

Therapeutic feeding centres

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1 Introduction

ACF often sets up both supplementary feeding centres (SFC) and therapeutic feeding centres (TFC) to address the problem of acute malnutrition. The SFC is a temporary structure, where patients stay very little time, for a few hours per day. The TFC is a much more permanent structure where the patient, with a carer, stays for approximately 1 month. Both types of centre require adequate water-supply and sanitation facilities.

Severely malnourished patients (often children) are immuno-deficient, meaning that they are less able to fight off infection than healthy people. The risk of rapid disease transmission or outbreaks in a TFC environment is therefore high. Patients who contract diseases in the TFC will take longer to recover from the severe malnutrition, and may suffer more serious consequences or even death. In order to limit the risk of disease transmission, it is therefore essential that adequate sanitary facilities are available and that strict hygiene rules are applied within the TFC environment. This chapter concentrates on the TFC.

2 Guideline and recommendations

2.1 Guidelines

The Table 18.I presents the water and sanitation guidelines for TFC.

2.2 Recommendations

The strict respect of the guidelines should protect the centre from sanitary risk. The staff must be trained in order to assure good cleaning, use, operation and maintenance of all the facilities.

2.2.1 SANITATION

Considering the high concentration of people (vulnerable to infectious diseases) in such centres, sanitation requires special attention (for more detail on the following points, see Chapter 13):

- patients may come from different areas and may belong to different ethnic or religious groups, so socio-cultural, religious and gender issues must be carefully considered before designing sanitation facilities;

Table 18.1: Water and sanitation guidelines for TFC.

Activities	Means	Guidelines	Note
Supply of water	Borehole or hand-dug well equipped with pump (manual or electrical), or connection to distribution network Storage tank filled from outside source by water trucking Tanks connected to tapstands (in the case of water trucking, distribution system or motorised pumping) Chlorine ¹ etc.	45 to 90 litres / patient and carer/ day Drinking water is chlorinated Drinking water is available in each room with patients, kitchen, admission section etc. Safe water is available for domestic uses Tanks are sufficient to avoid any shortage of water	Residual chlorine is 0.5 mg/litre (never less than 0.3 mg/litre) Turbidity ² less than 5 NTU No colour 0 faecal coliforms / 100 ml of water ² Mineral contamination respects MoH or WHO guidelines ² (attention must be paid to nitrite and nitrate)
Access to facilities for washing	Washing area for clothes and dishes Bathrooms Soap in all of these facilities Hand-washing drums at the exit of latrines (chlorinated water)	1 washing area for 50 carers per day 50 persons / bathroom / day Bathrooms are lighted at night Water drums are placed in all the rooms	Facilities are cleaned on a daily basis with 0.2% chlorine solution Dishes and clothes are washed with soap or 0.2% chlorine solution 0.05% chlorine solution is used for washing hands Public towels, usually used to dry hands, are forbidden
Toilets ³	Ventilated improved pit latrines (or pour-flush latrines if possible) Potties for children	25 persons/toilet/day Latrines are close to the building Latrines are constructed at least 30 m from wells and boreholes Latrines are lighted at night	Facilities are cleaned on a daily basis with 0.2% chlorine solution, taking care not to put chlorine in the latrine pits (this would stop excreta decomposition) Ashes are thrown inside the pit to reduce the smell and flies
Solid-waste disposal ³	Refuse pits Dustbins Incinerators	At least 1 refuse pit per centre At least 1 incinerator per centre Dustbins distributed in the whole centre	Refuse pits are covered with lids Smoke from incinerator is under control
Environmental sanitation ³	Drainage channels Grease traps Septic tank Soakaway pit Infiltration trench Cleaners	Enough drainage channels to remove all the wastewater One grease trap at the outlet of the kitchen Floor cleaning in living rooms every day	Drainage channels are cleaned on a daily basis (avoiding drainage towards neighbouring habitations) Waste disposal installations are well maintained Ground and floor cleaning is done with water to avoid dust Stagnant water is removed
Hygiene promotion ⁴	Health-education promoters Posters Training sessions	Visual aids are distributed in the whole centre to explain the use of facilities	
Vector control	Mosquito nets Use of insecticides Environmental sanitation facilities		Drainage channels are cleaned on a daily basis Surface water is drained out of the centre

