

SEVERE ACUTE MALNUTRITION EMERGENCY TREATMENT IN SOUTH AFRICA

Complicated cases of Severe Acute Malnutrition have a very high risk of dying during first 48 hours of admission. Early recognition of emergency signs and early treatment will improve likelihood of survival in hospital.

CONDITION	IMMEDIATE ACTION
<p>Treat shock Shock is suspected in these children if the child is lethargic or unconscious, and cold hands Plus either: Weak fast pulse or Slow capillary refill (longer than 3 seconds)</p> <p>Monitor closely: children in shock need frequent monitoring of vital signs (pulse rate and volume, respiratory rate, urine output, glucose, etc)</p>	<p>If child is in shock:</p> <ol style="list-style-type: none"> 1. Give oxygen. Treat and prevent hypoglycaemia and hypothermia. 2. Give IV 0.9% Normal Saline bolus fluid at 10ml/kg over 10minutes. Monitor response. 3. If there are signs of improvement (e.g. slower pulse and respirations) repeat bolus 10ml/kg over 10 minutes, until max 40ml/kg in 1 hour. Each time, check response to previous bolus before giving further fluid. Then switch to oral rehydration if further fluid is needed. <p>If there are no signs of improvement assume child has septic shock:</p> <ul style="list-style-type: none"> ✓ Admit to ICU for CVP line. Start inotropic support. ✓ Start broad-spectrum antibiotics (Ceftriaxone). Treat and prevent hypoglycaemia/hypothermia. ✓ Admit the child to high care bed for monitoring. Discuss further case management with your referral hospital. <p>4. Only transfer the child to ward once signs of shock have resolved.</p>
<p>Treat very severe anaemia Severe anaemia is Hb<4g/dL</p>	<p>If very severe anaemia (or Hb 4-6g/dl AND respiratory distress):</p> <ol style="list-style-type: none"> 1. Give packed cells 10ml/kg body weight slowly over 4 hours. If signs of heart failure, give 5-7ml/kg packed cells. 2. Give furosemide 1mg/kg IV at the start and end of the transfusion. <p>NB Keep a close eye for signs of fluid overload: further tachycardia, gallop rhythm, breathing even faster, puffy eyelids, enlarging liver size</p>
<p>Treat hypoglycaemia</p> <p>Hypoglycaemia is a blood glucose <3mmol/L</p> <p>Assume hypoglycaemia if no dextrostix available</p>	<p>Test blood glucose level 3 hourly, you can stop testing when it is normal and stable for 24 hours provided the child is not severely ill¹.</p> <ul style="list-style-type: none"> ▪ If the blood glucose <3 mmol/L in asymptomatic child, give orally or by NG tube: <ul style="list-style-type: none"> ○ immediate feed of a “stabilizing feed (F75)”, or ○ 50ml bolus of 10% dextrose, or ○ sugar solution 5 ml/kg ○ Re-Check the Blood Glucose after 30 min, if normal continue normal feeds, monitor blood glucose to see it remains above 3 mmol/L. <ul style="list-style-type: none"> ▪ If symptomatic or unresponsive hypoglycaemia give dextrose 10%², IV, 2 ml/kg over 2-3 minutes³. Re-Check the Blood Glucose after 30 min, if normal, continue feeds, monitor blood glucose to see it remains above 3 mmol/L.
<p>Treat hypothermia</p> <p>Hypothermia is axillary/underarm temperature <35°C.</p>	<p>Take temperature at outpatients/casualty and on admission in the ward. (Ensure thermometer is well shaken down).</p> <p>If the temperature is below 36.5°C:</p> <ol style="list-style-type: none"> 1. Begin feeding straightaway (or start rehydration if diarrhoea with dehydration). 2. Active re-warming: Put the child on the mother's bare chest (skin-to-skin contact) and cover them. Cover the child's head. Or clothe the child, apply a warmed blanket and place a heater or lamp nearby. 3. Feed 2-3hourly (8-12 feeds in 24 hours). <p>Monitor during re-warming</p> <ul style="list-style-type: none"> • Take temperature every two hours: stop active re-warming when temperature rises above 36.5°C Take temperature every 30 minutes if heater is used because the child may become overheated.
<p>Emergency Eye Care</p> <p>Corneal Ulceration is a sign of severe Vitamin A deficiency.</p>	<p>If corneal ulceration:</p> <ol style="list-style-type: none"> 1. Give Vitamin A immediately (<6 months 50,000IU, 6-11 months 100,000 IU, 12-59 months 200,000IU) and repeat same dose the following day. Reorder dose given in prescription chart and RTHB. 2. Instil one drop atropine (1%) into affected eye to relax the eye and prevent the lens from pushing out. <p><i>Note: All children with clinical signs of vitamin A deficiency and children with measles should receive vitamin A on days 1, 2 and 14.</i></p>

¹ If severely ill continue 3 hrly blood glucose testing

² Mix 0.5ml/kg 50% Dextrose with 2 ml/kg of water for injection in a syringe – give 2ml/kg of the resulting 10% dextrose solution/ alternatively give 2ml/kg neonatal maintenance solution which also contains 10% dextrose.

³ Previously 5 ml/kg – recent APLS suggests 2ml/kg.