



## Critical Issues in Management of Illness Among Newborn

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### Abstract

It has been found that newborns (under 1 month old) are at increased risk for infections of various types. This is a matter of concern for health care providers and policy makers. Newborns, for instance, that get a blood infection can get sick very quickly. Infections may appear at any time during the first month. Most importantly, signs of illness during the first 7 days of life require special attention. This is most common cause of death among newborns. In addition to this, other most common causes of neonatal deaths are (a) "preterm birth complications", and (b) "birth asphyxia". According to an estimate, these causes account for nearly 80% of all global neonatal deaths [1]. In view of these facts, a newborn baby, with "potentially life-threatening problems", is in an emergency situation. It, thus, requires immediate diagnosis and management, delay in problem identification and/or providing the correct management may be fatal. This research paper aims to investigate into the key issues the health care providers need to take into consideration while managing illness, especially infection, among newborn. The work is based on secondary data; sources have been quoted in the reference section. In terms of methodology of data (which are largely 'qualitative' in nature) analysis, descriptive research technique has been employed by the author, involving "desk-based research". The author concludes that efficient management of illness among newborn is one of the global health issues that requires specific attention

**Keywords:** Management, Illness, Infection, Newborn, Morality, and Neonatal

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### Introduction

New born illness or diseases are those "which are present in infants at birth or developing within the first month of birth". It is important to note that diseases of this type do not include hereditary diseases, not manifesting at birth or within the first 30 days of life [2]. Analysis of research data are indicative of the fact that adequate care during labour and childbirth (combined with "neonatal resuscitation", when needed, can significantly reduce mortality. Most importantly, early/ timely detection of newborn infections with appropriate treatment will substantially reduce mortality. Furthermore, in cases where hospital referral is not possible, intramuscular antibiotics delivered by skilled health-care providers will prove to be live saver. Other common

illness among newborn infants (including jaundice, eye infections and diarrhoea) can be treated at health care facilities and hospitals depending on their severity [3] including jaundice, eye infections and diarrhoea.

### Objectives and Methodology

In terms of objectives, this research primarily paper aims to investigate into the key issues the health care providers need to take into consideration while managing illness, especially infection, among newborn. Also it discusses: (a) some of the challenges associated with treatment of newborn illness, and (b) selected viable solutions. The data used in this research work the manuscript are secondary (which have been collected from various sources, including books, journals, and web sites) in nature, sources being adequately quoted under reference section of the manuscript. Both 'qualitative' and 'qualitative' data have been presented by the author. The data (which have been presented in non-tabular format) have been analyzed in a manner that ensures that objectives of the paper are met. Data analysis technique is primarily 'descriptive' in nature.

### Newborn Illness: Existing Trends

The United Nations, national governments, businesses houses, civil society and other stakeholders have joined hands together in order to achieve the Sustainable Development Agenda by the year 2030. They are mobilizing all possible efforts and resources for this purpose. National governments, in the year 2015, adopted the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). [3].

In the context of newborn illness, the fourth Millennium Development Goal (MDG-4) is of relevance. It (MDG-4) aims to reduce the mortality rate among under-five children by two thirds. Again, in view of the fact that more than one third of all child deaths occur within the first month of life, providing skilled care to mothers during pregnancy (as

well as during and after birth) significantly contributes to child survival [5].

According to an estimate, every year nearly 41% of all under-five child deaths are among newborn infants, babies in their first 28 days of life or the neonatal period. Again, three quarters of all newborn deaths occur in the first week of life. There are several factors responsible for this situation. It has been discovered that in developing countries, nearly half of all mothers and newborns do not receive “skilled and scientific care” during and immediately after birth. Demographers and social scientists are of the opinion that up to two thirds of newborn deaths can be prevented if effective health measures are provided at birth and during the first week of life. Out of the 8.2 million under-five child deaths taking place per year, about 3.3 million occur during the neonatal period (in the first four weeks of life). A child’s risk of death in the first four weeks of life is nearly 15 times greater than any other time before his or her first birthday [5].

### Newborn Illness and Associated Challenges Ahead

It is common practice that first few days/months of motherhood are faced with with anxiety. This is because of the fact that babies or newborns are tiny and delicate; their immune systems are still developing. It is, thus, normal for health care providers (as well as mothers) to worry about their well being. Newborn baby problems cannot be ignored as they are so delicate. This leads to a situation where even minor illnesses among them can lead to serious health complications. It is for these reasons that it becomes inevitable to understand all that can go wrong with little newborns during their early days [5].