1. For the chlorination of water and the preparation of stock solution, see Chapter 12.

2. For water analysis, see Chapter 4.

3. For all sanitation issues, see Chapters 13 & 14.

4. For hygiene promotion, see Chapter 15.

- most of the patients are children, and require special precautions;
- desludging of latrines has to be well managed and anticipated before the pits fill up;
- permanent structures must be installed as soon as the context allows it;
- kitchen and washing facilities produce a lot of oil and grease, that must be properly managed with greases traps, to avoid accumulation.

2.2.2 WATER SUPPLY

Water supply will be effective if the installation remains in a good state (cleaning and maintenance) and is used in the proper way (see Chapters 7, 8, 15 and 16). The staff must have adequate technical skills: special attention should be given to the routine maintenance of the pumps, as any shortage of water could stop the running of the centre. Spare parts always must be available.

In the case of electrical or diesel pumps the technology chosen should be appropriate to local skills (specific training must be given to the person in charge of operation) and access to consumables must be ensured by keeping sufficient stocks (in conflict situations, access to diesel or petrol can be difficult).

Regarding hygiene around water points, the staff must be vigilant to avoid any stagnant water.

2.2.4 CHLORINATION

From ACF's experience, it is recommended to prepare a stock of only one kind of chlorinated water for the whole centre: water with a residual chlorine of 0.5 mg/litre (concentration for drinking purpose). More chlorine is added to this water to reach the concentration required for other specific uses (see Table 18.2), making only enough solution to meet the immediate need, to avoid storing several different chlorine solutions, which can lead to confusion and misuse.

For technical details, see Chapter 12.

Table 18.2: Chlorine concentration per use.

Chlorine concentration	Use
0.5 mg/litre	Drinking water
0.5 g/litre (0.05%)	Hand washing
2 g/litre (0.2%)	Daily cleaning of latrines and bathrooms
	Cleaning of water-storage tanks
	Cleaning of items in contact with patients who have diarrhoea (bed, blanket etc.)
	Dish and clothes when necessary

2.2.5 WATER ANALYSIS

Water analysis and chlorination must be done properly, and the person responsible must be specifically trained, including sensitisation about the purpose of the chlorination and the analysis (objective and importance of daily monitoring).

The main water-quality parameters to be checked are as follows (see Chapters 4 and 12):

- pH: when choosing and designing any treatment process;
- turbidity: when there is any suspected change in turbidity of raw water, and regularly to check the effectiveness of a clarification process;
- free chlorine residual: daily.

The supervisors of the centre (both expatriate and national staff) and the hygiene promoters must also be trained in the water analysis and chlorination techniques.

When assisted sedimentation is done before chlorination, control of residual coagulant must be done on a regular basis. In the event of problems, information is transmitted to people in charge of treatment. This must be included in the training.

2.2.6 HYGIENE PROMOTION

The first objective of this activity is to protect the centre from any sanitary risk. But hygiene promotion also aims to improve hygiene practices for when people will go back home. The hygiene promoter has to keep in mind that water for hand-washing at toilets, washing facilities and sometimes also safe water-points and latrines, do not exist in the area where people are living. Therefore, adequate hygiene promotion should be done before patients leave, and this should be adapted to the living conditions of the people.

Because diseases related to poor hygiene, water supply and sanitation are one of the underlying causes of malnutrition, hygiene promotion must be done carefully (see Chapter 15) and should include promotion of sanitation and use of safe water.

2.2.7 HEALTH MONITORING

Patients' health must be monitored in order to identify any diseases linked to sanitary problems. Data are available from the ACF nutritionist in charge of the centre or from health centres where patients may be referred by ACF. From week to week, the evolution of health data can help to check that water, sanitation and hygiene are satisfactory and to react quickly in case of problems.

3 Layout of a TFC

Figure 18.1 shows an example of the layout of a TFC.

