

CODEN [USA]: IAJPBB ISSN: 2349-7750

## INDO AMERICAN JOURNAL OF PHARMACEUTICAL SCIENCES

http://doi.org/10.5281/zenodo.1245907

Available online at: http://www.iajps.com

Research Article

# A RETROSPECTIVE STUDY TO KNOW THE PERINATAL MORTALITY RATE AND ITS SEQUENCE IN NISHTER HOSPITAL MULTAN

<sup>1</sup>Dr. Ayesha Munir, <sup>2</sup>Muhammad Awais Farooq, <sup>3</sup>Dr. Abubakkar <sup>1</sup>Medical Officer, Medicare Hospital, Rawalpindi. <sup>2</sup>Medical officer, RHC 229 RB Faisalabad <sup>3</sup>Medical Officer, Basic health Unit. Chak No.15/1R District Okara

#### **Abstract:**

*Objective:* To determine perinatal mortality pattern and related risk factors of obstetrics.

Study Design: A retrospective study

**Place and Duration:** From February 2016 to February 2018 the study was held in th Gynae Unit II of Nishter Hospital, Multan for the period of two years.

Methodology: All patients delivered at the Gynae Unit II during the study period were included. These women were recommended to follow OPD a week after birth. Perinatal deaths, including stillbirths and early neonatal deaths (NND), have taken place within the next 7 days of birth. Those with a gestational age shorter than 28 weeks were excluded. The data were collected from the Excel perinatal mortality study page and also collected information such as age, parity, gestational age, complications during pregnancy, and the way of delivery and delivery. Perinatal data included weight, gestational age, sex of the baby, Apgar score at birth and possible causes of death.

Findings: 20,231 deliveries were made in the two year period. There were 1373 perinatal deaths. 867 was still born, and 506 died within the next seven days from birth. The overall perinatal mortality rate was 67.8 / 1000 and the still birth rate was 42.9 / 1000. Mechanisms were present in 21% of the cases, prematurity in 20.3% and hypertensive disorders in 18.8% of the cases. Antepartum haemorrhage was 11.8%, maternal infections / medical problems were 6.5%, congenital anomalies were 4.4% and in newborns was 15.3%.

**Conclusion:** Perinatal mortality association was observed due to prenatal care, early gestational age and low birth weight. Thus, providing good delivery services such as antenatal care, emergency birth and neonatal care services at birth will help reduce perinatal mortality in developing countries.

**Key words:** Perinatal mortality, Early neonatal mortality rate, fetal mortality rate.

### **Corresponding author:**

**Dr. Ayesha Munir,** *Medical Officer, Medicare Hospital, Rawalpindi* 



Please cite this article in press Ayesha Munir et al., A Retrospective Study to Know the Perinatal Mortality Rate and Its Sequence in Nishter Hospital Multan, Indo Am. J. P. Sci, 2018; 05(05).

#### **INTRODUCTION:**

According to WHO, the perinatal period begins at 22 weeks of gestation and ends seven days after birth. Our study period was 28 weeks pregnancy in the first seven days. Birth due to the limited facilities of the newborn care. Perinatal mortality is a sensitive indicator of the quality of services provided to pregnant women and newborns. Control of perinatal mortality in an institution not only helps to determine service quality, but also important causes of perinatal deaths and mitigation measures. World Health Organization estimates that worldwide perinatal deaths rose by 7.6 million and 98% of these deaths occurred in developing countries. The countdown to the 2015-2010 report (2000-2010) showed that infant mortality rates are declining around the world. However, 49 out of 68 countries were found to be still unavailable to reach MDG4 (mainly due to perinatal mortality) (dropping infant mortality by 2/3, a decline of 4.4% per year). In general, insistently high and especially high neonatal mortality. In Pakistan, 5.3 million births per year kill 270,000 newborns. In Pakistan, the neonatal mortality rate is 62-81 / 1000 births3. Achieving MDG was probably a dream in our world. The aim of ODS for infant mortality is to prevent the deaths of infants under the age of five and children. All countries aim to reduce neonatal mortality to at least 12 deaths per 1,000 live births. Risk factors for perinatal mortality are numerous. Many studies have shown a strong association between birth and asphyxia, preterm birth, neonatal infections, infections during pregnancy, maternal anemia, gestational and occupational complications and perinatal mortality. Our hospital is complicated by the urban and rural areas of Punjab is a tertiary center in the case of cases. It has been reported that many births take place in domestic settings and that in particular, fetal deaths are inadequate for reliable reports on perinatal mortality.

