Rationale for Protocol

- Prevalence of MRSA in respiratory infections in patients with cystic fibrosis (CF) increased from 4% to 25% between 1999 and 2012
- Persistent MRSA is associated with an increased rate of decline in FEV₁, shortened survival, and failure to recover baseline lung function after a pulmonary exacerbation

Criteria for Inclusion

- Confirmed diagnosis of CF
- Age >12 years
- Highly recommended in patients with chronic colonization
  - ≥2 positive respiratory cultures growing MRSA within last 2 years and >50% of cultures in last 2 years positive for MRSA
- Patients newly diagnosed with MRSA colonization may be started on protocol at the discretion of the treating pulmonologist

Treatment Protocol

- Intranasal mupirocin 2% to each nare twice daily x 5 days
- 4% chlorhexidine gluconate skin cleanser once weekly x 4 weeks
- Inhaled vancomycin 250 mg/5 mL sterile water twice daily x 2 weeks
- Oral antibiotic regimen x 60 days

<table>
<thead>
<tr>
<th>Weight</th>
<th>Rifampin</th>
<th>Sulfamethoxazole-trimethoprim (SMX/TMP)</th>
<th>Doxycycline</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;45 kg</td>
<td>600 mg PO once daily</td>
<td>2 DS tablets PO twice daily</td>
<td>100 mg PO twice daily</td>
</tr>
<tr>
<td>35-45 kg</td>
<td>450 mg PO daily</td>
<td>1 DS tablet PO twice daily</td>
<td>75 mg PO twice daily</td>
</tr>
<tr>
<td>25-34.5 kg</td>
<td>300 mg PO daily</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Depending on susceptibilities, drug interactions, and physician preference

- Weekly washing of all linens and towels with hot water recommended
- Dispose of all old razor blades

Follow-up

- Repeat cultures should be collected following end of 60 day treatment period
- Treatment may be prolonged up to 6 months based on physician discretion
References:


11. Lo DKH, Hurley MN, Muhlebach MS, Smyth AR. Interventions for the eradication of methicillin-resistant Staphylococcus aureus (MRSA) in people with cystic fibrosis (Review).