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 - D.Doc (3) Management of Drug Purchasing, Storage & Distribution. Manual for Developing Countries: IFPMA (1985)
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 - I.Doc (2) Training for Mid-level Managers: EPI/WHO
 - o Provide Training
 - o Manage the Cold Chain System
 - I.Doc (3) Handbook for the Emergency Immunization Kit:
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9. Laboratory Management
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 - Mal.Doc (2) UNICEF/WHO Joint Statement: Basic Principles
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 - Mal.Doc (3) Recent Advances in Malaria Chemotherapy:
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 - Mal.Doc (4) Bench Aids for the Diagnosis of Malaria: WHO (1984)
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11. Mother and Child Health
- MCH.Doc (1) Primary Health Care Technologies at the Family and Community Levels: The Aga Khan Foundation, UNICEF, WHO (1986)
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- Nut.Doc (1) Construction of Baby Length Measurer AHRTAG
- Nut.Doc (2) The Management of Nutritional Emergencies in Large Populations: de Ville de Goyet, C et al., WHO (1978)
- Nut.Doc (3) Guide to Selective Feeding Procedures OXFAM (1986)
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- Nut.Doc (5) Field Guide to the Detection and Control of Xerophthalmia: A. Sommer, WHO (1982)
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Annex Ch.(1)

Treatment supplies required during a cholera outbreak

Requirements for 200 cases, typical for an outbreak in
a total population of 100,000

Rehydration supplies

240 litres Lactated Ringer with giving sets	UNIPAC)
= 480 sets of 0.5 litre each	(15-608-00)
10 disposable syringes 5-10 ml	(07-824-00)
10 needles 18G for adults	(07-490-00)
20 needles 22-24G for children	(07-505-00)
10 scalp-vein sets	(07-445-00)
10 naso-gastric tubes	(5 each 03-730-00 and 07-824-00)

1,300 pkts ORS (15-611-05 or locally produced) or bulk-packed ORS
to make up 1,300 litres: see calculation Table 15/2

Antibiotics

For the treatment of cases:

3,200 caps Tetracycline, 250 mg (15-690-00) (16 caps/case)
and, for young children:
20 x 60 ml btls Erythromycin syrup (15-463-00) or Sulfamethoxazole
+ trimethoprim syrup (15-371-05).

If chemoprophylaxis is planned, additional requirements for 5 close contacts
per case (= 1,000 contacts) are: either

16,000 caps Tetracycline, 250 mg (16 caps/person) and
100 x 60 ml btls Erythromycin syrup or Sulfamethoxazole + trimethoprim
syrup (for young children);
or 3,000 caps Doxycycline, 100 mg (3 caps/person) and
10 x 60 ml btls Doxycycline syrup.

Other treatment supplies

A field treatment facility treating 200 cases should also have:

2 large water dispensers with taps (marked at 5,8, 10 litre intervals) for making ORS solution in bulk	
20 bottles (1 litre)	(empty I.V. bottles)
20 bottles (0.5 litre)	for ORS solution may be used
40 tumblers, 200 ml	(20-867-00)
20 teaspoons	(20-865-00)
10 tubeclamps	(09-305-00)
3 kidney dishes	(02-110-00)
3 forceps	(07-210-00)
5 spirit lamps	(05-300-00)
plus: flashlights (2) - strong twine (1 reel) - cotton (5 kg) - alcohol (250 ml) - adhesive tape (3 reels).	

Annex Ch.(2)

**Laboratory and public health supplies
required during a cholera outbreak**

Laboratory diagnostic supplies

- 1,000 rectal swabs (where not able to be produced locally);
- 500 Cary-Blair medium;
- 3 x 300g TCBS medium;
- 5 x 2 ml Polyvalent cholera diagnostic antiserum.

Necessary nutrient agar (500g), bacto-peptone (1 kg), glassware (500 petri dishes, 1,000 disposable bijou bottles) should already be available in a competent bacteriological laboratory.

Public health requirements

- Sufficient disinfectant (eg. cresol/lysol);
- Sufficient chlorine chemicals for water treatment, see Tables 18/5 and 18/6, pp. 339,340;
- Water testing kits (5), orthotolidine with reserve solution.
- Megaphones/portable loudspeakers (3), eg. UNIPAC 18-450-00

