

Oral Rehydration Kit

Guidelines

Oral Rehydration Points - The foundation of the Red Cross Red Crescent Cholera response.

Cholera

Cholera, an enteric infection caused by the bacteria *Vibrio cholera*, is characterized by a sudden onset of acute watery diarrhea that in severe cases can rapidly lead to dehydration and death¹. Cholera is acquired by ingestion of faecally contaminated food and water.

The burden from cholera is estimated at 1.4 to 4.3 million cases per year, and 28,000 to 142,000 deaths per year worldwide². Cholera outbreaks are normally associated with insufficient access to safe water and proper sanitation. Emergencies leading to disruption or destruction of environmental infrastructures, as well as massive displacement of individuals and overcrowded settings are considered risk factors for cholera.

The explosive nature of cholera outbreaks stems from its virulence, short incubation period of 2 hours to 5 days, and the fact that around 75% of individuals infected will not develop any symptoms, yet they will shed the bacteria in faeces for 7 to 14 days, possibly infecting other individuals³.

¹ WHO. Prevention and Control of Cholera outbreaks. 2008.

² Ali M, Lopez AL, You YA, et al. The global burden of cholera. Bull World Health Organisation 2012; 90: 209–18^a

³ Ibid

Among individuals developing symptoms, the majority will present as mild or moderate and 10%-20% will develop severe watery diarrhoea and dehydration. Cholera affects both children and adults and unlike other diarrheal diseases, can kill even healthy adults in a matter of hours if untreated, or if treatment is delayed or inadequate. Mortality risk is enhanced in malnourished children, people living with HIV/AIDS and other individuals with lower immunity⁴.

Intervention strategies aim to reduce mortality ideally below 1%. Effectively and timely case management of all symptomatic cases through prompt rehydration is key. Mild and moderate cases can be successfully treated with oral rehydration salts (ORS) only. Severe cases will need rehydration with intravenous fluids. Other strategies include improved access to water, sanitation, proper waste management and vector control, enhanced hygiene and food safety practices and strong communication and public information⁵.

Lessons learnt from operations in Zimbabwe, Haiti and Serra Leone have led to the development of key community-based strategies to support an integrated response to prevent and control cholera outbreaks.

The participation of Red Cross and Red Crescent volunteers at community level in the provision of social mobilization and behavior change activities, distribution of key commodities for safe provision of water, early treatment of mild and moderate cases and referral of severe and at risk cases to the nearest clinical facilities is a proven response strategy that improves outcomes for individuals and communities.

This guideline focuses on one aspect of this response, notably the provision of early access to life-saving ORS at the community level, through the establishment of Oral rehydration Points (ORP). The provision of early access to life saving ORS at the community level has been shown to reduce mortality and reduce burden on overwhelmed health infrastructure allowing improved care of more severe cases. The

⁴ WHO. Prevention and Control of Cholera outbreaks. 2008.

⁵ WHO. Prevention and Control of Cholera outbreaks. 2008.

need to scale up community based treatment and access to ORS is vital.

How to use these guidelines

An ORP kit has been designed to assist National Societies in establishing ORPs at scale during cholera outbreaks. The ORP kit is complemented by these guidelines, which provides technical support and training material for the use of the Oral Rehydration Point kit ([ERIC Code](#)). The ORP kit has been designed to replace the traditional volunteer module of the 'Cholera kit' ([eric code](#))

This guideline makes reference to and complements the [UNICEF Cholera Toolkit](#), a comprehensive guideline for cholera preparedness and response, which should be referred to in conjunction with this document.

This guideline is aimed at supporting National Societies to rapidly deploy and scale up community-based treatment of cholera cases during an outbreak. The ORP kit provides the ability to produce safe water in adequate quantities at remote locations where safe water may be difficult to access. The kit is light, portable and easy to store and transport.

The guideline is organized into three sections for ease of use. The first section is aimed at program managers and covers how to design and implement community-based ORS program. The second section is aimed at supervisors covering how to monitor and supervise ORP points at scale. The third section is designed for the volunteers operating the kits at the community level. Program managers and those in charge of designing cholera response programs should review all three sections to ensure comprehensive knowledge.

Although the guidelines are designed for use with the IFRC ORP kit, they are general enough to be used for the setup and management of ORPs using locally sourced materials.

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Guideline for Program Managers

Before reading this guideline on planning and managing ORP's, Program Managers should have a clear understanding of cholera, including signs and symptoms, the basics of treatment as well as the concept of integrated programming response. This should include how ORP's fit into the overall architecture of a multi sectorial prevention and response operation. A review of key information can be found in the [UNICEF Cholera Toolkit](#).

Designing ORP programs

Designing a community-based response strategy for cholera is best completed during contingency planning phases. Thinking through the concept of community-based treatment using ORP's at scale in urban and rural settings should be completed in conjunction with multiple stakeholders ensuring effective communication, coordination, referral and information management between all levels of the response during the outbreak.

However, in practical terms this is not always possible. The contingency plan may be out of date and needs to be revised or the situation may have been different to what was envisioned. This guideline is written in the context of a rapid scale-up to support the initial phase of cholera response but the same process can be used as part of contingency planning and preparedness phases.

Understanding the Current Situation

Knowing the characteristics of the affected area including the previous history of cholera in the area, access to services, the communities' perceptions and understanding of cholera and the capacity of partners and the National Society to respond effectively are all extremely important.

This information will assist you in understanding the degree of risk related to the

current situation. How high is the number of cases we currently have? How is this different to the same time of the year last year or the year before? What are the chances of it spreading to other areas? Has cholera spread from here before?

These questions will help you think about the size and scale of the response. The concept of Sword and Shield (initially developed by UNICEF) is helpful when thinking and planning a cholera response. This concept is based on rapid and targeted response to the area affected complemented by integrated prevention programs in areas that may be at risk of spread of the disease. Understanding the pattern of the disease and how it is most likely transmitted in the context you are working in will help you respond to where the cases are now, but also 'get ahead' of the outbreak and stop further spread.

The Sword and Shield strategy relies on the integration of clinical response as well as water and sanitation, hygiene and communication interventions. At times it may include the use of the oral cholera vaccine as well.

Oral Rehydration Points are just one part of the overall cholera response but can play a key role at reaching down to the community level to ensure access to services, early treatment and referral and health prevention information from trusted sources.

More information on understanding the context and the situation can be found in the UNICEF cholera toolkit Chapter 3.

What is an ORP

The ORP is the first level in the treatment of cholera and should be utilized to improve access to ORS at the community level. It is extremely important in areas where access to health facilities is difficult or where the high number of cases is overwhelming the health services. The ORP as the first level of care should be planned as part of a comprehensive clinical pathway that includes Cholera Treatment Units (CTU's) and Cholera treatment centers (CTC).

The ORP should be manned by trained volunteers who are able to recognize the key signs and symptoms of dehydration and can assess the need for further referral of severe or high-risk cases.

To ensure the ORP is effective, a functional referral system is needed. Severe cholera cases and individuals at risk of severe disease need to be referred and receive the correct clinical treatment in an appropriate facility.

Small infographic showing referral pathway using info from page 127 unicef toolkit.

Objective of ORPs

ORPs provide a number of key services at the community level that are essential in helping prevent the spread of cholera as well as ensuring access to early treatment.

The objective of ORP's is to ensure the community has access to information, commodities and ORS to limit the morbidity and mortality of cholera.

The activities of ORP's include:

1. Initiating early treatment of mild and moderate cases of dehydration by distributing ORS and Zinc when appropriate.
2. Distributing key commodities such as ORS, soap and household water treatment supplies.
3. Referring severe or at risk cases to health facilities for adequate treatment.
4. Acting as a community- based disease surveillance point to ensure all suspected cases are recorded.
5. Operating as key reference point for behaviour-change and social mobilization activities.

When to use ORPs

Early access to ORS can change the course of a cholera episode and limit the number of patients that need more advanced care in a facility as well as the number

of cases that result in death.

Most long-term health or WASH programs within the RCRC movement will include a component of hygiene promotion and disease prevention. These programs should already be promoting the use of ORS or Sugar Salt Solution (SSS) especially in countries at risk of cholera outbreaks.

If there is an increase of acute watery diarrhoea cases (AWD) and/or suspected cholera cases, community-based volunteers should start to scale up activities in response to this, which may include setting up an ORP.

As cases are increasing, ORPs play an important role as a central location for information to ensure the community knows where to go for help and support. They also assist in monitoring the situation through regular reporting of cases.

In areas where RCRC does not have a presence it may be necessary to recruit new volunteers and establish a community presence during the outbreak.

ORPs are especially important in areas with limited access to the formal health system. The number and location of ORP's should be considered taking into account the following:

Distance to the nearest health facility. If the facility is more than one hour away, either due to actual distance, lack of transport, poor quality roads or security, an ORP may be required.

Acceptability of the health facilities in the communities. Some communities may choose not to go to the health facility due to a variety of reasons including the stigma associated with cholera, the attitude of health workers or community members, cost or other cultural beliefs surrounding cholera. In these cases an ORP may be key in ensuring access to treatment at the community level.

Workload at the health facilities. In an outbreak, health facilities can be overwhelmed

with cases. In addition to treating cholera they are also treating other illnesses on a regular basis. If the health center is very busy, establishing an ORP at community level or even in the grounds of the health center can shift the burden of mild and moderate cases from the health facility and allow them to focus on the most at risk cases that require intravenous rehydration.

The ORP Kit

The ORP kit contains a water filter system, along with additional material required to operate an ORP. The treatment commodities needed, such as ORS and zinc, need to be procured separately.

The water filter system

The most important component of the ORP kit, the water system filter, consists of two twenty-liter containers that stack on top of one another. The container on the top has two ceramic filters that provides clean water using gravity filtration. The filters stop 99% of all bacteria and virus and produce approximately 2 liters of water per hour. The filters provide clean safe water without having to add chemicals, improving the acceptability and taste of ORS and ensuring that the ORP has enough clean and safe water at all times.

The water filter system is composed of:

- 2 Polypropylene food grade containers with snap on lids
- 2 ceramic filter candles 7" long x 2" diameter with long threaded mount
- 2 Black Rubber Sealing Washers
- 2 Black Plastic Wing Nuts
- 1 Plastic dispensing tap with plastic threaded nut and white rubber washer

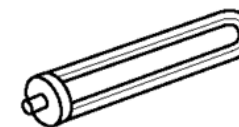


Image of the ORP water filter system (left) and schema of the filter candle (right)

What is a filter candle?

The ceramic of a filter candle is cast in such a way that it has one domed closed end. The other end of the ceramic is open. This open end is closed off with a food grade plastic mount, which enables the candle to fit into a filter housing. Water passes from the outside of the candle to the inside, leaving particles of dirt, bacteria, etc. on the outside of the ceramic. The filtered water then passes out of the candle through the mount.

There are 2 standard types of mount (long and short). The length of mount required is determined by the type of housing into which it is to be fitted.

How to use the filter



Pour untreated water into the top container. Via gravity, water will move through the ceramic filter removing the bacteria and viruses. Clean water will filter into the bottom container where it can be accessed through the tap. The water in the bottom container is in a sealed chamber and therefore is safe from contamination. The water can stay in the bottom container for several days and remain safe.

The filtration rate is quite slow, but the quality of the water and the taste is very good. Volunteers should set up the kit at night to allow the filter to

work and produce enough water for the next day. During the day, the volunteer should continue to fill up the top container with untreated water to ensure a constant flow. The kit will not overflow or spill. Only when there is space in the bottom container will the water move down from the top container.

