**Sodium Phenylbutyrate administration (IV)**
(Each ampoule of Sodium Phenylbutyrate concentrate for injection contains 1g in 5mls or 2g in 10mls)

**Use maximum concentration only:**
50mg/ml preparation
(i.e. 50mg in 1ml = 5000mg in 100ml = 5g in 100ml = 5% solution
Note: % = g / 100mls. (e.g. 1% = 1g in 100ml / 10% = 10g in 100ml)

**A. If dose is ≤ 3g / day, the following method of administration is used**
- Using a 50 ml syringe, withdraw 37.5mls from a 500ml bag of 10% dextrose
- Add 12.5 ml of Sodium Phenylbutyrate concentrate for injection
- Syringe contains a solution of 2.5g in 50ml.
  (i.e. 2.5g in 50ml = 5g in 100ml = 5% solution = 50mg in 1ml)
  (note: if 2.5 – 3g required the syringe will last < 24 hours)

**B. If dose is >3g <20g / day, the following method of administration is used**
- Remove 220mls from a 500 ml bag of Dextrose 10%
- Add 100mls of Sodium phenylbutyrate concentrate for injection (100mls = 20g)
- As 100 ml of Sodium Phenylbutyrate concentrate for injection has been added to the solution there is now 20 grams of Sodium Phenylbutyrate in a volume of 400mls*
  (i.e. 20g in 400ml = 5g in 100ml (5% solution) = 50mg in 1ml.

**C. If dose is >20g / day, the following method of administration is used**
- Remove 145 ml from 500 ml bag of Dextrose 10%
- Add 125mls of Sodium phenylbutyrate concentrate for injection (125mls = 25g)
- As 125 ml of Sodium Phenylbutyrate concentrate for injection has been added to the solution there is now 25 grams of Sodium phenylbutyrate in a volume of 500 ml
  (i.e. 25g in 500ml = 5g in 100ml (5% solution) = 50mg in 1ml.

May be prescribed as a stat / bolus infusion (over 1.5-2 hours) or continuous. (Always a continuous infusion in PICU)

**Prescription includes:**
- Infusion fluid – 10% dextrose
- Volume & Drug dose to be added
- Drug name (grams in final volume)
- Solution percentage concentration
- dose in mgs/kg/day
- calculated dose in g/day
- Rate ml/hr
- Doctors signature & date

![Prescription example](image)

**Infusion Fluid or → Base solution**

<table>
<thead>
<tr>
<th>Dextrose 10%</th>
<th>Final volume (ml)</th>
<th>Date prescribed</th>
<th>Prescriber’s Signature</th>
<th>qty</th>
<th>Check</th>
<th>drug check</th>
<th>Time check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
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<td></td>
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</tr>
<tr>
<td>Phenylbutyrate 5%</td>
<td>420ml</td>
<td>1/01/16</td>
<td>Jo Bloggs</td>
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<tr>
<td>Rate ml/hr</td>
<td>17.5mls/hr</td>
<td>250mg/Kg/day</td>
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</tbody>
</table>

**Additional Instructions:**
- Refer to Sodium Phenylbutyrate administration (IV) instruction
- Administration of another solution ...
- Note (if applicable)

**Return:**
- Date cancelled
- CANCELLED

*500ml bags do not contain exactly 500ml – average contents is 520–540ml. This calculation is based on a volume of 520mls in bag.

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**Prescriber details:**
author: Eilish O'Connell
approved by: Michael Curtin (Pharmacist)
ratified by: Dr A. Momavari & Dr Joanne Hughes
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