HCR 1 B4															HEALTH CARD CARTE DE SANTE										CARD No CARTE No																																													
															DATE OF REGISTRATION DATE D'ENREGISTREMENT																																																							
SITE LIEU												SECTION/HOUSE No SECTION/HABITATION No																				DATE OF ARRIVAL AT SITE DATE D'ARRIVEE SUR LE LIEU																																						
FAMILY NAME NOM DE FAMILLE															GIVEN NAMES PRENOMS																																																							
DATE OF BIRTH OR AGE DATE DE NAISSANCE OU AGE																OR OU		YEARS ANS					SEX SEXE		M/F		NAME COMMONLY KNOWN BY NOM D'USAGE HABITUEL																																											
C H I L D R E N E N F A N T S	MOTHER'S NAME NOM DE LA MERE																				FATHER'S NAME NOM DU PERE																																																	
	HEIGHT HAUTEUR					Cm					WEIGHT POIDS					Kg					PERCENTAGE WT/HT POURCENTAGE POIDS/HAUT										%																																							
	FEEDING PROGRAMME PROGRAMME D'ALIMENTATION																																																																					
	IMMUNIZATION					MEASLES ROUGEOLE					DATE									DPT DTP		DATE		1						2						3																																		
	IMMUNISATION					POLIO					DATE									BCG		DATE								OTHERS AUTRES																																								
W O M E N	PREGNANT ENCEINTE					YES/NO OUI/NON					No OF PREGNANCIES No DE GROSSESSES																				No OF CHILDREN No D'ENFANTS																				LACTATING ALAITANTE										YES/NO OUI/NON									
	TETANUS TETANOS					DATE															FEEDING PROGRAMME PROGRAMME D'ALIMENTATION																																																	
GENERAL (Family circumstances living conditions etc.) GENERALES (Circonstances familiales conditions de vie etc.)															COMMENTS OBSERVATIONS										HEALTH (Brief history present condition) MEDICALES (Bref resume des conditions actuelles)																																													
DATE		CONDITION (Signs/symptoms/diagnosis) ÉTAT (Signes/symptômes diagnostic)										TREATMENT (Medication/dose time) TRAITEMENT (Médication/dose durée)										COURSES (Medication due/ given) APPLICATION (Médication requise/ effectuée)										OBSERVATIONS (Change in condition/ NAME OF HEALTH WORKER) OBSERVATIONS (Changement d'état/ NOM DE L'AGENT DE SANTÉ)																																						

Annex DD.(1)

Examples of calculations of ORS requirements

In a "normal" community situation

The need is mainly for children under 5 years. On average, 2 packets of ORS are needed to treat a child. ORS requirements for a 3-month period can therefore be roughly estimated as follows - assuming there is a good programme to use the packets:

Total population (eg. 100,000)
x Percentage of children under 5 in the total (say 17 per cent)
x Number of episodes per child every 3 months requiring ORS (say 1)
x Percentage of cases expected to receive packets (say 20 per cent)
x 2 packets per episode
x 1.10 (= + 10 per cent) for wastage
= Total number of packets needed every 3 months.
 $100,000 \times 0.17 \times 1 \times 0.20 \times 2 \times 1.10 = 7,480$
say 7,500

In camps of displaced persons

Proportion of children under 5 in the total population may be abnormal (say 25 per cent).

Number of episodes per child every 3 months is often higher than "normal" (say 2).

Percentage of cases expected to receive packets may be high (say 75 per cent).
2 packets per episode.

Wastage less than "normal" (say 5 per cent thus multiply by 1.05).

For such a camp population totalling 100,000, the requirement for 3 months may then be:

$(100,000 \times 0.25 \times 2 \times 0.75 \times 2 \times 1.05) = 78,750$ packets
say 80,000

In outbreaks of cholera

0.2 per cent of the total population in an area is typically afflicted in a severe outbreak.

Coverage of cases may be very high (say 100 per cent) in a camp situation but very much lower among a scattered population.

On average, 6 packets of ORS are required to treat each case.

Thus for a (camp) population of 100,000 the additional requirement for dealing with the outbreak (assuming 10 per cent wastage) may be:

$(100,000 \times 0.002 \times 1.00 \times 6 \times 1.10) = 1,320$ packets
say 1,300

Annex DD.(2)

IN-PATIENT GUIDELINES FOR THE TREATMENT OF SEVERE DEHYDRATION

Age Group	Type of fluid	Volume of fluid per kg body weight	Rate of administration
Infants	IV Ringers Lactage	70 ml/kg	within 3 hours
If signs of dehydration are still present, follow by:			
	ORS	20 ml/kg	per hour
Older children and adults	IV Ringers Lactate	100 ml/kg	within 4 hours: initially as fast as possible until radial pulse is palpable

When using this table, the following points should be considered:

- (i) the volumes shown are guidelines only;
- (ii) rehydration must be assessed by clinical examination, not by fluid volume given;
- (iii) the volumes shown can be increased, or administration can be continued at the same rate, if necessary, to achieve rehydration;
- (iv) puffiness around the eyes suggests over-hydration.

