

# TREATMENT OF PNEUMOCYSTIS PNEUMONIA

INFECTION	TREATMENT			FURTHER INFORMATION	PROPHYLAXIS	LICENCE/ AVAILABILITY
	SEVERITY	1 <sup>ST</sup> LINE	2 <sup>ND</sup> LINE			
<b>PNEUMOCYSTIS PNEUMONIA (PCP)</b> <i>(Pneumocystis jiroveci)</i>	<b>Mild to Moderate</b>  PaO <sub>2</sub> >9.3kpa on room air	<b>Co-trimoxazole</b> oral 1920mg TDS  or 90mg/kg/day in 3 divided doses (rounded to nearest 480mg)  Duration: 21 days	<b>Option1:</b> <b>Clindamycin</b> oral 600mg tds ⇄ + <b>Primaquine</b> * oral 30mg OD  <b>Option2:</b> <b>Dapsone</b> 100mg oral daily + <b>Trimethoprim</b> oral 20mg/kg/day in 3 divided doses rounded to nearest 50mg  <b>Option3:</b> <b>Atovaquone liquid</b> oral 750mg BD, with food (preferably high fat)  Duration: 21 days	* <b><u>Check G6PD prior to prescribing dapsone or primaquine but do not delay treatment.</u></b>  Atovaquone has poor bioavailability. Presence of food (particularly high fat) increases the absorption 2-3 fold.	For prophylaxis for HIV patients <a href="#">click here</a>  For all other patients refer to patient speciality and reason for immunosuppression or seek advice from ID/Microbiology.	Primaquine is not licensed in the UK but can be prescribed on a named patient basis – contact pharmacist to order.  Atovaquone is only available as a liquid.  Both clindamycin and trimethoprim are off label for treatment of PCP.
	<b>Severe</b>  PaO <sub>2</sub> ≤9.3kpa on room air	<b>Co-trimoxazole</b> IV** infusion 120mg/kg/day for 3 days then reduce to IV/PO 90mg/kg/day for 18 days. The total daily dose may be divided in 3-4 doses. Total duration 21 days  + <b>steroids</b> (see further information box)  **Oral co-trimoxazole has very good bioavailability. Review IV daily and switch to oral at same dose when appropriate after clinical improvement to complete course	<b>Option1:</b> <b>Clindamycin</b> IV infusion 600 QDS or 900mg TDS + <b>Primaquine</b> * oral 30mg OD  <b>Option2:</b> ** <b>Pentamidine isetionate</b> IV infusion 4mg/kg OD in 250ml 5% glucose over at least 60 mins.. Reduce dose to 3mg/kg od if toxicity Caution: hypotension, hypoglycaemia  Duration: 21 days	* <b><u>Check G6PD prior to prescribing dapsone or primaquine but do not delay treatment.</u></b>  If O <sub>2</sub> saturations <92% or PaO <sub>2</sub> ≤9.3kpa on room air start steroids at the same time as treatment (or within 72 hours). <b>Prednisolone</b> oral: 40mg bd for 5 days 40mg od for 5 days 20mg daily for 11 days then stop.  If IV steroid required use methylprednisolone at 75% of oral prednisolone dose.  Pneumothorax is a common complication of severe disease and carries a poor prognosis. CXR required if deterioration and/or chest pain.	For prophylaxis for HIV patients <a href="#">click here</a>  For all other patients refer to patient speciality and reason for immunosuppression or seek advice from ID/Microbiology.	

Reference: ⇄Dose recommended in BNF 2023 [US HIV Guidelines 2023](#) [BHIVA OI Guidelines 2011](#) [EACS Guidelines 2022](#)

Adapted from NHS Tayside Guidelines for Treatment of Opportunistic Infections in HIV patients. Approved: July 2012 Updated: September 2023 Review: September 2026