

## BNF Familiarisation Question Answers

The questions and answers are found below. Text in green indicates how you can find the information on the BNF app.

Question	Answer
<p><b>Question 1:</b> A patient needs 1g vancomycin every 12 hours as a maintenance dose for MRSA sepsis. A nurse can't find their IV administration book so you're asked:</p> <ul style="list-style-type: none"> <li>a) What is a suitable diluent?</li> <li>b) How should the dose be diluted?</li> <li>c) What rate should the dose be given at?</li> </ul>	<ul style="list-style-type: none"> <li>a) Glucose 5% or Sodium Chloride 0.9%</li> <li>b) Reconstitute the 1g vial with 20ml water for injection. Then dilute to a final concentration of up to 5mg/ml. In this case, 1g should have a final volume of at least 200ml of the suitable diluent.</li> <li>c) Give over at least 100 minutes, as doses above 500mg should not exceed a rate of 10mg/min</li> </ul> <p style="color: green;">Details on the reconstitution and administration of all medications that can be given by intravenous infusion are located in the drug monograph. Please note trusts may have additional IV administration guides e.g. Medusa</p>
<p><b>Question 2:</b> A patient, with history of stroke, has been admitted for increased confusion (UTI – sensitive to trimethoprim), he is being treated with appropriate antibiotics and fluids. Allergy: NKDA DH: Aspirin 75mg OD, Amlodipine 10mg OD, Simvastatin 80mg OD.</p> <ul style="list-style-type: none"> <li>a) Are there any changes you would recommend in the current / regular medications?</li> </ul>	<ul style="list-style-type: none"> <li>a) Simvastatin dose should be reduced to 20mg due to an interaction with Amlodipine.</li> </ul> <p style="color: green;">This can be found searching interactions under the Simvastatin* which will link to the monograph that states to reduce Simvastatin to 20mg. You could also use the interaction checker.</p>
<p><b>Question 3:</b> Mr GH is under the care of your palliative care team. He needs his usual morphine dose converted to a fentanyl patch. His daily morphine requirements included Morphine MR 50mg BD and 5mg of oral morphine every 6 hours for breakthrough pain (which he required and has been taking for the last 3 days).</p> <ul style="list-style-type: none"> <li>a) What strength of fentanyl patch is suitable for this patient (assuming no dose reduction required).</li> </ul>	<ul style="list-style-type: none"> <li>a) Firstly work out daily requirement of morphine:  <math>(50\text{mg} \times 2) + (5\text{mg} \times 4) = 120\text{mg}</math> morphine daily                      Then using tables available <math>120\text{mg}</math> Morphine = Fentanyl '50' patch</li> </ul> <p style="color: green;">Use the list of conversions; On the app you will need to search under summaries for "palliative" then 'search rest of BNF' at the bottom. Select 'prescribing in palliative care', then 'pain management with opioids', the section you need is at the bottom.</p>

Question	Answer
<p><b>Question 4:</b> Mrs HP has been admitted with what is suspected to be a <i>Helicobacter Pylori</i>-induced gastro-duodenal ulcer. You've been asked to investigate if this is the case. She takes no regular medication but finished a course of clarithromycin last week for a chest infection.</p> <p>a) When testing for H.Pylori with the <sup>13</sup>C-Urea breath test what considerations should be made with regard to a patient's drug history?</p> <p>Mrs HP has been confirmed to have an <i>H.Pylori</i>-induced gastro-duodenal ulcer.</p> <p>b) What are the treatment options to eradicate <i>H.Pylori</i> in this case?</p> <p>c) How long should treatment last?</p>	<p>a) The test should not be performed within 4 weeks of antibacterial treatment or within 2 weeks of an anti-secretory drug treatment (PPI or H<sub>2</sub> receptor antagonist)</p> <p>b) PPI + Amoxicillin + Metronidazole – please refer to local guidance including your trust formulary for the most appropriate PPI choice. This is because Mrs HP has recently been treated with a macrolide, thus re-treatment should be avoided (see second paragraph). Use the table for suitable regimes.</p> <p>c) A one week treatment is usually sufficient. Two weeks offer possibly higher eradication rates but adverse effects are common and compliance is poor. If the ulcer is large, the PPI may be continued for a further 3 weeks after the eradication period.</p> <p>This information can be found by going to “summaries”, GI, Peptic ulceration, then <i>Helicobacter Pylori</i> Infection</p>
<p><b>Question 5:</b> A female patient is admitted to the Emergency Department with paracetamol overdose. Her plasma-paracetamol concentration at 6 hours post-ingestion was 80mg/L. Her weight is 74kg. She requires intravenous acetylcysteine.</p> <p>a) Is treatment required according to the Paracetamol overdose treatment graph?</p> <p>b) What acetylcysteine treatment regime will be required over 24hours?</p> <p>c) What is the preferred diluent?</p>	<p>a) The paracetamol poisoning treatment graph is the starting point for answering this question [<i>search poisoning, paracetamol, the graph is located at the bottom</i>]. If the plasma-paracetamol concentration with its corresponding time post-ingestion is above the treatment line, then treatment is required.</p> <p>b) Acetylcysteine is administered by three separate infusions, as outlined in tables which outlines the volume of acetylcysteine according to the patients weight.</p> <p><u>1<sup>st</sup> Infusion:</u> 57ml of 200mg/ml acetylcysteine Final volume 200ml, given over 1 hour</p> <p><u>2<sup>nd</sup> Infusion:</u> 19ml of 200mg/ml acetylcysteine Final volume 500ml, given over 4 hours</p> <p><u>3<sup>rd</sup> Infusion:</u> 38ml of 200mg/ml acetylcysteine Final volume 1 litre, given over 16 hours</p> <p>c) Glucose 5%</p>