This means the kit can produce about 30 litres of water a day. This should be enough to cover the needs of the ORP. If volunteers require more safe water than this, they can make additional water using traditional methods such as boiling or chlorinating. However, if they are seeing enough patients to use all the water every day, the situation may be severe enough to consider additional support. This could mean a second ORP in the same village or area, or advocating for additional support in the form of a CTU.

The filter should last approximately 12 months depending on the turbidity (how dirty the the water) is or approximately 10,000 litres. However the filter needs to be cleaned regularly. If the flow rate of the water slows down, you should clean the filter.

Cleaning the ceramic filter candle



Due to filtration of particulate contaminants from the water during use, over a period of time, the flow of the water through the ceramic filter candle may decrease.

To restore the water flow to its normal level, simply clean the filter candle as explained below. Cleaning frequency will be dependent

upon the condition of the incoming water.

It is important to wash your hands thoroughly before and after servicing the ceramic filter candle.

1. Hold the filter candle in a bowl of water or under running water. To avoid

contamination of the open ended plastic threaded mount, take care to ensure that the mount is always clear of the water (see figure above).

2. Take a lightly abrasive pad (included in the kit) in one hand and cup it around the circumference of the filter candle at the top, next to the mount.
3. Press gently onto the candle surface with the abrasive pad, whilst quickly turning the filter candle with the other hand.
4. Apply a gentle, even pressure with the pad slowly working down the length of the filter until it is clean.

Please note:

- Never use soap or detergents to clean the filter candle.
- Boiling is not necessary.
- Do not rub the ceramic surface too aggressively.

A filter candle can be cleaned 50+ times, before needing to be replaced. The number of times the filter candle can be cleaned depends on how much ceramic is removed during each cleaning process. During each cleaning process it is important to check the diameter of the candle, **using the candle gauge**. Once this happens both filters need to be replaced.

Additional kit components

The kit comes with the following items

NOTEBOOK, A5 hard cover	1
PEN, BIC ball point blue	5
CUP plastic 200 ml, without handle	10
CUP plastic 500 ml, without handle	10
SPOON, plastic 20ml	20
JUG, plastic 1L with beak and handle	1
Plastic casing ceramic filter (fairey)	1
BUCKET, plastic, 14L with clip cover and outlet tap (Oxfam type)	1
JERRICAN, foldable, 10 L, food grade plastic, screw cap 50mm	2
SOAP, body soap, 100 gr piece	6
CHLORINE, 40mg (NaDCC 67mg), for 10L water, strip of 10 tabs	12
PUR sachet 4gm sachets, 10 Ltrs of water	30
SYRINGE, 10 ml, 2 parts, disposable	3
FLAG Red Cross 0.8x1.2m	1
TABARD/BIB, Red Cross, 40x40c	2

GLOVE, EXAMINATION, NITRYL, non sterile, medium (7-8), box of 100 pcs	1
GLOVE, for washing dishes, rubber, pair, size M	2
SPOON, wooden, stirring, 30cm	1
ROPE, NYLON, diam. 3mm, braided, 5 meter	1
BRUSH, SCRUBBING, hand brush	1

ORS, zinc and chlorine for disinfection are not included in the kit and must be added when the distribution of the kits to volunteers occurs.

The removal of medicines and chemicals allows the kit to be easily shipped and stored for a prolonged period of time, making warehousing and prepositioning for outbreak response easier and more cost efficient.

ORS and zinc should be sourced following normal IFRC procurement guidelines, meaning local purchase is not to be done without approval. The NS can source ORS and Zinc in country through MoH, WHO or UNICEF or place an international order through IFRC for immediate dispatch.

NOTE on Rapid Diagnostic Tests (RDTs). The RDT for cholera is not included in the ORP kit as this kit is designed for use by volunteers at a community level and to be deployed in an outbreak scenario. In such cases, a declaration of an outbreak should have occurred and therefore confirmation is not required. The role of the volunteer is not to diagnose cholera but to treat the symptoms of diarrhoea. That is, to assess levels of dehydration, provide ORS or refer as needed. If the kit is deployed for use by community-based health workers or clinical staff RDT's can be added as needed.

Quality of the water obtained with ORP kit

Performance Claims <small>Verified by independent laboratories</small>		Sterasyt® Silver impregnated ceramic microfilter
Pathogenic Organisms		
% Bacteria Removal	E. Coli / Cholera / Shigella / Typhoid / Klebsiella Terrigena	>99.99%
% Cyst Removal	Cryptosporidium Giardia	>99.99% >99.99%
Quality Approval	Turbidity (tested using NSF std. 53 Protocol)	>98%

Oral Rehydration Solution (ORS)

How to make ORS (see also ECV Action tool 2, in Annex 1)

1. Wash hands with soap and clean water
2. Water is taken from the tap of the bottom container. Measure out one litre using the jug provided.
3. Add 1 sachet of ORS to the 1 litre jug and mix.

Prepare ORS solution

1. Wash your hands with soap and water

2. Pour the entire contents of 1 packet of ORS into a clean container (mixer bowl or jar) for mixing the ORS. The container should be large enough to hold at least 1 litre.

3. Measure 1 litre of clean water (or correct amount for packet used). Use the cleanest drinking water available.
In your community, what are common containers caregivers use to measure 1 litre of water?

4. Pour the water into the container. Mix well until the salts completely dissolve



If the ORP is busy and is seeing a significant number of patients each day, ORS can be made in the kit itself by mixing 20 packets of ORS into a full bottom container. There is a long handle spoon in the kit for mixing.

DO NOT PUT ORS in the top container. Only mix it into the safe water in the bottom container.

This should only be done by volunteers with experience. In principle if the top container is still full of water and is filtering, the ORS will become diluted over time as new fresh water is mixed. Operational needs for ORS and safe water need to be balanced before using this method of mixing. One solution to this would be to move premixed ORS into the foldable jerry can that comes with the kit. If ORS is mixed into the bottom container, the container should be emptied and cleaned at the end of every day.

A Sugar Salt Solution (SSS) can be used if ORS are not available (See recipe in Annex 2).

Administering and storing ORS (see also Annex 1)

1. Give frequent sips of the ORS from a cup or a spoon (especially for young children) until the patient is no longer thirsty.
2. If the patient vomits, tell the caregiver and wait 10 minutes before giving more.
3. You can add a cup of orange juice or a mashed banana to the solution to make it taste better.
4. Keep ORS solution in a clean, covered container.
5. Ask the patient or the caregiver to make fresh ORS or come back to the ORP when needed. Do not keep the mixed ORS solution for more than 24h.

Distributing zinc

Zinc has been shown to reduce recurring episodes of diarrhoea, shorten the duration of symptoms and decrease the stool volume. **Zinc should be distributed along with ORS** to all children below 15 years of age, in a dose of 10 to 20 mg per day.

Establishing an ORP network

How many people can the ORP kit treat?

Understanding how many people can be seen at the ORP per day to receive community-based treatment will help in planning where and how many ORP's you should have in the community.

The kit can produce enough water each day to treat approximately 35 patients per day using the safe water from the filter. Additional patients can be treated if other methods of safe water production are available, however, more than 30 -40 patients per day is too many for two volunteers to manage alone, and additional support should be considered.

It is also important to remember that ORS distribution for community-based treatment is only one component of an ORP. Health education, social mobilization and distribution of key commodities should also occur, and these activities will reach many more people.

Knowing how many people the ORP can treat per day is useful, but you need to know the size of the population that this number of patients per day translates into, to be able to plan successfully. We can use some basic epidemiology to work backwards and estimate the population each kit could cover in an outbreak.

Chapter 3 in the UNICEF cholera tool kit helps in understanding some of the calculations related to how to estimate how many people will get sick in the community, known as attack rates. In simple terms about 1% of people in rural areas, or areas of low population density will get sick, and about 3 % in urban areas or high density areas. In some cases, like naive populations (where people haven't been exposed to cholera before) or camps the attack rate can be as high as 5%.

This is an over simplification, and there are many factors that affect this number but

for ORP planning purposes the figures will give you a good guide in understanding how many people you may need to prepare for. You will need to review the clinical data each day and see if your estimates are correct and adjust your planning based on actual numbers during the outbreak.

There are several things to think about when deciding how many ORP's to set up in response to an outbreak, yet the most important has to do with time and distance from the community to the nearest CTU/CTC. **Placement and number of ORP's should ensure that the community can readily access a CTC/CTU or an ORP within a short walking distance.** ORP's are the most effective when they can provide early access to treatment and assist in referral of severe cases.

- In **urban areas**, a general rule of thumb is about 8 ORP's per CTU, or one per 10,000 people. The ORP's should be no more than 20 min walk for the community.
- In **rural areas**, as a general rule there should be 1 ORP per village. For large villages estimate one for every 1000 people or within 30 min walk for the community.

Reviewing the performance of ORP's and ongoing planning

ORP's should not be seeing more than 25-30 patients per day unless connected to a CTU/ CTC. ORP's should not be referring more than 5 patients a day. If they are referring higher numbers, and you have checked that the referrals were appropriate, additional support in the form of a CTU may be needed.

If there is a high number of community deaths or deaths in the first few hours of arrival at the health facility, distance and access to the CTC/CTU may be a problem and you should consider additional ORP's in the affected community.

Remember, the main consideration for ORPs is distance and time. The key role of ORP is early access to treatment!

How many additional supplies are required?

You need to calculate out how much ORS and zinc for each ORP will be required. This can be estimated based on the figures below and then monitored during the first month and adjusted as needed.

Calculating ORS requirements

We can work with a high-end estimate of 30 people per day for busy ORP's and a low-end estimate of 5 people a day for less busy ORP's, and calculate amounts needed over a 3-month period.

Patients per day	ORS sachets per patient ¹	Patients per day	For 3 months	Number of boxes of ORS ²	Additional ORS boxes for demonstration and distribution to community
Busy	5	30	13500	13	4
Less busy	5	5	2250	3	1

1. 5 sachets (for 5 liters of ORS) per patient assumes 1 liter on site and 4 sachets to take home as an average.

2. Each box contains 1000 ORS sachets.

3. Additional ORS is 1/3 of estimated need for demonstration and distribution to family members and asymptomatic patients

Calculating Zinc requirements

Calculating the zinc supplies that will be required can be done as follows:

Disinfection

As a rule of thumb, order and distribute 50% of your estimated needs at the beginning of the operation. Then you can adjust as needed for the remainder based on the actual number of patients seen and the progressing of the outbreak.

Additional Equipment

Not all the necessary equipment comes with the kit. Some local sourced materials will be required. In addition to the ORS, Zinc and chlorine the volunteers will need access to some chairs, a table and additional buckets for waste management of

vomit and stools if required.

Further sanitation tools may also be useful including broom and mop depending on the floor surface of the area used. A touch or light source may also be needed if the volunteer is called to assist at night-time.

A toilet is also recommended at the site. Rapid scale up of ORP means it is unlikely that new facilities can be built in all locations. Communities should consider the location and allocation of toilet facilities during contingency planning and preparedness but if no toilet is available a waste pit, at least 1.5 meters deep and 1 x 1 meters wide can be dug for waste disposal. (see section X for additional information on waste disposal)

If SMS-based monitoring is occurring, phone credit per site will also be needed.

Additional items required for the kit	
ORS	
Zinc	
Chlorine	
Additional Items to be considered in addition to the kit	
Shade	
Chairs	
Table	
Extra buckets for waste	
Torch	
Toilet or waste pit	
Broom / mop	
Phone credit	

Often all of these items can be provided at the community level especially in rural areas. Tables and chairs can be found within the community. Shade can be from a large tree, a community building or constructed from local materials. Additional buckets may also be found or could be added through local procurement if needed.

