WHO GLOBAL TASK FORCE ON CHOLERA CONTROL

World Health Organization

First steps for managing an outbreak of acute diarrhoea

THIS LEAFLET AIMS AT GUIDING YOU THROUGH THE VERY FIRST DAYS OF AN OUTBREAK

Two types of emergencies regarding acute diarrhoea exist:

Cholera = acute watery diarrhoea

and

Shigella dysentery = acute bloody diarrhoea

Both are transmitted by contaminated water, unsafe food, dirty hands and vomit or stools of sick people.

Other causes of diarrhoea may produce severe illness for the patient, but will not produce outbreaks which represent an immediate threat to the community.

THE FIRST TWO QUESTIONS ARE:

1. Is this the beginning of an outbreak?
2. Is the patient suffering from cholera or shigella?

1. Is this the beginning of an outbreak?

You might be facing an outbreak very soon if you have seen an unusual number of acute diarrhoeal cases this week and the patients have the following points in common:

- they have similar clinical symptoms (watery or bloody diarrhoea)
- they are living in the same area or location
- they have eaten the same food (at a burial ceremony for example)
- they are sharing the same water source
- there is an outbreak in the neighbouring community

or

You have seen an adult suffering from acute watery diarrhoea with severe dehydration and vomiting

Be prepared to face a sudden increase in number of cases

If you have some statistical information from previous years or weeks verify if the actual increase of cases is unusual over the same period of time.

2. Is the patient suffering from cholera or shigella?

Acute diarrhoea could be a common symptom. Therefore it is important to differentiate between shigella or cholera in order to improve case management and to estimate needed supplies

- Establish a clinical diagnosis for the patient you have seen **(Table1)**
- Do the same for the other family members who are suffering from acute diarrhoea
- Try to take stool samples and send them for immediate analysis. If it is not possible to send the samples immediately, collect stool specimens in Cary Blair or TCBS transport medium and refrigerate.

Don't wait for laboratory results to start treatment and to protect the community.

Not all the cases need to be laboratory confirmed.

TABLE 1

Symptoms	Cholera = acute watery diarrhoea	Shigella = acute bloody diarrhoea
Stool	> 3 loose stools per day, watery like rice water	> 3 loose stools per day, with blood or pus
Fever	No	Yes
Abdominal cramps	Yes	Yes
Vomiting	Yes a lot	No
Rectal pain	No	Yes

Protect the community

HOW TO PROTECT THE COMMUNITY

- Isolate the severe cases
- Provide information
  - — on how to avoid cholera through simple messages
  - — on the outbreak
- Disinfect water sources with chlorine
- Promote water disinfection at home using chlorine
- Avoid gatherings

Stool and vomit are highly contagious

PRECAUTIONS FOR FUNERALS

- Disinfect corpses with chlorine solution (2%)
- Fill mouth and anus with cotton wool soaked with chlorine solution
- Wash hands with soap after touching the corpse
- Disinfect the clothing and bedding of the deceased by stirring them in boiling water or by drying them thoroughly in the sun

GIVE SIMPLE MESSAGES TO THE COMMUNITY

To avoid cholera and shigella

- Wash your hands with soap
  - — after using toilets and latrines
  - — before preparing food
  - — before eating
- Boil or disinfect the water with chlorine solution
- Only eat freshly cooked food
- Do not defecate near the water sources
- Use latrines and keep them clean

In case of acute diarrhoea

- Start oral rehydration with ORS (see **Boxes 1 and 2**) before going to the health centre
- Go to the health centre as soon as possible

BOX 1. HOW TO PREPARE HOME-MADE ORS SOLUTION

- If ORS sachets are available: dilute one sachet in one litre of safe water
- Otherwise: Add to **one litre** of **safe water**:
  - — **Salt** 1/2 small spoon (2.5 grams)
  - — **Sugar** 6 small spoons (30 grams)

And try to compensate for loss of potassium
(for example, eat bananas or drink green coconut water)

Treat the patients

Summary of the treatment

A. Rehydrate with ORS or IV solution depending on the severity
B. Maintain hydration and monitor frequently the hydration status
C. Give antibiotics for severe cholera cases and for shigella cases

A. Rehydrate depending on severity

Is the patient dehydrated?

