

WHO position paper on Oral Rehydration Salts to reduce mortality from cholera

Cholera is characterized by a sudden onset of acute watery diarrhoea that can rapidly lead to death by severe dehydration. The disease is acquired by ingestion of water or food contaminated by *Vibrio cholerae* and has a short incubation period of two hours to five days. Cholera is an extremely virulent disease that affects both children and adults. Unlike other diarrhoeal diseases, it can kill healthy adults within hours. Individuals with lower immunity, such as malnourished children or people living with AIDS, are at greater risk of death if infected by cholera.

Among people developing symptoms, 80% present with mild to moderate acute watery diarrhoea, while the other 20% develop rapidly severe dehydration leading to deaths.

Key message: cholera can rapidly lead to severe dehydration and death if left untreated.

Effective and timely case management contributes to reducing mortality to less than 1%. It consists of prompt rehydration of patients. Mild and moderate cases can be successfully treated with oral rehydration salts (ORS) only. The remaining 20% of severe cases will need rehydration with intravenous fluids. Antibiotics are not paramount to successfully treat patients, but they can reduce the duration of disease, diminish the volume of rehydration fluids needed, as well as shorten duration of shedding of the germ.

Key message: ORS can successfully treat 80% of cholera patients, both adults and children.

ORS can dramatically reduce the number of death, particularly during an epidemic and when given early when symptoms arise. ORS can not influence the infectious process, but corrects dehydration and thus saves lives.

Numerous experiences with ORS have shown convincing evidence that ORS could be given by non-medical personnel, volunteers and family members, reducing death rates dramatically. Delays in rehydrating patients contribute to higher mortality and thus call for early ORS therapy already at home, while waiting to get access to proper medical treatment at cholera treatment centres or health care facilities.

Key message: ORS has to be given early at home to avert delays in rehydration and death.

ORS is a sodium and glucose solution which is prepared by diluting 1 sachet of ORS in 1 litre of safe water. It is important to administer the solution in small amounts at regular intervals on a continuous basis.

In case ORS packets are not available, caregivers at home may use homemade solutions consisting of half a teaspoon of salt and six level teaspoons of sugar dissolved in one litre of safe water. Alternatively, lightly salted rice water or even plain water may be given. To avoid dehydration, increased fluids should be given as soon as possible. All oral fluids, including ORS solution, should be prepared with the best available drinking water and stored safely. Continuous provision of nutritious food is essential and breastfeeding of infants and young children should continue.

Key message: In the absence of ORS packets, homemade solutions can be administered.

Prevention of cholera mainly consists in providing clean water and proper sanitation to the communities, while individuals need to adhere to adequate food safety as well as to basic hygiene practices.

Conclusion:

Many lives can be saved if ORS is being used early at home, while waiting to get access to proper health care. WHO does not see any contradiction in making ORS packages available to households and non-medical personnel outside health care facilities. In the opposite, making ORS available at household and community levels can avert unnecessary deaths and contributes to diminishing case fatality rates, particularly in resource-poor settings. Providing nutritious food as well as continuing breastfeeding for infants and young children should continue simultaneously with administering appropriate fluids or ORS.

Reference documents:

Cholera outbreak: assessing the outbreak response and improving preparedness. WHO/CDS/CPE/ZFK/2004.4

http://www.who.int/cholera/publications/cholera_outbreak/en/index.html (available also in French and Portuguese)

First steps for managing an outbreak of acute diarrhoea. WHO/CDS/NCS/2003.7.Rev.1

http://www.who.int/cholera/publications/first_steps/en/index.html (available also in Arabic, French and Portuguese)

WHO/UNICEF Joint Statement. Clinical management of acute diarrhoea. WHO/FCH/CAH/04.7

http://www.afro.who.int/cah/documents/intervention/acute_diarrhoea_joint_statement.pdf