#### **METHODOLOGY:**

This is a retrospective study from February 2016 to February 2018. During the study period Gynae II. These women were recommended to follow OPD a week after birth. Perinatal deaths, including stillbirths and ENND, have taken place within the next 7 days of birth. Those who were pregnant for less than 28 weeks were excluded due to the limited availability of current neonatal care. Data were collected from the perinatal mortality study and data such as age, parity, complications of pregnancy during pregnancy, birth and delivery type were collected. Perinatal data included weight, gestational age, sex of the baby, Apgar score at birth and possible causes of death. We had the records of the patients who gave birth to the infants in the hospital and the case notes, and we gathered information about antenatal care, delivery, perinatal outcome and sociodemographic characteristics. Selected data were analyzed using EPI info 2000 software.

#### **RESULTS:**

In the two-year period, 20,231 deliveries were made. There were 1373 perinatal deaths. 867 was still born, and 506 died within the next seven days from birth.

Table I: Frequency of deliveries and perinatal deaths		
Variable	Number	
Total number of deliveries	20231	
Total number of still births	867	
Total number early neonatal deaths	506	
Perinatal mortality rate	67.8	

The perinatal mortality rate in 2014 was 64 and 71 in 2015. The demographic characteristics of the mother are shown in Table II.

Table II: Maternal Demographic Characteristics			
Variable	Total	Percentage	
Booked	125	9.1	
Non Booked	1248	90.9	
Age in years			
15-20 years	368	26.8	
21-30 years	773	56.3	
>30 years	232	16.9	
Parity			
Primi-Para	321	23.4	
Para 1-5	890	64.8	
>5	162	11.8	
Gestational age in weeks			
28-30+ <sup>6</sup>	655	47.7	
32-36 <sup>+6</sup>	412	30.0	
>37	306	22.3	
Weight in Kg			
1 -1.5	306	22.3	
1.6 – 2.5	588	42.8	
2.6 – 4	401	29.2	
>4	78	5.7	
Mode of delivery			
SVD	1049	76.4	
LSCS	324	23.6	

One hundred twenty-five deaths (9.1%) occurred in patients with reserve and 1248 (90.9%) in non-reserve patients. Maternal age was 30.31 years, 773 (56.3%) deaths in mothers between 21-30 years, 368 (26.8%) in 15-20 age group and 232 (16.9%) after 30 years of age. In primigravidae, perinatal death of three hundred twenty-one (23.4%), death of multiparas (1-5), death of 890 (64.8%) and major multiparas (> 5) and 162 (11.8%). The great majority of perinatal deaths were in gestation for 377 weeks or

more in 1067 (77.7%) and 306 (22.3%) in preterm infants. The birth weight distribution of the babies was comparable and 894 (65.1%) of the babies were less than 2.5 kg. Spontaneous vaginal delivery frequency was 1049 (76.4%) and 324 (23.6%) were cesarean sections. The overall perinatal mortality rate was 67.8 / 1000 and the birth rate was 42.9 / 1000. Risk factors for perinatal loss are summarized in Table 3.

