

DISCHARGING DIARRHOEAL
Cases After Initial Rehydration
And Following Up

DIARRHOEAL DISEASES MANAGEMENT
SELF INSTRUCTIONAL SERIES -NO 5



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DISCHARGING DIARRHOEAL
Cases After Initial Rehydration
And Following Up

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INTENDED USERS :

Within the context of the task-based curriculum for practicing physicians, residents and house-officers.

POTENTIAL USERS :

Newly appointed physicians
Undergraduate medical students
Undergraduate students of the High Institute of Nursing.

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TO THE LEARNER

This is a self instructional unit covering all needed information for carrying the different tasks required at the discharge work station. It is self contained; you can learn each cycle, evaluate your learning and then they will be provided by feedback. Learning is individualized. This means you will be able to select the time when you begin the unit, and the rate at which you proceed through the unit. Upon completion of the unit, you will be expected to accomplish the objectives covered in the topic. So it is important that you follow closely the directions as stated.

DIRECTIONS

- 1- Read through the unit in sequence from beginning to end.
- 2- Read carefully the objectives. They will tell you what you are expected to learn from the information in the unit. Such objectives also indicate what you will be asked on the post-test at the end of the unit.
- 3- Read the information in information section 1
- 4- Write your answers to the practice questions at the end of Information Section 1 on a separate sheet of paper. Do this without looking back at the information.
- 5- After you write your answers, look at the answers given on the next page, in order to check your work.
- 6- If any of your answers are incorrect, go back and read the information in Information Section 1. Then make another attempt to answer the same questions. Make sure that all your answers are correct before moving on to the next section.
- 7- Proceed through the entire unit in the same manner.

TO THE TRAINER

Suggested below are various learner activities for preparation and follow up.

SUGGESTED PREPARATION

Before learners use this unit, they should have performed all the tasks carried out at the intake, oral rehydration treatment and education work stations of a rehydration center.

SUGGESTED FOLLOW UP

It is essential that learners apply the knowledge gained practically. Learners already acquired the necessary skills "communication, thinking, and manual skills" to carry out the different tasks to be performed at the discharge station. Learners should perform the tasks required at the discharge station under supervision. Use check lists and rating scales whenever appropriate to assess their performance. Preferably they should pay as well an outreach visit and report about their experience and activities done there.

REMEMBER

Distribute this unit at the end of Day 5 .
Instruct the learners to read the material carefully and follow up the directions.
Next day make sure that learners responded correctly to the questions.
Discuss the problems
Use the exercises in day six as a post test for this unit to make sure that they really learned the subject.

INTRODUCTION

Dear doctor

This unit deals with the different tasks that you should carry when discharging the patient. This is the last working area in the rehydration center. All patients must stop there as they leave the center.

As a physician you have to make sure that the child has been successfully rehydrated before he leaves your center. You have also to find out what the mother has learned, and you have to make sure that she has acquired the necessary skills to carry out the rest of the management plan at home.

The effective management of diarrhoea with dehydration requires partnership between the staff of the rehydration center and the mother of the child. Once the child leaves the center she is the one who will be responsible for maintaining rehydration at home as long as the child is passing watery diarrhoea. She is the one who will feed him according to your advice. Moreover, she is the one who has to watch for the reappearance of any signs of dehydration. She is the one who decides to seek your advice if problems arise. The mother is usually the one who is responsible for keeping her family healthy. She can take action to prevent diarrhoea.

In the first section, you will read about the discharge area and the tasks to be carried out at this area, and what are the equipment needed. The second section describes the procedures and contents of the exit interview and the educational messages to be given to reinforce learning. The fourth section deals with dispensing ORS and medical supplies. The last section covers follow up and out reach activities.

PREREQUISITES

Learners should have acquired the skills needed to carry out the tasks required at the reception, treatment and education and demonstration areas.

Objectives

- o Identify the equipment needed for the discharge area
- o List the tasks a physician has to carry out when discharging a patient
- o State the clinical criteria for discharging the patient
- o Given recorded data, check if data recorded about the degree of rehydration, number of cups consumed were correct or not
- o Given the weight of three cases after initial rehydration has been completed, will correctly identify those below and above the two lines
- o Given 3 growth curves will correctly interpret each curve and state decisions that should be made for each case
- o Given a written description of an exit interview will state what was done well and what was done bad
- o Identify the average number of ORS packet and the plastic cups that should be given to mothers at the discharge area
- o State six conditions where drugs are prescribed at the discharge station and what are the instructions to be given to mothers
- o Identify the questions to be asked during a follow up visit
- o Identify topics to be discussed during an outreach visit
- o Write down guidelines for adequate storage of ORS supplies

INFORMATION SECTION 1

THE DISCHARGE AREA

From the performance point of view the rehydration center is composed of several separate areas where specific tasks are performed. The discharge work area is the last area in the rehydration center. It should be placed, so that all patients must stop there as they leave the center. This means that it must be located either directly inside or outside the rehydration area. It should be near the reception area or may be in combination with it so that you can consult the Register Book.

The doctor is discharging the patient



In centers that are not very busy as those attached to primary health care centers, the discharge area can be combined with the reception area as long as the line of incoming patients can be kept separate from the lines of patients who are leaving the center.

The discharge area should be well equipped. The following is a list of equipment needed in the discharge area. It is identical to that for the reception area.

LIST OF EQUIPMENT NEEDED FOR DISCHARGING THE PATIENT

- o Two chairs
- o Examination table
- o Weighing scale
- o Two thermometers (rectal and buccal), put in a conical flask with a cotton soaked with a disinfectant
- o Stethoscope
- o Drum with sterile cotton
- o Alcohol
- o Tongue depressor
- o Growth chart
- o Guidelines, posters, educational materials
- o Cards or papers for referrals
- o Register book
- o Waste basket at right hand

The nurse is responsible for preparing all equipment needed. She is also responsible for arranging the area in such a way to facilitate your work. The table should be easily accessible to mothers. One chair should be placed behind the table, for you to sit, and another just beside the table for the mother. All equipment should be placed in an orderly manner to allow systematic use.

As a physician you are responsible for all activities carried out in this area. Some of these activities can be delegated to other members of the health team. Team members should share in experiences and responsibilities. However, as a physician you are responsible for supervising and training

your health team. So, the first task you have to carry out is to check the equipment of the area. Use the check list provided in page 4 to do so. If you find one item or more missing, or the area is not well arranged, ask the nurse to properly equip and or rearrange the area. Explain why these equipment are needed. You can give her a list of the needed equipment. The list will help the nurse to remember the items needed, if she ever forgets.

The second task that will be carried by you is to examine the child thoroughly to identify signs of dehydration. Once you are satisfied that the child is successfully rehydrated, and ready for discharge, then you have to screen mother's knowledge and reinforce her learning. This is your third task. Fourthly, you have to prescribe and dispense ORS and other medications if needed for the mother to continue the treatment at home.

During the exit examination you will encounter few cases that require referral after the initial rehydration has been completed. Referral should be made for any cases that the rehydration center is not equipped to handle.

It is your responsibility to ask all mothers to return next day to supervise and check the progress of the child. This follow up, if possible should continue until diarrhoea stops. When a mother is instructed to return for follow up and she fails to come back with her child, it is important to know the reason. This will entail paying the family a home visit. Ask the nurse or the social worker to carry out this outreach activities.