Question	Answer
<p><b>Question 6:</b> A 54 year old gentleman has been admitted with a severe exacerbation of asthma. He is unable to speak in sentences and has a peak flow of 120.            PMH: Asthma, T2DM, Hypercholesterolaemia            DH: Salbutamol pMDI inhaler PRN, Seretide® 125 Evohaler 2puffs BD, Metformin, Vildagliptin, Atorvastatin Allergies: Nuts, anaphylaxis. Bloods: Electrolytes and CBG (blood sugar) normal. BNP ↑800 pg/ml with another similar value three months ago.</p> <p>a) Your senior has asked for you to prescribe all of his regular medication but you're unsure what vildagliptin is. Why might you not want to prescribe vildagliptin?</p>	<p>a) The manufacturer recommends to avoid in severe heart failure (<b>under cautions in the drug monograph</b>). No information is provided to justify this (but this is due to limited clinical trial data).            This should prompt a review with the team as to whether an alternative antidiabetic drug is suitable</p>
<p><b>Question 7:</b> What types of insulins are the following (please indicate what type of insulin, frequency of administration, and when they should be administered):</p> <p>a) Novomix 30            b) Novorapid            c) Levemir</p>	<p>a) Novomix 30 is Biphasic insulin aspart (intermediate acting insulin), taken 10 minutes before or soon after a meal, according to requirements.            b) Novorapid is Insulin aspart (short acting), taken with meals immediately before or shortly after meals according to requirements. It can also be given by a continuous subcutaneous infusion using a portable infusion pump.            c) Levemir is Insulin Detemir (Long acting). It should be given once a day.  <b>All answers can be found on the app by searching the drug by name and reviewing the different sections of the drug monograph.</b>  <b>Administration frequency can be found under "summaries" / endocrine system / insulin.</b></p>
<p><b>Question 8:</b> An 82year old elderly lady weighing 42kg is admitted after a fall at home, you are required to prescribe paracetamol IV.</p> <p>a) What is an appropriate dose for this lady?</p>	<p>a) 630mg – as paracetamol IV for patients under 50kg must be prescribed at 15mg/kg QDS. <b>This can be found in the drug monograph (Paracetamol)</b></p>

**Other useful BNF information:**

- Management of hyperkalaemia – **best information source is in "summaries" / Fluids and electrolytes / Oral preparations for fluid and electrolyte imbalance**
- Treatment of hypoglycaemia – **can be found searching "hypoglycaemia" under summaries**
- Steroid conversion list – is useful to compare the anti-inflammatory (glucocorticoid) effects of different corticosteroids **can be found by searching "glucocorticoid" under summary or going to "summaries" / glucocorticoid therapy**
- Glucose 6-Phosphate Dehydrogenase (G6PD) Deficiency – all prescribers should be aware of this as individuals are likely to develop acute haemolytic anaemia when they take a number of common drugs. **Information can be found by searching "G6PD" under summaries or going to "summaries" / blood and blood forming organs / anaemias / G6PD Deficiency**