Table III: Factors Related to Perinatal Mortality			
Factors	Total	Percentage (%)	
Congenital Anomalies	61	4.4	
Hypertensive disorders		18.8	
PIH	174	12.7	
Eclampsia	84	6.1	
APH		11.8	
Abruptio placentae	138	10.1	
Placenta previa	24	1.7	
Mechanical		21.0	
Obstructed / Prolonged	48	3.6	
Labor			
Intra Uterine growth	30	2.2	
restriction			
Cord prolapse	27	2.0	
Meconium aspiration	46	3.4	
syndrome			
Ruptured uterus	14	1.0	
Transverse lie	26	1.9	
Breech	46	3.4	
Birth asphyxia	51	3.7	
Maternal Medical Problems		6.5	
Heart disease	14	1.0	
Diabetes	39	2.8	

Mechanism in 21%, prematurity in 20.3% and hypertensive disorders in 18.8% were the main risk factors. situations. Antepartum haemorrhage was 11.8%, maternal infections / medical problems were 6.5%, congenital anomalies were 4.4% and in newborns was 15.3%.

#### **DISCUSSION:**

This study demonstrates the perinatal mortality situation in a tertiary referral hospital that is predominantly involved in the household with the anomalies derived from the surrounding health care facilities and urban population. General PMR is not only very high, but also has a trend from a declining trend.10 One of the possible reasons for the decline in the downward trend is the increase in the number of births during the working period, due to the greater size. Asefa et al. As you can see, it is health consciousness and institution for pregnancy and childbirth care. The PNM in undifferentiated cases was 90%, which is consistent with the pooled metaanalysis of the review article. Possible reasons for this are the low socioeconomic level and the cultural pattern observed by Korejo R.5. As stated in the Peshawar study, while the majority of perinatal deaths occur between the ages of 21 and 30 years, Ibrahim SA et al. Annelis and adolescent mothers over the age of 34 are twice as likely to develop PND7. Sixty-four (64.8%) of our patients had a parity of 1-5, consistent with a study conducted at the Jimma University Educational Hospital. 72 (77.7%) perinatal deaths occurred in neonates with gestational ages <37 weeks. Preterm births and low birth weight (<2.5 kg) carry a high risk of perinatal mortality risk. Our work and other surveys. perinatal mortality was defined as maternal primary obstetric causes, mechanical factors (21%), prematurity (20.3%), hypertensive disorders (18.8%) followed by newborn problems (5.3%), APH The results of studying death comment were more or less similar to hypertension (6.5%), congenital anomalies (4.4%), and maternal Jimmal Hospital. Mechanical obstruction caused by prolonged occlusion, uterine rupture, inattentive lie, umbilical cord accidental flares and meconium aspiration at birth and perinatal mortality leading to asphyxia. They reported that 38% of perinatal deaths due to an occluded occlusive labor and 160 / 1,000 in another study.12 This mortality subgroup shows the lack or adequacy of prenatal and intranatal care. countries.13 Period of time in which newborn problems are reported as the leading cause of developing perinatal mortality Hypertensive diseases of the pregnant lead are consistent with Asefa D1 study 18.8% of perinatal deaths in our study 15.3% of perinatal deaths in a Jinnah.5 Hospital survey This point is hygienic needs to improve conditions and

improve the nutritional status of mother and socioeconomic conditions. In our study, maternal disease contributed 6.5% of newborn deaths. Maternal diabetes, anemia and heart disease are mainly characterized by perinatal deaths. Congenital defects are the main cause of perinatal deaths in developed countries 14. In our study, it was found that 4.4% of perinatal deaths due to congenital anomalies were lower than in the developed world, but could be compared to locally existing ones.15 This is due to prenatal care and early availability of modern diagnostic facilities. advanced world. Perinatal deaths can be avoided if the great majority of risk factors are treated early and appropriately. Simple measures such as pre-pregnancy folic acid supplements may reduce the risk of neural tube defects, calcium supplements during pregnancy can reduce the risk of preeclampsia, early recognition of high blood pressure and treatment to reduce the risk of worsening IUGR, RIA and preterm delivery. The Pakistani government's private health programs have provided maternity and new home care services. In addition to the small sample size, this study promotes the current state of maternal and perinatal health care. A small number of perinatal deaths may have been lost in women who were discharged with healthy babies and who did not follow up.

#### **CONCLUSION:**

Perinatal mortality was strongly associated with poor prenatal care, premature gestational age, and low birth weight. Thus, providing good delivery services such as antenatal care, emergency birth and neonatal care services at birth will help reduce perinatal mortality in developing countries.