TASKS THAT ARE CARRIED OUT WHEN DISCHARGING THE PATIENT

- o Check the preparation and arrangement of the area
- o Examine the child to identify signs of dehydration
- o Carry exit interview to screen mother's knowledge, enforce knowledge and skills learned, and reeducate the mother if necessary
- o Dispense and prescribe supplies for continued treatment at home
- o Make referrals if needed
- o Carry out follow up activities at the center and supervise outreach visits

CHECKLIST

THE PREPARATION AND THE ARRANGEMENT OF THE DISCHARGE AREA

	Present	Not present
Preparation:		
o Two chairs	[]	[]
o Examination table	[]	[]
o Weighing scale	[]	[]
o Two thermometers (rectal and buccal) in a flask with cotton pad	[]	[]
o Stethoscope	[]	[]
o Drum with sterile cotton	[]	[]
o Alcohol	[]	[]
o Tongue depressor	[]	[]
o Growth chart	[]	[]
o Guidelines, posters, educational materials	[]	[]
o Cards or papers for referrals	[]	[]
o Register book	[]	[]
o Waste basket	[]	[]
Arrangement:		
o Table easily accessible	[]	[]
o One chair behind the table	[]	[]
o Another chair beside it	[]	[]
o Waste basket at right hand	[]	[]
o Equipment placed in an orderly manner	[]	[]

INFORMATION SECTION 1

PRACTICE QUESTIONS

- 1- List tasks that a doctor should carry out at the discharge station: arge
- -
 -
 -
 -
 -
 -
 -

- 2- Check if the following list of equipment needed at a discharge station is complete or not. If incomplete, write down the missing items. te

- A table
- Two chairs, one chair behind the table and another on the side of the table de
- Two thermometers, stethoscope, drum, cotton
- Posters
- Cards for referral
- Register book
- Waste bin placed at the right hand

The list is : Complete [] Not complete []

If not complete:
The missing items are :

-
-
-
-
-
-

INFORMATION SECTION 1

ANSWERS TO PRACTICE QUESTIONS

1-

- o check the preparation and arrangement of the station
- o Examine the child to identify signs of dehydration
- o Carry out interview to screen mothers' knowledge, enforce knowledge and skills learned and reeducate the mother if necessary
- o Dispense and prescribe supplies for continued treatment at home
- o Make referrals if needed
- o Carry out follow up activities at the center and supervise outreach visits

2-

The list is Not complete []

The missing items are :

- o Weighing scale
- o Guidelines
- o Educational materials
- o Growth chart
- o Tongue depressor
- o Alcohol

INFORMATION SECTION 2

EXAMINE THE CHILD TO IDENTIFY SIGNS OF DEHYDRATION

Dear doctor

When the mother is ready to leave the center, an exit examination must be conducted. The physical examination at an exit should include the same items as an intake examination (reception). It is important that you realise that all clinical findings must be interpreted within the context of the whole patient.

The first step in any physical examination is to get the confidence and cooperation of the child and the mother. There is no known way to teach this important step. You must love children, and children should know and sense that you do. That is the only way to make children relax with you and make the examination easy.

During the physical examination, you should start at the head and go down towards the feet in an orderly manner. This may not always be possible, particularly with infants and toddlers. For this group you have to modify your approach, and be able to collect all the information available in any sequence. As a good clinician, you should be able to aim for the major problem very quickly.

- o Observe the child's appearance. Notice if he is now alert or not. Is his breathing quiet or rapid? Is he still thirsty?
- o If your patient is an infant, inspect and palpate as well the anterior fontanelle. Is it still depressed? or did it return back to normal?
- o Inspect the eyes, are they slightly sunken or normal?
- o Feel the pulse. If present, is it weak or strong?
- o Observe, palpate and percuss the abdomen. Make sure that the abdomen is not distended.

- o Examine for skin elasticity. Is it now normal or slightly less than normal. You should remember that nutrition affects the elasticity of the skin. Marasmic children have very poor skin elasticity. If the child is suffering from kwashiorkor, the test should be done in places where there is no oedema. If the child is fat, even if he is severely dehydrated the skin elasticity may seem normal. In these cases, you should rely more on other signs of dehydration.
- o Inspect extremities and palpate them. They should be warm and of normal colour.

DISCHARGE IS NOT RECOMMENDED UNLESS

- | | |
|---------------------|---------------|
| o General condition | Alert |
| o Fontanelle | Rounded |
| o Eyes | Normal |
| o Skin elasticity | Not tenting |
| o Extremities | Warm |
| o Breathing | Normal |
| o Abdomen | Not distended |

The exit examination will never be complete **without weighing the child**. The child should be weighed before discharge and the weight to the nearest 50 grams recorded.

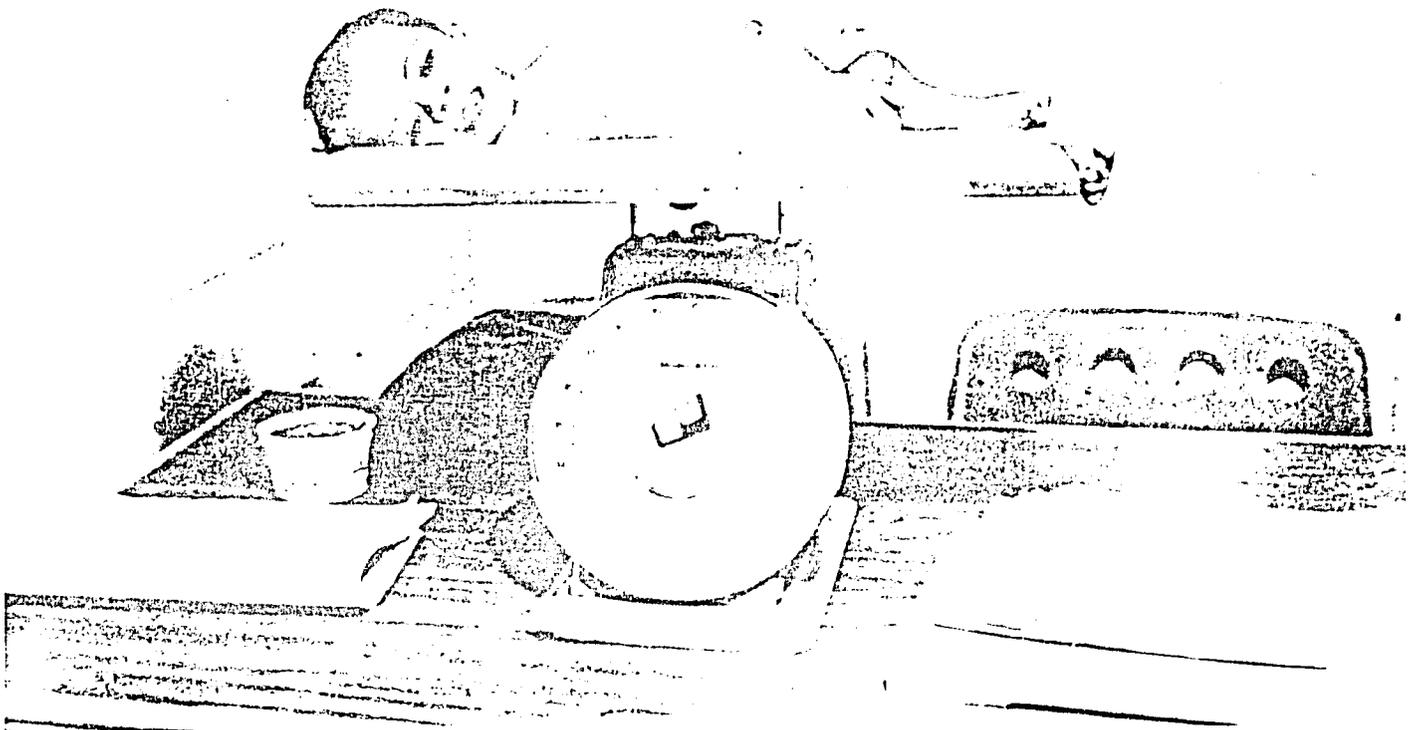
This weight can provide useful information. When compared with the weight at reception, it is possible to estimate respectively the weight loss in order to confirm the diagnosis as to the degree of dehydration. You can check your ability to diagnose or the capability of the other health team members to do so. The degree of dehydration may be estimated by looking at weight loss in relation to total body weight: Less than 5% loss generally indicates that mild dehydration was present; 5-9% generally indicates that moderate dehydration was present, and 10% or more generally indicates that severe dehydration was present.



The doctor is examining for skin elasticity



The doctor is making sure that the mother can examine for skin elasticity



THE EXIT EXAMINATION IS NEVER COMPLETE WITHOUT
WEIGHING THE CHILD

Here are three examples:

- o A child weighing 5 kilograms at discharge, but his weight at intake was 4.8 kilograms. Retrospectively, this child had a weight loss of 0.20 kilograms.

