FOR HEALTHCARE PROVIDERS: GUIDELINES FOR THE MANAGEMENT OF ACUTE DIARRHEA

Increased incidence of acute diarrhea may occur in post-disaster situations where access to electricity, clean water, and sanitary facilities are limited. In addition, usual hygiene practices may be disrupted and healthcare seeking behaviors may be altered. The following are general guidelines for healthcare providers for the evaluation and treatment of patients presenting with acute diarrhea in these situations. However, specific patient treatment should be determined based on the healthcare provider's clinical judgment. Any questions should be directed to the local health department.

CHILDREN

Indications for medical evaluation of infants and toddlers with acute diarrhea

- Young age (e.g., aged <6 months or weight <18 lbs.)
- Premature birth, history of chronic medical conditions or concurrent illness
- Fever ≥38 °C (100.4 °F) for infants aged <3 months or ≥39 °C (102.2 °F) for children aged 3—36 months
- Visible blood in stool
- High output diarrhea, including frequent and substantial volumes of stool
- Persistent vomiting
- Caregiver's report of signs consistent with dehydration (e.g., sunken eyes or decreased tears, dry mucous membranes, or decreased urine output)
- Change in mental status (e.g., irritability, apathy, or lethargy)
- Suboptimal response to oral rehydration therapy already administered or inability of the caregiver to administer oral rehydration therapy

Principles of appropriate treatment for INFANTS AND TODDLERS with diarrhea and dehydration

- Oral rehydration solutions (ORS) such as Pedialyte ® or Gastrolyte ® or similar commercially available solutions containing sodium, potassium and glucose should be used for rehydration whenever patient can drink the required volumes; otherwise appropriate intravenous fluids may be used.
- Oral rehydration should be taken by patient in small, frequent volumes (spoonfuls or small sips); see attached table for recommended volumes and time period.
- For rapid realimentation, an age-appropriate, unrestricted diet is recommended as soon as dehydration is corrected
- For breastfed infants, nursing should be continued
- Additional ORS or other rehydration solutions should be administered for ongoing losses through diarrhea
- No unnecessary laboratory tests or medications should be administered

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- The decision to treat with antimicrobial therapy should be made on a patient-by-patient basis, on clinical grounds, which may include
    - Fever
    - Bloody or mucoid stool
    - Suspicion of seps

OLDER CHILDREN AND ADULTS

Indications for medical evaluation of children > 3 years old and adults with acute diarrhea

- Elderly age
- History of chronic medical conditions or concurrent illness
- Fever ≥39 °C (102.2 °F)
- Visible blood in stool
- High output of diarrhea, including frequent and substantial volumes of stool
- Persistent vomiting
- Signs consistent with dehydration (e.g., sunken eyes or decreased tears, dry mucous membranes, orthostatic hypotension or decreased urine output)
- Change in mental status (e.g., irritability, apathy, or lethargy)
- Suboptimal response to oral rehydration therapy already administered or inability to administer oral rehydration therapy

Principles of appropriate treatment for ADULTS with diarrhea and dehydration

- Oral rehydration solutions (ORS) such as Pedialyte ® or Gastrolyte ® or similar commercially available solutions containing sodium, potassium and glucose should be used for rehydration whenever patient can drink the required volumes; otherwise appropriate intravenous fluids may be used.
- Oral rehydration should be taken by patient in small, frequent volumes (spoonfuls or small sips); see attached table for recommended volume and time period.
- For rapid realimentation, unrestricted diet is recommended as soon as dehydration is corrected
- Additional ORS or other rehydration solutions should be administered for ongoing losses through diarrhea
- No unnecessary laboratory tests or medications should be administered
- Antimotility agents such as Lomotil ® or Immodium ® should be considered only in patients who are NOT febrile or having bloody/mucoid diarrhea. Antimotility agents may reduce diarrheal output and cramps, but do not accelerate cure.
- The decision to treat with antimicrobial therapy should be made on a patient-by-patient basis, on clinical grounds, which may include
    - Fever
    - Bloody or mucoid stool
    - Suspicion of sepsis

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Treatment based on degree of dehydration

Degree of dehydration	Rehydration therapy	Replacement of ongoing losses	Nutrition
Minimal or none	Not applicable	<10 kg body wt.: 60-120 mL oral rehydration solution (ORS) for each diarrheal stool or vomiting episode >10 kg body weight: 120-240 mL ORS for each diarrheal stool or vomiting episode	Continue breast feeding or resume age-appropriate normal diet after initial rehydration, including adequate caloric intake for maintenance
Mild to moderate	ORS, 50-100 mL/kg body weight over 3-4 hours	Same	Same
Severe	Ringers lactate Lactated Ringers solution or normal saline * in 20 mL/kg body weight intravenous amounts until perfusion and mental status improve: then administer 100 mL/kg body weight ORS over 4 hours or 5% dextrose ½ normal saline intravenously at twice maintenance fluid rates	Same: if unable to drink, administer through nasogastric tube or administer 5% dextrose ¼ normal saline with 20 mEq/L potassium chloride intravenously	Same

* In severe dehydrating diarrhea, normal saline is less effective for treatment because it contains no bicarbonate or potassium. Use normal saline only if Ringers lactate solution is not available, and supplement with ORS as soon as the patient can drink. Plain glucose in water is ineffective and should not be used.

NOTE: Restrictive diets should be avoided during acute diarrheal episodes. Breastfed infants should continue to nurse ad libitum even during acute rehydration. Infant too weak to eat can be given breastmilk or formula through nasogastric tube. Lactose-containing formulas are usually well-tolerated. If lactose malabsorption appears clinically substantial, lactose-free formulas can be used. Complex carbohydrates, fresh fruits, lean meats, yogurt, and vegetables are all recommended. Carbonated drinks or commercial juices with a high concentration of simple carbohydrates should be avoided.