

Sulfamethoxazole/Trimethoprim

Antimicrobial Activity

Gram-positive pathogens – *Staphylococcus aureus* (MSSA, MRSA), *Listeria monocytogenes*

Gram-negative pathogens – *Enterobacteriaceae*, *Stenotrophomonas maltophilia*

Fungal and parasitic pathogens – *Pneumocystis jirovecii* and *Toxoplasma gondii*

Dosing



Weight based dosing of SMX/TMP refers to the **Trimethoprim** component

Available Formulations

PO	Double Strength (DS) tablet	Sulfamethoxazole 800 mg/Trimethoprim 160 mg	
	Single Strength (SS) tablet	Sulfamethoxazole 400 mg/Trimethoprim 80 mg	
	Oral suspension	Sulfamethoxazole 40 mg/Trimethoprim 8 mg (per 1 mL)	20 mL equals 1 DS tablet
IV	Injectable vial	Sulfamethoxazole 80 mg/Trimethoprim 16 mg (per 1 mL)	10 mL equals 1 DS tablet

Dosing Regimens

Most infections 5-10 mg/kg/day* divided q6-12h

Severe infections 15-20 mg/kg/day* divided q6-12h

Indication-specific dosing

		IV Dosing*	PO Dosing†
Source of infection			
Respiratory tract infections (non- <i>P.jirovecii</i>)		10-15 mg/kg/day divided q8-12h	2 DS tabs BID-TID
Skin & soft tissue infections		5-10 mg/kg/day divided q12h	1-2 DS tabs BID
GU tract infections (i.e. UTI, pyelonephritis)		5 mg/kg/day divided q12h	1 DS tab BID
Pathogen directed therapy			
<i>Pneumocystis jirovecii</i>	Treatment	15-20 mg/kg/day divided q6-8h	2 DS tabs TID
	Prophylaxis	–	1 DS tab 3x/week‡
<i>Nocardia spp.</i>		15 mg/kg/day divided q6-12h	2 DS tabs TID
<i>Toxoplasma gondii</i>		10 mg/kg/day divided q12h	2 DS tabs BID
<i>Listeria monocytogenes</i>		20 mg/kg/day divided q6-12h	2 DS tabs QID
<i>Stenotrophomonas maltophilia</i>		10-15 mg/kg/day divided q8h	2 DS tabs TID

* Dosing based on actual body weight. In obese patients, adjusted body weight can be considered at higher doses (e.g. ≥ 10mg/kg)

† Oral dose is an extrapolation based on weight based IV dosing, assuming 70 kg patient

‡ Various prophylactic regimens exist (including 1 DS tab daily, and 1 SS tab PO daily)

Renal Adjustment

	Creatinine Clearance (mL/min)			
	10-29	<10	HD	CRRT
Treatment of PJP (i.e. 15-20 mg/kg/day q6-8h)	10 mg/kg/day divided q12h	5-10 mg/kg/day divided q12-24h		10-15 mg/kg/day divided q6-8h
Serious Infections (i.e. 10-15 mg/kg/day q8-12h)	50% daily dose reduction with same frequency	Not recommended – Consider alternative agents. If safer options unavailable, refer to dosing below:		
SSTI & GU infections (i.e. 5-10 mg/kg/day q12h)		5 mg/kg/day divided q24h		5-10 mg/kg/day divided q12h

Precautions

SMX/TMP should be avoided in the following patient groups:

- ❖ Patients with **G6PD** deficiency due to the increased risk of hemolysis
- ❖ Pregnant patients in their **1st trimester** and **3rd trimester** (i.e. near term)
- ❖ Breastfeeding patients nursing premature infants or neonates with hyperbilirubinemia or G6PD deficiency
- ❖ Patients with prior hypersensitivity or allergic reaction to other sulfonamide antibiotics