

CO-TRIMOXAZOLE INJECTION

There is only one supplier of co-trimoxazole injection in Canada.¹

DIN	Manufacturer	Brand name	Ingredient	Strength
00550086	Aspri Pharma Canada Inc	Septra injection	sulfamethoxazole trimethoprim	80 mg / ml 16 mg / ml

Indications for injectable co-trimoxazole²:

- *Pneumocystis jirovecii* pneumonia
- Septicemia and meningitis, genito-urinary tract, pulmonary, gastrointestinal and skin and soft tissue infections due to susceptible organisms

Shortage Management:

Oral formulations: Co-trimoxazole is well absorbed orally. Consider oral dosing if possible or an early transition from IV administration to oral therapy. Reserve Septra injection for conditions in which it is the treatment of choice.³

Extemporaneous compounding using bulk chemicals: The product should be prepared in a suitable clean air environment using appropriate aseptic procedures. When prepared from nonsterile components, an effective sterilization method must be employed.⁴

Therapeutic alternatives for selected organisms⁵⁻¹¹:

Organism	Alternative parenteral agent	Comments
<i>Listeria monocytis</i>	<ul style="list-style-type: none"> • Ampicillin or penicillin G +/- gentamicin • Carbapenem (e.g. meropenem) 	Gentamicin added for synergy in central nervous system infections, endocarditis, and infections in neonates and immunocompromised patients
<i>Pneumocystis jirovecii</i> pneumonia	<ul style="list-style-type: none"> • Pentamidine isoethionate IV or IM 	Sulfamethoxazole/trimethoprim is considered the drug of first choice for this indication
Shigellosis	<ul style="list-style-type: none"> • 3rd generation cephalosporin (e.g., ceftriaxone) • Fluoroquinolone • Azithromycin 	Most strains now resistant to TMP/SMX. Resistance to quinolones and azithromycin also rising. Susceptibility testing essential.
<i>E. Coli</i> , other enterobacteriaceae	<ul style="list-style-type: none"> • 3rd or 4th generation cephalosporin • Aztreonam • Fluoroquinolone IV • Piperacillin/tazobactam • Carbapenem (e.g. meropenem) • Ampicillin 	
MRSA	<ul style="list-style-type: none"> • Vancomycin • Linezolid • Clindamycin (if susceptible) • Daptamycin • Tigecycline 	Vancomycin is treatment of choice for severe infections

S. Maltophilia

- Levofloxacin IV
- Ticarcillin/clavulanate +/- aztreonam

TMP/SMX is first choice for this indication.
Consider other antimicrobials based on the results of susceptibility testing.

Prepared by Karen Jensen MSC, BSP; Reviewed by Carmen Bell BSP, Medication Information Consultant; Suzanne Gulka BSP, Clinical Support Pharmacist, RQHR; Janis Johnson BSP, ACPR, Regional Pharmaceutical Consultant, DPEEB.
medSask, December 2014.

References:

1. Septra DrugProductDatabase. Health Canada. Available at <http://webprod5.hc-sc.gc.ca/dpd-bdpp/index-eng.jsp>. Accessed 30Nov2014.
2. Co-trimoxazole. The Ottawa Hospital Parenteral Drug Therapy Manual, 35th ed.(2014).
3. Alternatives to IV Sulfamethoxazole/Trimethoprim in Selected Clinical Situations. Available at <http://www.ashp.org/DocLibrary/Policy/DrugShortages/Sulfamethoxazole-trimethoprim-injection-05282010-table.aspx>. Accessed 02Dec2014.
4. Co-trimoxazole. In Trissel, Lawrence A. Trissel's stability of compounded formulations / Lawrence A. Trissel. Washington, DC: American Pharmacists Association. 5th Edition. (2012).
5. Gelfand M. Treatment, prognosis, and prevention of Listeria monocytogenes. In UpToDate online. Available at www.uptodate.com by subscription. Accessed 02Dec2014.
6. Sax P. Treatment of Pneumocystis infection in HIV-infected patients In UpToDate online database. Available at www.uptodate.com by subscription. Accessed 02Dec2014.
7. Sureshababu J. Shigella infection. In Medscape online. Available at <http://emedicine.medscape.com/article/968773-overview>. Accessed 02Dec2014.
8. Tunkel AR, Hartman BJ, Kaplan SL. Practice guidelines for the management of bacterial meningitis. Clin Infect Dis 2003;39:1267-1284.
9. Blondel-Hill E, Fryters S. Bugs and Drugs 2012.
10. Gilbert D, Moellering Jr R, et al. Sanford Guide to Antimicrobial Therapy 2012.
11. Krose J. Shigellosis medication. In Medscape online. Available at <http://emedicine.medscape.com/article/182767-medication>. Accessed 14Dec2014.