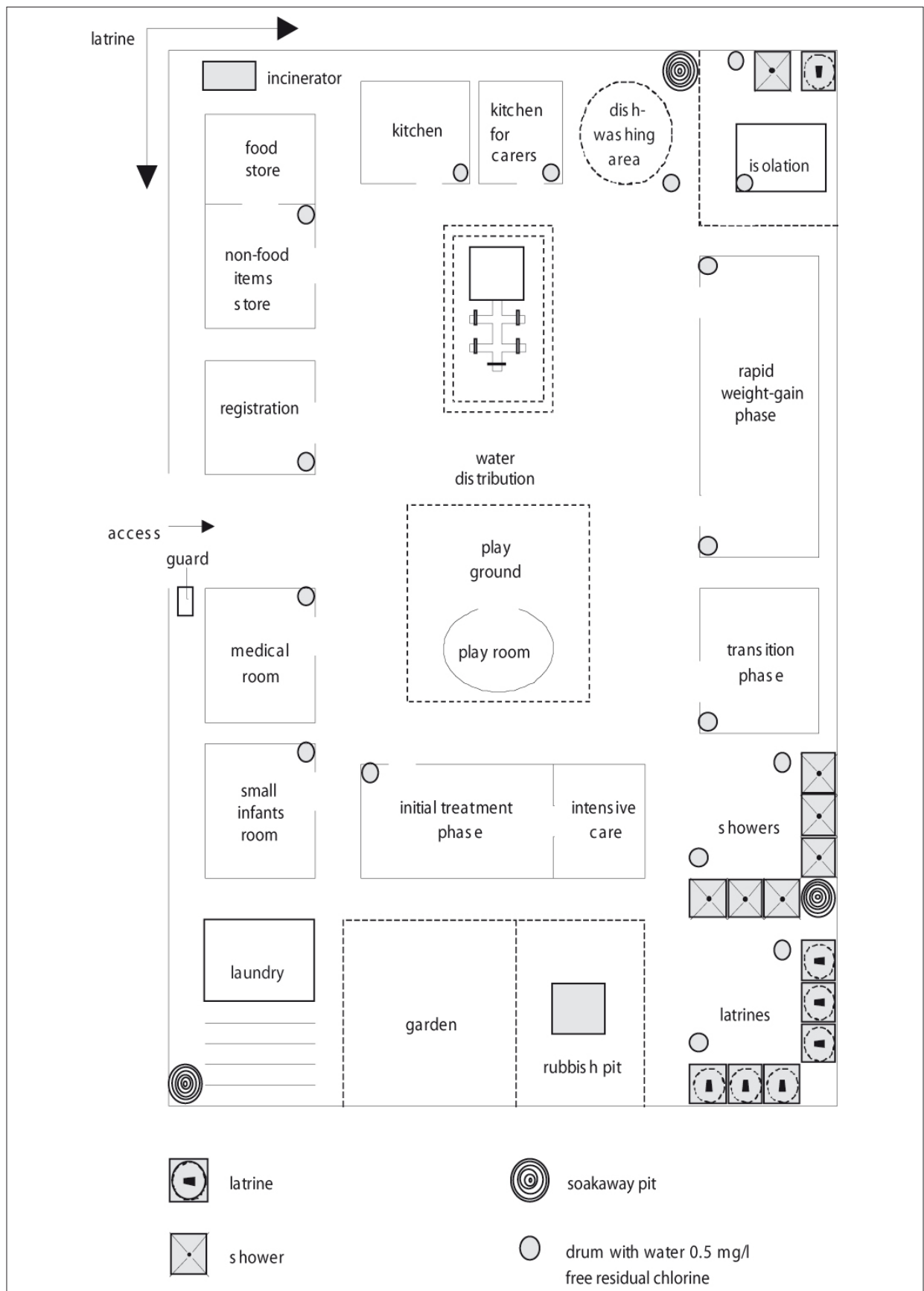


Figure 18.1: Example of layout of a TFC (adapted from the ACF book, *Assessment and treatment of malnutrition in emergency situations*, Action contre la Faim, 2002).