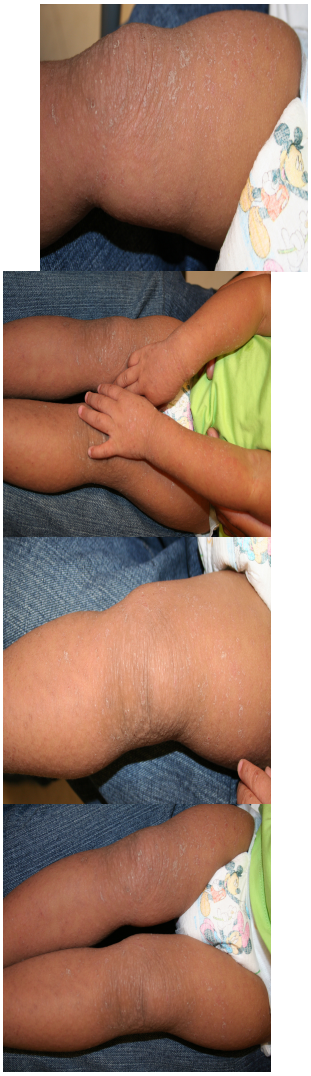

Bactrim reaction

Adverse effects and treatment

Nausea, vomiting, anorexia, and diarrhoea are relatively common following the administration of *sulfamethoxazole* and other sulfonamides.

Hypersensitivity reactions to sulfonamides have proved a problem. Fever is relatively common, and reactions involving the skin may include rashes, pruritis, photosensitivity reactions, exfoliative dermatitis, and erythema nodosum. Severe, potentially fatal, skin reactions including toxic epidermal necrolysis and the Stevens-Johnson syndrome have occurred in patients treated with sulfonamides. Dermatitis may also occur from contact of sulfonamides with the skin. Systemic lupus erythematosus, particularly exacerbation of pre-existing disease, has also been reported.

Nephrotoxic reactions including interstitial nephritis and tubular necrosis, which may result in renal failure, have been attributed to hypersensitivity to *sulfamethoxazole*. Lumbar pain, haematuria, oliguria, and anuria may also occur due to crystallisation in the urine of *sulfamethoxazole*
or its less soluble acetylated metabolite. The risk of crystalluria can be reduced by the administration of fluids to maintain a high urine output. If necessary, alkalinisation of the urine by administration of sodium bicarbonate may increase solubility and aid the elimination of sulfonamides.

Blood disorders have occasionally occurred during treatment with the sulfonamides including *su lfamethoxazole,*
and include agranulocytosis, aplastic anaemia, thrombocytopenia, leucopenia, hypothrombinaemia, and eosinophilia. Many of these effects on the blood may result from hypersensitivity reactions. Sulfonamides may rarely cause cyanosis due to methaemoglobinaemia. Acute haemolytic anaemia is a rare complication which may be associated with glucose-6-phosphate dehydrogenase deficiency.

Other adverse effects which may be manifestations of a generalised hypersensitivity reaction to sulfonamides include a syndrome resembling serum sickness, liver necrosis, hepatomegaly and jaundice, myocarditis, pulmonary eosinophilia and fibrosing alveolitis, and vasculitis including polyarteritis nodosa. Anaphylaxis has been reported only very rarely.

Other adverse reactions that have been reported after the administration of *sulfamethoxazole* or other sulfonamides include hypoglycaemia, hypothyrodism, neurological reactions including aseptic meningitis, ataxia, benign intracranial hypertension, convulsions, dizziness. drowsiness, fatigue, headache, insomnia, mental depression, peripheral or optic neuropathies, psychoses, tinnitus, vertigo, and pancreatitis.

Sulfonamides may displace serum-bound biluribin, resulting in jaundice and kernicterus in premature neonates.

As with other antimicrobials, *sulfamethoxazole* may cause alterations of the bacterial flora in the gastrointestinal tract. There is, therefore, the possibility, although it appears to be small, that pseudomembranous colitis may occur.

Slow acetylators of *sulfamethoxazole* may be at greater risk of adverse reactions than fast acetylators.

Precautions

In patients receiving *sulfamethoxazole*, adequate fluid intake is necessary to reduce the risk of crystalluria; the daily urine output should be 1200 to 1500 mL or more. The administration of compounds which render the urine acidic may increase the risk of crystalluria; the risk may be reduced with alkaline urine.

Treatment with sulfonamides should be discontinued immediately a rash appears because of the danger of severe allergic reactions such as the Stevens-Johnson syndrome.

Sulfamethoxazole should be given with care to patients with renal or hepatic impairment and is contra-indicated in patients with severe renal or hepatic failure or with blood disorders. Dosage reduction may be necessary in renal impairment. Complete blood counts and urinalyses with microscopic examination should be carried out particularly during prolonged therapy.
Sulfamethoxazole
should not be given to patients with a history of hypersensitivity to sulfonamides as cross-sensitivity may occur between drugs of this group. Care is generally advisable in patients with a history of allergy or asthma. Caution is also needed in the elderly, who may be more likely to have other risk factors for reactions. Some authorities consider
sulfamethoxazole
to be contra-indicated in lupus erythematosus as it may exacerbate the condition. Patients with glucose 6-phosphate dehydrogenase deficiency may be at risk of haemolytic reactions.

Sulfamethoxazole and other sulfonamides are not usually given to infants within 1 to 2 months of birth because of the risk of kernicterus; for the same reason, they are generally contra-indicated in women prior to delivery, and in breast-feeding mothers.

Patients with Aids may be particularly prone to adverse reactions, especially when *sulfamethoxazole* is
given in combination with trimethoprim as co-trimoxazole.

Sulfonamides have been reported to interfere with some diagnostic tests, including those for urea, creatinine, and urinary glucose and urobilinogen.