

PAEDIATRIC CARE AT GENERAL HOSPITAL ALIERO, KEBBI STATE, NIGERIA

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Citation

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Abstract

OBJECTIVE: To determine the pattern of childhood morbidity at a rural hospital in northern Nigeria. **METHOD:** This is a prospective study of children presenting at the Out Patient Department of General Hospital, Aliero, Kebbi State, Nigeria. **RESULTS:** Malaria was the commonest cause for hospital visit in 875(69.72%) of children. Overall, infections and infestations constitute 1214(96.73%) of visits. The least reason of hospital visit was adverse drug reaction, which occurred in three (0.24%) children. **CONCLUSION:** Many infections contribute to high morbidity and mortality to children in developing countries. Malaria is a common cause of fever illness in children and absenteeism (loss of school days) in Nigeria. Vaccine preventable diseases are still causes of childhood morbidity.

INTRODUCTION

Parents and guardians have an important role to play in keeping their children and wards healthy and helping them get better if they are ill by caring for them. Age, housing factors, water supply, and sanitation are important determinants for disease. Childhood morbidity and mortality are mainly from infections and anaemia. Breastfeeding, better nutrition, improved housing, hygienic and environmental sanitation, safe water supply, endemic disease control, immunization against common childhood diseases and education could prevent most of the diseases, which affect children in the tropical and developing countries. The principal causes of morbidity and mortality among children in tropical Africa according to available reports are acute respiratory infections especially pneumonia, diarrhoeal diseases, malaria, malnutrition, febrile convulsions, septicemia including meningitis, tuberculosis, birth asphyxia, haemoglobinopathies and severe anaemia from other causes ¹.

Five preventable communicable diseases pneumonia, malaria, diarrhoeal diseases, measles, and HIV/AIDS cause about half of all deaths in children in sub-Saharan Africa ². Vaccine preventable diseases are not among the top five diseases. Most of the diseases of children in the developing countries are poverty associated.

Infections and nutritional deficiencies remain the major

causes of morbidity and of the unacceptable high mortality rates in the tropics ¹. Low educational status and poor environmental sanitation may put children at risk of childhood diseases ³.

Preventable measures are directed at improving the nutritional status and the socioeconomic circumstance of the entire population. Appropriate health education and promotion of health seeking behaviour are desirable strategies. Until the preventable factors in diseases in the developing world are adequately controlled, preventable diseases will continue to kill so many children.

METHOD

This is a prospective study of children presenting at the outpatient department of General Hospital, Aliero, Kebbi State, in northern Nigeria. Records of all children aged 0 to 16 years brought to the outpatient department of General Hospital Aliero, Kebbi State, Nigeria from February to November 2006 were kept and relevant data analysed.

General Hospital Aliero is a secondary health facility located in a rural setting in Kebbi State, in the northern part of Nigeria. There were two doctors at the hospital a Principal Medical Officer and a Youth Corper* doctor. Later two medical officers were posted to the hospital. All doctors at the hospital are general practitioners with no specialist training in paediatrics.

Patients are seen at the outpatient department and those who require expert management are referred to a tertiary health facility.

*A Youth corper in Nigeria is someone undergoing a compulsory one-year National Youth Service Corp in which a graduate renders service to his country after graduation. The graduate is sent to work outside his state/province for one year.

RESULTS

During the period of study, 1255 children were brought to the outpatient department by their parents and guardians with various ailments. Those that had infections and infestations were 1214(96.73%) of which malaria constitutes 875(69.72%) as shown in table II and I. Others were brought for various other ailments sickle cell disease 12(0.96%), nephrotic 9(0.72%), poisoning 8(0.64%), surgical conditions 5(0.40%), acute asthma 4(0.32%) and adverse drug reaction 3(0.24%)

Those presenting with malaria received anti-malarial. Chloroquine, artesunate, and sulphadoxine-pyrimetamine were the commonly prescribed anti-malaria. Antibiotics were prescribed for those with infections. The commonest antibiotics prescribed were ampiclox, amoxicillin, and metronidazole depending on the infection. Correction of anaemia was with haematinics and blood transfusion. Paracetamol was the paediatric analgesic available at the centre. All patients received haematinics except those with diarrhoea. Mothers/guardians with children/wards with diarrhoea were taught how to prepare salt sugar solution. Parents/guardians with children/wards suffering from vaccine preventable illnesses were counselled on the importance of immunization.

Figure 1

TABLE I SHOWING CAUSE OF ILLNESS

CAUSE	N	%
Infections	1214	96.73
Sickle cell Disease	12	0.96
Nephrotic Syndrome	9	0.72
Poisoning		
-Kerosene Poisoning	7	0.56
-Drug Poisoning	1	0.08
Acute Asthma	4	0.32
Surgical Conditions		
-Inguinal Hernia	3	0.24
-Hydrocele	2	0.16
Drug Reaction	3	0.24
Total	1255	100

