6. Check Serum K:
    1. **Low serum K**: Diuretic induced or GI loss
    2. **High serum K**: Haemolysis, EDTA contamination, K sparing diuretics, renal failure, Addison's disease (check serum cortisol at 9:00AM or perform short synacthen test).
7. Random urine for Na and osmolality:
    1. **Urine Na< 20mmol/L:** Hypovolaemic hyponatraemia.
    2. **Urine Na > 20mmol/L**: Euvolaemic hyponatraemia, diuretic induced or on saline drip.
    3. **Urine osmolality >500mosmol/L**: Hypovolaemic or euvolaemic hyponatraemia, compare urine osmolality with plasma osmolality to check the concentration ability of the kidney.
    4. Remember the syndrome of inappropriate antidiuresis (SIADH) is a diagnosis of exclusion and all other causes of a low serum Na must be thought of and excluded before this diagnosis is assumed. The following criteria must also be fulfilled:-
        - Hyponatraemia with corresponding hypo-osmolality of plasma and extracellular fluid.
        - Continued renal excretion of Na (> 50mmol/day).
        - Absence of clinical evidence of fluid volume depletion or overload.
        - Osmolality of the urine greater than appropriate for the concomitant plasmaOsmolality of the urin

2. **Euvolaemic hyponatraemia:** Commence fluid restriction <1L/day, maintain accurate fluid balance chart, measure weight of the patient daily. If possible treat the cause (e.g. chest infection or malignancy). If serum Na not corrected despite good fluid restriction, consider

4. Monitor serum potassium after each infusion.

Severe Hyperkalemia (Serum Potassium (K) > 6.5 mmol/L)

The following steps should be followed for the management of hyperkalaemia:

1. Serum K>6.5mmol/L needs urgent treatment but first ensure it is not an artefact (ask lab)
2. Arrange ECG urgently in such patients
3. Follow the pathway for the Emergency Management of Hyperkalaemia in Adults (link to pathway) and the guidance for the administration of insulin and glucose Insulin and Glucose infusion for the management of acute hyperkalaemia in adults (microguide.global)
4. Print pathway off microguide and record blood results on printed sheet.
5. Prescribe medication for the management of hyperkalaemia on the main drug chart.
6. Monitor serum glucose every 30 minutes and serum potassium every hour after starting glucose/insulin infusion.
7. Stop further potassium accumulation

Stop all potentially offending medicines immediately. These include ACE inhibitors, angiotensin receptor blockers, potassium retaining diuretics e.g. spironolactone, eplerenone, amiloride, triamterene, and trimethoprim, Septrin (co-trimoxazole), NSAIDs, potassium containing laxatives (Movicol®, Klean-Prep®, Fybogel®) and potassium supplements such as Sando-K® and Kay-Cee-L Liquid®. B

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6. If no response in 5 days after adequate hydration and Pamidronate, give Zoledronic Acid (Zometa) 4 mg in 100 ml normal saline over 1 hour intravenously (this drug is licensed for malignancy induced hypercalcaemia).
7. Refer to the Endocrine team for advice on on-going management and the potential use of other agents depending on the underlying cause.

Hypophosphataemia (Serum Phosphate <= 0.3mmol/L)

The following steps should be taken to manage severe hypophosphataemia

1. Repeat serum phosphate after 24 hours.
2. If serum phosphate is <= 0.3mmol/L on two consecutive occasions then consider replacement.
3. Check serum corrected calcium, K, Mg as you can have co-existent low K, Mg and phosphate.
4. Check renal function.
5. Dind the cause of hypophosphataemia: GI loss, alcohol abuse.

Management of severe hypophosphataemia

1. Replace phosphate if serum phosphate level is less than 0.30mmol/L on two consecutive occasions or in alcoholics on one occasion.
2. Give 20 mmol