

## 1.11 General management of diarrheal diseases

Diarrhea is defined as the abrupt onset of abnormally high fluid content in the stool: more than the normal value of approximately 10 mls/kg/d in the infant and young child, and more than 200 g/d in the teenager and adult. This situation typically implies an increased frequency of bowel movements, which can range from 4-5 to more than 20 times per day. The augmented water content in the stools is due to an imbalance in the physiology of the small and large intestinal processes involved in the absorption of ions, organic substrates, and thus water.

Childhood acute diarrhea is usually caused by infection; however, numerous disorders may cause this condition, including a malabsorption syndrome and various enteropathies. Acute-onset diarrhea is usually self-limited; however, an acute infection can have a protracted course. By far, the most common complication of acute diarrhea is [dehydration](#).

Diarrheal episodes are classically distinguished into acute and chronic (or persistent) based on their duration. Acute diarrhea is thus defined as an episode that has an acute onset and lasts no longer than 14 days; chronic or persistent diarrhea is defined as an episode that lasts longer than 14 days. This distinction is supported by the World Health Organization (WHO).

It is most practical to base treatment of diarrhea on the clinical types of the illness, which can easily be determined when a patient is first examined. Laboratory studies are very useful. Four

clinical types of diarrhea can be recognized, each reflecting the basic underlying pathology and altered pathology:

- Acute Watery Diarrhoea (including Cholera): which lasts several hours or days. The main danger is dehydration and malnutrition if feeding is not continued
- Bloody Diarrhoea (Dysentery): the main dangers are damage of intestinal mucosa, sepsis, and malnutrition. Other complications including dehydration may also occur
- Persistent (Chronic) Diarrhoea: Last for 14 days or longer, the main danger is malnutrition and serious non-intestinal infections, dehydration may also occur
- Diarrhoea with Severe Malnutrition (Marasmus or Kwashiorkor): the main dangers are severe systemic infection, dehydration, heart failure, vitamin and mineral deficiency.

**Note:** The basis for the management of each type of diarrhoea is to prevent or treat dangers that present.

### **I. Management of diarrhea in children**

- Over 90% of deaths from diarrhea in under-fives would be prevented by:
- Continuing breast feeding and other feeding throughout the attack of diarrhea (prevent malnutrition)
- Making sure mothers know when to take the child to a health facility
- Correct assessment, treatment and continued feeding at the health facility level (See IMCI from the MoHSW manual)
- Treatment of invasive diarrhea (bloody stool) with antibiotics
- Treating or preventing dehydration and electrolyte imbalance with ORS (New osmolarity ORS)
- Reduce the duration and severity of diarrhea and occurrence of future episodes by giving supplemental Zinc
- Referring to hospital for investigation and treatment for severe malnutrition and persistent diarrhea (lasting >14 days)

Other signs which may be useful in assessing severe dehydration and influence management include:

- Weight loss over a short period
- Signs of hypovolemic shock: fast weak pulses, cold extremities, oliguria or anuria
- Hyperventilation, deep and fast breathing indicating acidosis
- Signs of severe malnutrition