Figure 2

Table II SHOWING INFECTIONS AND INFESTATIONS

INFESTATIONS AND INFECTIONS	N	%
Malaria	875	72.08
Bronchopneumonia	107	8.81
Skin Infections	71	5.85
Upper Respiratory Tract Infections	38	3.13
Urinary Tract Infection	25	2.06
Diarrhoeal Disease	24	1.98
Bronchiolitis	21	1.73
Cellulitis	18	1.48
Acute Otitis Media	9	0.74
Pulmonary Tuberculosis	8	0.66
Mumps	6	0.49
Conjunctivitis	4	0.33
Ophthalmia neonatorum	3	0.25
Neonatal tetanus	3	0.25
Osteomyelitis	1	0.08
Orchitis	1	0.08
TOTAL	1214	100

DISCUSSION

Infections occur commonly in tropical countries. Infections and malnutrition play a role in childhood morbidity and mortality. Malaria is a major cause of morbidity and mortality in many children living in the tropics⁴. In this study infections and infestation was what brought 1214(96.73%) children to the hospital. Out of this figure, 875(69.72%) children had malaria, which remains a serious health problem in sub-Saharan Africa. Malaria and malnutrition are major health burden in developing countries with infants and children being the most vulnerable group. Malaria accounts for one in five of all childhood deaths in Africa⁵. Malaria compromises the health and development of millions of children throughout the tropical world yet much of the impact of malaria on the world's children could be prevented with currently available interventions. Over 40 % of the world's children live in malaria endemic countries⁶. The rapid spread of resistance of antimalaria drugs, coupled with wide spread poverty, weak health infrastructure, morbidity and mortality from malaria in Africa continues to increase. Vast majority of these deaths

are preventable.

Severe falciparum malaria is the commonest cause of death in infants and children in areas endemic and hyperendemic for malaria⁷. Delay in diagnosis and treatment contributes to the mortality.

Reversing the spread of malaria is crucial for the survival, health, and development of children especially in Africa⁸. Reducing the incidence of malaria will help achieve the millennium development goals. The disease also contributes greatly to anaemia among children, a major cause of poor growth and development. Many children continue to die from malaria as they do not sleep under insecticide treated nets and unable to access lifesaving treatment within 24 hours of onset of symptoms⁸.

Most children battle diarrhoea from time to time caused by gastrointestinal infections, viruses, bacteria, or parasites⁹. In this study, 24(1.91%) children suffered from diarrhoeal disease. Diarrhoea infections can spread through dirty hands, contaminated food or water and direct contact with faecal matter. The type of diarrhoea disease depends upon the causative microorganism. It is common in the tropics because of poor hygiene and environmental sanitation. Diarrhoea disease remains a leading cause of morbidity in childhood. The main cause of death following acute diarrhoea is dehydration, which result from loss of fluid and electrolyte changes.

Death from vaccine preventable diseases continues to contribute significantly to infant morbidity and mortality hence the global drive against their eradication. In this study, eight (0.64%) children were diagnosed of pulmonary tuberculosis and three (0.24%) with neonatal tetanus. Vaccines have done such a good job of controlling diseases in developing countries¹⁰. Tuberculosis still assumes epidemic proportions in certain areas of the tropics because of overcrowding, inadequate housing, and malnutrition.

Neonatal tetanus, which is mostly fatal, is common in rural areas where home deliveries without adequate sterile procedures still take place. Neonatal tetanus can be prevented by immunizing women of childbearing age with tetanus toxoid both during pregnancy and outside pregnancy. This protects the foetus through a transfer of tetanus antibodies to the foetus from the mother. Clean practices when a mother is developing a child are also important to prevent neonatal tetanus. Proper cord care to ensure that contamination of the umbilical cord does not put the

newborn at risk. Once the disease is contacted, the fatality rate can be as high as 100% without hospital care and between 10-60% with hospital care⁸. It is very important that the child receive each vaccination at the right time to give them the best protection.

Accidental poisoning is one of the most common reasons for children to need emergency treatment. Almost every household contains substances that are potentially poisonous such as detergent, bleaches, dish and toilet washing liquid, insecticide, and drugs. Poisoning is usually non-intentional. It may result from exposure to or ingestion of toxic substances including drugs, chemicals, contaminated food. The effects of poisoning depend on the substance swallowed. Chemical agents most commonly involved are alcohol and hydrocarbon (kerosene is the commonest in Nigeria). These items are easily available to children at home because they are of frequent use in homes. Drugs of all types are easily available.

CONCLUSION

The causes of morbidity and mortality of children in the tropics are overwhelming infections and malnutrition¹¹. Malaria is still the commonest cause of childhood hospital visit, admission, morbidity, and mortality and so more resources should be put into preventing and controlling malaria². Affordable antimalaria drugs, efficient blood bank services, and clean water will improve childcare. Majority of the mothers could recognise the signs of common childhood disease. Maternal knowledge and care seeking practices need

to be modified with appropriate health education. This will go a long way in the reduction of childhood morbidity and mortality. There is need for the provision of antimalarials; insecticide treated mosquito nets, antibiotics to the grassroots. Regular campaigns on obtaining good antenatal care, immunization, regular sanitation is necessary. Provision of good water supply is also necessary for the prevention of diarrhoea disease. Awareness campaign should be carried out regularly in the rural areas on the importance and safety of immunization. There should be regular immunization exercise to help prevent vaccine preventable diseases.

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