Acute Lower Respiratory Infections (ALRI

ICD-10 A49

Identification

Pneumonia

Symptoms: Cough or difficult breathing;

Signs: 50 or more breaths per minute for infants age 2 months up to 1 year, or 40 or more breaths per minute for children age 1 up to 5 years old; and no chest in drawing, general danger signs, strider in calm child or severe malnutrition.

Severe pneumonia

Symptoms: Cough or difficult breathing and

Signs: Chest in drawing and strider in a calm child or severe malnutrition.

Very severe disease

Symptoms: Cough or difficult breathing

Signs: General danger signs: unable to drink or breast feed; convulsions; abnormally sleepy or difficult to wake, strider in a calm child or severe malnutrition.

Infants below 2 months of age: Cases are classified as either “Severe Pneumonia” or “Very severe disease”, as the illness may progress rapidly in this age group and it may be difficult to differentiate “pneumonia” from other severe conditions requiring inpatient hospital management.

Infectious agent

Bacteria: the most common are likely to be Streptococcus pneumonia and Homophiles influenza (and Staphylococcus aureus to a lesser extent).

Occurrence

Low temperatures, especially in the North, may increase the relative risk of children’s acquiring pneumonia.

Reservoir

Humans are only known reservoir.

Mode of transmission

Airborne: respiratory droplets.

Incubation period

Depends on the infective agent. Usually 2-5 days.

Period of communicability

Depends on the infective agent. Usually during the symptomatic phase.

Susceptibility and resistance

Pneumonia can occur in anyone. It occurs with increased frequency in individuals whose immune systems are deficient such as malnourished, HIV infected, with diabetes, underlying lung diseases, cancers, and treatment with immunosuppressive drugs. Infants and very young children are highly vulnerable, as are the elderly.

Methods of control

3.17.9a Preventive measures

1) Immunization against measles, diphtheria, and whooping cough are effective in reducing impact of ALRI.

2) Health education on early danger signs for prompt care-seeking.

3) Adequate feeding, including exclusive breastfeeding to avoid malnutrition.

3.17.9b Control measures

• Priority is early recognition and adequate treatment of cases

• First-line antibiotic for cases in under-fives classified as pneumonia is amoxycillin; second-line antibiotics are cotrimoxazole, ampicillin and, used less frequently, procaine penicillin. The IMCI guidelines under development propose the use of cephalexin and erythromycin as first and second line antibiotics, respectively, for young infants; and intramuscular cefotaxime as pre-referral antibiotic for severe under-five cases that cannot take oral antibiotic (intramuscular benzylpenicillin and gentamicin are options for infants under 2 months of age).

• Supportive measures such as continued feeding to avoid malnutrition, antipyretics to reduce high fever and protection from cold (especially keeping young infants warm) are part of the management.

• Proper advice is given to caretakers of non-severe cases on home care, including compliance with antibiotic treatment instructions.

• Signs of malnutrition are assessed as this increases the risk of death due to pneumonia. Severely malnourished children are referred to hospital.

3.17.10 Management of the disease

Pneumonia can be treated with antibiotics. These are usually prescribed at a health centre or hospital, but the vast majority of cases of childhood pneumonia can be administered effectively within the home. Hospitalization is recommended in infants aged two months and younger, and also in very severe cases.