In urban environments it may be necessary to purchase additional items and this should be considered in planning and budgeting.

Personnel

The ORP should be open for at least 12 hours a day. Two volunteers should be trained per point. This allows good coverage of the point and time off for each volunteer. It also allows for one volunteer to leave the site and accompany people who need referral or to accompany them to their house if needed.

For urban points several volunteers per site may be needed so that a shift rotation can occur so that the volunteers are not working all day seven days a week.

Security. The ORP should, where possible be manned by at least two persons. This will help in management of the point but also in security. Not all cases of cholera needing assistance will occur during the day. Volunteers should discuss with community leaders the procedures for managing people who are sick at night-time. Volunteers should be accompanied by someone from the community at night to ensure safety and security. If security is a potential problem discuss with the community leaders in providing additional support to the volunteers.

Who can manage the ORP sites

How you plan and manage the ORP sites will depend on the size, scale and context of the outbreak, however, a pyramid approach to supervision is suggested.

Each branch should have enough supervisors to ensure at least a weekly visit to each ORP. If distances are very large and travel is difficult this could mean 1 supervisor per 5 sites. In an urban context this could mean 1 supervisor for 15 sites, depending on access.

Supervisors. Supervisors should have basic health knowledge. They should be trained as community health workers (CHW) or have been part of the CBHFA program for a prolonged period of time. They should have good knowledge of basic first aid, and of treatment of common illness for the area such as malaria, diarrhoea and pneumonia. Experience in coaching and supervision is an advantage. They

should be literate and be able to undertake some reporting and documenting of activities.

Operators. ORP operators should be community-based volunteers. Willingness and a commitment to the community are the only essential requirements. Literacy is a benefit but the reporting can be done with simple tally sheets and picture-based tools so literacy is not essential. Operators should be well accepted and trusted within the community and be willing to assist for a few hours every day over the course of the outbreak.

Previous involvement in CBHFA programs and exposure to ECV is an advantage as well as some basic first aid knowledge, but this can all be taught quickly if needed at the start of an outbreak.

Where should an ORP be established?

Any area without easy access to a health facility or a designated cholera treatment facility should have an ORP. The location of an ORP should be chosen by community members and could be any community space that allows easy access and is separated from normal day-to-day functions of the community. For example, putting a ORP in a school is disruptive to students and presents a hazard for infection control, and thus should be avoided.

Site selection is important. Things to consider:-

- Access to a nearby water source (which can provide a minimum of 10L/patient/day).
- Access to a method of waste disposal. A latrine or an area where a latrine could be constructed is ideal but during an outbreak a pit that is fenced and treated with chlorine each day would suffice.
- If outdoors, the ORP should have shade and protection from the rain.
- If the ORP is part of or adjacent to an existing dispensary, the ORP should be separated from other patient care areas.
- The ORP should have a clear identification, a red cross/red crescent flag

which clearly indicates that the place is an ORP.

- The ORP should be in a secure location.
- Access for disabled and aged community members should be considered.

Accessibility. An assessment of each ORP's accessibility should be made in consideration of disabled and aged members of the community. Can people with limited mobility reach the ORP and if not, what procedures can we put in place to ensure they have access to ORS if needed. Do people with sensory disabilities, those that can't hear, see or interact with us have access to the key messages for prevention of cholera? How can we ensure these messages reach them? Can people with limited mobility or disabilities access safe water? Are they more at risk of cholera because of their disability? How can we ensure equal access?

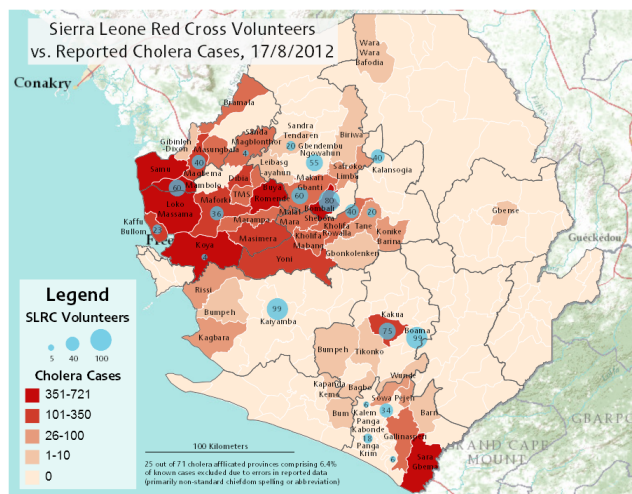
Planning an ORP network

Integrated cholera response uses a concept known as sword and shield and this includes the planning and management of ORP's and community based activities. The sword and shield concept means that when planning ORP network you should consider where you need ORP's right now for response but also areas at risk for preparedness and prevention activities.

The first step is understanding the context and the risk of the current situation. This was discussed earlier in the chapter. Once you have this knowledge it is often helpful to map the information available.

As an example, we will look at the Sierra Leone cholera outbreak in 2012. The outbreak was mapped around the country and the number of existing trained health volunteers was added on the map. This way the National Society could see where there was cholera, what other areas were at risk and where they already had resources.

Mapping of cholera cases and volunteers available in Sierra Leone in the 2012 cholera outbreak.



The map helps in visualizing where the cases are, where the RCRC resources (volunteers and branches) are and where other agencies are responding (not shown on this map).

You can use a similar map to help assess where to respond geographically. It's a balance between where the cholera is now, where it might be next week or the week after, where others are responding and where the RCRC will add the most value, such as in areas where others can't go, and hard-to-reach locations where the National Society has branches and volunteers.

Once you have decided what districts the response should be in you can repeat the process at branch level to see what villages to target.

In our example, the Sierra Leone RC worked in the 4 hardest hit locations from the map above. Let's look into how they mapped their response in one particular district: the district of Kambia.

The branch team drew a map of Kambia including the villages and health centres.

They marked the areas where they already had volunteers and areas they thought would be at risk and would need more support.

[See map.](#)

Then they added information about the population to the map as well as distance in time to health centres and health outposts.

[See map](#)

Using this map, an approximate number of ORPs was planned for the whole district.

[See below.](#)

With this information, the local branch in Kambia district estimated that they required 22 ORPs, 5 for urban centres and 17 for rural communities.

Referrals

Referral plans should be made by every ORP point and should cover several eventualities.

Volunteers should make a plan with their communities to assist in referrals of

- Cases that are able to self-refer during the day
- Unconscious patients that will need transport urgently
- Patients that will need to be referred during the night
- The procedure for notifying the MoH of a community based death * see managing community based deaths [Annex 3](#)

Training requirements

Training in response to diarrhoea and cholera specifically should be part of long-term health program and contingency planning. Even if the volunteers have been trained in the past, a refresher training will most likely be needed at the start of the outbreak. This is to ensure the correct level of knowledge but also to pass on key messages that are specific to the response, such as how the disease surveillance system will work.

In planning a training for scale up of ORPs you may consider the following requirements:

Supervisors should already be RCRC volunteers where possible and should have previous basic first aid, CBHFA and ECV training. A one-day training on how to supervise and manage ORPs is suggested and can be found in [Annex 4](#)

For volunteers with first aid and CBHFA experience a one-day training focused on ECV and ORPs is recommended. A suggested training plan is provided in [Annex 5](#)

For volunteers without previous training, a two-day training is suggested. The first day should cover basic first aid, principles of the RCRC, and community entrance techniques (drawn from CBHFA), while the second day will be specific for ECV and cholera and ORP training.

Infection control

Training and supervision of infection control measures is extremely important and should include the following:

Hand washing

Each ORP should have at least one hand washing facility. Patients should wash hands before entering the ORP and operators should wash hands between every patient and before leaving the ORP. Water in the hand-washing container should be a 0.05% chlorine solution.

The kit contains two 10-liter foldable jerry cans. You can use one of these as a temporary hand-washing facility by tying it up and utilizing the tap. [See annex 6](#) for details on how to make the chlorine solution

Sanitation and waste management

Vomit and feces should be discarded in a latrine or pit dedicated for this purpose .

Disinfect the area surrounding the latrine or pit with 2% chlorine solution twice each

day. If a pit is being used, a small layer of soil at the end of each day can be used to cover the waste. See disinfection guidelines [in annex 7](#)

Solid waste should be bagged and kept separately from normal waste. Where possible this should be disposed of in the same way that medical waste at the local health facilities is managed (burning is not recommend due to environmental impact).

Dead Body management and Funerals

Unless the NS is specifically tasked with assisting in management of dead bodies volunteers should be discouraged from participating in the activity. People who have died from cholera are still contaminated and can transmit cholera if the right infection control measures are not used.

Volunteers should support the community in understanding the restrictions on funerals and normal cultural practices after a death in the community. Key messages related to managing the body should be reinforced. Community and family members should be told not to touch the body and to avoid food preparation at funeral ceremonies. Funerals can be a major source of transmission especially in the early days of an outbreak. Changes to cultural practices and norms for funerals can cause a significant amount of distress in the community and the volunteers play a key role in assisting them to understand the need for changes in practices for their protection. See key messages for full details

If the NS is tasked with assisting in managing dead bodies at the community level, special training and equipment is needed. Please refer to [specific Guidelines](#) or request for technical assistance from emergency health team at the Zone.

Social Mobilization and Behaviour Change Communication

SBCC is a key task of the volunteers at the ORP and is extremely important to ensure prevention messages are passed and implemented by the community. It is important to come up with a communication plan early in the outbreak, preferable

during preparedness and contingency planning phases.

Consider the community context and the population's knowledge attitudes and practices that are relevant for cholera and how it affects their behaviour and willingness to implement preventative measures.

People's understanding and beliefs about cholera can be the biggest barrier to stopping the outbreak. Changing their practices and beliefs is the hardest part of the response, but RCRC volunteers are well placed at community level as trusted sources of information to influence change. Passing the **right message**, to the **right audience** through the **right channel** is essential.

Undertaking a Knowledge Attitude and Practice (KAP) survey can help in the design of communication strategies. More information and an example of a communication strategy is included in [annex 8](#)

Fear and Stigma – PSS in Cholera outbreaks

The community can be quite frightened during cholera outbreaks. Stigma related to having cholera can also be high. Both fear and stigma limit the ability of authorities to respond. Communities are less likely to implement behaviour change, seek treatment or work together on prevention activities. It is important as part of your KAP survey that you consider the impact of fear and stigma surrounding cholera in each community and assist to dispel misinformation.

PSS-trained volunteers can be helpful during the outbreak. They can work with communities in addressing fear and stigma and also help communities deal with grief if there have been deaths from the outbreak. Basic PSS training for volunteers should be considered if there are high levels of fear and stigma attached to the outbreak or the community is experiencing a high number of deaths.

The RCRC volunteers are in a unique position to work with communities and help address fear stigma and misinformation as they are a trusted source of information. Sometimes communities can react badly to authorities or outside agencies, especially if isolation units are established in the community. The RCRC plays a vital role in ensuring the cooperation and understanding of the community and improving security.

PSS support for volunteers is also important. Remember they are part of the affected community and may be dealing with a lot of pressure, stress and grief themselves.

Monitoring and Reporting

Reporting and monitoring from the ORP's is extremely important, especially during an outbreak when you may have hundreds of ORPs set up and spread across several districts. It's important to have a systematic way of ensuring the quality of the ORP's in meeting their objectives and also utilize the information from the ORPs in planning and adapting the cholera response.

Monitoring

Field-based supervisors should be in regular contact with each of the ORPs, ensuring the volunteers are well supported and have a point of contact for questions or concerns.