The weight loss percentage = $0.20 \times 100 \div 5 = 4\%$
This indicates that the child was mildly dehydrated.

- o A child is weighing 5 kilograms at discharge, but his weight at reception was 4.6 kilograms. retrospectively, this child had a weight loss of 0.4 kilograms.

The weight loss percentage = $0.40 \times 100 \div 5 = 8 \%$
This indicates that the child was moderately dehydrated.

- o A child weighing 10 kilograms at discharge, but his weight at reception was 8.8 kilograms. Retrospectively, this child had a weight loss of 1.2 kilograms.

The weight loss percentage = $1.2 \times 100 \div 10 = 12 \%$
This indicates that the child was severely dehydrated.

You can check the weight gain in proportion to the volume of ORS taken. You know that oral rehydration is given at a rate of one teaspoon per minute. If the child is taking ORS at this rate, he would have taken 200- 300 cc in an hour (1- 1 1/2 cups) and 800- 1200 cc in 4 hours (4-6 cups)

If the child gained weight and was initially rehydrated according to the amount of ORS needed for his degree of dehydration this indicates that the solution was well absorbed.

If the comparison shows that the weight gain is low in proportion to the volume of ORS taken (1 cc = 1 gm) this may be due to several causes for example:

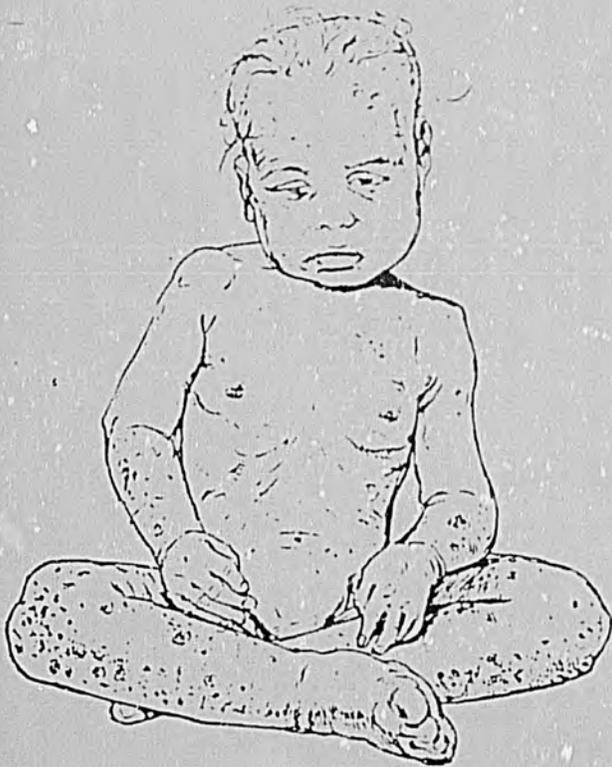
- o a continuous fluid loss due to diarrhoea
- o vomiting
- o the mother was not giving ORS properly
(in correct rate, or spills)

You should take this as a sign that difficulties may arise during the maintenance phase. These cases will require follow up and more training to the mother. Special attention should be paid to this group of mothers during the exit interview. You have to make sure that the mother is capable of giving ORS at home and maintain hydration. You should convince this group of mothers to come for a follow up. If they do not appear they should be visited at home by the nurse, social worker or any other trained person in the center.

You should also be aware of the performance of your health team. The nurse may not be calculating correctly the number of cups consumed by the child. The nurse should never depend on her memory or on the mother's. Make sure that the number of tick marks for ORS cups dispensed are counted and the amount of ORS consumed by the child is entered into the Register book. If a treatment sheet is being used, it will also provide you with the information needed. You can also check how far the data recorded in this sheet is correct.

It is your duty as a doctor to supervise your team, check their performance and train them.

The weight after initial rehydration can reflect the nutritional status of the child. If the weight for age is below the average, the child should be considered at risk of malnutrition. You should carefully plan his diet and educate his mother on nutrition. If already the child is suffering from kwashiorkor or marasmus, you should refer him or her for nutritional therapy.



Kwashiorkor



Marasmus

If you are working in a non hospital based rehydration center, you should ask for the child's own growth chart. Each chart contains two curved lines. The curves indicate the growth of the normal infants and children at different ages. Any infant or child whose curve for weight lies between the two lines is considered normal.

HOW TO USE GROWTH CHARTS ?

o Record the child's weight. Find the child's age on the horizontal scale, then follow a vertical line from that point to the horizontal level of the child's weight where the two lines intersect, make a cross mark with a pencil. Join the new cross mark to the previous set by a straight line.

o If the mark is above the high line or below the low line, this child needs specialized care.

o Compare the most recent set of marks with earliest sets. If the child has changed rapidly in percentile levels, you may also need to refer the child.

o Flattening of the curve, indicates that the child is not growing. This means that you should plan carefully his nutrition and educate the mother to carry out this plan at home. Make sure that the mother continue to maintain hydration as well. This case should always be followed up in the clinic and at home.

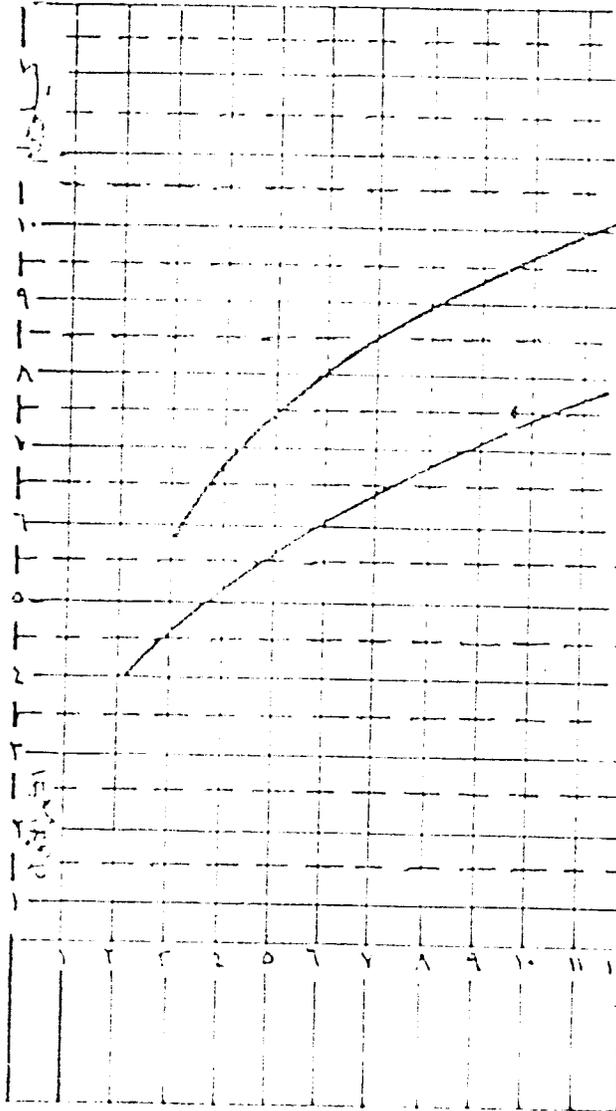
o If the child's curve is pointing downwards instead of upwards, this indicates that the child needs immediate nutritional therapy. Refer the case to a specialist. Needless to say the mother should maintain hydration. A home visit is indicated to see the progress of the child.

