CRITICAL CARE PATHWAY (CCP) - MALNUTRITION WARD

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

INITIAL MANAGEMENT

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

SIGNS OF SEVERE MALNUTRITION Severe wasting? Yes No

Oedema?	0	+	++	+++ MUAC _____ mm
Dematosis?	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 Pus/Inflammation Corrneal clouding Corrneal ulceration

If ulceration, give vitamin A & atropine immediately. Record on Dalily Care page.

Oral doses Vitamin A:	< 6 months	50 000 IU
	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 detemining 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/unconsious 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, circle signs present: Skin pinch goes back slowly; Restiess/irritable; Lethargic; Thirsty; Sunken eyes; Dry mouth/tongue; No tears
Blood in stool? Yes No
Vomiting? Yes No

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

For up to 10 hours, give ReSoMal and F-75 in alternate hours. Monitor every hour. Amount of ReSoMal to Offer.*
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		F-75

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

ANTIBIOTICS (All receive) **Drug/Route**	**Dose/Frequency/Duration**	**Time of 1st dose**

MONITORING RECORD

Monitor respiratory rate, pulse rate, and temperature 4-hourly unil after transition to F-100 and patient is steble, Then monitoring may be less frequent (e.g., twice da)

Respiratory rate

Breaths/ Minute

Pulse rate

Beats/ minute

Temperature

104

103

102

101

100

99

98

97

96

95

94

Date/time

Danger Signs: Watch for increasing pulse and respirations, fast or difficult breathing, sudden increase or decrease in temperature, axillary temperature below 95°F, and other changes in condition. See danger signs listed on back of F-100 Reference Card. Normal ranges of pulse and raspiratory rates are also listed on back of F-100 Reference Card.

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	1mg																			
VITAMIN A	*		*Give day 1 routinely unless evidence of dose in past month & no eye sign. Give day 2 &												day14 if Child admitted with eye sign or recent measles						
Multivitamin (if not in feed)																					
Drug for worms																					
IRON	Begin iron after 2 days on F-100																				
2 X daily																					
FOR EYE PROBLEMS:											After 7-10 days, when eye drops are no longer needed, shade boxes for eye drops										
Tetracycline or																					
Chloramphenical																					
1 drop 4 X daily																					
Atropine																					
1 drop																					
3 X daily																					
Dermatosis (0) (+) (++) (+++)																					
Bathing, 1% permanganate																					
OTHER																					

COMMENTS / OUTCOME

COMMENTS:
TRAINING GIVEN TO PARENTS/CAREGIVERS:

IMMUNIZATIONS Immunization card? Yes No Circle immunizations already given Initial and date by any given in hospital				
Immunization	First	Second	Third	Forth
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

SPECIAL DISCHARGE AND FOLLOW-UP INSTRUCTIONS:

PATIENT OUTCOME		
Circle outcome:	DATE	CIRCUMATANCES/COMMENTS
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: _____

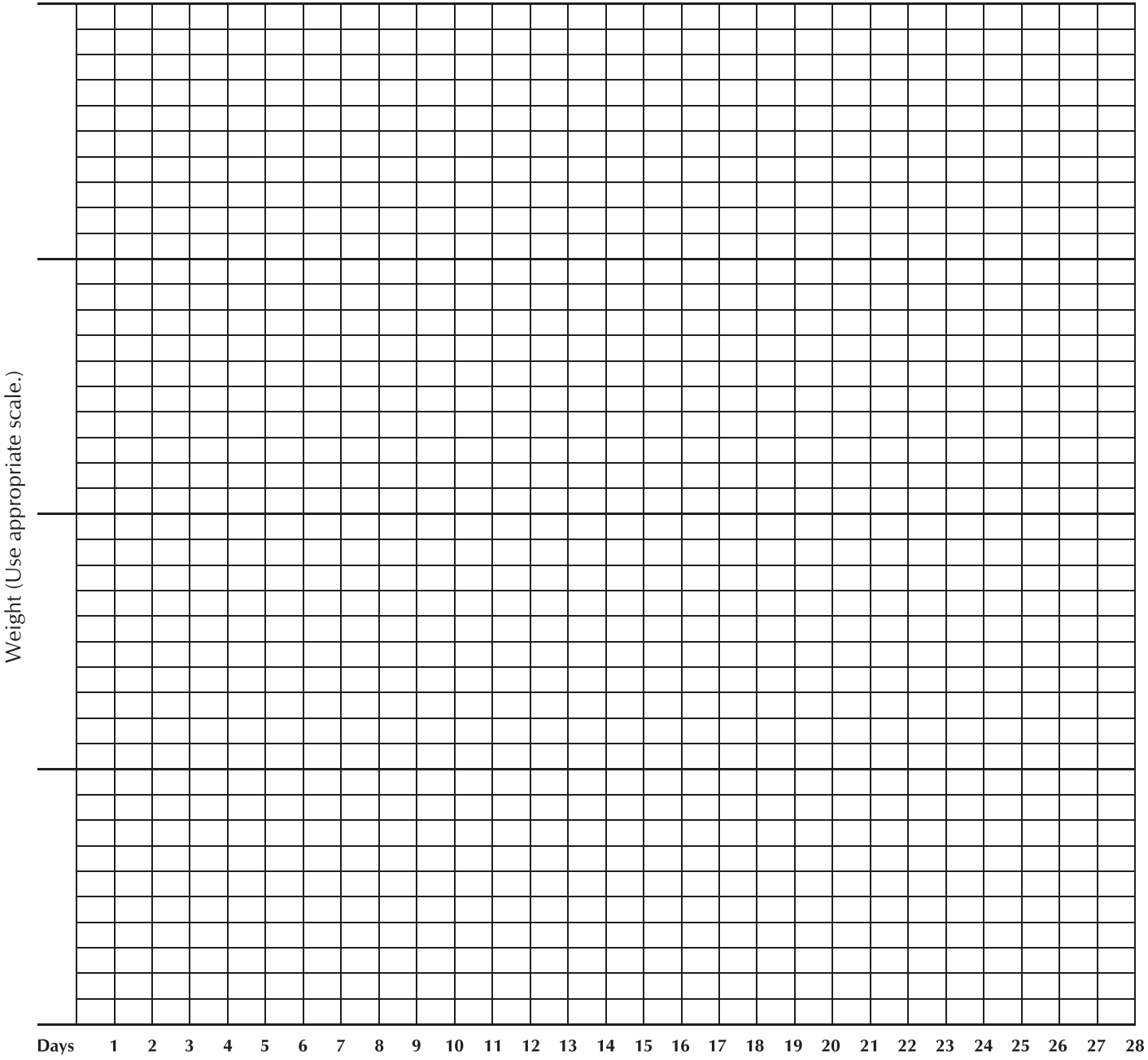
Weight on admission: _____ kg

Height/lenght: _____ cm

Oedema on admission: 0 + ++ +++

Desired weight at discharge
≥-2 Z-score: _____ kg
15% weight gain: _____ kg

Actual weight at discharge: ____ kg

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 horizonal line across the graph to show the desired discharge weight.