CO-TRIMOXAZOLE (Sulfamethoxazole/trimethoprim)

Table 1 lists the brands and formulations of co-trimoxazole (TMP/SMX) currently approved and marketed in Canada.

TABLE 1: Co-trimoxazole products [1]

DIN	Manufacturer	Product
00445282	Apotex	Apo Sulfatrim DS 800mg/160mg
00445274	Apotex	Apo Sulfatrim 400mg/80mg
00445266	Apotex	Apo Sulfatrim Pediatric 100mg/20mg
00512524	Pro Doc Limitée	Protrin DF 800mg/160mg
00550086	Aspen Pharmacare Canada Inc.	Septra Injection 16mg/ml
00510645	Teva Canada Limited	Teva-Trimel DS 800mg/160mg
00510637	Teva Canada Limited	Teva-Trimel 400mg/80mg
00726540	Teva Canada Limited	Teva-Trimel 200mg/40mg/5ml

Therapeutic Alternatives

• TMP/SMX is a drug of choice for the empiric treatment of acute urinary tract infections (UTI) in women (if local resistance rates to *E. coli* are< 20 %) and acute exacerbations of chronic obstructive pulmonary disease. [2, 3] Alternative antibiotics for these conditions are listed in Table 2.

TABLE 2: Alternatives to TMP/SMX for treatment of common conditions [3, 5]

Condition	1st line Alternatives	2nd/3rd line Alternatives
Acute uncomplicated UTI in women	**Trimethoprim** x 3 days 100mg BID *or* 200mg once daily Or **Nitrofurantoin** x 5 days 50 – 100 mg QID *or* MacroBID 100mg BID Or **Fosfomycin tromethamine** 3g Single dose	**Ciprofloxacin*** x 3 days 250mg BID *or* 500mg XL once daily Or **Norfloxacin*** 400mg BID Or **Cephalexin** x 7 days 250 – 500mg QID Or **Levofloxacin*** 250mg once daily
Acute exacerbation of COPD	**Amoxicillin** x 5 – 7 days 500mg TID Or **Doxycycline** x 4 – 6 days 100mg BID x 2 doses, then 100mg once daily OR **Clarithromycin** x 5 – 10 days 500mg BID *or* 2 x 500mg XL once daily Or **Azithromycin** x 3 – 4 days 500mg first dose , then 250mg once daily for 4 days *or* 500mg once daily x 3 days	**Cefuroxime axetil** x 5 – 10 days 500mg BID Or **Cefprozil** x 5 - 10 days 500mg BID

***Note: Fluoroquinolones** are as effective as SMX/TMP for treatment of acute uncomplicated UTI. Because of concerns about resistance and serious adverse effects such as tendon, joint and muscle pain, tingling sensations, confusion and hallucinations, the risks outweigh the benefits in acute uncomplicated UTI and these should be reserved for patients intolerant to other therapeutic choices.

• TMP/SMX is the treatment of choice for prophylaxis of Pneumocystis jirovecii pneumonia (PJP, previously called PCP) and Toxoplasma gondii encephalitis in immunocompromised patients[2, 4] Alternatives are listed in Table 3. These drugs are much more expensive and/or can only be obtained through Special Access. Prophylaxis is usually not required when CD4 > 200 cells/ µL.

TABLE 3: Alternatives to TMP/SMX for prophylaxis [4, 6]

Prophylaxis Criteria	Alternatives (Treatment duration – chronic)
***Pneumocystis jirovecii* pneumonia (PJP)** CD4 <200cells/µl or thrush	**Dapsone** 100 mg once a day Or **Dapsone** 200 mg once a week + **pyrimethamine** 75mg once a week + **leucovorin** 25 mg once a week Or **Atovaquone** 1500 mg once a day with food Or **Pentamidine** 300 mg every 4 weeks by aerosol or IV infusion
***Toxoplasma gondii* encephalitis** CD4 <100 cells/µl and positive *T. gondii* serology	**Dapsone** 100 mg once a day + **pyrimethamine** 75mg once a week + l**eucovorin** 25 mg once a week Or **Dapsone** 200mg once a week + **pyrimethamine** 50 - 75mg once a week + **leucovorin** 25 mg once a week Or **Atovaquone** 1500 mg once a day Or **Atovaquone** 1500 mg once a day + **pyrimethamine** 25mg once a day + **leucovorin** 10 mg once a day

• TMP/SMX is the drug of choice if treatment is required for the following infections [2, 6, 7]:

TABLE 4: Miscellaneous

Infective agent	Alternatives
Cylcospora (*C. cayetanesis)*	**Ciprofloxacin** 500mg BID x 7 days, then 500mg 3x a week x 2 weeks
Stenotrophomonas maltophilia	Often resistant to multiple antibiotics; alternatives should be based on susceptibility report but may be sensitive to: **Doxycycline** 200mg once, then 100mg BID x 14 days

Cystoisospora Belli	**Ciprofloxacin** 500mg BID x 7 – 10 days Or **Pyrimethamine** 50 - 75mg/day **+ leucovorin** 5 - 10mg/day *or* **sulfadoxine** 500mg 3 x a week

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