After the initial deficit has been corrected (ie. the signs of dehydration have gone), it is important to replace the ongoing losses caused by diarrhoea; this is maintenance therapy.

Annex DD.(3)

MAINTENANCE HYDRATION THERAPY

Fluid Solution	Administration	Amount of fluid
ORS	by mouth	10 - 20 ml/kg body weight per hour until diarrhoea becomes less frequent. Then continue ORT as for mild diarrhoea

In addition to ORS, it is necessary for infants to continue breast-feeding and for older children and adults to drink fluids other than ORS; other fluids should comprise at least 1/3 of the total fluid intake.

Administration of ORS in the in-patient ward can use the following methods:

a syringe can be used to put small volumes into the mouth;

a nasogastric tube can be used to administer ORS for a patient who cannot drink due to fatigue or drowsiness, but is not in shock; the average recommended fluid intake is 15 ml/kg body weight per hour;

sipping ORS solution in short intervals when nausea is present. If the patient vomits, wait 5-10 minutes and start again. If vomiting is sustained, IV therapy should be considered.

WEEKLY SURVEILLANCE REPORTING FORM

Region: _____ Agencies Reporting: _____ From: ____ / ____ / ____
 Camp: _____ To: ____ / ____ / ____

I. CAMP POPULATION

MALES FEMALES TOTAL

A. Total population at end of last week

B. New arrivals and births

C. Deaths

D. Departures

E. Total population at end of this week

II. MORTALITY

A G E / S E X

Reported Primary Cause of Death 0-11 months 12-59 months 5-14 years ≥ 15 years Total
 M F T M F T M F T M F T M F T

Diarrheal Disease

Respiratory Disease

Malnutrition

Malaria

Measles

Trauma

Other/Unknown

TOTAL

MALES FEMALES TOTAL

AVERAGE TOTAL MORTALITY RATES
 (Deaths/10,000 Total Population/Day)

AVERAGE UNDER-FIVE YEAR OLD MORTALITY RATES
 (Deaths/10,000 Total Population/Day)

III. MORBIDITY

Primary Symptom/Diagnosis	Number	Percentage
Diarrhea/Dehydration	_____	_____
Fever with cough	_____	_____
Fever and chills/Malaria	_____	_____
Measles	_____	_____
Trauma	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Other/Unknown	_____	_____
TOTAL	_____	_____

IV. COMMENTS

Annex ES.(2)

Monthly Surveillance Reporting Form

From: ___/___/___ To: ___/___/___

Region: _____

I. Camp Population

A. Total pop. at beginning of month: _____ At end of month: _____

B. Births: _____ Deaths: _____

C. Arrivals: _____ Departures: _____

D. Total population under five years of age: _____

II. Mortality

Reported Primary Cause of Death	0-11 months	12-59 months	5-11 years	> 15 years	Total
Diarrhoeal Disease					
Respiratory Disease					
Malnutrition					
Malaria					
Measles					
Trauma					
Other/Unknown					
TOTAL					
Total Under Five					

AVERAGE TOTAL MORTALITY RATES
(Deaths/10,000 Total Population/Day)

--

AVERAGE UNDER-FIVE YEAR OLD MORTALITY RATES
(Deaths/10,000 Total Under-fives/day)

--

III. Morbidity

Primary Sympton/Diagnosis	Age				Total	
	≤ 5 years		≥ 5 years			
	No.	%	No.	%	No.	%
Diarrhoea/Dehydration						
Fever with cough						
Fever and chills/malaria						
Measles						
Trauma						
Other/Unknown						
Total						

IV. Comments

Annex I.(2)

Immunization Monitoring and Surveillance Forms

(a) Immunization Reporting Form

Refugee Camp/Locality: _____

Total Population: _____

Period of Reporting: _____

IMMUNIZATIONS PERFORMED

	Age Group			
	Under one year	1 to 2 years	Two years and over	Total
Target population				
BCG				
DPT I				
DPT II				
DPT III				
DPT total				
Polio birth				
Polio I				
Polio II				
Polio III				
Polio total				
Measles				
Other				

	Pregnant Women	Others	Total
Target population			
Tetanus I			
Tetanus II			
Tetanus III			

b) EPI Target Diseases Monthly Surveillance Report

Period of
Reporting: _____

Facility: _____

Refugee Camp/Locality: _____

Immunization Status	Measles		Diphtheria		Pertussis		Tetanus		Tuberculosis	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
Immunized										
Unimmunized										
Unknown										
Total										

Immunized: Classify cases/deaths as immunized if the onset of the disease is 14 days or more after receiving the third dose of polio/pertussis vaccine, the second dose of diphtheria/tetanus vaccine, one dose of measles vaccine, or, if for tuberculosis, a BCG scar is present.