Supervisors should:

- Monitor the quality and functioning of each ORP including assessment of case-load and further need for support or scaling back of activities.
- Assess the need for further support for communication and behavioral change messaging. Does the community understand the prevention messages? Are these well received?
- Assess environmental sanitation and identify cholera risks to the community
- Visit the communities to discuss the access and acceptability of the ORP and address any concerns from the community or the volunteers.
- Liaise with the local health center of CTC/CTU to ensure the referral system is

functioning and communication between facility and ORP is good.

- Check accuracy of the SMS-based reporting system against paper-based records at the ORP site.
- Verify stocks of supplies and assess the need for further procurements.

Operators should:

- Monitor the community for increased environmental sanitation risks
- Assess risky behaviours in the communities and the uptake of key messages for behavioural change
- Evaluate the access to health facilities from the communities
- Adapt their activities based on these observations and report issues to supervisors.

Reporting

Three sources of information will be normally available in an outbreak, and it is important to distinguish the type of information they provide and where does the reporting from the ORPs fit into this framework.

HMIS- Health Management Information System

This is the clinical data collected by health facilities and used to track the types and distribution of diseases and illnesses. It gives an understanding of what types of patients and how many are presenting to health facilities. This is extremely important during outbreaks. We use this information to understand what is happening and where we need to provide more assistance and response. This system counts 'cases' of illness based on diagnostic criteria of qualified health professionals.

EBDS - Event Based Disease Surveillance

Event-based disease surveillance is a system that manages and responds to indicators of potential health threats. This information can be rumors, media reports or in the case of the RCRC a community alert that something maybe wrong. This system is important in identifying outbreaks early and responding to the spread of

cases.

The RCRC should know how this system work in their country and make sure they know how to pass information from the community level, including rumors, to the Ministry of Health for investigation and response.

CBDS - Community Based Disease Surveillance

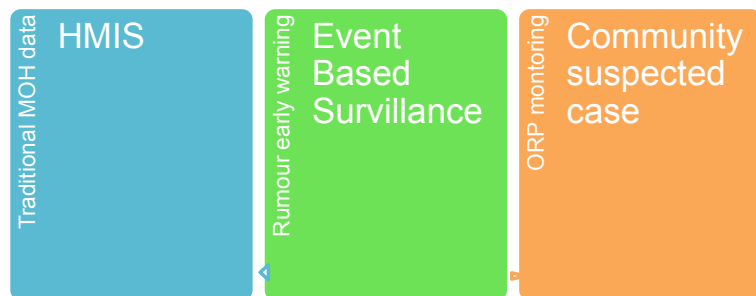
This system of surveillance is less developed and will continue to evolve. It can be as complex or as simple as is useful for your context. At its most basic it is essentially ORP monitoring.

In ORP monitoring, volunteers record the persons they see and 'treat' at the ORP. They should record children under 5, people over 5, referrals and deaths. This information should be transmitted daily to the program manager during outbreaks. This can be done via an SMS system (see below) or phoned in.

The importance of ORP reporting.

Traditional health information systems only count cases of cholera that attend the health facility. In most cholera outbreaks only around 20% of people will need clinical care, while for over 80% of cases ORS treatment at the community level will suffice. Thus, these individuals will not reach a health facility nor be counted in the HMIS.

This means the large majority of cholera cases are seen at the community level, treated at the community level, and need to be counted at the community level to ensure we have a complete picture of the outbreak. If there is a large scale and effective ORP response, CBDS, through recording of cases seen at the ORP is extremely important to ensure a comprehensive overview of the case-load.



Understanding what is being reported at ORP level

However, the data gathered through monitoring of the ORP needs to be interpreted and analyzed with care. You need to be clear on what you are counting.

Volunteers are not qualified to diagnose cholera. **A confirmed case of cholera can only be recorded by a clinician in the health facility using laboratory facilities or rapid tests.** The volunteers operating the ORP are collecting data on **suspected cases** of cholera. This is people that present to the ORP that meet the case definition set during the outbreak. The case definition can change depending on the country. Once a cholera outbreak is declared a working case definition will be established to allow the recording of suspected cases of cholera. This definition will usually resemble “more than three watery stools a day with or without vomiting”.

During an outbreak, if someone presents with these symptoms at the ORP it is highly likely they have cholera, but this cannot be confirmed without laboratory testing. Therefore these cases are counted as suspected cases. This is different to what the HMIS will be counting which is CASES of CHOLERA as diagnosed by a health professional, and using laboratory testing or RDTs.

This means you cannot add HMIS and CBDS data together. When you collect the information on cases seen at the ORP these will be suspected cases of cholera and should not be added to the data collected on the HMIS at the facility level, but you should analyse and work with the two data sets in collaboration to fully understand the extent of cholera in the community.

The interaction of the CBDS system and how it is interpreted and utilized in conjunction with the two formal disease surveillance systems needs to be defined at country level. CBDS (ORP monitoring) data should be shared with the MoH after agreeing on how it will be utilized and interpreted to ensure there is no confusion about what the data is actually counting.

The data collection from the ORPs should be discussed fully with the MoH and the way in which the data is utilized should be planned and agreed upon. If the MoH does not want to use the data, or cannot harmonise the two data sets, the number and type of person should still be collected from ORPs, labeled as ORP monitoring data and used for program decision making. The monitoring data will allow you to see how many cases, and the need for scaling up, more support, extra consumables etc.

Setting up a CBDS - ORP monitoring and reporting

During an outbreak the number of cases from each and every ORP point is extremely valuable information. Daily reporting is important to assist in program planning and decision making, both for the Red Cross, but also for the MoH and other agencies. The coverage of the ORPs makes them unique in being able to transmit valuable data directly from the community level.

Remember that only approximately 10-20% of cases from the community go to the formal health care center for treatment where traditional disease surveillance activities take place. The remaining 80-90% of suspected cases that are seen at the community level are important to give a complete picture of the outbreak.

Volunteer ORP operators collect and record the data of patients attending the ORP.

Illiterate volunteers can, at a minimum, use a tally sheet indicating number of suspected cases for individuals under 5 years old and over years old, as well as referrals and deaths.

If volunteers are literate, in addition to the tally sheet a 'line listing' can be kept, consisting of patient name, age, village, condition, outcome and supplies used. Examples of tally sheets and line-listing recording can be found in [Annex 9](#)

Supervisors should complete reports per ORP in check-list form, included in [annex 9](#). They should also complete a stock report for each ORP (see form in [Annex 10](#))

Both operators and supervisors must be reminded of the importance of "zero reporting". Reporting in a tally sheet in zero when there are no cases is extremely important because it shows where the cholera is spreading and where it is declining which is important to planning and response.

Use of SMS reporting. Use of SMS technology can assist in getting information from 100's of ORP across a wide geographical area quickly and efficiently. For more information on use of SMS monitoring and reporting see [annex 11](#)

Event Based Surveillance. In addition to the daily reporting from ORP's on suspected cases, volunteers and community members should be encouraged to report unusual events in the community, for example, a cluster of deaths, a sudden increase in cases or a change in symptoms. The RCRC volunteers are in a unique position to assist with early warning for disease outbreaks given their understanding of the community and knowledge of the area.

A clear standard operating procedure (SOP) should be in place for volunteers to notify the National Society or the MoH about unusual events. The SOP should include what the response will be to such notifications and the feedback loop to the volunteer.

Analyzing streams of information in the outbreak

As we have seen, the three different systems (HMIS, EBDS and CBDS) report different types of data. It is important that you use all information available to assist in program planning and decision making for cholera response operations. This is important even before an outbreak is declared. Early response to a small case-load can save lives and limit the spread of the disease significantly. The use of all channels of information will ensure an early response is possible.

It is important to review all streams of information and compare them as long as you understand that they are counting different things. Although all three channels maybe reporting on cholera, the HMIS is reporting on confirmed cholera cases diagnosed by lab or a clinician; the event based system is purely rumours and needs to be investigated, but can be an indication of further spread or problems in community transmission; the ORP monitoring (CBDS) is reporting suspected cases of cholera only based on the community case definition.

Disaster relief Fund
DREF application – what you need to show,
Model activity plan for ORP's for a dref application

Supervisor Guidelines

What is an ORP?

Oral Rehydration Points (ORP) are community level sites that provide rapid access to oral rehydration salts (ORS) solution in communities during a cholera outbreak.

ORPs are managed by one or two community health volunteers (CHV) who are trained on important aspects of cholera management, have access to a water source, and are provided regularly with supplies for making water safe to drink, ORS sachets, and other commodities. Training, coordination, and restocking of supplies should be done by the National RCRC Society and/or with support from a Partner National Society in accordance with given guidelines.

To ensure rapid access to oral rehydration, ORPs should be established in locations that are easily accessed by all individuals (for example within 30 minutes walking distance). A successful model in a rural area may be to establish a cholera treatment facility centrally with ORPs in each of the villages in the facility's catchment area. ORPs should refer all ill patients to a nearby cholera treatment facility: Cholera Treatment Centers (CTCs), Cholera Treatment Unit (CTUs), or any health facility capable of providing IV fluids.

ORPs should be open at least 12 hours per day; rural ORPs without a nearby cholera treatment facility may need to be open overnight. If circumstances require, ORP volunteers may need to visit ill patients at home if travel to a distant cholera treatment facility is not feasible (for example during night time or if poor security conditions) or impossible (handicapped patient, bad weather, or flooding).

ORP objectives.

The ORP is a focal point in the community for raising awareness of the cholera preventive messages and provide treatment to mild and moderate cases. Its

objectives are:

1. To initiate early treatment of mild and moderate cases of dehydration by distributing ORS sachets, zinc and clean water for mixing ORS to patients or carers of people with symptoms of diarrhoea, when appropriate.
2. To distribute key commodities such as ORS, soap and household water treatment supplies.
3. To refer severe or at risk cases to health facilities for adequate treatment.
 - a. ORP staff will have a list of the closest medical facility and/or contacts for the career to get transport.
4. To act as a community- based disease surveillance point to ensure all suspected cases are recorded.
 - a. Documentation of cases seen and commodities (ORS) distributed
 - b. Reporting of case count and supplies needed in the community
5. To operate as key reference point for behaviour-change and social mobilization activities.
 - a. To educate patients and carers, as well as the larger community on the proper preparation of ORS and hold demonstration sessions on how to make salt and sugar solution.
 - b. To educate patients and the larger community on broader health promotion messages important in cholera prevention.

Supervisors – Responsibilities and Training

ORP Supervisors should be literate RCRC volunteers at branch level. Supervisors should have basic health knowledge and be trained as community health workers (CHW) or have been part of the CBHFA program for a prolonged period of time. They should have good knowledge of basic first aid, and of treatment of common illness for the area such as malaria, diarrhoea and pneumonia. Experience in coaching and supervision is an advantage. They should be able to undertake some reporting and documenting of activities.

Supervisor's responsibilities.

An ORP Supervisor is responsible for mobilizing and supporting ORPs in communities and should be available to assist and guide the ORP volunteer operators. Each supervisor should visit all ORPs under their charge at least once a week, until they are confident that the ORP is being managed without problems. After that, monitoring visits should be made every two weeks as long as cases of cholera are being identified in the community.

Each branch should have enough supervisors to ensure at least a weekly visit to each ORP. If distances are very large and travel is difficult this could mean 1 supervisor per 5 sites. In an urban context this could mean 1 supervisor for 15 sites, depending on access.

