

## Academic Half Day Cases - Nephrology

### Clinical Presentations: Dehydration

1. A 7 month old presents a 4 day history of diarrhea and worsening abdominal pain. In the last 24 hours the diarrhea has been bloody and mother appears to say (English is her second language) that her child has not passed urine for 4 days. A walk in clinic had prescribed oral iron for anaemia 2 days ago. Examination reveals mild generalized oedema. A serum sodium is 135 mmol/L.
2. A 4 month old boy has a 3 day history of fever and a 1 day history of vomiting and no diarrhea. He has recently transition for breast feeding to formula because of poor weight gain. On examination the child is irritable, mucous membranes are dry and skin is slightly doughy. The serum sodium is Na 164 mmol/L.
3. A 6 month old girl is admitting with a 4-5 day history of fever and diarrhea. Parents have been giving apple juice and flat ginger ale. Child is lethargic, capillary refill 3 seconds centrally, HR 175/min. Serum sodium is 124 mmol/L.
4. A 4 year old boy is brought to the Emergency Department with a 2 day history of vomiting and diarrhea. He has been drinking water and apple juice for the past 2 days. His urine output is "a bit" decreased.
5. A 2 year old boy is made NPO for elective surgery tomorrow. He has normal kidney function.
6. Following craniosynostosis surgery a 5 year old boy, weighing 20 kg, is ventilated and receiving sedation including a morphine infusion. Intravenous 0.45% saline is being infused at 60 mL/hr. Twelve hours after surgery the serum sodium is 128 mmol/L.
7. An 11 month old boy presents to the Emergency Department with generalized seizures. He has a history of fever, vomiting and decreased oral intake. On examination he is irritable. Serum sodium is 126 mmol/L.
8. A 3 year old has boy resents to the emergency department with a 5 day history of intermittent periorbital swelling. The parents complain that the antihistamine prescribed by a walk-in clinic 2 days ago is not working as well as it was and want a stronger medication for their child's allergies. A serum sodium is 132 mmol/L.
9. A 1 year old girl is brought to the emergency department by ambulance. He has a three-day history of vomiting and diarrhea. He is lethargic, mottled and his capillary refill time is 4 seconds. His vital signs are heart rate 180/min, respiratory rate 30/min, blood pressure 60/30 mmHg.

10. A 7 month old girl is admitted to hospital following three days of emesis. The child has been drinking 2% milk for the past 2 months, but has taken no fluids over the past 24 hours. The child's serum sodium is 158 mmol/L.
  
11. A 9 year old presents with a 5 day history being lethargic and increasingly unwell. There has been some frequency of urination for 2 days and antibiotics were prescribed for a UTI. A serum sodium is 130 mmol/L.