In many countries and regions of the globe, not much efforts have been made to understand and tackle the specific health related complications the newborn babies are confronted with. Over and above, most of the deaths among newborns are unrecorded; often this remains invisible. In many cases, there has been lack of continuity between maternal and child health programs. As a result of this situation, care of the illness among newborns has not been given adequate and required attention in many countries. Here it is pertinent to note that survival and health of newborn babies is a critical part of the push towards lower child mortality in Millennium Development Goal (MDG)-4, as it has been found that large portion of under-five deaths occur during the first month of life. Again, since many of these deaths are related to care at the time of birth, health of newborn goes hand in hand with the health of mothers (MDG-5) [6].

### Management of Illness Among Newborn: Key Issues

Analysis of data are indicative of the fact that newborns (especially those born prematurely and of low birth weight) can easily become infected with harmful pathogens encountered before, during and after birth. Infections of these types account for nearly one-fifth of total newborn deaths globally.

In order to address this health aspect among newborns, there is need to devise strategies for efficient infection management. Also, health care providers should emphasize on newborn sepsis management strategies. This initiative will help reduce the opportunity for infection (through improved intrapartum practices). This strategy includes:

- a) hand washing by birth attendants,
- b) disinfection and sterilization of equipment,
- c) minimization of vaginal examinations, and
- d) prompt diagnosis and treatment of prolonged labor.

Furthermore, infection prevention management also requires early and exclusive breastfeeding, clean cord care, improved maternal health and nutrition, and maternal and neonatal immunizations. Most importantly, diagnosis of neonatal infection has remained a challenge. This is because of the fact that sick newborns, in most cases, are

confronted with non-specific signs and symptoms, and blood cultures. In situations where tests are available, they are positive in only 5-10% of suspected sepsis cases. Therefore, when there is suspected serious infection, the practice is to treat newborns presumptively with antibiotics.

In rural areas and developing country contexts, further strengthening community-based capacity to deliver these treatments safely and effectively should be a priority. Studies conducted in recent past in parts of Africa and Asia... regimes have suggested that a simplified combination of injectable and oral antibiotic regimes are equally efficacious as conventional injectable regimes. Based on a large body of evidence, the World Health Organization (WHO) released, in the year 2015, a guideline for the management of Possible Serious Bacterial Infection when referral is not feasible or possible. Some countries have begun working to implement simplified antibiotic regimes for management of newborn sepsis through existing integrated management of childhood illness programs [7].

### What Needs to Be Done?

As outlined above, newborns have a potentially life-threatening health complications due to variety of reasons. This, often becomes an emergency situation which requires: (a) “immediate diagnosis”, and (b) “efficient treatment management”. Health providers caution that any delay in problem identification and/or in providing the correct management may prove to be fatal. Thus, health care workers who are responsible for the care of newborn babies with problems during the first week(s) of life need to be adequately skilled to deal with emergency situations. They (including general medical officers and nurses), thus, should be available at the hospital 24 hours per day for care of the sick or small newborn baby. Equipped with skills in caring for newborn, they can play significant role in meeting the health needs of all newborn babies. Further, it has been realized that basic support systems are necessary to fulfil these goals [8]. Support system, in this particular context, includes:

- a) Laboratory facilities for measurement of haemoglobin, blood glucose, etc.;
- b) Storage of selected essential drugs, including key antibiotics;
- c) Required equipment and supplies, including accurate weighing scales and a microdropper for infusions; and
- d) Infrastructural facilities to provide safe blood transfusion [8].

Here it is pertinent to note that In certain settings, above listed requirements may not be available. In order to deal such a situation, there should be, where possible, provision for alternative methods of assessment or management. All health care workers, policy-makers, and other stakeholders, however, should be encouraged to strive for wider availability of these basic standards to enable effective care of sick and small newborn babies [8].

### Summing Up

In view of the fact that more than one third of all child deaths occur within the first month of life, efficient management of illness among newborn is one of the global health issues that requires specific attention [3]. Health care experts advocate that preterm and/or low birth weight infants is priority area. This aspect should be focal point in health care management. In addition to this, “breastfeeding and breast-milk feeding” and “keeping newborns warm” at home and in health facilities are equally significant. Furthermore, newborns with preterm birth complications (including respiratory problems) require adequate treatment in hospitals and at homes [1].

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