Supervisor's responsibilities include:

- Visit the communities to discuss the access and acceptability of the ORP and address any concerns from the community or the volunteers.
- Liaise with the local health center of CTC/CTU to ensure the referral system is functioning and communication between facility and ORP is good.
- Supervise ORP volunteers as needed.
- Ensure that ORPs are re-supplied as needed.
- Receive information from ORP volunteers about number of cases treated and/or referred.
- Report information about ORPs under their care to NS headquarters and other partners as agreed.
- Map cholera cases once or twice a week.
- Inform the agreed partners about large numbers of cases
- Make decisions on downsizing ORPs when the number of cases starts to drop in a location.
- Make decision on increasing ORPs if the number of cases increases in a location.
- Monitor the quality and functioning of each ORP including assessment of case-load and further need for support or scaling back of activities.
- Assess the need for further support for communication and behavioral change messaging. Does the community understand the prevention messages? Are

these well received?

- Assess environmental sanitation and identify cholera risks to the community.
- Check accuracy of the SMS-based reporting system against paper-based records at the ORP site.
- Verify stocks of supplies and assess the need for further procurements.

Training of supervisors

Even if the volunteers being recruited as supervisors have been trained in the past, it is important to undergo a refresher training at the start of the outbreak. This is to ensure the correct level of knowledge but also to pass on key messages that are specific to the response, such as how the disease surveillance system will work.

Supervisors where possible should have previous basic first aid, CBHFA and ECV training. A one-day training on how to supervise and manage ORPs is suggested and can be found in [Annex 4](#). The training should cover the following content:

- Knowledge of cholera infection: symptoms, transmission, epidemiology.
- Prevention of cholera
- Community-based management of cholera – ORP set up and management
 - ORP kit contents
 - ORP set-up
 - ORP management and supervision
 - ORP quality control
- Cholera treatment in the community
 - Assessment of dehydration
 - Assessing case severity
 - ORS preparation, administration and storage
 - Referrals
- Hygiene and sanitation
 - Building and using latrines
 - Proper sanitation practices

- Hand washing with soap
- Handling dead bodies & safe funerals
- Proper waste disposal and disinfection
- Household water treatment
- Safe preparation and storage of food and water
- Hygiene and health promotion
 - Key messages on cholera prevention and treatment
 - Key messages on sanitation and hygiene
 - Breastfeeding information
- Prevention of cholera-associated stigma
- Community-based disease surveillance

ORP operators –Responsibilities and Training

ORP operators should be community-based health volunteers (CHV). Willingness and a commitment to the community are the only essential requirements. Literacy is a benefit but the reporting can be done with simple tally sheets and picture-based tools so literacy is not essential. CHV should be well accepted and trusted within the community and available in the community most of the time.

Previous involvement in CBHFA programs and exposure to ECV is an advantage as well as some basic first aid knowledge, but this can all be taught quickly if needed at the start of an outbreak.

Responsibilities of ORP operators

Responsibilities of CHV at the ORP site will include:

- Setting up the ORP.
- Preparation and storing of safe water.
- Preparation of ORS.
- Initiation of rehydration in patients.
- Referral of severely dehydrated patients to a health facility.
- Distribution of ORS, clean water, water-disinfection tablets and other commodities.

- Patient and family education on ORS preparation, administration and storage.
- Community education on cholera prevention and hygiene promotion.
- Cleaning and disinfection of ORP site and materials.
- Recording of cases, referrals and deaths
- Reporting of cases and supply stock to supervisor and NS as agreed.
- Monitoring the community for increased environmental sanitation risks
- Assessing risky behaviours in the communities and the uptake of key messages for behavioural change
- Evaluating the access to health facilities from the communities
- Adapting their activities based on these observations and report issues to supervisors.

Training of ORP operators

For volunteers with first aid and CBHFA experience a one-day training focused on ECV and ORPs is recommended. A suggested training plan is provided in [Annex 5](#)

For volunteers without previous training, a two-day training is suggested. The first day should cover basic first aid, principles of the RCRC, and community entrance techniques (drawn from CBHFA), while the second day will be specific for ECV and cholera and ORP training.

Setting up an ORP

Supervisors can support the setting up of an ORP in the following way:

1. Determining, in coordination with the programme manager, in which villages or communities will the ORPs be established.
2. Discussing with community members where the ORP should be established
3. Supporting volunteers in setting up the ORP according to a correct floor plan and specifications, setting up the water filter and building a latrine or pit if needed.
4. Ensuring ORP volunteer operators have enough training and supplies and answer any questions they may have before they start.

Where should an ORP be established?

Any area without easy access to a health facility or designated cholera treatment facility should have an ORP. The ORP's main objective is to provide early access to treatment, so ideally, they should be set close to communities, so that community members need not walk more than a 30 minutes to the nearest health facility or ORP.

The location of an ORP within a community should be chosen by community members and could be an existing dispensary (outpatient clinic), a local shop, school, church, or other community space.

Other considerations include:

- The ORP should have access to a nearby water source (which can provide a minimum of 10L/patient/day)
- The ORP should have a latrine or an area where a latrine could be constructed
- If outdoors, the ORP should have a tarp shelter
- If the ORP is part of or adjacent to an existing dispensary, the ORP should be separated from other patient care areas
- The ORP should have a clear identification, a RCRC flag which clearly indicates that the place is an ORP

ORPs should be set up depending upon the population density and needs. In cities/dense populations, 5-10 ORPs per cholera treatment facility are recommended. In rural or scattered populations, one ORP per village is recommended.

Logistics of ORPs

Every ORP should have trained personnel, designated space, supplies, a latrine, areas for disposal of liquid and solid waste, established infection control and waste management procedures.

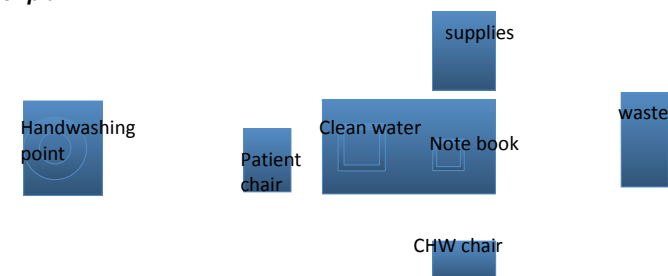
Personnel
1 or 2 CHVs
One person responsible for cleaning/disinfection

Supplies
1 ORP kit
ORS sachets
Zinc tablets
Chlorine for disinfection
Mobile phone and airtime
Table and Chairs
Torch
Buckets to collect feces or vomit
Hand washing facilities – separate basins for hand washing and dishes
Toilet or waste pit
Broom/mop

ORP Floor Plan

When creating the layout of an ORP, separate areas for water treatment, ORS preparation and patient observation with adequate sanitation, hygiene and waste disposal should be maintained. Below is a proposal for an ORP layout.

Floor plan



Setting up the ORP kit

The ORP kit contains a water filter system, along with additional material required to

operate an ORP. The treatment commodities needed, such as ORS and zinc, need to be procured separately.

The water filter system

The most important component of the ORP kit, the water system filter, consists of two twenty-liter containers that stack on top of one another. The container on the top has two ceramic filters that provides clean water using gravity filtration. The filters stop 99% of all bacteria and virus and produce approximately 2 liters of water per hour. The filters provide clean safe water without having to add chemicals, improving the acceptability and taste of ORS and ensuring that the ORP has enough clean and safe water at all times.

The water filter system is composed of:

- 2 Polypropylene food grade containers with snap on lids
- 2 ceramic filter candles 7" long x 2" diameter with long threaded mount
- 2 Black Rubber Sealing Washers
- 2 Black Plastic Wing Nuts
- 1 Plastic dispensing tap with plastic threaded nut and white rubber washer

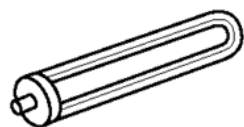


Image of the ORP water filter system (left) and schema of the filter candle (right)

How to use the water filter



Pour untreated water into the top container. Via gravity, water will move through the ceramic filter removing dirt and microbes. Clean water will filter into the bottom container where it can be accessed through the tap. The water in the bottom container is in a sealed chamber and therefore is safe from contamination. The water can stay in the bottom container for several days and remain safe.

The filtration rate is quite slow, but the quality of the water and the taste is very good. Operators should set up the kit at night to allow the filter to work and produce enough water for the next day. During the day, the volunteer should continue to fill up the top container with untreated water to ensure a constant flow. The kit will not overflow or spill. Only when there is space in the bottom container will the water move down from the top container.

The kit can produce about 30 litres of water a day. This should be enough to cover the needs of the ORP. If volunteers require more safe water than this, they can make additional water using traditional methods such as boiling or chlorinating. However, if they are seeing enough patients to use all the water every day, the situation may be severe enough to consider additional support, for example an additional ORP.

The filter should last approximately 12 months depending on how dirty the water is or approximately 10,000 litres. However **the filter needs to be cleaned regularly**. If the flow rate of the water slows down, you should clean the filter.

Cleaning the ceramic filter candle



To restore the water flow to its normal level, simply clean the filter candle as explained below. Cleaning frequency will be dependent how clean the incoming water is.

1. Wash your hands thoroughly before and after servicing the ceramic filter candle.
2. Hold the filter candle in a bowl of water or under running water. To avoid contamination of the open ended plastic threaded mount, take care to ensure that the mount is always clear of the water (see figure above).
3. Take a lightly abrasive pad (included in the kit) in one hand and cup it around the circumference of the filter candle at the top, next to the mount.
4. Press gently onto the candle surface with the abrasive pad, whilst quickly turning the filter candle with the other hand.
5. Apply a gentle, even pressure with the pad slowly working down the length of the filter until it is clean.

Please note:

- Never use soap or detergents to clean the filter candle.
- Boiling is not necessary.
- Do not rub the ceramic surface too aggressively.

ORP operation and monitoring

Operating activities

ORP operators should:

1. Set up the water filter and prepare clean water
2. Receive patients and carers and assess level of dehydration
3. Initiate early treatment of mild and moderate cases of dehydration by distributing ORS sachets, zinc and clean water for mixing ORS to patients or carers of people with symptoms of diarrhoea, when appropriate.
4. Refer severe or at risk cases to health facilities for adequate treatment.
5. Distribute key commodities such as ORS, soap and household water treatment supplies.
6. Document cases seen and commodities distributed.
7. At the end of the day, report on cases seen and commodities distributed to supervisor or NS as appropriate.

8. Educate patients and carers, as well as the larger community on the proper preparation of ORS and hold demonstration sessions on how to make salt and sugar solution.
9. Educate patients and the larger community on broader health and hygiene promotion messages important in cholera prevention.
10. Maintain the ORP clean, dispose of the waste correctly and disinfect as required.

Documenting and reporting

Each ORP should record the following information (listed in order of priority) about each patient in the logbook:

- Patient name
- Village, locality, section, commune
- Age (<5 years, ≥5 years)
- Time travelled and by what mode of transportation
- Number of ORS packets and chlorine tablets provided
- Action staff took (for example: provided ORS sachets, provided prepared ORS solution)
- Outcome (for example: patient went to cholera treatment facility, went home, or died at the ORP)

If SMS reporting is in place, at the end of the day, the CHV should send in an SMS with the required information on cases seen who are below 5 years of age, above 5 years of age, as well as number of referrals and deaths, and any other information as agreed.

Supervision activities

At each supervision visit, supervisors should:

- Observe the flow of patients through the ORP
 - Ensure patients are washing hands before entering
 - Ensure operators are washing hands between each patient and before leaving the ORP.
 - Ensure operators are preparing and administering ORS correctly

- Verify the appropriate disposal of waste and correct disinfection (see infection control).
- Verify log-books and compare SMS reports being sent by ORP operators to data being collected on log books in paper form.
- Discuss with volunteers any challenges they may have and possible solutions.
- Ensure referrals are taking place when adequate.
- Verify stocks of supplies and assess the need for further procurements.
- Discuss with community members and volunteers any rare events, rumours or concerns.

