Guidelines for Use of Hydrocortisone Sodium Succinate
(Solu-Cortef®)

Recommended Neonatal Dose, Route, and Interval

- **Physiological Replacement (Congenital adrenal hyperplasia):**
  IV or PO: 7-9 mg/\(\text{m}^2\)/day divided every 8-12 hours

- **Pressor & volume-resistant hypotension (Stress dose):** 20 to 30 mg/\(\text{m}^2\)/day IV, in 2 to 3 doses, or approximately 1 mg/kg per dose every 8 hours.

- **Chorioamnionitis-exposed ELBW infants to decrease risk of CLD:** Initial dose: 0.5 mg/kg/dose IV q 12 hours for 12 days followed by 0.25 mg/kg IV q 12 hours for 3 days.

- **Topical:** apply a thin film 3-4 times a day. Use sparingly - amount of systemic absorption is dependent upon the size of the surface area application. Do not wrap or bandage area.

### Body Surface Area

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>Surface Area (sq meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.6</td>
<td>0.08</td>
</tr>
<tr>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>1.4</td>
<td>0.12</td>
</tr>
<tr>
<td>2</td>
<td>0.15</td>
</tr>
<tr>
<td>3</td>
<td>0.2</td>
</tr>
<tr>
<td>4</td>
<td>0.25</td>
</tr>
</tbody>
</table>

BSA (m²) = (0.05 x kg) + 0.05

### Indications

- Treatment of cortisol deficiency as congenital adrenal hyperplasia
- Treatment of pressure-resistant hypotension
- Adjuvant therapy for persistent hypoglycemia
- CLD in ELBW infants exposed to maternal chorioamnionitis

### Possible Adverse Reactions

- Edema, hypokalemia, hypernatremia, hyperglycemia, growth suppression, hypertension
- Immunosuppression, infection
- GI perforation and/or hemorrhage particularly when treating concurrently with indomethacin
- Skin atrophy from topical formulations

### CONTRAINDICATIONS/PRECAUTIONS:

- Hypersensitivity to hydrocortisone
- Serious infections, except septic shock or TB meningitis
- Viral, fungal, or tubercular skin lesions
- Acute adrenal insufficiency may occur with abrupt withdrawal after long term use (> 7 days). Gradual taper is required
- May mask signs of infection
- Adrenal suppression, hypothalamic pituitary adrenal (HPA) suppression.

**Nursing Implications**

- For topical formulations, avoid contact with eyes.
- Monitor serum glucose, CBC, electrolytes and cortisol levels.
- Monitor intake and output, weights, blood pressure.

References:
1. Neofax 2010

Reviewed/Revised: 2/2011 by

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