

CRITICAL CARE PATHWAY (CCP) - MALNUTRITION WARD

NAME _____ [M] [F] DATE OF BIRTH OR AGE _____ DATE OF ADMISSION _____ TIME _____ HOSP. ID NUMBER _____

Comments on pre-referral and/or emergency treatment already given: _____

INITIAL MANAGEMENT

SIGNS OF SEVERE MALNUTRITION		Severe wasting?	Yes	No
Oedema?	0 + ++ +++	MUAC _____ mm		
Dermatosis?	0 + ++ +++ (raw skin, fissures)			
Weight(kg):	Height/length (cm):			
Z-score:				

TEMPERATURE _____ °F / _____ °C axillary rectal

If axillary < 95°F (35°C), or rectal < 95.9°F (35.5°C) actively warm child, Check temperature every 30 minutes.

BLOOD GLUCOSE (mmol/l):

If < 3mmol/l and alert, give 50 ml bolus of 10% glucose or sucrose (oral or NG). If < 3mmol/l and lethargic, unconscious, or convulsing, give sterile 10% glucose IV: 5 ml x _____ kg (child's wt) = _____ ml. Then give 50 ml bolus NG.

Time glucose given: oral NG IV

HAEMOGLOBIN (Hb) (g/dl): _____ or Packed cell vol (PCV): _____ Blood type: _____

If Hb < 5g/dl or PCV < 15% transfuse 10 ml/kg whole fresh blood (or 5-7 ml/kg Packed cells) slowly over 3 hours. Amount: _____ Time, started: _____ Ended: _____

EYE SIGNS	None	Left	Right	MEASLES	Yes	No
Bitot's spots				Corneal clouding		
If ulceration, give vitamin A & atropine immediately. Record on Daily Care page.						
Oral doses Vitamin A:	< 6 months	50 000 IU		Corneal ulceration		
	6 - 12 months	100 000 IU				
	> 12 months	200 000 IU				

FEEDING Begin feeding with F-75 as soon as possible. (If child is rehydrated, reweigh before determining amount to feed. New Weight: _____ kg)

Amount for 2-hourly feedings: _____ ml **F-75*** **Time first fed:** _____

* If hypoglycaemic, feed % of this amount every half hour for first 2 hours: Continue until blood glucose reaches 3 mmol/l.

Record all feeds on 24-hour Food Intake Chart.

SIGNS OF SHOCK None Lethargic/unconscious Cold hand Slow capillary refill(>3 seconds) Weak/fast pulse

If lethargic or unconscious, plus cold hand, plus either slow capillary refill or weak/fast pulse, give oxygen. Give IV glucose as described under Blood Glucose (left). Then give IV fluids:

Amount IV fluids per hour: 15 ml X _____ kg (child's wt) = _____ ml

Start:	Monitor every 10 minutes	* 2nd hr:	Monitor every 10 minutes
Time		*	
Resp. rate		*	
Pulse rate		*	

* If respiratory & pulse rates are slower after 1 hour, repeat same amount IV fluids for 2nd hour; then alternate ReSoMal and F-75 for up to 10 hours as in right part of chart below. If no improvement on IV fluids, transfuse whole fresh blood. (See left, Haemoglobin.)

DIARRHOEA Watery diarrhoea? Yes No _____ if diarrhoea, Skin pinch goes back slowly

Blood in stool? Yes No _____ circle signs Restless/irritable Lethargic Thirsty

Vomiting? Yes No _____ present: Sunken eyes Dry mouth/tongue No tears

If diarrhoea and/or vomiting, give ReSoMal. Every 30 minutes for first 2 hours, monitor and give: *

5 ml X _____ kg (child's wt) - _____ ml ReSoMal

5 to 10 ml X _____ kg (child's wt) = _____ to _____ ml ReSoMal

Time	Start:								
Resp. rate									
Pulse rate									
Passed urine? Y N									
Number stools									
Number Vomits									
Hydration Signs									
Amount taken (ml)				F-75		F-75		F-75	F-75

* **Stop ReSoMal if:** Increase in pulse & resp. rates Jugular veins engorged Increasing oedema, e.g., puffy eyelids

