

*Short Communication***The reported causes for neonatal death in hospitals of Isfahan province in 2005**

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Abstract

Background: Improving the neonatal health and reducing the neonatal mortality rate is valuable for not only health reasons, but social, psychological and economic reasons. It has advantages not just for the neonatal period of life but for the whole life. Unfortunately in Iran, in spite of efforts, there has been little success in decreasing the neonatal mortality rate. Since investigating the causes of neonatal mortality is important for planning interventions, this study aimed to find the reported causes of neonatal death in the hospitals of Isfahan province.

Methods: This was a cross-sectional descriptive study in which all the neonates who died in the hospitals of Isfahan province were selected by headcount method and data were extracted from their files by using a questionnaire.

Results: The most neonate death was in the hospitals with NICU wards (43.4%) and most frequent reasons for neonatal death were problems of prematurity (44.6%, 42.6%) and congenital malformations (23.5%, 21.3%) in hospitals with and without NICU departments in Isfahan city, respectively; in hospitals of other cities in the province, most frequent reasons for neonatal death were problems of prematurity (47.5%) and Respiratory Distress Syndrome (18.1%).

Conclusion: To achieve the important goal, reducing the neonatal mortality rate, there should be more efforts to improve the number and quality of NICU departments and prevent preterm birth. Also, there should be emphasis on necessity of health care before and during pregnancy and genetic consultations.

Key words: neonatal mortality, hospital, NICU

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Improving the neonatal health and reducing the neonatal mortality rate is valuable for not only health reasons, but social, psychological and economic reasons and its advantages include not only for the neonatal period, but beyond that for the childhood, adolescence and the whole life.¹

According to the world statistics, at least one out of each three death happens in children less than 5 years of age, belongs to neonates. This makes the neonatal mortality control very important, especially in the developing countries.¹

In Iran also, improving health of mothers and infants as two fragile groups of the society,

has special priority in health service policies and as a basic need of the society.² According to the data provided by the DHS (The Islamic Republic of Iran state of health and population) the neonatal mortality rate in Iran was 18.3 in 2000 and it reduced to 15.63 in 2004. In spite of efforts and 50% decrease in infant mortality in Iran, there has been little success in reducing neonatal mortality rate.

Based on the millennium development goals, one of the duties of the governments is to reduce the mortality rate of children under 5 years of age in 2015 to two third of the rate in

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1990 and infant mortality rate is one of the criteria for development.¹ Since more than two third of infant mortality happens under 1 month of age, achieving this goal needs a precise investigation of the causes of neonatal mortality so that plan necessary interventions for decreasing it. This study aimed to find the frequency and causes of neonatal mortalities in hospitals with and without NICU departments in Isfahan city and other cities of the Isfahan province.

Methods

This was a descriptive cross-sectional retrospective study and data were collected in one stage. The study population included all the neonates died in the hospitals of Isfahan province from 21 March 2005 to 20 March 2006. Sampling was based on head counting and entry criteria included death between after birth until 28 days of age in one of the province hospitals and the existence of cause of death in the clinical files. Descriptive statistics via SPSS software was used for data analysis.

Results

The reported causes of neonatal death in 4 hospitals with NICU wards and 13 hospitals without NICU wards in the city of Isfahan; 18 hospitals and 16 maternity wards, none of which has NICU wards, in other cities of the province were studied and the results showed that 578 cases of neonatal death happened in the one year of the study, the highest frequency of neonatal mortality happened in hospitals with NICU wards (43.4%) and after that the hospitals of other cities of the province had a high rate (30.6%) and hospitals without NICU wards in the city of Isfahan were the next (26%).

In addition, the most causes of neonatal death in the hospitals with NICU in the city of Isfahan were related to prematurity problems (44.6%), congenital malformations (23.5%) and other reasons (such as pneumonia and infection)(16.7%). The most causes of neonatal death in the hospitals with NICU in the city of Isfahan were respectively prematurity problems

(42.6%), congenital malformations (21.3%) and other reasons (13.4%) and in hospitals of other cities in the province, the causes of death were respectively prematurity problems (47.5%), RDS (respiratory distress syndrome) (18.1%) and other reasons (15.3%).

Discussion

According to the results of this study, the highest rate of neonatal mortality belongs to those hospitals with NICU wards (43.4% of all cases) and the commonest cause of neonatal death in these hospitals and also in hospitals without NICU wards are prematurity problems and congenital malformations. Janqorban in her study on neonatal mortality in Fars province during 2004 and 2005, mentioned prematurity, congenital malformations, birth damages, low weight and unknown as the causes of their death,³ which is similar to the results of present study about the most common causes of neonatal death.

Since most of neonatal mortality is due to the problems of prematurity, preventing preterm birth by standard health care during pregnancies becomes very important.

Also, since the second cause of neonatal death in hospitals with or without NICU wards is related to congenital malformations, it is necessary to prevent such disorders by genetic consultations before pregnancy.

Moreover, the findings showed that the second cause of neonatal death in the hospitals of other cities in the province (second to prematurity problems) is RDS; therefore, it is emphasized that the centers without NICU avoid admitting deliveries of premature and risky infants as much as possible and send the patients to more equipped health centers before the definite symptoms of delivery are started. In addition, to prevent neonatal mortality and disabilities due to prematurity for inevitable delivery cases in such hospitals, health care personnel and physicians should be enabled to revive the newborns successfully.

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