

## CTGH Session 8 — Diarrheal illness and rehydration

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Slide	Presentation Notes
1	In this presentation, we will discuss the important issue of diarrheal illnesses as well as various rehydration methods for patients that are dehydrated.
2	Discussion outline (ORS=oral rehydration solution; MUAC=mid-upper arm circumference)
3-5	Let's review the main causes of under-five mortality rate (U5MR). What are the causes?
6	Diarrheal illness is the third leading causes of U5MR.
7	In addition to mortality, diarrheal illness can also lead to significant morbidity.
8	Here are ways to prevent diarrheal illness.
9	Diarrhea can be caused by bacteria, viruses, and protozoa. Here are several common examples.
10	The WHO provides a table of common diarrheal diagnoses, including dysentery, cholera, intussusception, antibiotic-associated diarrhea, etc.
11	When a patient has a diarrheal illness, they are at risk for dehydration. Which signs are useful for assessing degree of dehydration in children? Answer: urine output, activity level, pulse, fontanel, eyes, mouth (mucous membranes), skin turgor.
12	Using this signs, this table allows you to estimate the level of dehydration.
13	Now that you have made the assessment and diagnosis of diarrheal illness and dehydration, here are steps for the management of diarrheal illness. We will discuss ORS in more detail subsequently.
14	Cholera is a notable type of diarrheal illness and warrants discussing it's somewhat unique treatment. (Abx=antibiotics; cotrimox=cotrimoxazole; flouroq=flouroquinolone)
15	When you have to rehydrate a patient, you may have to consider various rehydration methods. For example, sometimes, when a patient is very dehydrated, it may be difficult to get intravenous (IV) access. (PO=by mouth; NG=nasogastric; IO=intraosseous)
16	This is an example of how one might choose a rehydration method, starting from the most common/preferred. Each method might not be available or clinically appropriate – therefore, it is critical to know of additional options. See referenced article on this slide for details.
17-20	Over the following slides, we will discuss oral rehydration solution (ORS), which his a very cost-effective, life-saving intervention for rehydration. (IVF=intravenous fluid)
21-22	As of 2003, WHO/UNICEF have replaced the standard ORS formula with a reduced osmolarity version.
23-24	Although ORS sachets are fairly ubiquitous, approximate ORS can also be made by made using common household ingredients.
25	When teaching a parent in the use of ORS, here are the teaching points that should be discussed.
26	Although we know that ORS can save lives, there is still insufficient implementation. These may be some of the reasons for incomplete implementation.
27	One of the rehydration methods that many providers may not have used – but which has been found by this instructor as being very useful in the setting of

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dehydration, unconsciousness, and no IV access – is hypodermoclysis, or subcutaneous rehydration.

**28** This is a photo of a young dehydrated boy in Liberia who did not have IV access and was effectively rehydrated using hypodermoclysis. Boluses of an isotonic fluid were administered periodically overnight.

**29** This is a summary of what we discussed.

**30-33** Now that we have discussed ORS, let's give each of you an opportunity to make homemade ORS. In an earlier lecture we also discussed the use of the MUAC (mid-upper arm circumference) tape. We want to also give each of you a MUAC tape and let you practice using it on some practice cylinders. (SD=standard deviation)

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