Assessing of the prevalence, process and types of neonatal resuscitation in Alavi hospital of Ardabil at 2021-2022

Abstract

Background: Due to the high prevalence of irreversible consequences and mortality in infants in need of resuscitation, all hospitals need to assess the resuscitation status, quality, prevalence, and outcome of measures in order to improve their status and strengths and weaknesses.

Aim: To evaluate the prevalence, process and types of neonatal resuscitation in Alavi hospital of Ardabil at 2021-2022.

Materials and methods: This cross-sectional analytical study was performed on all resuscitated neonates at Alavi Hospital in Ardabil in 2021-2022. Data include maternal age, birth status (term, preterm), gestational age, demographic characteristics of infants (Apgar score, gender, birth weight, birth order), before childbirth factors, during childbirth factors, type of resuscitation (advanced and primary), success rate, and length of hospital stay were extracted from neonatal resuscitation records.

Results: The total number of newborns and newborns in need of resuscitation in 2021-22 was 4667 and 229, respectively. The sex of most infants was male (66.8%). The prevalence of resuscitation was 4.9% (2.3% initial resuscitation and 2.6% advanced resuscitation). The most common risk factors before childbirth were a history of fetal or neonatal death (14%), gestational hypertension (11%), and multiple births (11%). The most common risk factors during childbirth were preterm delivery (14.8%), prolonged bradycardia (10.9%), and emergency cesarean section (8.7%). The result of resuscitation was significantly related to the type of resuscitation (P=0.001), length of hospital stay (P=0.001), number of factors during delivery (P=0.023), birth weight (P=0.006), first minute Apgar score (P <0.001), and fifth minute Apgar score (P <0.001). The type of resuscitation had a significant relationship with the number of factors before (P=0.001) and during childbirth (P<0.001), maternal age (P=0.016), week of pregnancy (P=0.039), birth weight (P<0.001)), first minute Apgar score (P<0.001), and fifth minute Apgar score (P<0.001).

Conclusion: The prevalence of resuscitation was 4.9% (2.3% initial resuscitation and 2.6% advanced resuscitation). The most important influencing factors before childbirth were the maternal age and the history of fetal or neonatal death and during childbirth was preterm delivery, and 7% of resuscitation cases passed away.
Keywords: Resuscitation, Distress, Apgar, Infant, Hospital.