

ACEM Primary Examination Vivas > Pharmacology > Fluids	
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Calcium 2012-2	2
Hartmann's Solution 2014-1-A	3
IV fluids 2017-2-A	4
Magnesium 2014-1-C	5



Calcium 2012-2

<p>Question 4</p> <p>Calcium</p> <p>LOA: 1</p>	<p>Can you give me an example of a preparation of calcium that is taken orally?</p> <p>What are the possible uses of oral calcium preparations?</p> <p>What are the potential adverse effects of giving calcium intravenously?</p>	<p><b>Calcium Carbonate</b> or Ca -acetate, citrate, gluconate, lactate or phosphate</p> <p>i) Treatment of <b>hypocalcaemia</b> (eg. in patients with hypoparathyroidism, vit D deficiency, chronic renal disease or malabsorption). ii) As an antacid</p> <p>Irritation of the veins. Cardiac arrhythmias with rapid administration. Hypercalcaemia.</p>	<p>Need to name 1</p> <p>hypocalcaemia.</p> <p>phlebitis</p>
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Hartmann's Solution 2014-1-A

<b>Stem: We are now moving to Pharmacology.</b> He is resuscitated with Hartmann's solution			
<b>Question 4</b> Compound Sodium Lactate (MIMs & product information) Constitution, Indications, Adverse effects. Comparison to other crystalloids and colloids  <b>Subject:</b> Pharm LOA: 1	(a) How does Hartmann's solution differ from normal saline?	Addition of <b>Sodium Lactate, Potassium Chloride, Calcium Chloride</b> (+pH adjustment) Na 131, K 5, Cl 112, Ca 2, Lactate/Bicarb 28 mmol Compare Normal Saline Na 150 Cl 150)	<b>Bold</b>
	(b) What are the potential advantages of Hartmann's solution in resuscitation?	Closer to physiologic – potassium, calcium <b>Less Hyperchloraemia</b> <b>Effective bicarbonate – some (slow) good effect on acidosis</b> (proof of superiority lacking)	<b>Bold</b>
	(c) What are the potential complications of IV fluid therapy?	overload/under resuscitation, hypothermia, extravasation, acidosis, electrolyte abnormalities, osmo changes, air embolism, infection, cerebral oedema, haemodilution	<b>Bonus</b>

IV fluids 2017-2-A

Stem: Moving on to Pharmacology. Intravenous fluids are commenced.			
<p><b>Question 4</b></p> <p>Intravenous fluids</p> <p><b>Subject:</b> Pharmacology</p> <p>LOA: 1</p>	<p>a) What are the different classes of intravenous fluid, give an example of each.</p> <p>b) How does the electrolyte composition of normal saline differ from Hartmann's?</p> <p>c) What are the complications of crystalloid fluid therapy?</p>	<p>a) 1. Colloid Albumin Dextran Gelatin</p> <p>2. Crystalloid Isotonic: Normal saline, Hartman's, Plasmalyte Hypertonic Saline: 3% or 7.5% NaCl Hypotonic: 0.45% NaCl, Dextrose (5%, 10%)</p> <p>3. Blood and blood products</p> <p>b) Normal Saline: Na 154 mmol/L, Cl 154 mmol/L Hartmann's: Na 130mmol/L, Cl 112mmol/L, <b>K</b> 5.4mmol/L, <b>Ca</b> 1.8 mmol/L, <b>Lac</b> 27mmol/L</p> <p>c) Acute pulmonary oedema Hypothermia Dilutional coagulopathy Acidosis Tissue oedema limb and abdominal compartment syndromes Electrolyte abnormalities Extravasation</p>	<p>3 examples and 2 classes</p> <p>Accept 150 to 160 At least 2 of bold plus understanding of lower [Na]</p> <p>3 to pass</p>

Magnesium 2014-1-C

<b>Stem:</b> We are moving onto pharmacology. Her treatment includes Magnesium			
<b>Question 2</b> <b>Magnesium</b> <b>Subject:</b> Pharm  <b>LOA:</b> 1	2.1 What are the indications of its use in pregnancy?	2.1 It is indicated in <b>pre-eclampsia and eclampsia</b> for the prevention and treatment of <b>life threatening seizures</b> .	Bold to pass
	2.2 What are the other uses of magnesium in Emergency Medicine?	2.2 It has an <b>anti-convulsant effect</b> , possible <b>antiarrhythmic effect</b> , <b>bronchodilator effect</b> . (influence Na <sup>+</sup> /K <sup>+</sup> -ATPase, Na channels, certain K and Ca channels).	2/3 bold to pass
	2.3 What are the toxic effect of magnesium?	2.3 Hypermagnesaemia include nausea & vomiting, flushing, hypotension, muscle weakness, muscle paralysis, blur or double vision, CNS depression or loss of reflexes, respiratory depression, renal failure, cardiac arrhythmia.	3 to pass