Remember :

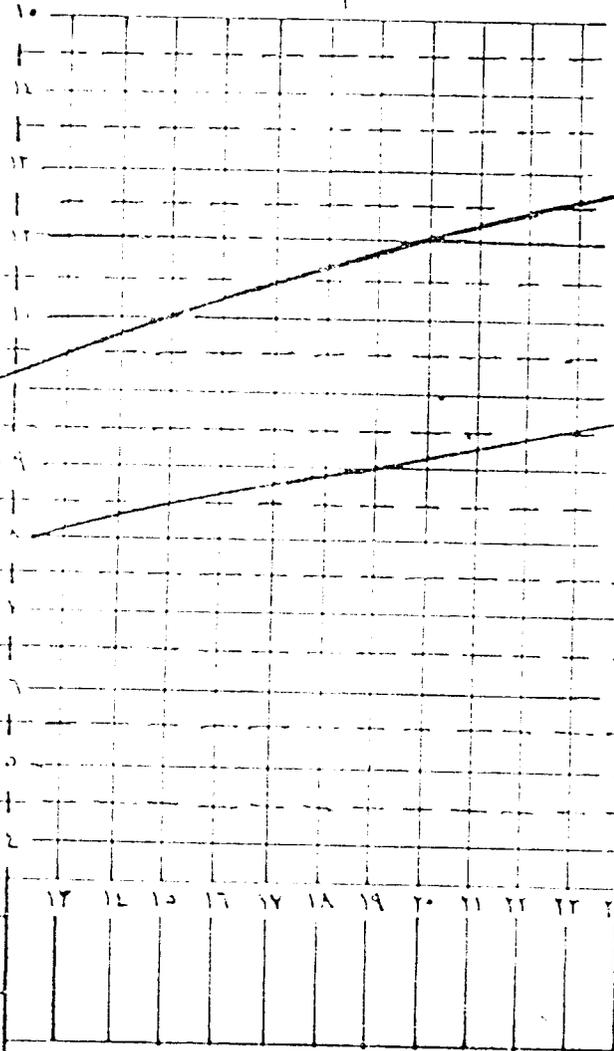
You should calculate the amount of ORS needed for maintenance of hydration according to the weight of the child after hydration taking into consideration the number of motions and the quantity of fluid loss per motion. If the child has mild diarrhoea he should take 10 cc per kgm per motion. If diarrhoea is not mild you should recommend from 10-20 cc/kgms per motion. Roughly speaking the child may need 1/4-1/2 cup of ORS per motion.

يجب وزن الطفل مرة كل شهر
حتى يمكن التعرف على صحته

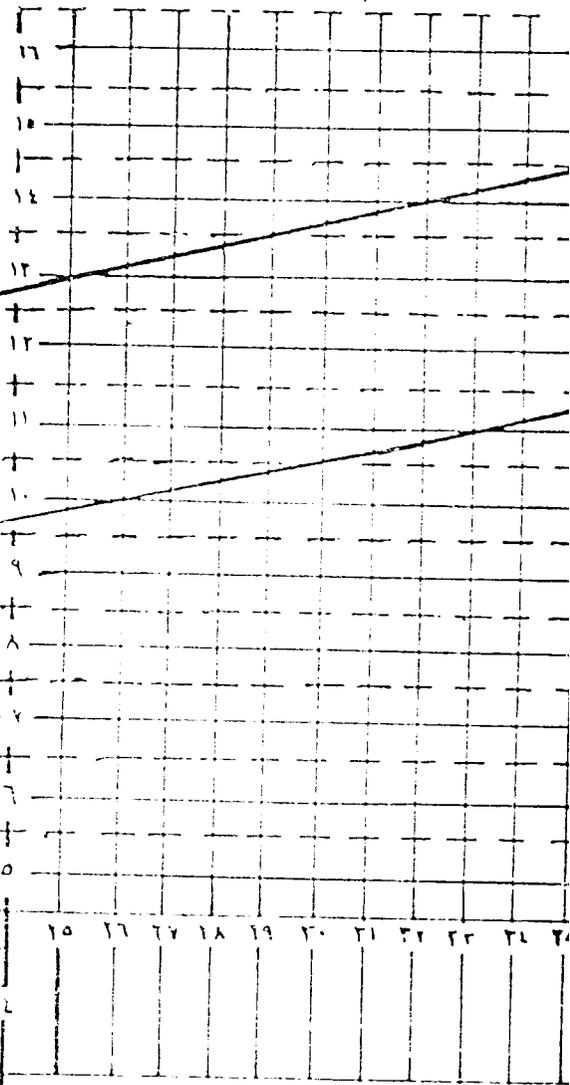
العام الأول



النمو الجيد للطفل
دليل على سلامة صحته
العام الثاني



العام الثالث



لاحظوا اتجاه خط نمو الطفل

- نمو جيد
- عدم نمو
- عمر في الوزن
- احتاج إلى تغذية
- احتاج إلى عناية
- دعائية المبكرة إن لزم
- دعائية المبكرة

INFORMATION SECTION 2

PRACTICE QUESTIONS

1- Complete the following :

Discharge is not recommended unless:

-
-
-
-
-
-
-
-
-
-
-

Read carefully the following situations then respond to the questions:

o- The physician in charge of a rehydration center checked the data recorded in the Register Book. He specifically looked at the following information

Name	Age in months	Degree of dehydration	Weight in Kgms initial	Disch	Period of dehydration	Number of cups
Ali	6	Moderate	7.000	7.600	3 hours	4
Amina	11	Severe	6.700	7.650	6 hours	4
Mohamed	10	Severe	8.200	8.800	4 hours	6
Karima	5	Mild	6.100	6.300	2 hours	2
Sawsan	4	Moderate	4.300	4.500	2 hours	1

2- State if the degree of dehydration recorded was correct or not.

Name	Degree of dehydration recorded	% weight gain calculated	Correct/Incorrect
Ali	Moderate		
Amina	Severe		
Mohamed	Severe		
Karima	Mild		
Sawsan	Moderate		

3- State if the number of cups of ORS consumed by each case as recorded is related correctly to the weight gain or not.

Name	Number of cups recorded	Weight gain calculated	Number of cups calculated	Correct/Incorrect
Ali	4			
Amina	4			
Mohamed	6			
Karima	2			
Sawsan	1			

o Using the growth chart page 14 check if the weight of the child is above 95th, within 95th- 5th percentiles or below the 5th percentiles.

Name	Age in months	Weight at discharge	Percentiles		
			above 95th	95 -5th	below 5th
Ali	6	7.600			
Amina	11	7.650			
Mohamed	10	8.800			
Karima	5	6.300			
Sawsan	4	4.500			

0 Interpret the following growth curves, then state actions and decisions to be made :

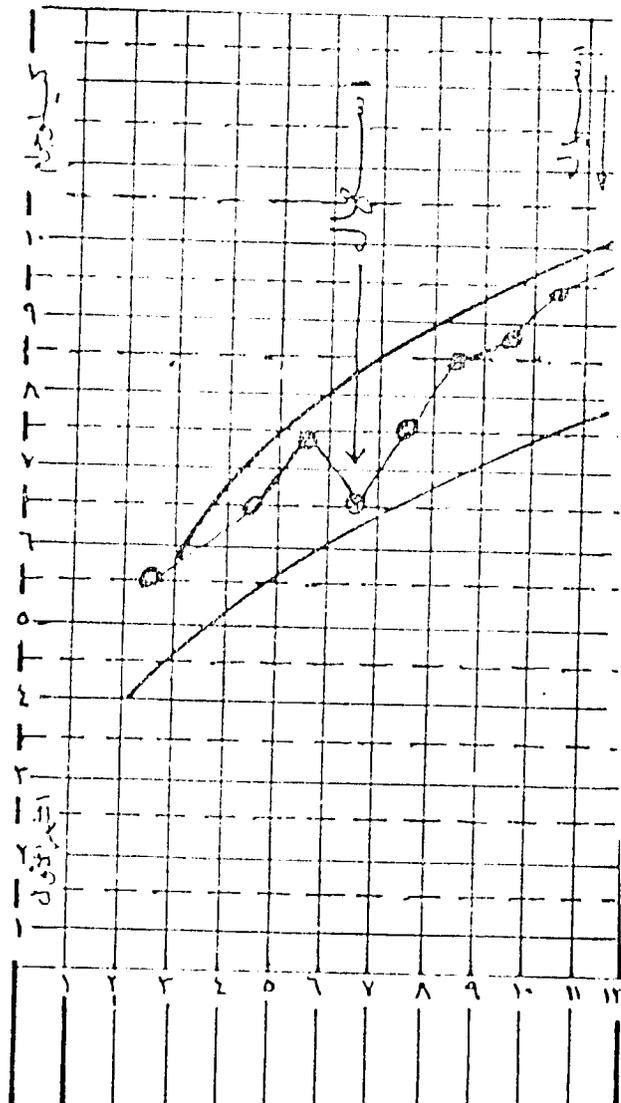
Growth Curve 1

يجب وزن الطفل مرة كل شهر حتى يمكن التعرف على صحته

5- Interpret The Curve

العام الأول

6- State your decisions and actions.



