Drug Classification: 8:12.28.28 Polymixins

<table>
<thead>
<tr>
<th>Agent:</th>
<th>Formulary</th>
<th>Nonformulary</th>
<th>Restricted</th>
<th>Nonstock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colistimethate sodium (Coly-Mycin® M)</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Pharmacy and Therapeutics Committee-approved Indications for Inpatient Use: Colistimethate sodium is approved for the treatment of infections caused by multi-drug resistant gram-negative pathogens (i.e., Acinetobacter and Pseudomonas spp.). Use is restricted to the Infectious Disease Service.

Dosage & Administration: Colistimethate sodium (Coly-Mycin® M Parenteral) is supplied in the US in vials containing colistimethate sodium equivalent to 150 mg colistin base activity per vial. The following dosing information is expressed in terms of the colistin base.

- **Adults and pediatric patients:** Colistin base should be given in 2 to 4 divided doses at dose levels of 2.5 to 5 mg/kg per day for patients with normal renal function, depending on the severity of the infection. The recommended maximum daily dose of colistin base is 800 mg.

- **Obese Patients:** Base dosage on ideal body weight

- **Renally impaired patients:** See table below

<table>
<thead>
<tr>
<th>Renal Function</th>
<th>Normal</th>
<th>Mild</th>
<th>Moderate</th>
<th>Considerable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plasma creatinine, mg/100 mL</td>
<td>0.7-1.2</td>
<td>1.3-1.5</td>
<td>1.6-2.5</td>
<td>2.6-4</td>
</tr>
<tr>
<td>Urea clearance, % of normal</td>
<td>80-100</td>
<td>40-70</td>
<td>25-40</td>
<td>10-25</td>
</tr>
<tr>
<td>Unit dose of colistin base, mg</td>
<td>100-150</td>
<td>75-115</td>
<td>66-150</td>
<td>100-150</td>
</tr>
<tr>
<td>Frequency, times/day</td>
<td>4 to 2</td>
<td>2</td>
<td>2 or 1</td>
<td>Every 36 hrs</td>
</tr>
<tr>
<td>Total daily dose, mg</td>
<td>300</td>
<td>150-230</td>
<td>133-150</td>
<td>100</td>
</tr>
<tr>
<td>Approximate daily dose, mg/kg/day</td>
<td>5</td>
<td>2.5-3.8</td>
<td>2.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**Note:** the suggested unit dose is 2.5-5 mg/kg; however, the time interval between injections should be increased in the presence of impaired renal function.

- **Dialysis:** Recommendations vary. Consult Lexi-Comp drug information available in Up-To-Date.

Each 150 mg vial should be reconstituted with 2 mL Sterile Water for Injection, USP. The reconstituted solution provides colistimethate sodium at a concentration equivalent to 75 mg/mL colistin base activity. Doses may be given via direct intermittent administration (injected slowly over a period of 3 to 5 minutes) or diluted infusions (50-100 mL of 0.9% sodium chloride) given over 15 to 30 minutes.
Marquette General Health System
Pharmacy and Therapeutics Committee
Medication Guideline

Monitoring / Outcomes:

Therapeutic Response:
   Improvement or resolution in clinical signs or symptoms of infection

Adverse Effects:
   The most common treatment-emergent adverse effects reported with colistimethate sodium include tingling of extremities and tongue, paraesthesia, rash, nephrotoxicity (increased blood urea nitrogen, elevated creatinine and decreased creatinine clearance) and decreased urine output, and respiratory distress.

Special Handling Procedures:
   • Colistimethate Sodium is not considered a hazardous drug.
   • Colistimethate Sodium is not considered a high-alert drug.

References: