

Treatment of *Pneumocystis jiroveci* pneumonia

Mild to moderate disease

Parameters of mild to moderate *Pneumocystis jiroveci* (*carinii*) pneumonia (PCP) are partial pressure of oxygen (PaO₂) greater than 70 mm Hg on room air, alveolar-arterial (A-a) gradient less than 35 mm Hg, or oxygen saturation greater than 94% on room air.

Treatment options include:

Trimethoprim + sulfamethoxazole 5 + 25 mg/kg orally or IV, 8-hourly for 21 days.

OR

Clindamycin 450 mg orally, 8-hourly for 21 days PLUS primaquine (test for glucose-6-phosphate dehydrogenase (G6PD) deficiency before commencing treatment) 15 mg orally, daily for 21 days.

OR

Dapsone 100 mg orally, daily for 21 days PLUS trimethoprim 5 mg/kg orally, 8-hourly for 21 days. There is a cross-reactivity rate of about 20% between dapsone and sulfamethoxazole, so this regimen should not be used if the patient has had a severe reaction to sulfonamides (e.g. Stevens-Johnson syndrome or variants).

OR (as a single drug)

Atovaquone (with food, preferably a high-fat meal) 750 mg orally, 12-hourly for 21 days.

Severe disease

Severe disease is defined as a PaO₂ less than 70 mm Hg on room air, alveolar-arterial gradient greater than 35 mm Hg or oxygen saturation of less than 94% on room air. Concomitant corticosteroids should be used in patients with significant hypoxaemia (PaO₂ less than 70 mm Hg on room air)

Treatment options include:

Trimethoprim + sulfamethoxazole 5+25 mg/kg IV 6-8 hourly until showing signs of improvement, then switch to oral trimethoprim + sulfamethoxazole 5+25 mg/kg. Total treatment duration is 21 days (preferred)

OR

Pentamidine 4 mg/kg up to 300 mg IV, daily for 21 days

OR

Clindamycin 900 mg IV, 8-hourly or 450 mg orally, 6-8 hourly for 21 days PLUS primaquine (test for glucose-6-phosphate dehydrogenase (G6PD) deficiency before commencing treatment) 30 mg orally, daily for 21 days

Adapted from *Therapeutic Guidelines: Antibiotic version 14, 2014*