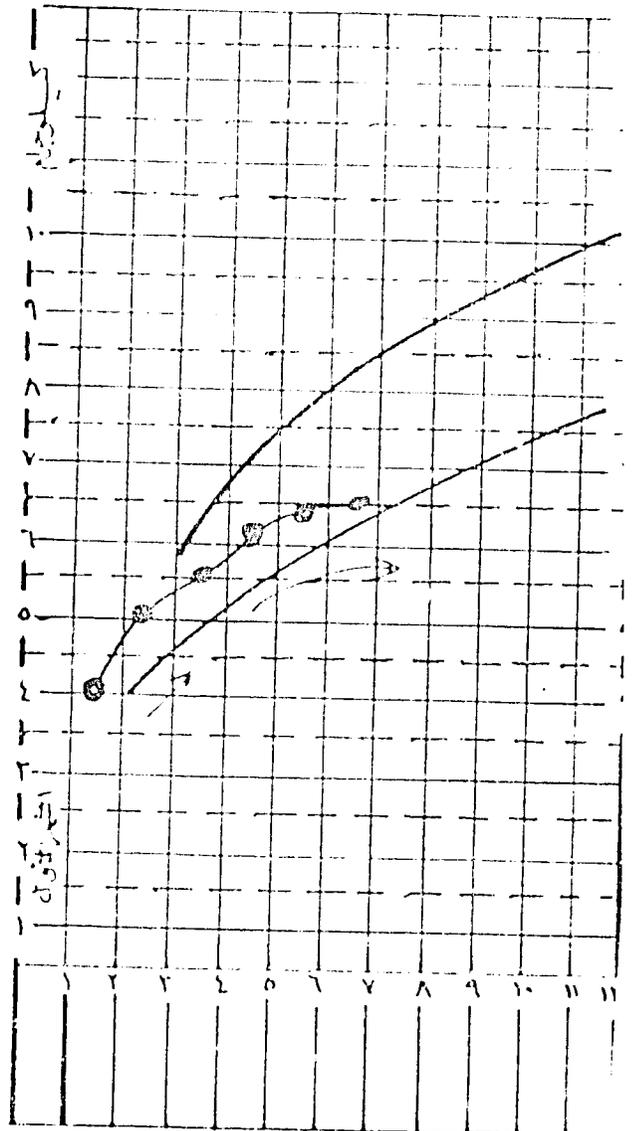
Growth Curve 2

7- Interpret the curve

يجب وزن الطفل مرة كل شهر
حتى يمكن التعرف على صحته

العام الأول

8- State your decisions
and actions



GROWTH CURVE

يجب وزن الطفل مرة كل شهر حتى يمكن التعرف على صحته

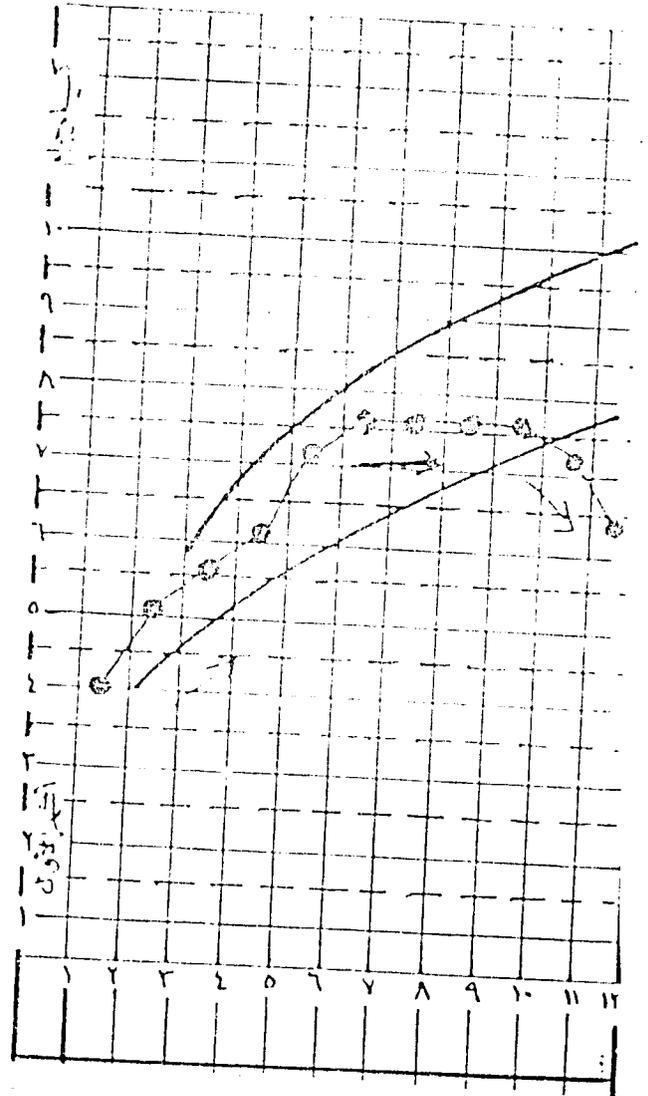
السمات الأتية

9- Interpret the curve

10- State your decisions and actions

11- Calculate the amount of ORS required to maintain hydration for:

- a- A child weighing 5 kgms having mild diarrhoea
- b- A child weighing 5 kgms having severe diarrhoea



INFORMATION SECTION 2

ANSWERS TO PRACTICE QUESTIONS

1-

General condition	Alert
Anterior Fontanelle	Rounded
Eyes	Normal
Skin elasticity	No tenting
Extremities	Warm
Breathing	Normal
Abdomen	Not distended

2-

Name	Degree of dehydration recorded	% Weight gain calculated	Correct Yes/No
Ali	Moderate	7.9%	Yes
Amina	Severe	12.4%	Yes
Mohamed	Severe	6.8%	No
Karima	Mild	3.2%	Yes
Sawsan	Moderate	4.4%	No

3-

Name	Number of cups recorded	Weight gain calculated in Kgms	Number of cups in relation	Comparable Yes / No
Ali	4	0.600	4	Yes
Amina	4	0.950	8	No
Mohamed	6	0.600	6	Yes
Karima	2	0.200	2	Yes
Sawsan	1	0.200	3	No

4-

Name	Weight at discharge	Age in months	Between the two lines	Above or below the two lines
Ali	7.600	6	✓	-
Amina	7.650	11	✓	-
Mohamed	8.800	10	✓	-
Karima	6.300	5	✓	-
Sawsan	4.500	4	-	below

5-

The infant is gaining weight .He is catching up to his original percentile after the first attack

6-

Congratulate the mother. Stress the importance of nutrition, and reeducate her on nutrition. Make sure to check the growth curve in the next visit.

7-

The infant was gaining weight satisfactory during the first five months of his life. Then the weight gain became minimal or nearly stationary during his sixth and seventh months of his life. So, there is flatening of the growth curve.

8-

Examine the child to exclude any infection. The mother needs nutritional counselling. Interrogate the mother about dietetic history. Discuss exactly what the child takes. Explain to the mother the importance of high caloric weaning foods; the importance of continuing breast feeding and increasing the number of feeds. Make sure that the mother is able to decide correctly what foods to give the child. This child has to be followed up.

9-

The weight gain was satisfactory for the child till he reached seven months of age, then the growth curve became nearly flattened during 7-10 months. After this period there was progressive loss of weight. This pattern of growth may be due to :

- a- poor weaning and feeding practices
- b- chronic or repeated infection

10-

Refer this child immediately to the specialist for evaluation of his condition, for nutritional therapy and rehabilitation. The mother should be properly educated and trained to care for her child. Once the child is treated, you should follow him up all through his infancy and preschool period.

11-

- a- This child requires $5 \times 10 = 50$ cc of ORS/motion
i-e 1/4 cup .
- b- This child requires $5 \times 20 = 100$ cc of ORS/motion
i-e 1/2 cup.