Infection control

Supervision of infection control measures is extremely important and should include the following:

Hand washing

Each ORP should have at least one hand washing facility. Patients should wash hands before entering the ORP and operators should wash hands between every patient and before leaving the ORP. The kit contains two 10-liter foldable jerry cans. You can use one of these as a temporary hand-washing facility by tying it up and utilizing the tap.

Water in the hand-washing container should be a 0.05% chlorine solution. See annex 6 for details on how to make the chlorine solution. Operators should wear rubber gloves when making chlorine solutions and when handling vomit or faeces.

Sanitation and waste management

- The ORP shelter, chairs, and floor should be disinfected at least twice each day with 0.5% chlorine solution.
- Buckets used to collect faeces or vomit should be pre-filled with 2% chlorine solution to the depth of 1cm.
- Vomit and faeces should be discarded in a latrine or pit dedicated for this purpose.
- The area surrounding the latrine or pit should be disinfected twice a day with

2% chlorine solution. If a pit is being used, a small layer of soil at the end of each day can be used to cover the waste. See disinfection guidelines in annex

7

- Solid waste should be bagged and kept separately from normal waste. Where possible this should be disposed of in the same way that medical waste at the local health facilities is managed (burning is not recommend due to environmental impact).

Dead Body management

Unless the NS is specifically tasked with assisting in management of dead bodies volunteers should be discouraged from participating in the activity. People who have died from cholera are still contaminated and can transmit cholera if the right infection control measures are not used. If volunteers are being asked to assist with this activity, the supervisor should raise this concern with the programme manager.

Reporting

Supervisors should report to the programme manager weekly or in the timeframe agreed. Reports should include cases, deaths and referrals (see reporting forms in Annex 9), as well as supplies stock (see stock form in Annex 10).

If unusual events have been reported from ORPs, for example clusters of deaths, sharp increase in cases, other diseases, this information should be passed on immediately to the programme manager. Challenges at the ORP sites that the supervisor has not been able to solve should also be communicated to the programme manager.

Reviewing the performance of ORP's and ongoing planning

ORP's should not be seeing more than 25-30 patients per day unless connected to a CTU/ CTC. If an ORP under your charge is seeing more than this number of patients, discuss with the programme manager the need for additional ORPs.

ORP's should not be referring more than 5 patients a day. If they are referring higher numbers, and you have checked that the referrals were appropriate, additional support in the form of a CTU may be needed. Supervisors should relay this information to the programme manager.

Operator guidelines

Cholera causes rapid dehydration, which in severe cases can quickly lead to death. In a cholera outbreak, providing patients with early and adequate rehydration using Oral Rehydration Salts (ORS) dissolved in clean water can save many lives.

What is an ORP?

Oral Rehydration Points (ORP) are community-level sites that provide rapid access to oral rehydration solution (ORS) in communities during a cholera outbreak, when distance, safety or other barriers limit immediate access to a cholera treatment facility or hospital, or in cases of mild diarrhoea when community care and access to ORS treatment is sufficient.

ORPs are managed by one or two community health volunteers (CHV) who are trained on important aspects of cholera management, have access to a water source, and are provided regularly with supplies for making water safe to drink, ORS sachets, and other commodities.

To ensure rapid access to oral rehydration, ORPs should be established in locations that are easily accessed by all individuals (for example within 30 minutes walking distance). ORPs should refer all severely ill patients to a nearby cholera treatment facility: Cholera Treatment Centers (CTCs), Cholera Treatment Unit (CTUs), or any health facility capable of providing IV fluids and treatment for severe cases.

ORPs should be open at least 12 hours per day; rural ORPs without a nearby cholera treatment facility may need to be open overnight. If circumstances require, ORP volunteers may need to visit ill patients at home if travel to a distant cholera treatment facility is not feasible (for example during night time or if poor security conditions) or impossible (handicapped patient, bad weather, or flooding).

Community Health Volunteers can play an important role during a cholera or

diarrhoea epidemic by operating an ORP in a community and helping save lives by detecting diarrhoea cases, initiating treatment with ORS and referring severe cases to the health facility. CHV can also play an important role in preventing more cholera cases by informing the community on safe practices in hand washing, water treatment, hygiene and sanitation during a cholera epidemic.

Who can be an ORP operator?

ORP operators should be community-based health volunteers (CHV). Willingness and a commitment to the community are the only essential requirements. CHV should be well accepted and trusted within the community and available in the community most of the time.

Literacy is a benefit but the reporting can be done with simple tally sheets and picture-based tools so literacy is not essential. Previous involvement in CBHFA programs and exposure to ECV is an advantage as well as some basic first aid knowledge, but this can all be taught quickly if needed at the start of an outbreak.

Responsibilities of ORP operators

Responsibilities of CHV at the ORP site will include:

- Setting up the ORP.
- Preparation and storing of safe water.
- Preparation of ORS.
- Initiation of rehydration in patients.
- Referral of severely dehydrated patients to a health facility.
- Distribution of ORS, clean water, water-disinfection tablets and other commodities.
- Patient and family education on ORS preparation, administration and storage.
- Community education on cholera prevention and hygiene promotion.
- Cleaning and disinfection of ORP site and materials.
- Recording of cases, referrals and deaths
- Reporting of cases and supply stock to supervisor and NS as agreed.
- Monitoring the community for increased environmental sanitation risks

- Assessing risky behaviours in the communities and the uptake of key messages for behavioural change
- Evaluating the access to health facilities from the communities
- Adapting activities based on these observations and reporting issues to supervisors.

Training of ORP operators

For volunteers with first aid and CBHFA experience a one-day training focused on ECV and ORPs is recommended. A suggested training plan is provided in [Annex 5](#)

For volunteers without previous training, a two-day training is suggested. The first day should cover basic first aid, principles of the RCRC, and community entrance techniques (drawn from CBHFA), while the second day will be specific for ECV and cholera and ORP training.

Setting up an ORP

The supervisor will discuss the location of an ORP with the community members. CHV can help in the dialogue and provide suggestions. The site could be an existing dispensary (outpatient clinic), a local shop, school, church, or other community space.

Other considerations include:

- The ORP should have access to a nearby water source (which can provide a minimum of 10L/patient/day)
- The ORP should have a latrine or an area where a latrine could be constructed
- If outdoors, the ORP should have a tarp shelter
- If the ORP is part of or adjacent to an existing dispensary, the ORP should be separated from other patient care areas
- The ORP should have a clear identification, a RCRC flag which clearly indicates that the place is an ORP

Requirements for an ORP

ORPs should be managed by at least two CHV, this is for security reason as well as to facilitate the work. If one CHV needs to do a home visit, the second one can keep the ORP open and operating during this time.

Every ORP should have trained personnel, designated space, supplies, a latrine, areas for disposal of liquid and solid waste, established infection control and waste management procedures.

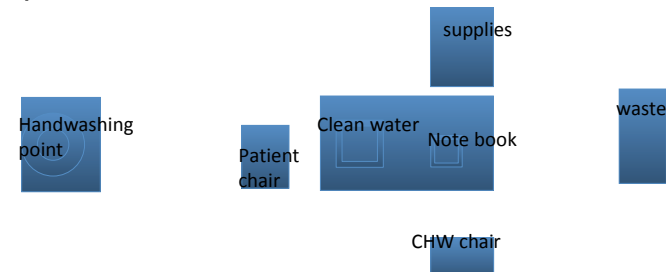
When setting up the ORP with support from the supervisor, the ORP operators should verify that all supplies for the correct operation of the ORP are being provided.

Supplies
1 ORP kit
ORS sachets
Zinc tablets
Chlorine for disinfection
Mobile phone and airtime
Table and Chairs
Torch
Buckets to collect feces or vomit
Hand washing facilities – separate basins for hand washing and dishes
Toilet or waste pit
Broom/mop

ORP Floor Plan

CHVs should discuss with the supervisor on the best layout for the ORP in their community. When creating the layout of an ORP, separate areas for water treatment, ORS preparation and patient observation with adequate sanitation, hygiene and waste disposal should be maintained. Below is a proposal for an ORP layout.

Floor plan



Setting up the ORP kit

The ORP kit contains a water filter system, along with additional material required to operate an ORP.

The water filter system

The most important component of the ORP kit, the water system filter, consists of two twenty-liter containers that need to be stacked on top of one another. The water produced by this filter is clean and safe to drink, similarly to boiled or chlorinated water, and it has a good taste. The filters provide clean safe water without having to add chemicals, improving the acceptability and taste of ORS and ensuring that the ORP has enough clean and safe water at all times.

This water filter produces approximately 2 liters of water per hour.

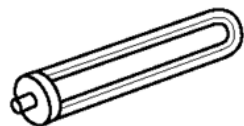


Image of the ORP water filter system
(left) and schema of the filter candle
(right)

How to use the water filter

Pour untreated water into the top container. Via gravity, water will move through the ceramic filter removing dirt and microbes. Clean water will filter into the bottom container where it can be accessed through the tap. The water in the bottom container is in a sealed chamber and therefore is safe from contamination. The water can stay in the bottom container for several days and remain safe.

The filtration rate is quite slow. Operators should set up the kit at night to allow the filter to work and produce enough water for the next day. During the day, the volunteer should continue to fill up the top container with untreated water to ensure a constant flow. The kit will not overflow or spill. Only when there is space in the bottom container will the water move down from the top container.

The kit can produce about 30 litres of water a day. This should be enough to cover the needs of the ORP. If volunteers require more safe water than this, they can make additional water using traditional methods such as boiling or chlorinating. However, if they are seeing enough patients to use all the water every day, they should report this to the supervisors, as it may mean that an additional ORP is needed.

Cleaning the ceramic filter candle



The filter needs to be cleaned regularly. If the flow rate of the water slows down, you should clean the filter. Cleaning frequency will be dependent how clean the incoming water is.

1. Wash your hands thoroughly before and after washing the ceramic filter candle.
2. Hold the filter candle in a bowl of water or under running water. To avoid contamination of the open ended plastic threaded mount, take care to ensure that the mount is always clear of the water (see figure above).
3. Take a lightly abrasive pad (included in the kit) in one hand and cup it around the circumference of the filter candle at the top, next to the mount.
4. Press gently onto the candle surface with the abrasive pad, whilst quickly turning the filter candle with the other hand.
5. Apply a gentle, even pressure with the pad slowly working down the length of the filter until it is clean.

Please note:

- Never use soap or detergents to clean the filter candle.
- Boiling is not necessary.
- Do not rub the ceramic surface too aggressively.

ORP operation and monitoring

Operating activities

ORP operators should:

1. Set up the water filter and prepare clean water

2. Receive patients and carers and assess level of dehydration
3. Initiate early treatment of mild and moderate cases of dehydration by distributing ORS sachets, zinc and clean water for mixing ORS to patients or carers of people with symptoms of diarrhoea, when appropriate.
4. Refer severe or at risk cases to health facilities for adequate treatment.
5. Distribute key commodities such as ORS, soap and household water treatment supplies.
6. Document cases seen and commodities distributed.
7. At the end of the day, report on cases seen and commodities distributed to supervisor or NS as appropriate.
8. Educate patients and carers, as well as the larger community on the proper preparation of ORS and hold demonstration sessions on how to make salt and sugar solution.
9. Educate patients and the larger community on broader health and hygiene promotion messages important in cholera prevention.
10. Maintain the ORP clean, dispose of the waste correctly and disinfect as required.

