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NEONATAL DEATH- A SHORT REVIEW

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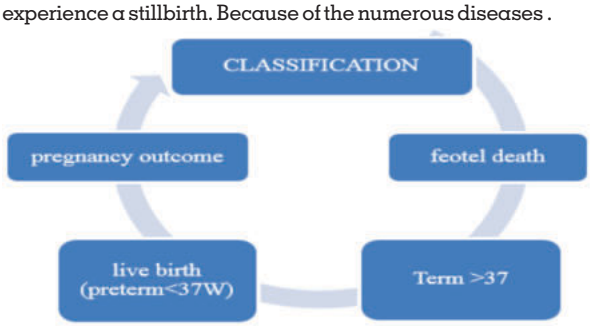
ABSTRACT Pharmacovigilance is a science and activity concerned with the identification, evaluation, comprehension, prevention, and management of adverse reactions and effects brought on by pharmaceutical products. The Greek words "pharmakon" and "vigilance" both refer to drugs. The monitoring, prevention, and management of ADRs all heavily rely on pharmacovigilance. Any harmful, unanticipated, or undesirable consequence that a medicine has when administered to a human at the recommended dosage is known as an ADR. Neonatal death is the term used to describe a newborn dying within the first 28 days of birth. Non-Hispanic black women are more likely than women of other races to have a still birth. The main classification of pregnancy outcomes are live birth and fetal death. The main causes of neonatal death are premature baby, low birth weight, and other birth defects such as heart defect, lung defects and brain defects. Mortality is known as death frequency.

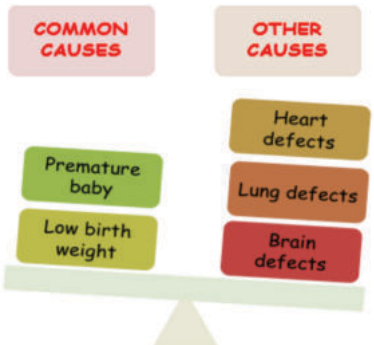
KEYWORDS : Pharmacovigilance , Neonatal death , Mortality rate, Primary care ,secondary and tertiary care.

INTRODUCTION

Pharmacological research linked to the gathering, detection, assessment, monitoring, and avoidance of adverse effects with pharmaceutical goods is known as pharmacovigilance, also known as drug safety. Greek words pharmakon (for drug) and vigilare make up the term "pharmacovigilance" (Latin for to keep watch). Pharmacovigilance (PV) was officially introduced in December 1961 with the publication of a letter (case report) in the Lancet by W. McBride, the Australian doctor who first suspected a causal link between serious fetal deformities (phocomelia) and thalidomide, a drug used during pregnancy: Thalidomide was used as an antiemetic and sedative agent in pregnant women [6]. In 1968, the World Health Organization (WHO) promoted the "Programme for International Drug Monitoring", a pilot project aimed to centralize world data on adverse drug reactions (ADRs). In particular, the main aim of the "WHO Programme" was to identify the earliest possible PV signals. The term PV was proposed in the mid-70s by a French group of pharmacologists and toxicologists to define the activities promoting "The assessment of the risks of side effects potentially associated with drug treatment".As a result, pharmacovigilance places a lot of emphasis on adverse drug reactions, or ADRs, A newborn dying within the first 28 days of life is known as a neonatal death. Medically-confirmed death: Death that has been verified by a qualified medical or allied professional, such as a doctor, Non-medically-confirmed death: death confirmed by non-medically qualified person, including undertaker, community member, parent, family member.You might have a lot of questions regarding how and why your kid died so shortly after birth. Your baby's doctor can assist you in learning as much as you can about your baby's. passing. Each year, less than 1% of babies in the United States die during their first month of life. Compared to women of other races or ethnicities, non-Hispanic black women are more likely to experience a stillbirth. Because of the numerous diseases .



Classification Of Neonatal Death:



Causes Of Neonatal Death:

The most common causes of neonatal death are:

Premature Baby:

This occurs when a child is delivered too soon, before to 37 weeks of pregnancy. premature birth of a child. Patient may experience more health issues than children who arrive on schedule.

Low Birthweight:

This is when a baby is born weighing less than 5 pounds, 8 ounces.

Birth Defects:

Health issues that exist at birth are called birth defects. Birth defects alter the appearance or functionality of one or more body parts. They may affect a person's general health, how their body develops, or how their body functions. Around 1 in 4 neonatal deaths are caused by premature birth and low birth weight (25 percent). Almost one in five neonatal deaths are due to birth abnormalities (20 percent).

Other Causes Of Neonatal Death Include:

The most common birth defects that cause neonatal death include:

1. **Heart Defects:**

Because of medical interventions and surgery, the majority of infants with heart abnormalities live and develop normally. Yet, infants with severe cardiac problems may not live long enough to receive treatment or may pass away .

2. **Lung Defects:**

A baby's lungs could be underdeveloped or have issues in one or both of them when they are born. When the lungs don't

develop properly as a result of other birth defects or pregnancy issues, lung defects may result (such as not enough amniotic fluid). Lung issues in premature infants can result in neonatal death.