INFORMATION SECTION 3

EXIT INTERVIEW

The exit interview is a discussion between the physician and the mother just before discharge. It is carried out to determine how well prepared she is to care for her child at home. Depending on the findings of this discussion the physician should provide additional information and education according to the need.

At the point of discharge the mother is ready to receive health education messages on maintenance of hydration, child feeding, when to return back, and prevention of diarrhoea.

You have to be sure that the mother:

- o Knows how to prepare the solution
- o Understands the procedures for maintaining hydration
- o Knows when she should feed the child and the specific foods that should be given
- o Recognizes the signs that indicate that she must immediately return back with the child to the center
- o Recognizes essential practices to be carried out by her to prevent further attacks of diarrhoea

You have to screen mothers knowledge about the previous items. use the question-answer technique. Make sure that you are not using leading questions. Also try to assess the attitudes of mothers towards:

- o ORS
- o Feeding her child during diarrhoea
- o Prevention of diarrhoea

Attitudes determine how a person tends to behave. They are important ,although difficult to define, to teach and to assess. The mother's own experience tend to shape her attitude. The success of oral rehydration in initially rehydrating the child can influence the attitude of the mother not only towards the use of ORS in maintaining hydration and treating dehydration and in

future management of diarrhoea spells, but it also can shape her attitude towards the rehydration center and the health team.

As attitudes are partly based on logic and partly on emotions, you should provide the necessary information. Relate the information to the experience of mothers with ORS and other items. You should set an example. This will help in changing mother's attitude. If you are discussing the importance of personal hygiene, then washing your hands after examining every case is an example of your attitude towards personal hygiene. If the rehydration center is clean and free from flies and insects, this provides an excellent example of the sanitary conditions you are trying to emphasize for prevention of diarrhoea.

Remember that mothers have been taught most of the things they need to know during the group discussion held in the center during initial rehydration. However, you have to make sure that each mother understands clearly what is going to do at home.

- 1- Ask the mother to repeat the instructions for mixing. Correct any mistakes and continue to discuss until the mother can repeat directions correctly. Try to determine whether the mother has a cup of the correct size at home and how she will determine whether it is correct or not.
- 2- Question the mother about the procedures to be carried out to maintain hydration. Pay particular attention to the accuracy of responses about when to give ORS, how much to give, and when to discontinue oral therapy. Assess her attitudes towards ORS, and relate the progress made by the child to oral rehydration.
- 3- Ask the mother to repeat the danger signs which indicate that she should return with the child immediately. Make sure she understands how to recognize these signs. Mothers when arrive to the center, realize that there are some changes in the appearance of the child. The child does not look right, or act right and there is a peculiar

look about the eyes. Mothers should realize that thirst indicates dehydration as well as sunken eyes. Mothers should be able to examine as well for inelastic skin. If the child is an infant, the mother should also state depressed fontanelle as a sign of dehydration.

- 4- Ask the mother what she normally feeds the child. Advise her about the foods that she should give during the bout of diarrhoea. Explain the importance of feeding during and after diarrhoea has stopped. This is important as proper feeding will help the child to overcome the attack and to grow stronger and make up for the strength he lost during his illness. Proper feeding reduces the risk of contracting diarrhoea.
- 5- Assess the mother's attitude towards the advice you have given. You can relate the severity of diarrhoea to the nutritional status by pointing to some of the cases the mother has observed.
- 6- Stress the importance of breast feeding, personal hygiene and food hygiene as preventive measures.
- 7- If the child has reached the age of 8-9 months, stress the importance of measles vaccination. Explain to the mother that this vaccination protects the child against measles and this helps in the prevention of diarrhoea.

In screening the mother's knowledge and reinforcing learning, you should be able to ask the question, inform, persuade, explain, tell, listen, make clear, demonstrate and summarize the facts discussed and actions to be carried out by the mother.

The following are parts of two exit interviews that were carried out by two doctors. Read them carefully.

INTERVIEW 1

Doctor : Your child is now well hydrated. Do'nt you think so?

Mother : Yes thanks to God.

Doctor : Now you have to maintain hydration. You should keep giving ORS. Do you know how to prepare the Mahloul ?

Mother : Yes.

Doctor : Are you breast feeding your child?

Mother : Yes.

Doctor : Continue to breast feed your child. Breast feeding is important. It prevents diarrhoea and protein energy malnutrition. If you give ORS and keep feeding your child the signs of dehydration will not reappear again. If they do appear again come back.



INTERVIEW 2

Doctor : Good morning. Amina looks well now. What do you think?

Mother : Well she is now stronger and she looks well.

Doctor : What do you think made her well ?

Mother : The Mahloul.

Doctor : You have seen how the Mahloul was effective in replacing the fluids. So, use it at home as long as diarrhoea continues. Will you tell me how to mix El Mahleul ?

Mother : Well ,I pour tap water uptil this line (she points to the line) of the plastic cup. Then I pour all the powder in the packet into it. Then I stir the solution until all the powder is dissolved.

Doctor : Good. But remember to shake the packet of ORS so that all the powder goes to the bottom of the packet before you open it and make sure that all of the powder is



poured into the cup, so that the solution can work in an effective way.

Do you know when to give the Mahloul?

Mother: Yes, every time the child passes a watery motion.

Doctor: How much should you give?

Mother: Well ... less than a cup?

Doctor: Yes 1/4 cup
Give it slowly. You can give one to two teaspoonful per minute. Keep on until the diarrhoea stops. Do you know why?

Mother: To prevent gafaf.

Doctor: Good. Can you tell me the signs of gafaf?

Mother: The child becomes thirsty, his eyes become sunken and his skin becomes like a squeezed lemon. When you pinch it, it does not return back immediately.

Doctor: Did you notice his fontanelle (pointing to it), when your child came to the center?

Mother: Yes it was flat, even depressed.

Doctor: Good. If these signs return back, come to me immediately.

Mother: Doctor, the nurse told me to continue with breast feeding. Will it not harm the child?

Doctor: Not at all. You will actually protect her. Your child needs to be properly fed in order to be stronger. Amina is 8 1/2 months old isn't she?

Mother: Yes.

Doctor: Do you usually give her any other food as well?

Mother: Yes. I give her soup, bread, potatoes, mahalabia.

Doctor: Continue giving these foods. Zabadi is also good. The most important thing to remember is that you should wash your hands carefully before preparing the foods and when you are feeding the child. All pots, plates, cups and spoons should be clean. Cover the food. Do you know why this is important?

Mother: Yes, to protect the food from dirt, dust and flies.

Doctor: Good. If you have any problem, come back. Remember also to come for measles vaccination. Once Amina reaches 9 months she has to have her measles vaccination. The vaccine will not only protect her against measles, but also from other diseases such as diarrhoea and pneumonia.

The two interviews illustrate two quite different ways of carrying out exit interviews. Can you identify the good and bad things about each interview. Well compare your thoughts with the list below.

FEATURES OF THE TWO INTERVIEWS

INTERVIEW 1

- 1- Impersonal-Did not try to establish a relationship
- 2- Systematic, brief and quick
- 3- Related to the needs of the mother
- 4- The doctor uses unfamiliar words as maintain hydration, protein-energy malnutrition.
- 5- Ignores screening what the mother knows about maintenance of hydration, mixing ORS, feeding , and, prevention of diarrhoea
- 6- Does not try to identify attitudes or reinforce them
- 7- All his explanations were theoritical.
- 8- Does not give feedback

INTERVIEW 2

- Uses more friendly expressions
He used the child's name.
 - Systematic, but more information compared to Interview 1
 - Related to the needs of the mother
 - Uses words which the mother herself used
 - Finds out what the mother already knows.
 - Identifies the mother's attitude about ORS-Gave information about feeding in order to influence mother's attitude
 - Relates the explanation to what the mother already knows
 - Gave feedback whenever appropriate.
-

In the exit interview, at the very least the mother should be instructed to return back for follow up. Many physicians prefer that the child be checked daily as long as watery diarrhoea continues. This is especially important if the mother did not seem to understand all the things she had to do to care for her child at home. Mothers who live near by the center can return daily until diarrhoea stops. This will help you to assess the child's status and reinforce all the educational messages given. All mothers should be instructed to return with the child if any signs of dehydration appear, or if the diarrhoea continues more than two days.