Where available, neonatal tetanus should be recorded separately.

DETAILS OF CONFINEMENT
DETAILS DE L'ACCOUCHEMENT

DATE	TIME HEURE
TYPE OF DELIVERY TYPE D'ACCOUCHEMENT	
PLACENTA	BLOOD LOSS PERTES DE SANG
PERINEum	
PERINEE	
DRUGS	
MEDICALMENTS	
POSTPARTUM CONDITION	
CONDITION DU POSTPARTUM	

BABY
BEEBÉ

SEX SEXE	WEIGHT POIDS	APGAR
-------------	-----------------	-------

REMARKS, MALFORMATIONS, PREMATURITY, ETC.
REMARQUES PARTICULIERES

POSTNATAL EXAMINATION
EXAMEN POSTNATAL

ANTENATAL CARD
CARTE DE SURVEILLANCE DE GROSSESSE

NAME
NOM

FAMILY NAME
NOM DU CHEF DE FAMILLE

ADDRESS
ADRESSE

AGE

CHILDREN } LIVING (VIVANTS)
ENFANTS } DEAD (MORTS)

ABORTIONS

FAUSSES COUCHES

FIRST DAY OF LAST MENSTRUAL PERIOD
PREMIER JOUR DES DERNIERES REGLES

EXPECTED DATE OF DELIVERY
TERME PRESUMÉ

PERSONAL HISTORY, ANTECEDENTS

ILLNESSES (MALADIES)
OPERATIONS, ACCIDENTS

DATE

VACCINATIONS
TYPE

PROBLEMS WITH PREVIOUS PREGNANCIES
PROBLEMES LORS DE PRECEDENTES GROSSESSES

[illegible]

ANNEX III: Common Deficiency Diseases

DEFICIENT NUTRIENT (DEFICIENCY DISEASE)	OCCURRENCE	PERSONS SUSCEPTIBLE TO DEFICIENCY DISEASE	SIGNS/SYMPTOMS OF DEFICIENCY	TREATMENT OF CASES	Preventive Measures	Food Sources
<u>VITAMIN A</u> (Xerophthalmia)	Limited to develop- ing countries, most commonly in Asia, Africa and the Western Pacific. Also seen in the Caribbean, Latin America and the Eastern Mediterranean	Children under 5 years in depressed rural communities. Communities with high incidence of measles, child malnutrition, diarrhoea. Groups with no access to fresh produce, vegetables and fruit.	<u>NIGHT BLINDNESS</u> Unable to adjust to changes in light. <u>CONJUNCTIVAL XEROSIS</u> Dryness of conjunctiva. <u>BITOT SPOTS</u> Small white foamy dots on either side of cornea. <u>CORNEAL XEROSIS</u> Dry, rough-appearing cornea. <u>CORNEAL ULCERATIONS</u> Lesions and perforation <u>CORNEAL SCARS</u> Opacities	Rapid treatment is essential. Disease can be reversed up to bitot spots. Treatment prevents further deterioration 1) Immediately give (oral) 200,000 I U. 2) Second day, same 3) Day seven, same	- Include Vitamin A containing foods in ration. - The following prophylaxis schedule should be followed in communities with insufficient quantities or with no known access to Vitamin A sources. The timing of prophylaxis will depend on the availability where sources of Vitamin are completely absent, prophylaxis should occur every 3 months; where insufficient quantities, a history of Vitamin A deficiency and/or current xerophthalmia exists, prophylaxis should be distributed every 6 months <u>Vitamin A prophylaxis schedule</u>	Dark green leafy vegetables Orange/yellow root crops: carrots, yellow sweet potato, squash, Orange Fruits: papaya, mango, red palm oil, offal (liver), eggs, fortified milk powder, fortified cereal blends (CSM)
				Individual	Oral Dose	Timing
		Children < 12 months old		55 mg retinol palm- itate (100,000 IU)	once every 4-6 months	
		Children ≥ 12 months old		110 mg retinol palm- itate (200,000 IU)	once every 4-6 months	
		Newborn		27.5 mg retinol palmitate (50,000 IU)	at birth	
		Women of child- bearing age		165 mg retinol palm- itate (300,000 IU)	within 1 month of giving birth	
		Pregnant and lactating women		275 mg retinol palm- itate (50,000 IU) or 11 mg retinol palm- itate (20,000 IU)	every day once every week	
		Sommer, A Field Guide to the Detection and Control of Xerophthalmia, 2nd Ed., WHO, Geneva Pg 41				

