Guidelines for the Use of Fluconazole (Diflucan®)

Recommended Neonatal Dose, Route, and Interval

Systemic Infections:

- Loading dose: 12 mg/kg/dose IV infusion by syringe pump over 60 minutes, or PO.
- Maintenance dose: 6 mg/kg/dose IV infusion by syringe pump over 60 minutes, or PO. According to the following dosing interval chart.

**Dosing Interval Chart**

<table>
<thead>
<tr>
<th>PMA (weeks)</th>
<th>Postnatal (days)</th>
<th>Interval (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 29</td>
<td>0 to 14</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>&gt; 14</td>
<td>48</td>
</tr>
<tr>
<td>30 to 36</td>
<td>0 to 14</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>&gt; 14</td>
<td>24</td>
</tr>
<tr>
<td>37 to 44</td>
<td>0 to 7</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>&gt; 7</td>
<td>24</td>
</tr>
<tr>
<td>≥ 45</td>
<td>All</td>
<td>24</td>
</tr>
</tbody>
</table>

**Prophylaxis:** 3 mg/kg per dose via IV infusion twice weekly (consider only in VLBW infants cared for in NICU’s with high rates of invasive fungal disease).

**Thrush:** 6 mg/kg on Day 1, then 3 mg/kg/dose q 24 hours PO

**Chief Indications**

1. Systemic candidiasis, Candida meningitis, Cryptococcal meningitis

**Possible Adverse Reactions**

1. Nausea, vomiting, abdominal pain, diarrhea
2. Skin rash
3. Elevation of liver enzymes
4. Eosinophilia, leukopenia, thrombocytopenia
5. Dark or amber urine

**CONTRAINDICATIONS/PRECAUTIONS:**

1. Hypersensitivity to fluconazole
2. Resistance to fluconazole has been reported with C. glabrata, C. krusei, and C. parapsilosis
3. Decreases the clearance of many medications including: phenobarbital, phenytoin, caffeine, theophylline, and midazolam
4. CAUTION use with hepatic and renal failure
Nursing Implications

1. Follow LFTs, renal function, and CBC
2. Give PO dose with the nearest feed.

Special Considerations and Calculations

1. Well absorbed after oral administration, with peak serum concentrations reached within 1 to 2 hours
2. Good penetration into CSF after both oral and IV administration
3. Solution compatibility: D5W, D10W; infuse over 60 minutes
4. May increase phenytoin, AZT, and theophylline levels
5. Excreted primarily by kidneys, therefore dose may need to be reduced in patients with impaired renal function

References:
1. Neofax 2010

Reviewed/Revised: 11/2010 by

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