INSTRUCT MOTHERS CLEARLY ON WHEN TO
RETURN BACK FOR FOLLOW UP

INFORMATION SECTION 3

PRACTICE QUESTIONS

- 1- List the different health messages and instructions that should be given at the discharge station:

Identify the good and bad things about the following exit interview:

- Doctor : Your child is ready now for discharge. The signs of dehydration disappeared. He is now looking much better.
- Mother : Nods.
- Doctor : You know now how well ORS protects against dehydration
- Mother : Nods.
- Doctor : ORS has replaced the fluid loss .
You know how to mix ORS do not you?
- Mother : The nurse showed me.
- Doctor : Fine you will continue giving ORS at home. Do you know when you should do so?
- Mother : After each time the child passes a motion, the nurse said so !
- Doctor looks at the record.
- Doctor : Your child is only 4 1/2 months of age, is'nt he ?
- Mother : Yes.
- Doctor : You are breast feeding him, do'nt you?
- Mother : Yes, but I gave him three days ago a small amount of broth. I think this may have caused the Ishal.
- Doctor : Continue giving him your breast. Give him clear soup. Make sure that every thing is clean your hands, the plate , the cup and the spoon.

2- Things that were done good.

3- Things that were done bad.

INFORMATION SECTION 3

ANSWERS TO PRACTICE QUESTIONS

- 1-
 - The role and importance of ORS
 - Mixing ORS
 - Maintenance of hydration
 - Danger signs
 - Nutrition therapy
 - Prevention of diarrhoea
 - When to return back for follow up

- 2- Things that were done good:
 - 1- It was systematic
 - 2- It related to the needs of the mother
 - 3- The doctor covered the following topics:
 - ORS
 - Mixing ORS
 - Maintenance of hydration
 - Feeding
 - Some aspects of prevention

- 3- Things that were done bad:
 - 1- He did not establish a relationship. The interview was impersonal
 - 2- He ignored screening what the mother knows about the role of ORS or her attitude towards ORS. He did not check if really the mother can mix ORS or not. Also he did not check if she knows the amount of ORS needed for hydration and the rate of administration.
 - 3- He asked leading questions
 - 4- He ignored her comment about broth and its relation to diarrhoea
 - 5- He told her rather than explained the nutritional therapy and the preventive actions to be done.

INFORMATION SECTION 4

PRESCRIBING, DISPENSING ORS SUPPLIES AND OTHER MEDICATIONS TO CONTINUE TREATMENT AT HOME

Diarrhoea usually lasts for few days, but may go on longer. If the fluids do not fully replace what is lost, dehydration will return and the patient may become worse again. So, the mother should maintain hydration and keep giving ORS until watery diarrhoea stops. So, it is essential that the mother receives enough packets to maintain hydration. You should give her at least two packets of ORS (5.5 gms), and the plastic cup. If you find that you have run out of cups, order more. Instruct the mother to fill a small soft drink bottle to the first ring on the neck and pour it into the glass. Remember that some cases will need more packets as they are passing frequent watery or loose stools.

When you dispense ORS make sure that you dispense the oldest ORS first. make sure that the powder did not melt, turn brown or caked. If you find that ORS in your store area became brown or caked, this means that the storage system may be inadequate. To ensure that ORS supplies are adequately stored you should follow the WHO guidelines.

- o Temperature should not exceed 30°C. If ORS is stored a long time above this temperature, it may melt or turn brown.

- o Humidity should not exceed 80%. If ORS is stored a long time in higher humidities, the product is likely to cake.

If you do not have a storage area which meets these two guidelines, it may be necessary to stock fewer packets, which could be used in a short period of time say three months.

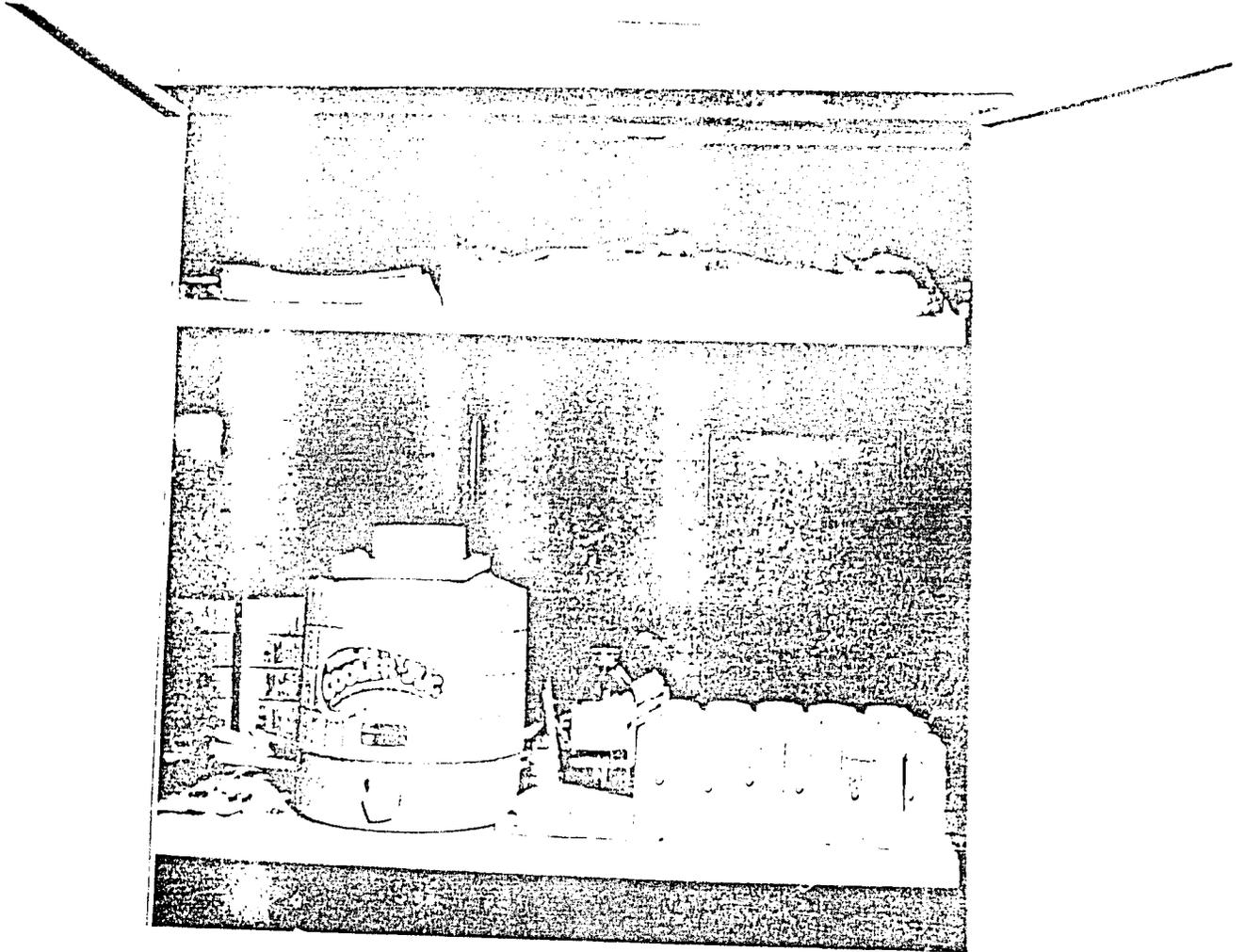
- o Storage area should be clear of all types of insects and rodents.

- o Cartons should be arranged so that sharp objects will not make holes in the packets.

- o Cartons of ORS should be arranged so that identification marks and other labels can be easily seen, and so the oldest ORS (identified by date) will be used first.

FIRST IN - FIRST OUT

STORAGE AREA IN A REHYDRATION CENTER



if you find in any packet that the product has melted, turned brown or caked, check first the expiry date. The shelf life of ORS (bicarbonate formula) is limited to three years. if it has not expired, check the storage area for other packets. Find out if ORS supplies are adequately stored or not. Keep all packets that have turned brown, melted or caked aside. Notify the supervisor about the product number, and return back all these packets.