Dose/Frequency/Duration	Drug/Route	Time of 1st dose

DAILY CARE

Week 1

Week 2

Week 3

DAYS IN HOSPITAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Date																					
Daily weight (kg)																					
Weight gain (g/kg)	Calculate daily after on F-100																				
Oedema (0) (+) (++) (+++) (++++)																					
Diarrhoea/vomit 0 D V																					
FEED PLAN : Type feed # feeds daily																					
Total volume taken (ml)																					
ANTIBIOTICS	List prescribed antibiotics in left column. Allow one row for each daily dose. Draw a box around days/times that each drug should be given. Initial when given																				
FOLIC ACID		5mg																			
VITAMIN A	*																				
Multivitamin (if not in feed)																					
Drug for worms																					
IRON	Begin iron after 2 days on F-100																				
2 X daily																					
FOR EYE PROBLEMS:																					
Tetracycline or																					
Chloramphenicol																					
1 drop 4 X daily																					
Atropine																					
1 drop																					
3 X daily																					
Dermatosis (0) (+) (++) (++++)																					
Bathing, 1% permanganate																					
OTHER																					

day14 if Child admitted with eye sign or recent measles

After 7-10 days, when eye drops are no longer needed, shade boxes for eye drops

COMMENTS / OUTCOME

COMMENTS:

TRAINING GIVEN TO PARENTS/CAREGIVERS:

SPECIAL DISCHARGE AND FOLLOW-UP INSTRUCTIONS:

IMMUNIZATIONS	Immunization card? Yes No			
	First	Second	Third	Fourth
BCG	At birth			
Pentavalent	6 Weeks	10 Weeks	14 Weeks	
OPV	6 Weeks	10 Weeks	14 Weeks	With Measles Vaccine
Measles				After completion of 9 months

PATIENT OUTCOME		DATE	CIRCUMSTANCES/COMMENTS
Circle outcome:			
Oedema free WHZ ≥ -2			
Oedema free 15% increase in body weight from lowest weight			
Early departure (against advice)			Z-score: _____
Early discharge			Z-score: _____
Referral			Z-score: _____
Death			Number of days after admission (circle): <24 hrs 1-3 days 4-7 days > 7 days Approximate time of death: Day Night Apparent cause(s): Had child received IV fluids? Yes No