DEFICIENT NUTRIENT (DEFICIENCY DISEASE)	OCCURRENCE	PERSONS SUSCEPTIBLE TO DEFICIENCY DISEASE	SIGNS/SYMPTOMS OF DEFICIENCY	TREATMENT OF CASES	PREVENTIVE MEASURES	FOOD SOURCES
VITAMIN B1 (THIAMINE (Beriberi))	Refined rice-eating communities; Asia, primarily, although seen in communities with acute malabsorption	Women of child-bearing age Infants of deficient mothers Highly active young men on restricted diets - with high intake of refined white rice.	<u>DRY BERIBERI</u> Onset of weakness, first seen in legs (unable to stand from a squatting position), loss of sensation in extremities, neuritis, paralysis. <u>WET BERIBERI</u> Cardiovascular disorder leading to cardiac failure.	<u>DRY AND WET BERIBERI</u> 25 mg B1, 1M twice daily for one week, then 10 mg three times/day until recovered <u>INFANTILE BERIBERI</u> 10 mg B1 orally twice daily to lactating mothers until recovery	Include Vitamin B1 containing foods in ration. In rice eating population, ensure regular distribution of under-milled, rice, particularly if diet is restricted	Whole or enriched cereals, seeds, legumes, meat, liver
NIACIN (Pellagra)	Maize eating communities, particularly with restricted diets, or where milling is commercial C. Americas, Africa	All age groups Often more prevalent in older adults. In children it must be distinguished from kwashiorkor. Often associated with other B-complex deficiencies.	Dermatitis. scaly patches on sun-exposed areas of skin. legs, arms, neck Diarrhoea accompanied by anorexia, glossitis Neuritis. confusion, apathy, weakness.	500 mg daily of Nicotinamide for 1-2 weeks until recovery.	Allow for traditional milling (with lime) of maize in groups who have practice. Ensure adequate quantities of legumes in ration (and cooking fuel for preparation)	Meat Ground-nuts Enriched grains
VITAMIN C (Scurvy)	Sahel and Sub-Sahel; famine communities with no access to fresh produce	All groups. Higher prevalence noted in adults, women of child-bearing age, and undernourished adolescents. Infantile scurvy must common in non breast-fed infant.	Aching of joints, particularly knees, inflammation and increased tenderness with movement. Abnormal gums, bleeding. Keratosis of hair follicle failure to heal wounds	1 g of ascorbic acid given in 2-3 doses per day for 7-14 days, until recovery. (Note: it is possible to effect cure on smaller dose, although saturation of tissues may not occur and relapse common)	Include Vitamin C rich foods in ration Encourage germination of beans (30 g of beans when sprouted yields 10 mg of Vitamin C) In outbreak situations, give tablets to total population until Vitamin C foods included in ration 200 600 mg/week/person through community health workers	Citrus fruits (lemons, oranges) Green (bell) pepper Tomatoes Cabbage Dark green leafy vegetables Guava Potatoes (hill) peppers

ANNEX NUT(2): Anthropometrical Indices

ANTHROPOMETRICAL INDICATOR	CLASSIFICATION		PROGRAMME USE
<u>WEIGHT-FOR-HEIGHT</u>	≥ 90%	Well nourished	For use in random sample surveys.
(NCHS/WHO recommended reference standards)	80-90%	Mildly malnourished	To determine participation in supplementary feeding programmes (less than 80% weight/height).
* For children under 10 years of age only	70-80%	Moderately malnourished	
* All children under 2 years must be measured lying down	< 70%	Severely malnourished	For monitoring the progress of of individuals in feeding programmes.
<u>MID-UPPER ARM CIRCUMFERENCE (MUAC)</u>	> 13.5	Well nourished	For rapid nutritional screening.
* For children 1-5 years of age only	12.5-13.5 cm	May be mildly malnourished	For house-to-house screening to identify malnourished children. (Note: once referred to a feeding centre, a weight/height assessment should be made and admission based on weight/height criteria.)
	< 12.5	Malnourished	
<u>WEIGHT-FOR-AGE</u>	> 90%	Well nourished	For long-term care/maintenance programmes where road-to-health cards are used in programmes.
* For children 0-5 years of age only	75-90%	First degree mildly malnourished	For determining individual growth trends in children under 5 years of age. (Where static or weight loss occurs, a weight/height assessment should be made and referral/action taken accordingly.)
* Should never be used in nutritional surveys	60-75%	2nd degree moderately malnourished	
* Can accompany weight/height evaluation for referral/admission to SFP	< 60%	3rd degree severely malnourished	