- The patient is losing a lot of fluids because of diarrhoea and vomiting.
- Does he have two or more of the following signs? The lack of water in his body results in:
  — sunken eyes
  — absence of tears
  — dry mouth and tongue
  — the patient is thirsty and drinks eagerly
  — the skin pinch goes back slowly

If NO THEN

There is NO dehydration:
Give Oral Rehydration Salt (Box 2)

If YES, check if the dehydration is very severe

Is the dehydration very severe?

When dehydration is very severe in addition to the above mentioned signs:

- The patient is lethargic, unconscious or floppy
- He is unable to drink
- His radial pulse is weak
- The skin pinch goes back very slowly

If NO THEN

There is some dehydration:

- Give Oral Rehydration Salt in the amount recommended in **Box 3**
- Nasogastric tubes can be used for rehydration when ORS solution increases vomiting and nausea or when the patient cannot drink
- Monitor the patient frequently

If YES THEN

There is severe dehydration

- Put an IV drip to start intravenous rehydration
- In case this is not possible, rehydrate with ORS
- In any case, refer the patient to the higher level and rehydrate as shown in **Box 4**

80% of the cases can be treated using only Oral Rehydration Salt (ORS)

BOX 2. THERE IS NO SIGN OF DEHYDRATION

When there is NO sign of dehydration: give ORS solution (see Box 1) after each stool

- **Child less than 2 years old**: 50–100 ml (1/4–1/2 cup) ORS solution. Up to approximately 1/2 litre a day.
- **Child between 2 and 9 years old**: 100–200 ml. Up to approximately 1 litre a day.
- **Patient of 10 years of age or more** as much as wanted, up to approximately 2 litres a day.

BOX 3. THERE IS SOME SIGN OF DEHYDRATION

Approximate amount of ORS solution to give in the first 4 hours

Age	Less than 4 months	4–11 months	12–23 months	2–4 years	5–14 years	15 years or older
Weight	Less than 5 kg	5–7.9 kg	8–10.9 kg	11–15.9 kg	16–29.9 kg	30 kg or more
ORS solution in ml	200–400	400–600	600–800	800–1200	1200–2200	2200–4000

BOX 4. THERE IS SEVERE DEHYDRATION

Give IV drips of Ringer Lactate or if not available cholera saline (or normal saline)

- 100 ml/kg in three-hour period (in 6 hours for children aged less than 1 year)
- Start rapidly (30ml/kg within 30 min) and then slow down.

Total amount per day: 200 ml/kg during the first 24 hours

B. Maintain hydration and monitor the patient

Reassess the patient for signs of dehydration regularly during the first six hours:

- Number and quantity of stools and vomit in order to compensate for the loss of body fluids
- Radial pulse: if it remains weak, IV rehydration has to be continued.

C. Give antibiotics if needed

When is it useful to give antibiotics?

- **For cholera cases with severe dehydration only.**
- **Ideally for all of *Shigella dysenteriae* cases, but as a priority for the most vulnerable patients: children under five, elderly, malnourished, patients with convulsions.**

TABLE 2. WHICH ANTIBIOTICS CAN BE GIVEN?

Cholera

Doxycycline single dose	300 mg		
or **tetracycline**	12,5 mg/kg	4 time/day	for 3 days
Young children: **erythromycin**	12,5 mg/kg	4 time/day	for 3 days
• for children below 6 months of age: **add zinc**	10 mg	daily	for 10 days
• for children 6 months to 5 years of age: **add zinc**	20mg	daily	for 10 days

Note : *There is an increasing resistance to doxycycline, tetracycline and TMP-SMX.*