The child suffering from diarrhoea may also have other health problems that should be treated. If the treatment is to be carried out at home, you should prescribe and or dispense the needed medication. You have to discuss with the mother as well the dose of the drug and for how long she should give her child the medicine prescribed. You should also ask her to come back for a final checkup.

Here are some problems that you prescribe for and the mother can carry out your instructions.

- Bacilliary dysentery
- Amaebic dysentery
- Gardia lamblia
- Pneumonia
- Tonsillitis
- Otitis media

You should also prescribe and dispense the appropriate medications for any other conditions which has been discovered during the initial or exit examination. You can treat skin infection, eye infection ...etc. However, you may not be able to deal with all the problems discovered during the medical assessment of the child. Then you will have to make referrals. These referrals can be immediately done on discharge for example in case of a marasmic child. Referrals may be postponed until diarrhoea is completely treated for example in case of congenital anomalies.

If the child is being referred to the hospital or a specialist, the mother must be told exactly where to go, when she must go, and to whom she should go.

INFORMATION SECTION 4

PRACTICE QUESTIONS

CHECK [✓] if statements below are false or true :

- | | False | True |
|--|-------|------|
| 1- Every mother on discharge should be given at least two packets of ORS and the plastic cup. | [] | [] |
| 2- Few cases seen in the rehydration center may require referral to the hospital or specialist after initial rehydration has been completed. | [] | [] |
| 3- Doctors in a rehydration center should only deal with diarrhoea | [] | [] |
| 4- Products of ORS that turned brown or caked indicate poor storage. | [] | [] |
| 5- Write down guidelines for adequate storage of ORS supplies: | | |

- 6- List six conditions where drugs could be prescribed at the discharge area:
- 1-
 - 2-
 - 3-
 - 4-
 - 5-
 - 6-

INFORMATION SECTION 4

ANSWERS TO PRACTICE QUESTIONS

If you have stated the following, then you are correct

1- [✓] true

2- [✓] true

3- [✓] false

4- [✓] true

5-

- o Temperature should not exceed 30° C.
- o Humidity should not exceed 80%
- o Storage areas should be clear of all types of insects and rodents
- o Cartons should be arranged so that sharp objects will not make holes in the packets.
- o Cartons of ORS should be arranged so that identification marks and other labels can be easily seen so that the oldest ORS will be used first.

6-

- o Bacillary dysentery
- o Amoebic dysentery
- o Giardia lamblia
- o Pneumonia
- o Tonsillitis
- o Otitis media

INFORMATION SECTION 5

FOLLOW UP OF CASES AND OUTREACH ACTIVITIES

Dear doctor

You have learned already why these follow up activities are required. Follow up activities can be done either in the center or at home. As a physician you are responsible for the follow up activities at the center. You should make sure that the mother is following all the directions and instructions given correctly.

- o use the question and answer technique
- o Do not ask leading questions
- o Listen carefully
- o Observe the mother's reactions
- o If any of her answers are not satisfactory, reinstruct her again-Be patient
- o Thank her for coming for follow up

In the follow up visits the following questions should be asked:

- o Is watery diarrhoea still present ?
- o About how many motions did the child pass since yesterday?
- o What cup did the mother use for mixing ORS? If other than the plastic ORS cup, what did the mother use ?How did she know it was the correct measurement?
- o How much water did she use? How did she measure the water?
- o How many cups of ORS did the child take?
- o How was his appetite ?
- o What has he eaten ?
- o Has the mother any problem that she would like to discuss?

ALWAYS STRESS THE IMPORTANCE OF BREAST FEEDING

During these follow up visits, it is important to educate the mother about ways to prevent future diarrhoea episodes. The average child under three years of age experiences three to five spells of acute diarrhoea every year. Almost all of which are a result of unsanitary conditions or unhygienic practices.

Studies have shown that many Egyptian mothers do not realise that diarrhoea is caused by microbes. They often believe that it is a natural consequence of teething. Some also believe that it is caused by the evil eye. Mothers accordingly undertake their own preventive measures. For this reason you should explain to mothers that diarrhoea is caused by microbes or germs. These germs can not be seen but they are present everywhere. To prevent diarrhoea, these germs must be prevented from entering the child's mouth. The germs that cause diarrhoea are present in unclean water, on hands, on not properly washed vegetables and fruits and are carried by flies. Ask mothers if this is the case, what are the logic practices that should be done to protect the child from diarrhoea ?

Emphasise the following practices :

- o Use the cleanest drinking water available preferably tap water. This limits exposure to water borne diarrhoea.
- o Wash hands with soap and water after defecating and before preparing food. This hygienic practice will prevent the contamination of the food and water. The mother's hands should also be clean to handle her baby.
- o Explain that food could be contaminated by flies. Flies carry germs on their bodies and legs. Mothers should cover food either by using a cover or even a thin cloth. They should try and kill flies using a swatter.



MAKE SURE TO REMIND MOTHERS ABOUT THE
TIMING OF MEASLES IMMUNIZATION

Although follow up activities can be done in the rehydration center, yet it will only be done for those who showed up. When mothers are instructed to return for follow up and they fail to return with their children, it may be important to visit them in their homes to determine the reason. Moreover, much can be learned from home visits as you know.

The outreach visit is part of the primary health care services in rural and urban areas. In rural area for example, a nurse should provide home visiting services for 500 families in her community. Nurses working in MCH centers are also asked to visit families in their area. This system is not applicable to hospitals. However, if you are working in a hospital-based rehydration center, you can ask the social worker to carry out this visit.

Here are some reasons for the outreach visits:

- o Keeping a good relationship with the mother.
- o Finding out if the mother is maintaining hydration properly or not. Assessing the child's general condition. Reviewing actions done by the mother. Checking if the mother is mixing ORS properly or not, what is the source of water, and what container she is using. Giving feedback and encouraging the mother to keep on if still the child is passing watery diarrhoea.
- o Checking if the mother is providing adequate nutrition or not. Discussing what food should be given. Demonstrating how to prepare foods. In a home visit the visitor will be able to use the exact materials and facilities that the mother must use. This will make the demonstration more realistic and make learning easier.
- o Encouraging prevention of diarrhoea. Discussing more about hygienic practices, refuse, food and fly control.
- o Educating the family on how to help in management of the case and preventing diarrhoea. Discussing the importance of breast feeding and weaning practices and immunization. Informing families about the immunization schedule.

- o Encouraging the mother to return back to see the doctor
- o updating the records about the outcome of diarrhoeal spells.

Outreach services are useful in updating center records particularly on mortality and morbidity. All deaths should be thoroughly examined and studied. The nurse or social worker should find out what happened to the child after he has left the physician's care and what actions were taken by the mother.



Make sure that the child has recovered

INFORMATION SECTION 5

ANSWERS TO PRACTICE QUESTIONS

1- [] True

2- [] True

3- [] True

4- Use clean water

Wash hands before preparing food and after defecating

Cover food

Kill flies

5- Keeping a good relationship with the mother

Checking if the mother is adequately maintaining rehydration

Checking if the mother is providing adequate nutrition

Encouraging prevention of diarrhoea

Educating the family on how to help in management of the case and in preventing diarrhoea

Discussing the importance of breast feeding and weaning practices as well as immunization.

SUMMARY

Dear doctor

You have learned the different tasks that should be carried out at the discharge area. You can list the equipment needed for this area. You know the criteria for discharging a case of diarrhoea. You are now aware that the exit examination will never be complete without weighing the child. You can use the weight recorded to check the written recorded degree of dehydration, number of cups consumed by the child and the nutritional status of the child.

The exit interview is carried out to determine how well the mother is prepared to care for the child at home. The doctor has to screen mother's knowledge and attitude and should provide additional information and education accordingly.

I would like to draw your attention that every mother should be supplied with at least two (5.5gms) packets of ORS and a plastic cup. Make sure that the ORS supplies are adequately stored. Prescribe drugs only when needed. Cases that need specialist attention should be referred to him. Make sure that the mother is fully instructed. All mothers should be encouraged to come back for a follow up. An outreach follow up visit should be paid particularly for those cases that do not show up.

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