3. Genetic Conditions:

Cells in your body contain genes. They hold the instructions that govern how your body develops, appears, and functions. A gene that has undergone modification from its normal form is what causes genetic disorders. A gene might alter on its own or it can be passed down from parents to their offspring.

4. Brain Defects:

Neonatal death can be caused by problems in the brain, like anencephaly. This is a condition called aneural tube defects (also called NTD) in which most of a baby's brain and skull are missing. Babies with anencephaly may be still born (when a baby dies in the womb after 20 weeks of pregnancy) or die in the first days of life. If you've had a baby with anencephaly, talk to your health care.

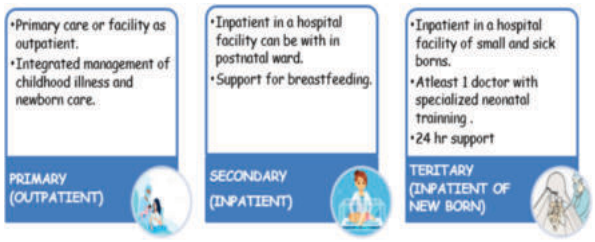
Neonatal Mortality:

According to estimates from 2010, there were 3.1 million newborn fatalities, down from almost 4 million in 2000 (a 17% decrease). With the exception of sub-Saharan Africa and Oceania, infants account for more than half of all under-5 fatalities. In South Asia and sub-Saharan Africa, newborn fatalities account for more than 75 percent of all newborn deaths worldwide. In 2011, ten nations accounted for 65% of the 2 955 000 annual infant fatalities worldwide. An estimated 1 122 000 infants in sub-Saharan Africa alone die before they turn one month old. 7 Some nations have made considerable strides towards lowering newborn mortality. Between 2000 and 2010, five nations were able to more than half their infant mortality rates (Turkey, Oman, Greece, Belarus and Estonia). Sub-Saharan Africa had the highest number .

Neonatal Mortality Rate (nmr)

144 newborn deaths out of a total 10,226 LB were recorded. The average NMR rate per 1,000 LB was 14.1. Early neonatal deaths made up 76% of neonatal deaths, whereas late neonatal deaths made up 24%. The first day accounted for nearly 25% of newborn mortality, followed by the second day for 19%, the third for 16%, the fourth for 3%, and the fifth for 7%. In India, annual child mortality rates have fallen by 1.7% to 2.3% [40, 41] over the past 20 years. However, according to UN estimates, 2.35 million (M) children died in India in 2005.In india , an estimated 26 millions of children are born every year . As per census 2011, the share of children (0-6years) accounts 13% of the total population in the country. In the india fell gradually from 83.6 deaths per thousands live births in 2020.The current infant mortality rate for india in 2023 is 26.619 deaths per 1000 live births, a 3.89% decline from 2022.

Treatment Of Neonatal Infections



Prevantable Neonatal Death:

The audit conference concluded that 75% (77/102) of neonatal deaths could not have been avoided. On the other hand, 23% (23/102) of them were judged to have had some possibility of prevention with one case (1%) having had a strong possibility. The remaining one case could not be judged due to lack of sufficient information. Among the 23 cases with some possibility of prevention, the most common cause of death was perinatal asphyxia (5 cases) with extreme prematurity (4 cases) and sepsis (3 cases) as the second and third most common, respectively. In addition, there was no case of congenital abnormality with non-invasive care among these 23 cases. With nine cases delivered at clinics or home, three cases were determined to have been somewhat preventable and one case easily preventable.

DISCUSSION AND CONCLUSION:

A newborn dying within the first 28 days of life is known as a neonatal death. The patients of baby's doctor can assist in learning as much as what is heard about the baby's passing. Less than 1% of newborns (approximately 4 in 1,000) experience neonatal mortality. Compared to women of other races or ethnicities, non-Hispanic black women are more likely to experience a stillbirth the first 28 days of life, or the neonatal phase. Preterm birth is the leading cause of infant death, followed by low birth weight and birth abnormalities. Factors that contribute to newborn death include: 1. Pregnancy-related issues second, a placenta With the exception of sub-Saharan Africa and Oceania, infants account for more than half of all under-5 fatalities. In South Asia and sub-Saharan Africa, newborn fatalities account for more than 75 percent of all newborn deaths worldwide. In 2011, ten nations accounted for 65% of the 2 955 000 annual infant fatalities worldwide. Large NMR reductions for nations with high mortality rates are feasible without spending a fortune on high-tech intensive care. PSBI is for potentially significant bacterial infection. 75% (77/102) of neonatal deaths, according to the audit conference, could not have been prevent.

Abbrevations

PV	Pharmacovigilance
ADR	Adverse drug reaction
WHO	World health organization
LB	Low birth
M	Millons
NTD	Neutral tube defects
NMR	Neonantal mortality rate
UN	Union nation
PSBI	Potentionally significant bacterial infections

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