WEIGHT CHART

Name: _____

Weight on admission: _____ kg

Height/length: _____ cm

Oedema on admission: 0 + ++ +++

Desired weight at discharge

≥ -2 Z-score: _____ kg

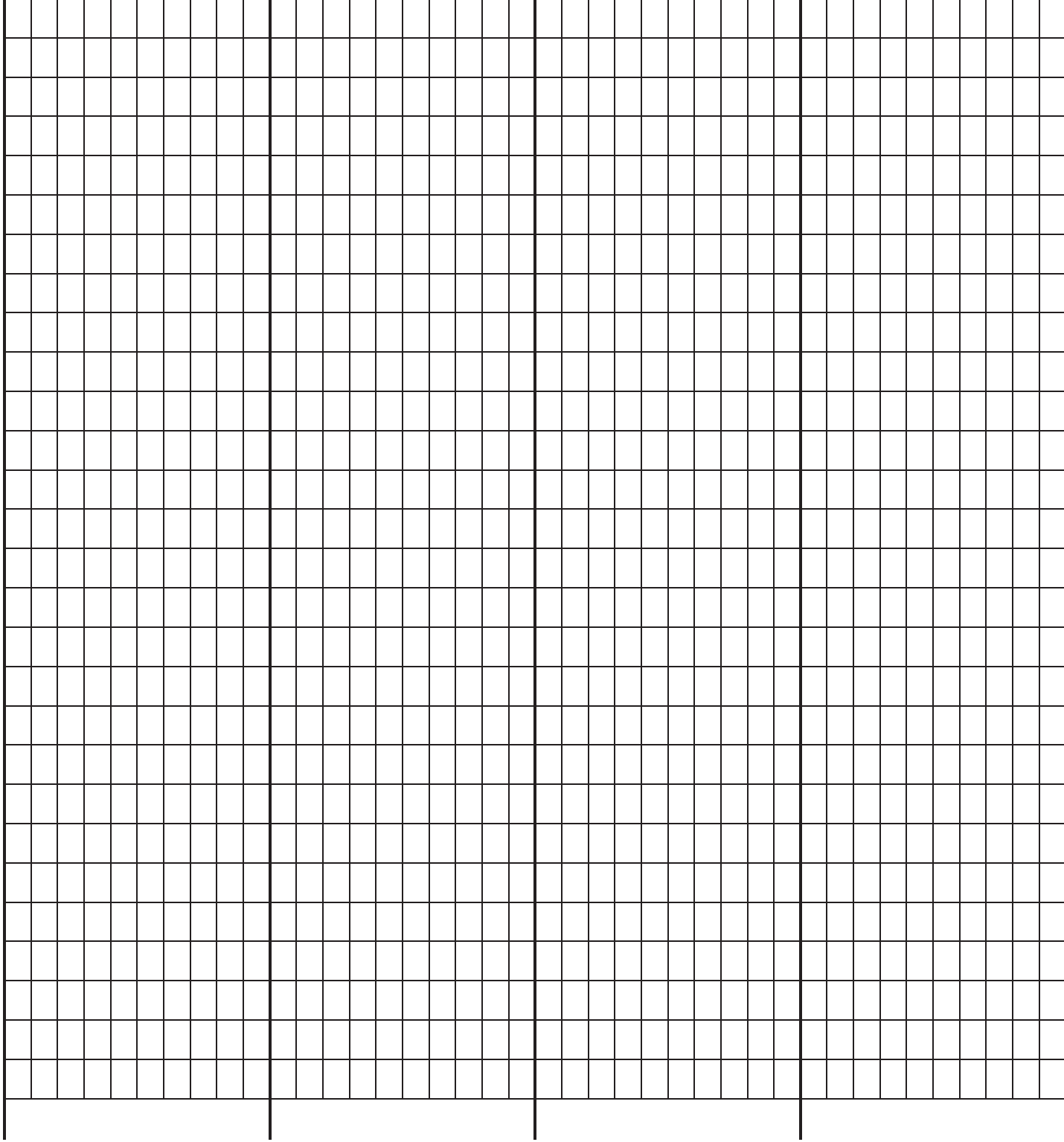
15% weight gain: _____ kg

Actual weight at discharge: _____ kg

Weight (Use appropriate scale.)

Enter likely range of weights on the vertical axis in an appropriate scale (e.g., each row representing 0.1 kg). Allow rows below the starting weight in case weight decreases; weight may decrease by as much as 30% if the child has severe oedema.

Draw a bold horizontal line across the graph to show the desired discharge weight.



Days

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

24-HOUR FOOD INTAKE CHART

Complete one chart for every 24-hour period

Name: _____ Hospital ID Number: _____ Admission weight (kg): _____ Today's weight (kg): _____

DATE:	TYPE OF FEED:			GIVE:		Feeds of _____ ml	
	a. Amount offered (ml)	b. Amount left in cup (ml)	c. Amount taken orally (a-b)	d. Amount taken by NG, if needed (ml)	e. Estimated amount vomited (ml)	f. Watery diarrhoea (if present, yes)	
Column totals			c.	d.	e.	Total yes:	

Total volume taken over 24 hours = amount taken orally (c) + amount taken by NG (d) - total amount vomited (e) = _____ ml

DAILY WARD FEEDING CHART

DATE: _____ WARD: _____

Name of Child	F-75			F-100		
	Number feeds	Amount/feed (ml)	Total (ml)	Number feeds	Amount/feed (ml)	Total (ml)
F-75 (total ml) needed for 24 hours				F-100 (total ml) needed for 24 hours		
Amount needed for ___ hours*				Amount needed for ___ hours*		
Amount to prepare (round up to whole litre)				Amount to prepare (round up to whole litre)		

* Divide daily amount by the number of times food is prepared each day. For example, if feeds are prepared every 12 hours, divide daily amount by 2.

WEIGHT GAIN TALLY SHEET FOR WARD

Week of:	Good weight gain > 10 g/kg/day	Moderate weight gain 5 up to 10 g/kg/day	Poor weight gain < 5 g/kg/day
Number of children on F-100 for entire week:			
Totals			
% of children on F-100 in ward			