#### **REFERENCES:**

- Mduma, Estomih R., Hege Ersdal, Jan Terje Kvaloy, Erling Svensen, Paschal Mdoe, Jeffrey Perlman, Hussein Lessio Kidanto, and Eldar Soreide. "Using statistical process control methods to trace small changes in perinatal mortality after a training program in a lowresource setting." *International Journal for Quality in Health Care* 30, no. 4 (2018): 271-275.
- Engjom, Hilde M., Nils-Halvdan Morken, Even Høydahl, Ole F. Norheim, and Kari Klungsøyr. "Increased Risk of Peripartum Perinatal Mortality in Unplanned Births Outside an Institution: A Retrospective Population-Based Study." Obstetrical & Gynecological Survey 73, no. 1 (2018): 8-11.
- Erfani, Hadi, Amir A. Shamshirsaz, Cande V. Ananth, Anthony M. Vintzileos, Steven L. Clark, Michael A. Belfort, and Alireza A. Shamshirsaz.

- "225: Trends in perinatal mortality and racial/ethnic disparity among twins in the United States, 2000-2013." *American Journal of Obstetrics and Gynecology* 218, no. 1 (2018): S147-S148.
- Obeidat, Nail, Bahauddin Sallout, Badi Albaqawi, and Wajeih Al AlAali. "The impact of fetal middle cerebral artery Doppler on the outcome of congenital hydrocephalus." *The Journal of Maternal-Fetal & Neonatal Medicine* 31, no. 4 (2018): 413-417.
- Willcox, M.L., Nicholson, B.D., Price, J., Stuart, B., Roberts, N.W., Allott, H., Mubangizi, V., Dumont, A. and Harnden, A., 2018. Death audits and reviews for reducing maternal, perinatal and child mortality. *Cochrane Database of Systematic Reviews*, 3(CD012982).
- Chauhan, Jimmy P., Samipa J. Shah, Riddhi D. Gor, and Ajay M. Charan. "Comparative Study of Maternal and Perinatal Outcome In Normotensive And Hypertensive Mothers." National Journal of Integrated Research in Medicine 8, no. 5 (2018): 19-21.
- Adams, Nicole, David Tudehope, Kristen S. Gibbons, and Vicki Flenady. "Perinatal mortality disparities between public care and private obstetrician- led care: a propensity score analysis." BJOG: An International Journal of Obstetrics & Gynaecology 125, no. 2 (2018): 149-158.
- 8. Goba, Gelila K., Hailesilassie Tsegay, Gebremedhin Berhe, Mengistu Mitiku, Kimberly A. Kim, and Mussie Alemayehu. "A facility- based study of factors associated with perinatal mortality in Tigray, northern Ethiopia." *International Journal of Gynecology & Obstetrics* (2018).
- Cobo, T., Munrós, J., Ríos, J., Ferreri, J., Migliorelli, F., Baños, N., Gratacós, E. and Palacio, M., 2018. Contribution of amniotic fluid along gestation to the prediction of perinatal mortality in women with early preterm premature rupture of membranes. *Fetal* diagnosis and therapy, 43(2), pp.105-112.
- 10. Perveen, S. and Tayyab, S., 2018. CESAREAN DELIVERY RATES AND INDICATIONS AT A TEACHING HOSPITAL. *Journal of Dow University of Health Sciences*, 2(3).
- 11. Perveen, S. and Tayyab, S., 2018. CESAREAN DELIVERY RATES AND INDICATIONS AT A TEACHING HOSPITAL. *Journal of Dow University of Health Sciences*, 2(3).
- de Sonnaville, Catherine, Ben Willem Mol, Henk Groen, Floortje Vlemmix, Joke Schutte, Chantal Hukkelhoven, and Marielle van Pampus.
   "6: The impact of the HYPITAT I trial on

obstetric management and outcome for gestational hypertension and preeclampsia in the Netherlands." *American Journal of Obstetrics & Gynecology* 218, no. 1 (2018): S5-S6.