously, approximately 10%-15% of them will require some support to begin breathing at birth.[2] This critical period was first called "the golden minutes" by Vento *et al* in 2009.[3] Later, the International Liaison Committee on Resuscitation (ILCOR) recognized the importance of the first minute of life using the term "Golden Minute".[4] That means that, if this is a need for resuscitation, it must be initiated within one minute following delivery.

The steps of neonatal resuscitation, established by international guidelines, follow a well-known sequence that consists in dry and provide warmth, position, assess the airway, stimulate to breathe, ventilation, chest compressions, medications and/or volume expansion.[2,4] Since some decades ago, it is well recognized that the team who is providing care to the newborn in the delivery room must have knowledge and experience in neonatal resuscitation, and that it should be led preferentially by a pediatrician neonatologist, who is the one in charge of taking decisions and realizing advanced resuscitation, such as intubation and administration of drugs, if it is the case. Anticipation by knowing potential risks before delivery, adequate preparation, precise evaluation, and immediate initiation of support are critical for successful neonatal resuscitation.

Birth asphyxia, defined by World Health Organization (WHO) as the failure at initiate and sustain breathing at birth, causes annually about 1 million neonatal deaths globally, with 99% of them occurring in low- and middle-income countries.[5] Morbidity resulting from birth asphyxia, although not well quantified, is quite high. Asphyxiated newborns can suffer from short- to long term- disabilities, such as cerebral palsy, cognitive/motor problems, epilepsy, learning disorders, schizophrenia and other psychiatric diseases in adulthood.[6] Evidence suggests that successful neonatal resuscitation by well-trained professionals has the potential to prevent most deaths and sequelae derived from birth asphyxia.[5] That is why the "Golden Minute" is described by some authors as "One minute that can mean a lifetime".

For all these reasons, since the last decades of the 20th century, hospital birth has been the cornerstone to reduce drastically maternal and neonatal mortality. Because of this reduction, childbirth began to be considered a safe procedure, which, together with a greater social awareness of the need for humanization of this process, have led in last years to an increase in the demand for home birth.[7] Nevertheless, according to the American Academy of Pediatrics, home birth in the United States has been associated to increased fetal or neonatal mortality, increased incidence of neonatal seizures and higher incidence of an Apgar score < 4 at 5 minutes.[8] Better outcomes are reported in other countries such as Australia, United Kingdom and Netherlands but in these countries home birth is integrated in the national public health service, which has implied in allocation of adequate material resources, management of childbirth by properly trained and accredited professionals, and coordination with hospital-based obstetrics and neonatology units.[7]

This growing demand by the civil society for childbirth humanization is undoubtedly legitimate and various medical associations have recommended the development of more

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humane models of care during labour and delivery to bring them closer to the natural physiological process of birth. Nonetheless, these tempts of humanization have brought some wrong concepts such as that the presence of professionals, like the pediatrician neonatologist, is not necessary in the delivery room. Birth humanization is necessary but while continuing to ensure the safety of the mother and mainly, of the newborn. Every infant deserves health care consistent with that highlighted by current guidelines elaborated by neonatal care committees. We cannot forget that the newborn is the most vulnerable element in this process and neonatal safety should be our first priority.

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