FLUID AND ELECTROLYTE DISTURBANCE

FLUID AND ELECTROLYTE MANAGEMENT IN SEVERE ACUTE MALNUTRITION

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Abstract: Fluid management in children with severe acute malnutrition (SAM) is controversial due to lack of strong evidence. As a result of the reductive adaptive state in SAM, there is high intracellular sodium and low potassium. Thus, there is high risk of fluid overload and sodium retention with overzealous management of shock and dehydration. WHO has recommended conservative approach for fluid resuscitation preferably oral or nasogastric rehydration unless child has shock or other contraindications. When WHO recommended ReSOMal is unavailable, modified ORS using low osmolarity ORS, potassium, glucose and mineral solution is the preferred ORS for children with SAM. All children with severe acute malnutrition on intravenous or oral rehydration should be closely monitored for signs of overhydration. Additionally, due to common deficiencies, potassium and magnesium supplementation is recommended.

Keywords: Fluid, Malnutrition, Shock, Rehydration.

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Points to Remember

- Children with severe acute malnutrition are in a state of reductive adaptation with high intracellular sodium and low potassium.
- Misdiagnosis and overestimation of dehydration is common in children with severe acute malnutrition.
- Fluid therapy in children with SAM is challenging due to risk of fluid overload and heart failure.
- *Rehydration by oral route or through nasogastric tube is the preferred method.*
- *IV fluid should be given only to children with shock.*
- All children on IV fluid or ORS should be closely monitored for signs of deterioration and overhydration.

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