## Trimethoprim-sulfamethoxazole (co-trimoxazole)

### Spectrum of Activity

<table>
<thead>
<tr>
<th>Gram-negative microorganisms including Enterobacteriaceae, <em>Stenotrophomonas maltophilia</em></th>
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<tbody>
<tr>
<td><em>Nocardia</em></td>
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<tr>
<td><em>Pneumocystis jirovecii</em></td>
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<tr>
<td><em>Staphylococcus aureus</em></td>
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</tbody>
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### Indications

- Urinary tract infections
- *Stenotrophomonas maltophilia* infections
- *Pneumocystis* Pneumonia (PCP)
- Nocardiosis
- Traveler’s diarrhea
- *Cyclospora* and *Shigella* infections
- Prophylaxis for PCP and *Toxoplasma gondii*
- Some *S. aureus* infections (MRSA, bone infections)

### Not indicated

- Enterococci are resistant (even if reported as sensitive)

  *Streptococcus pyogenes*: clinical failures occur even though may be reported as susceptible

  *S. aureus* bacteremia (see *S. aureus* handbook page)

### Safety Considerations

- Renal injury and hyperkalemia, particularly in older patients (65 or older)
- Sudden cardiac death

- Higher risk in patients on angiotensin converting enzyme inhibitor (ACEi), angiotensin receptor blocker (ARB), K sparing diuretic (e.g. spironolactone)

- Aseptic meningitis is rare

### Renal Dosing

Dosing adjustment required for renal impairment

### Other Considerations

- Regular monitoring of kidney function and electrolytes if prolonged use, over age 65, use of ACEi, ARB, or K sparing diuretic, baseline renal injury, or other risks for AKI/hyperkalemia

### References:

- Fralick, et al. BMJ. 2014 Oct 30;349:g6196
- Crellin et al. BMJ. 2018 Feb 9;360:k341.