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# ASSESSMENT THE MORTALITY AMONG CHILDREN UNDER 5 YEARS IN INTENSIVE CARE UNIT IN BAGHDAD /IRAQ

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## ABSTRACT

**Background**: Child mortality indices are principal indicators of population health and wellbeing. Therefore, there are many indicators of child mortality which have been used to determine levels and trends of population health, including the neonatal and post neonatal, infant, child and under 5 mortality rates (U5MR). **Aims**: To identify and assess the factor which is affecting the child mortality could be the first step in planning to reduce the mortality and promoting the society health and life expectancy. **Methodology**: A cross sectional study was conducted in the El-Ewiya teaching hospital for children/ Baghdad. Collection of data started from the 15 of December 2017 to 15 March 2018. The data collected from the patient record (file) and nursing chart, when they entered the hospital during the treatment course and after dead in the same hospital, also we use the questionnaire prepared for this purpose. **Results**: we found the highest percentage of samples 23(38.9%) still in the age groups less than one years old, the male cases were 33 (55.9%) more than female cases 26(44.1%). Most of them were suffering from pneumonia disease 23(38.9%) and 14(23.7%) from preterm delivery. Majority of cases were occur during winter season 36(61.1%). **Conclusion:** Children was dying from any diseases especially in the age less than one year old. As well, in this study the children had family history of dead.We need awareness programs about the disease and educate them about the ways and methods of infection & treatment in early stage**.**

**KEYWORD:** Mortality, Under 5, Pneumonia, Age, Assess.

## INTRODUCTION

There are many indicators of child mortality which have been used to determine levels and trends of population health, including the neonatal and post neonatal, infant, child and under 5 mortality rates (U5MR).[1] The U5MR has been selected as one of the most important indicator of child mortality because it presents the best concept of capturing mortality risks during the susceptible years of childhood.[2] Because of the importance of reducing U5MR for societies, it is one of the United Nation 2015 Millennium Development Goals aims.[3] Altogether, the statistics on child and infant mortality rates imply the countries level of socio-economic development and quality of life. They used for evaluating and observing population and health plans and policies.[4] Acute respiratory infections, gender differences, vitamin A deficiency, HIV, malnutrition and etc are most reasons for U5MR. About 25-30 percent of children born to infected mothers grow to be infected with HIV and most of them died before 5 years old in developing countries.[5,6] About 54% of childhood death is because of malnutrition globally.[3] Susuman and Hamisi survey a demographic scenario for U5MR in Tanzania.[7] Based on their study maternal education can improve mother's behaviour in using health services which reduce less than 5 years mortality.[7] Ram et al. compared neonatal and U5MR in 597 district of India. According to findings 37 percent of mortality rate fell down each year between 2001 and 2012.[3] Fernandes et al. examined the effects of health system strengthening on under 5, infant and neonatal mortality in Mozambique. Based on this study, improvement in the public-sector health workforce, institutional birth coverage and government health financing are some reasons that decrease U5MR in Mozambique.[6] An ordinary issue on the outline of policy makers is the adjustment the concept of welfare state, particularly when talk about expediency of reducing the existence of government in significant fields like health or education.[8] Aim of this study to identify and assess the factors which are affecting on child mortality and, could be the first step in planning to reduce the mortality and promoting the society health and life expectancy.

## METHODS

A cross–sectional study was conducted in the El-Ewiya teaching hospital for children/ Baghdad. the collection of data started from the 15 of December 2017 to 15 March 2018. A non-probability convenient sample of studied sample was 59 cases. The data collected from the patient

record (file) and chart, when they entered the hospital during the treatment and after dead in the same hospital, also we use the questionnaire prepared for this purpose.

Statistical data analysis: - The statistical procedure which were applied for the data analysis and assessment of the result by descriptive statistics (frequency F, percentage %).

## RESULTS

In table 1 shows that the highest percentage of dying samples 23(38.9%) still in the age groups <1, followed by 19 (32.2%) in the age groups 3-5, while the lowest percentage 17(28.8%) in the age groups 1-2 years. Highest percentage of samples were males 33 (55.9%), while the females were 26(44.1%). 21(35.6%) who had family history of dead and 38(64.4%) were not. In the causes of death, the highest percentage were pneumonia 23(38.9%) and 14(23.7%) were preterm delivery, 9(15.3%) were infectious disease. According to the season of death, the highest percentage were occur during winter season 36(61.1%), followed by 20(33.8%) during the summer season and only 1 case during the spring (1.7%), 2 cases (3.4%) during autumn season.

**Table (1):-Characteristic of studied samples [No.59].**

| Age groups years | No. | % |
|---|---|---|
| <1 | 23 | 38.9 |
| 1-2 | 17 | 28.8 |
| 3-5 | 19 | 32.2 |
| **Gender** | | |
| Male | 33 | 55.9 |
| Female | 26 | 44.1 |
| **Family history of dead** | | |
| Yes | 21 | 35.6 |
| No | 38 | 64.4 |
| **Causes of death** | | |
| Preterm delivery | 14 | 23.7 |
| Infectious disease | 9 | 15.3 |
| Suffocation | 7 | 11.9 |
| Malnutrition | 6 | 10.2 |
| Pneumonia | 23 | 38.9 |
| **Season** | | |
| Winter | 36 | 61.1 |
| Summer | 20 | 33.8 |
| Spring | 1 | 1.7 |
| Autumn | 2 | 3.4 |

**Table 2: Multivariate analysis among studied sample.**

| Age | Coef. | Std. Err. | t | P>t | [95% Conf. Interval] | |
|---|---|---|---|---|---|---|
| Gender | .7600623 | .4094711 | 1.86 | 0.069 | -.0608779 | 1.581002 |
| Family history | .1193018 | .3999969 | 0.30 | 0.767 | -.6826438 | .9212473 |
| Causes of death | .4556371 | .1875296 | 2.43 | 0.018 | .0796628 | .8316113 |
| Season | .3237873 | .1905995 | 1.70 | 0.095 | -.0583418 | .7059164 |
| _cons | -.8106674 | .5112437 | -1.59 | 0.119 | -1.835649 | .2143144 |

## DISCUSSION

In this study we found 38.9% of children still in the age less than one year old, compared with other study in India[3], the authors found that 31.6% of cases falls in the age < 1 years old. This refers to the same traditions and lifestyle between countries. Regarding the gender, in this study we found that the highest percentage of studied sample were males (55.9%) and (44.1%) were females; the same findings were observed in US [9] and in Brazil.[10]

In our study we found that the (35.6%) of children had a family history of dead because of disease or other complication, other results we found in Saudi[11], India[12], China.[13] The finding was different from our study may be the different of attitude and culture between the countries. 38.9% of children were dead because of pneumonia, while the other results found in Tanzania[6], its high percentage when you are compared with our result, this may be to the lack of awareness programs about the disease and the risk of infection. Also in this study, shows that the numbers of children dying during the winter season 61.1% more than the others which is occur during summer and other season, when we compare with other result in US [9] and India[12], which is different due to the situation faced by the country from the war and the absence of religious and cultural awareness and the deterioration of the health situation led to frequent infection.

## CONCLUSION

Majority of children were dying from any diseases and falls in the age less than 1 year old. Pneumonia was the most reason for children dying in intensive care unit. Most of them were dying during the winter season. We need to establish educational programs in schools, universities and government institutions to identify the dangers of the disease and methods of protection.

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