Documenting and reporting

Each ORP should record the following information (listed in order of priority) about each patient in the logbook:

- Patient name
- Village, locality, section, commune
- Age (<5 years, ≥5 years)
- Time travelled and by what mode of transportation
- Number of ORS packets and chlorine tablets provided
- Action staff took (for example: provided ORS sachets, provided prepared ORS solution)
- Outcome (for example: patient went to cholera treatment facility, went home, or died at the ORP)

If SMS reporting is in place, at the end of the day, the CHV should send in an SMS

with the required information on cases seen who are below 5 years of age, above 5 years of age, as well as number of referrals and deaths, and any other information as agreed.

Oral Rehydration Solution (ORS)

ORS alone can be used to treat patients with watery diarrhoea who have none or some dehydration. If patients are severely dehydrated, they will have to go to a health facility as they require intravenous fluids. However, patients with severe dehydration should also be given ORS and should take ORS throughout the travel to the health facility.

How to make ORS (see also ECV Action tool 2, in Annex 1)

1. Wash hands with soap and clean water
2. Water is taken from the tap of the bottom container. Measure out one litre using the jug provided.
3. Add 1 sachet of ORS to the 1 litre jug and mix.

If the ORP is busy and is seeing a significant number of patients each day, ORS can

Prepare ORS solution

1. Wash your hands with soap and water
2. Pour the entire contents of 1 packet of ORS into a clean container (mixer bowl or jar) for mixing the ORS. The container should be large enough to hold at least 1 litre.
3. Measure 1 litre of clean water (or correct amount for packet used). Use the cleanest drinking water available.
In your community, what are common containers caregivers use to measure 1 litre of water?
4. Pour the water into the container. Mix well until the salts completely dissolve



be made in larger quantities in a jerry can contained in the ORP kit. Use one ORS sachet per liter of water.

A Sugar Salt Solution (SSS) can be used if ORS are not available (See recipe in Annex 2).

Administering and storing ORS (see also Annex 1)

1. Give frequent sips of the ORS from a cup or a spoon (especially for young children) until the patient is no longer thirsty.
2. If the patient vomits, tell the caregiver to wait 10 minutes before giving more.
3. You can add a cup of orange juice or a mashed banana to the solution to make it taste better.
4. Tell the patient or caregiver to keep ORS solution in a clean, covered container.
5. Ask the patient or the caregiver to make fresh ORS or come back to the ORP when needed. Do not keep the mixed ORS solution for more than 24h.

How much ORS should the patient drink?

The chart below indicates how much ORS should a patient drink according to their age. The CHV should ensure they are providing enough ORS to the patient or caregiver to last for some days.

ORS amounts to replace ongoing losses and/or to prevent dehydration

Age	Amount of ORS after each loose stool	ORS quantity needed
Less than 24 months	50 to 100 ml	Enough for 500 ml / day (1 sachet)*
2 to years	100 to 200 ml	Enough for 1,000 ml / day (1 sachet)*
Over 10 years	As much as wanted	Enough for 2,000 ml / day (2 sachets)*

* ORS sachets are usually for 1 litre. In some countries, ORS sachets are conditioned for less than 1 litre.

Important messages to be given with ORS

CHV should explain the importance of ORS and clean water to the patients or carers when providing the ORS sachets. Important messages include:

- ORS should only be prepared with clean, safe water. This can be water from the ORP or water that has been cleaned with chlorine tablets (aquatabs) or boiled.
- If the diarrhoeal episodes do not decrease, refer or seek further health attention.
- If babies under six months with diarrhea show no dehydration, mothers should be encouraged to continue rehydration exclusively through breastfeeding.
- If babies for babies show moderate dehydration, breastfeeding should be combined with ORS.

Distributing zinc

Zinc has been shown to reduce recurring episodes of diarrhoea, shorten the duration of symptoms and decrease the stool volume. **Zinc should be distributed along with ORS** to all children below 15 years of age, in a dose of 10 to 20 mg per day. Provide enough zinc tablets for the patient or carer to last for 10 days of treatment.

Children 0 - 6 months	10mg per day	10 days
Children 6 months – 15 years	20mg per day	10 days

The operator should also explain the importance of zinc and how it should be administered to the child's carer. Important messages include:

- Zinc can help your child get better sooner by reducing the duration of the diarrhoea and future episodes.
- Children should take the recommended zinc dose for the full ten days, even if their diarrheal episodes stop before then. This can help the child prevent future diarrhoeal episodes.
- Children need to still drink lots of ORS and eat foods during the zinc supplementation.
- Due to the bad taste of zinc, some children may vomit it up. Encourage the child to drink ORS and to continue eating. You should still give the rest of the zinc treatment during the following days (until 10 days are completed).
- For breastfeeding babies, zinc tablets can be administered in a small amount

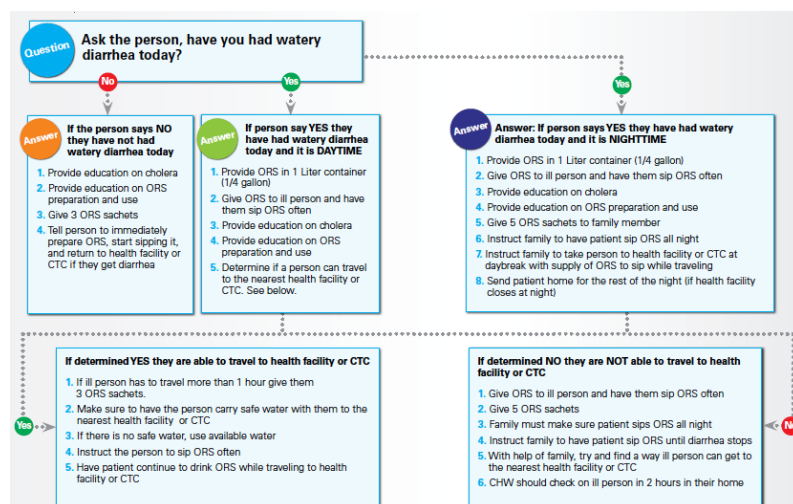
of expressed milk.

Distributing chlorine tablets/aquatabs

Up to a litre of clean water from the ORP water filter system can be distributed to patients, so they can start drinking the ORS on the spot. If the patients or caregivers require more clean water, chlorine tablets or aquatabs can be distributed, with detailed explanations on proper use.

What to do when a person arrives at the ORP?

When a person arrives at the ORP, the CHV can follow the guidance below to decide on the appropriate course of action.



Source: UNICEF Cholera Toolkit.

Infection control

Good infection control practices at the ORP are key to avoid transmission of cholera and ensure the safety of patients and ORP operators, as well as the larger

community.

Hand washing

Each ORP should have at least one hand washing facility. Patients should wash hands before entering the ORP and operators should wash hands between every patient and before leaving the ORP. The kit contains two 10-liter foldable jerry cans. You can use one of these as a temporary hand-washing facility by tying it up and utilizing the tap.

Water in the hand-washing container should be a 0.05% chlorine solution. [See annex 6](#) for details on how to make the chlorine solution. Operators should wear rubber gloves when making chlorine solutions and when handling vomit or faeces.

Sanitation and waste management

- Operators should disinfect the ORP shelter, chairs, and floor at least twice each day with 0.5% chlorine solution.
- Buckets used to collect faeces or vomit should be pre-filled with 2% chlorine solution to the depth of 1cm.
- Operators should discard vomit and faeces should be discarded in a latrine or pit dedicated for this purpose, and at a safe distance from the ORP. Operators should wear rubber gloves when handling vomit or faeces.
- Operators should disinfect the area surrounding the latrine or pit twice a day with 2% chlorine solution. If a pit is being used, a small layer of soil at the end of each day can be used to cover the waste. See disinfection guidelines [in annex 7](#)
- Solid waste should be bagged and kept separately from normal waste. Where possible this should be disposed of in the same way that medical waste at the local health facilities is managed (burning is not recommend due to environmental impact).

Dead Body management

Unless the NS is specifically tasked with assisting in management of dead bodies volunteers should be discouraged from participating in the activity. People who have died from cholera are still contaminated and can transmit cholera if the right infection

control measures are not used. If volunteers are being asked to assist with this activity, they should alert their supervisor.

Health messages

Operators will learn the appropriate health messages to share with the community during their training, and/or through the ORP supervisor. These health messages will be prepared in conjunction with the government and will be appropriate for the context and the culture.

Health messages may include or resemble the ones below:

- Wash your hands with soap
 - After using the toilet/latrine
 - After disposing of children's faeces
 - Before preparing food
 - Before eating
 - Before feeding children
- Drink safe water. Make water safe by boiling or disinfect water with chlorine solution
- Only eat freshly cooked food
- Do not defecate near water sources
- Use latrines and keep them clean
- Peel it, cook it, or leave it
- Continue breastfeeding

Annexes

Annex 1. Preparing, administering and storing ORS (ECV action tool 2).

Annex 2. Preparing a Sugar Salt Solution

Annex 3. Management of Community-Based Deaths

Annex 4. Training plan – ORP Supervisors

Annex 5. Training plan – ORP Operators

Annex 6. Preparing chlorine disinfectant solutions

Annex 7. Disinfection guidelines

Annex 8. Communication strategy

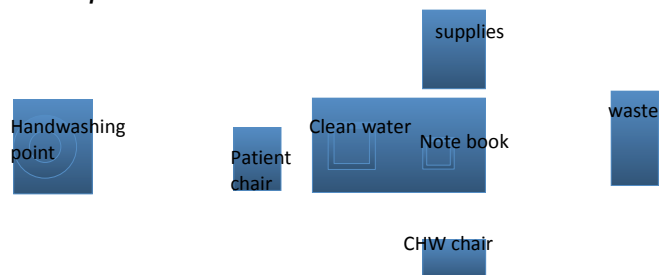
Annex 9. Monitoring and reporting forms

Annex 11. Community Based Disease Surveillance – SMS reporting.

Floor plan/ORP

Make sure the area is fenced/marked to ensure the cases remain isolated from nearby areas or health facility

1. Floor plan



To consider when situated at an out patient health facility where there is possibility for iv treatment

- bed
- latrine (for use by infected patients only)
- foot bath
- bucket for vomit/faces

Logistics

- Access to safe water
- Adequate waste disposal site
- Shelter from the weather (tarp)
- ORS supply
- Zinc
- Soap
- paper for recording cases

- Aqua tabs

Children ZINC

WHO and UNICEF recommend the routine use of zinc supplementation to help reduce the duration and severity of diarrhoea, and to prevent subsequent episodes. All children under < 5 years should receive zinc

0 - 6 months	10mg per day	10 days
6 months – 5 years	20mg per day	10 days

Add quantities of tablets or pictuers

Key health information messages for patients that come to ORP point

Break this down into simple messages including zinc and cholera prevention referral messages

- Zinc can help your child get better sooner by reducing the duration of the diarrhoea and future episodes.
- Children should take the recommended zinc dose for the full ten days, even if their diarrheal episodes stop before then. This can help the child prevent future diarrhoeal episodes.
- Children need to still drink lots of ORS and eat foods during the zinc supplementation.
- Chlorine tablets/Aqua tabs should be used to clean the water before mixing it with ORS. Do not directly give the chlorine tablets to the child.
- Due to the bad taste of zinc, some children may vomit it up. Encourage the child to drink ORS and to continue eating. You should still give the rest of the zinc treatment during the following days (until 10 days are completed).
- If the diarrhoeal episodes do not decrease, refer or seek further health attention.
- This treatment should be coupled with distribution of ORS and the provision of chlorine tablets/aqua tabs to treat water.
- The distribution of zinc needs to be accompanied with the health information messages.
- Mothers should be encouraged to continue rehydration exclusively via breastfeeding for babies under 6 months, if there are no signs of dehydration; and combined with ORS in case of moderate dehydration. Zinc tablets can be administered in a small amount of expressed milk.

