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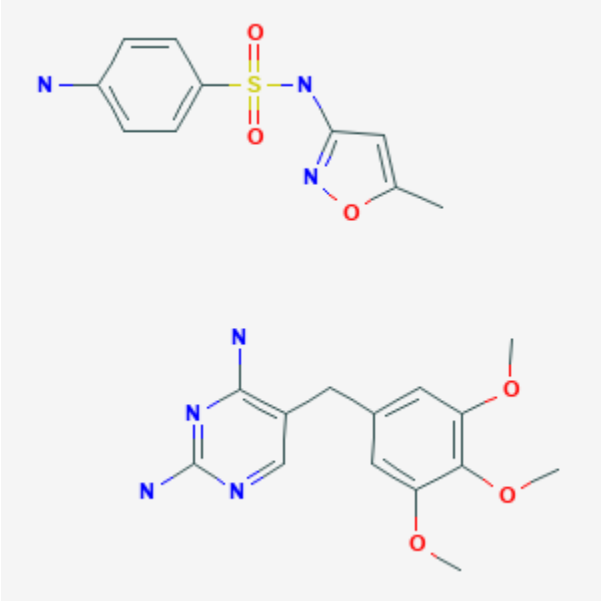
Trimethoprim-Sulfamethoxazole

Revised: October 31, 2018.

CASRN: 8064-90-2



Drug Levels and Effects

Summary of Use during Lactation

With healthy, fullterm infants it appears acceptable to use sulfamethoxazole and trimethoprim during breastfeeding after the newborn period. The time of greatest risk for hemolysis in fullterm newborns without glucose-6-phosphate dehydrogenase (G6PD) deficiency might be as short as 8 days after birth.[1] Until further data are accumulated, alternate agents should probably be used in jaundiced, ill, stressed or premature infants, because of the risk of bilirubin displacement and kernicterus. Sulfamethoxazole and trimethoprim should be avoided while breastfeeding a G6PD-deficient infant.[2][3]

Drug Levels

Maternal Levels. In 20 mothers in the immediate postpartum period given oral trimethoprim, peak milk levels occurred 3 hours after the dose. In 14 of these women who received a daily dosage of 320 mg, the peak milk level

averaged 2.4 mg/L and the trough averaged 1 mg/L. In 6 other women who received a daily dosage of 480 mg, the peak milk level averaged 4 mg/L and the trough averaged 1.5 mg/L. The authors calculated that a breastfed infant would receive a daily dosage of 0.75 mg with a maternal dosage of 320 mg daily and 1.7 mg with a maternal dosage of 480 mg.[4][5]

Forty women who were 5 or fewer days postpartum period received oral co-trimoxazole equivalent to 800 mg of sulfamethoxazole and 320 mg of trimethoprim twice daily. Another 10 women were given this dose 3 times daily. Milk levels were measured several times daily for 5 days. After trimethoprim doses of 320 mg daily, average milk levels were about 2 mg/L in both groups. Milk levels increased to about 3 mg/L by day 5 of therapy. Average sulfamethoxazole milk levels were 4.5 and 5.3 mg/L, respectively, with the 2 doses.[6] With the usual dose of trimethoprim 320 mg and sulfamethoxazole 800 mg daily, an exclusively breastfed infant would be expected to receive 0.45 mg/kg daily of trimethoprim and 0.68 mg/kg daily of sulfamethoxazole. This is very low in comparison to the established treatment dosages of 8 mg/kg and 40 mg/kg daily for infants over 2 months of age.

Infant Levels. Relevant published information was not found as of the revision date.

Effects in Breastfed Infants

An extensive systematic review of the use of sulfonamides near term and during breastfeeding found no adverse reactions in infants. The authors concluded that use of sulfamethoxazole-trimethoprim during breastfeeding presents no risk of neonatal kernicterus.[7]

A prospective, controlled study asked mothers who called an information service about adverse reactions experience by their breastfed infants. Of 12 women who took sulfamethoxazole and trimethoprim during breastfeeding (time postpartum and dosage not stated), none reported diarrhea, drowsiness or irritability in her infant. Two mothers reported poor feeding in their infants.[8]

Effects on Lactation and Breastmilk

Relevant published information was not found as of the revision date.

References

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Substance Identification

Substance Name

Trimethoprim-Sulfamethoxazole

CAS Registry Number

8064-90-2

Drug Class

Breast Feeding

Lactation

Anti-Infective Agents

Anti-Infective Agents, Urinary

Antibacterial Agents

Folic Acid Antagonists

Sulfonamides