Renal failure in the newly born

Sir,

Dr Brocklebank states that a bicarbonate dialysis solution would be preferred to the standard lactate solutions in some infants.1 Bicarbonate dialysis solutions are not manufactured commercially but can be prepared by the hospital pharmacist. We have not yet administered them to neonates but have used them in older infants and children in renal failure after cardiac surgery.

We use two solutions formulated to contain sodium and glucose concentrations similar to standard dialysis solutions (for example, Dianel, Baxter Healthcare Ltd) (table).

Table Two solutions used for bicarbonate dialysis

<table>
<thead>
<tr>
<th>Bicarbonate solution</th>
<th>Low sodium bicarbonate solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose, anhydrous</td>
<td>30 g/l</td>
</tr>
<tr>
<td>Sodium</td>
<td>140 mmol/l</td>
</tr>
<tr>
<td>Chloride</td>
<td>90 mmol/l</td>
</tr>
<tr>
<td>Bicarbonate</td>
<td>50 mmol/l</td>
</tr>
</tbody>
</table>

A basic solution containing glucose and sodium chloride in 950 ml of water is heat sterilised in glass containers and can be prepared in advance; 50 ml sodium bicarbonate 8.4% injection (IMS Ltd) is added immediately before use to complete the solution. Calcium and magnesium salts are not present in the bicarbonate dialysis solutions and may need to be supplemented by the intravenous route.

Further information on the solutions and their preparation are available from one of the authors (AJN).

Reference


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Prone or supine?

Sir,

Recently considerable interest has been shown in the question of whether babies should be nursed prone or supine.1–4 We feel that a word of caution should be added to the suggestions that it may be better to nurse preterm babies in the prone rather than in the supine position. We have seen two babies with notching of the alar margin seemingly caused by pressure from a nasal endotracheal tube.

One child was born at 30 weeks’ gestation, was