Documentation

Each patient in the logbook:

Date	Name	Village	Age < 5 years > 5 years	Male Female	Time travelled to ORP & how	Action taken e.g. provided ORS sachets, provided prepared ORS sachets provided aqua tabs	Outcome e.g. home, referred to CTC, died, follow up at home
3 Nov	Mary	Village A	3 years	female	2 hrs	5 ORS sachets 2 aqua tabs instructed how to make solutions	Home with mother
3 Nov	John	Village A	25 years	male	1 hr	1 litre ORS given at ORP	Referred to CTC via motorbike

Referrals

1. Anyone with moderate or severe dehydration
2. All pregnant women after initial rehydration
3. Small children especially those under 1 year
4. Anyone you are worried about!
5. Anyone you have seen earlier and who has been given ORS and has not improved

Infection control

- Wash hands with soap or chlorine solution (0.05%) before and after each patient interaction
- Wear rubber gloves when making chlorine solutions and when handling vomit or faeces

- Fill buckets used to collect faeces or vomit with a 2% chlorine solution to the depth of 1cm

E.g. of household bleach, other sources can also be used to chlorinate water. Most stable product is Sodium dichloroisocyanurate NaDCC at 1g active chlorine per tablet.

Mixing chlorine use
es, vomitus, dead bodies infection of shoes, walls, beds and footbaths, show-ering, washing clothes, utensils and dishes
Household bleach 5%

Waste Management

- Vomit and faeces should be discarded in a latrine or pit dedicated for this purpose.
- Disinfect the area surrounding the latrine or pit with 2% chlorine solution twice each day

Red Cross volunteer should already be trained in ECV (epidemic control for volunteers)

Overview

A community based approach to support and/or supplement other services during an outbreak of Cholera by providing early rehydration when distance, safety or other barriers limit immediate access to a cholera treatment facility or hospital (or in cases of mild diarrhea when community care and access to ORS treatment is sufficient).

This training should be completed during preparedness phase and be refreshed at start of an outbreak or the start of the cholera season.

Unless a cholera outbreak is declared and a case definition is agreed by health authorities all cases of diarrhea resulting in dehydration should be referred to a health facility for diagnosis. There are lots of things that can cause severe diarrhoea and the cause should be investigated when it occurs outside of an outbreak. Training is necessary to ensure ORS is provided appropriately.

Objectives

To train a local member of the community as a community health worker/community volunteer to provide the following assistance:

1. Provide a point in the local community for raising awareness of cholera prevention messages including
 1. Hand washing
 2. Safe water – boiling and water disinfection using aqua tabs
 3. Safe sanitation methods
 4. Proper disposal of faeces (adult, infant and child)
 5. proper preparation and use of ORS
2. Identify cholera or acute water diarrhoea cases in the community
3. Initiate rehydration for people with mild (to moderate) dehydration using ORS that has been prepared correctly
4. Screen people with symptoms of dehydration and appropriately refer them to a health facility (CTC or district hospital)
5. Provide children under 5 years with mild (to moderate) dehydration with oral zinc (10 days supply) as part of treatment for cholera to reduce the duration and the severity of the disease
6. Provide information to lactating women about need to continue breast feeding children with diarrhoea and good hygiene related practices
7. Document number of cases seen and treated in the ORP location Report accurately and regularly on cases seen at ORP and stock levels
8. Report unusually health events through early warning system

. Who is the right person in the community to become the CHW?

There should be one ORP per 500 people during an outbreak or one per village. The community should not have to travel more than 20 mins to reach an ORP.

Volunteers at ORP should:

- Be literate
- Be available in the community most of the time
- Have appropriate training eg. ECV
- Be able to follow protocols provided
- Have a nurse/midwife or RC supervisor who is in contact at least weekly during the outbreak, daily if the ORP is next to health centre. (contact should probably be more frequent if there is an outbreak as case numbers can rapidly increase)

Community Volunteers can play an important role during a diarrhea epidemic by.

- Looking out for new cases and informing staff at the health centre.
- Taking part in investigating the sources and cause of the epidemic.
- Helping detect diarrhea cases in the local community.
- Treating cases of mild dehydration with ORS and zinc as per protocol.
- Referring community members with moderate or severe dehydration to health facilities.
- Facilitating behaviour change and social mobilisation campaigns to limit the spread of the outbreak and prevent cholera cases
- Conducting health promotion in the community.
- Showing mothers and caregivers how to prepare ORS for dehydrated children.
- Alerting the health authorities to cases in their community.
- Daily reporting of cases during an outbreak

Choosing the location

The location of an ORP should be chosen by community members and could be an existing dispensary (outpatient clinic), a local shop, school, church, or other community space. (shops and schools are only good locations if a space can be found separate from where people gather)

Other considerations include:

- The ORP should have access to a nearby water source (which can provide a minimum of 100L which is approx 5/patient/day)
- The ORP should have a latrine or an area where a latrine could be constructed
- If outdoors, the ORP should have shade or you should be able to make shade using a tarp shelter
- If the ORP is part of or adjacent to an existing dispensary, the ORP should be separated from other patient care areas to help prevent the spread of diarrhoea

- The ORP should have a sign (or colored red cross/ red crescent flag) which clearly indicates that the place is an ORP
- There should be a transport plan to move patients from the ORP to the nearest health facility for moderate and severe cases.

Health Promotion messages for the community to avoid diarrhoea?
Health promotion messages should be prepared during the preparedness phase and adjusted to the context including any cultural issues that may affect behavior change.

A communication strategy should include
ADD table from ebola
Right message, Right audience, Right channel

If a communication strategy is not available the basic key messages below can be used

- Wash your hands with soap
 - After using the toilet/latrine
 - After disposing of children's faeces
 - Before preparing food
 - Before eating
 - Before feeding children
- Drink safe water. Make water safe by boiling or disinfect water with chlorine solution
- Only eat freshly cooked food
- Do not defecate near water sources
- Use latrines and keep them clean
- Peel it, cook it, or leave it
- Continue breastfeeding

Skills to be taught for training/supervision/education

- | | |
|--|---|
| <ul style="list-style-type: none"> • assessment of dehydration • preparing oral rehydration solution • giving oral rehydration solution • preparing disinfectants • breastfeeding information • how to ensure clean water • storing water correctly • using latrines • building latrines • hygiene/health promotion • proper sanitation practices | <ul style="list-style-type: none"> • hand washing with soap • clean food preparation and storage • handling dead bodies • appropriate referral to health facilities • hand washing techniques in epidemics • safe funerals • proper waste disposal |
|--|---|

Add to table above community based disease surveillance reporting and alert.

How to set up an ORP (the water filter is not needed for an ORP, it is a tool to prepare clean water without chlorine taste)

The main resources needed for an ORP are:

- Gloves
- Note book
- Pens
- Scrubbing brush
- 1 litre jug
- Cups
- Spoons to measure
- Posters
- 20 litre jerry cans
- 10 litre bucket
- dish for hand washing
- aqua tabs
- **supplement with ORS and ZINC**

How to set up and care for water filter kit (Ceramic Candle Household Drinking Water Filter)

Produces 2 L of clean household water/hour with out chlorine taste. For use to mix ORS.

Assembly / See picture and text explaining assembly in the Operation and Maintenance Instructions.

1. Fit the tap on the side of the lower container.
2. Fit the two ceramic candle filters through the lid of the upper container with two holes. Fit the black plastic wing nut unto the candle spigot from underside.
3. Fit the upper container (with the filters) on to the lower container.
4. Fill the upper container with water and cover the container with the lid without the holes.

Operate/ read instructions included on separate paper

Fill the upper container with water. Replace the lid. The water begins to flow through to lower container 2L/H. Can be accessed via tap.

Maintenances/ read carefully instructions on separate paper included:

When water flow significantly decreases, the filters should be cleaned. **Do not use soap!**

Hold carefully in hand, clean under running water with a gentle scrub of cloth. Be ware of contamination.

Additional tools to consider

UNICEF cholera tool kit

SPHERE standard for health workers Action tools in the ECV training manual

Epidemic Control for Volunteers, IFRC

Zinc protocol document – Sierra Leone cholera resapons, 2012

Make memory aids picture based

Dehydration _ classification and pictures

Health messages

How much ors

How much zinc with key messages

How to record cases and send data

How to make disinfection

Set up reminder

Waste disposal

Referral pathway

Set up and care of water filter

Annex

ORS administaion

5. The child should also drink the usual fluids that s/he drinks, such as breast milk. If the child is not exclusively breastfed, the caregiver should offer the child clean water. Advise the caregiver not to give sweet drinks and juices to the child with diarrhoea who is taking ORS.
6. How do you know when the child can go home? A dehydrated child, who has enough strength to drink, drinks eagerly. If the child continues to want to drink the ORS solution, have the mother continue to give the ORS solution in front of you. If the child becomes more alert and begins to refuse to drink the ORS, it is likely that the child is not dehydrated. If you see that the child is no longer thirsty, then the child is ready to go home.
7. Put the extra ORS solution in a container and give it to the caregiver for the trip home (or to the health facility, if the child needs to be referred). Advise caregivers to bring a closed container for extra ORS solution when they come to see you next time.
8. Give the caregiver 2 extra packets of ORS to take home, in case she needs to prepare more. Encourage the caregiver to continue to give ORS solution as often as the child will take it. She should try to give at least ½ cup after each loose stool.

How to Store ORS solution

1. Keep ORS solution in a clean, covered container.
2. Ask the caregiver to make fresh ORS solution when needed. Do not keep the mixed ORS solution for more than 24 hours. It can lose its effectiveness.

Prepare ORS solution

1. Wash your hands with soap and water

2. Pour the entire contents of 1 packet of ORS into a clean container (mixer bowl or jar) for mixing the ORS. The container should be large enough to hold at least 1 litre.

3. Measure 1 litre of clean water (or correct amount for packet used). Use the cleanest drinking water available. ***In your community, what are common containers caregivers use to measure 1 litre of water?***

4. Pour the water into the container. Mix well until the salts completely dissolve



How to prepare ORS solution

How to give and store ORS solution

1. Explain to the caregiver the importance of replacing fluids in a child with diarrhoea. Also explain that the ORS solution tastes salty. Let the caregiver taste it. It might not taste good to the caregiver. But a child who is dehydrated drinks it eagerly.
2. Ask the caregiver to start giving the child the ORS solution in front of you. Give frequent small sips from a cup or spoon. (Use a spoon to give ORS solution to a young child.)
3. If the child vomits, advise the caregiver to wait 10 minutes before giving more ORS solution. Then start giving the solution again, but more slowly. She should offer the child as much as the child will take, or at least ½ cup ORS solution after each loose stool.
4. Check caregiver understands. For example:
 - Observe to see that she is giving small sips of the ORS solution. The child should not choke.
 - Ask her: How often will you give the ORS solution? How much will you give?

Treatment with ORS

The following table identifies options for building the capacity of partners and community members in cholera prevention, preparedness and response.

ORS amounts to prevent dehydration

Age	Amount of ORS after each loose stool	ORS quantity needed
Less than 24 months	50 to 100 ml	Enough for 500 ml / day (1 sachet)*
2 to years	100 to 200 ml	Enough for 1,000 ml / day (1 sachet)*
Over 10 years	As much as wanted	Enough for 2,000 ml / day (2 sachets)*

* ORS sachets are usually for 1 litre. In some countries, ORS sachets are conditioned for less than 1 litre

cholera tool kit annex 8c