Editorial

Infectious diseases in children-still leads

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In developing countries infectious disease are still the leading cause of morbidity and mortality in children.[1,2] This is contrary to the developed countries where injuries are the leading cause of death and disabilities.[3,4]

Despite the advances in the antimicrobial treatment and development of vaccines, it is ironical that infectious diseases still account for over two third of childhood mortality in developing countries.[5] Unfortunately Pakistan is eighth among the countries, which bears 95% of the burden of infectious diseases. The main cause of death in over 70% children are infectious diseases.

A cursory glance at the leading causes of deaths in children revealed a startling figure. Large majority of children never reach their fifth birthday. In Pakistan under five year, under one year and under one month mortality is 97, 78 and 57 per 1,000 live births respectively[6] Nearly two million children less than five years of age die of pneumonia. Similar number die of diarrhoea every year. Together both diseases account for 22% of all childhood death in Pakistan.

Measles accounts for nearly 20,000 deaths in children in Pakistan every year.[7] Measles vaccine coverage is lowest among all EPI vaccines (60% nationwide, with Sindh province having the lowest coverage i.e. 20%.). Tuberculosis and Tetanus are the other leading causes of death. Despite concentrated efforts we are not able to achieve control over polio, in fact over the last couple of years new cases of polio are beginning to show a sharp rise. All can be prevented by vaccination which are provided free of cost at the health centers through Expanded Programme of Immunization (EPI) by Government of Pakistan.

The scourge of Malaria continues to rise, killing nearly one million children per year.[8] Pakistan is among the six countries which bear 95% burden of malarial disease with children being the prime victim.[9]

Typhoid accounts for more than 12 million cases per year with more than 60% being from Asia. Of these a large majority are children with the peak incidence between 3-19 years. In Pakistan 40% of the bed occupancy is due to water borne infections, typhoid having one with the longest bed occupancy period. Vaccine against typhoid is available and is effective with the cost in the affordable range. The vaccine is still not included in the EPI programme of Pakistan. Its inclusion will not only decrease the morbidity and mortality related to the disease but also decrease the bed occupancy rate and other related costs incurred in the Government Hospitals which cater to most of the population.

Haemophilus Influenza Type b infection, Strep Pneumonia and Rota virus are among some other causes of morbidity and mortality. These can be easily prevented by timely vaccination which though costly is far more cost effective than treating the actual disease. In Pakistan less than 80% of our paediatric population receive routine immunization with the remaining twenty percent having little access or information to health care facilities.

Poor sanitation, lack of safe water supply, overcrowding, all add to the wide prevalence of infectious diseases in children. The underlying malnutrition seen in nearly 40% of the Pakistani paediatric population, further worsens the prognosis in children suffering from infectious diseases.

Neonatal infections are the leading cause of deaths in our new born. Nearly half of them die of infections like septicaemia, pneumonia, diarrhoea and other infections. Lack of antenatal care, partly because delivery is being conducted by unskilled birth attendants, poor immunization coverage, lack of exclusive breast feeding, poor control of infections in the newborn nursery, are to name just a few underlying reasons for neonatal infections.

Multidrug resistance to antibiotics particularly (MRSA) multidrug resistant staph aureus infection is also fast becoming a rising threat in the developed and developing countries. More so in the latter as contributory factors like overcrowding, poor hand washing practices among our hospital staff, lack of effective prevention control measures adds to the potential of MRSA.

Drastic measures are required to meet the millennium development goal of two third reduction in childhood mortality by 2015. Control of infectious disease should be at topmost priority.

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