

Dapsone Therapeutic Cheat Sheet

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TRADE NAMES

- There are no currently available brand versions of oral dapsone. Topical dapsone is marketed under the trade name Aczone.

FDA APPROVED FOR

- **Oral:** dermatitis herpetiformis and leprosy
- **Topical:** Acne vulgaris

DOSING

- **Oral:** Typically, 25-200 mg per day
- **Topical:** Twice daily for 5% gel and once daily for 7.5% gel

OFF-LABEL USES

Dapsone has been used off-label for a variety of neutrophilic dermatoses including linear IgA bullous dermatosis, bullous eruption of SLE, erythema elevatum diutinum, urticaria, bullous pemphigoid, granuloma annulare, leukocytoclastic vasculitis, granuloma faciale, actinomadura madurae, actinomycotic mycetoma, ITP, TB, nocardia infection, PCP pneumonia, toxoplasmosis, pyoderma gangrenosum, Sweet's syndrome and Bechet's syndrome.

MECHANISM OF ACTION

Dapsone directly inhibits myeloperoxidase, an enzyme essential to the oxidative burst produced by neutrophils. There has also been some evidence that dapsone may alter neutrophil chemotaxis. Dapsone also inhibits myeloperoxidase in eosinophils.

CONSIDERATIONS

➤ Oral:

Common: fever, headache, GI upset, blurred vision, arthralgia/myalgia, tinnitus, malaise
Serious: agranulocytosis (most common in the first 12 weeks), methemoglobinemia*, hemolytic anemia (especially in patients with low G6PD)**, peripheral neuropathy, renal toxicity, hepatotoxicity hypersensitivity reaction (fever, rash, hepatitis)

*Note: methylene blue is the treatment for acute methemoglobinemia. Coadministration of cimetidine lowers the risk of methemoglobinemia by decreasing levels of the hydroxylamine metabolite of dapsone which is responsible for this side effect.

**Note: coadministration of vitamins C and E has been shown to lower the risk of hemolysis in patients with DH on dapsone.

➤ Topical:

Dryness, peeling, erythema, methemoglobinemia, angioedema

CONTRAINDICATIONS

Previous hypersensitivity to dapsone, low glucose-6-phosphate dehydrogenase level, cardiopulmonary disease, sulfonamide allergy, renal or hepatic impairment, existing peripheral neuropathy

PREGNANCY AND LACTATION

Formerly category C. There is limited data about the effects of dapsone on the fetus, though it has been used safely in some cases. Dapsone is excreted in breast milk and may carry the risk of hemolytic anemia in infants. However, it may be used in both pregnancy and lactation if benefits outweigh risks. Note that due to enterohepatic recirculation, dapsone will be present in the circulation for weeks after discontinuation..

BEFORE STARTING

Perform a thorough history and physical with special attention to cardiopulmonary, neurologic and renal systems.

Labs: CBC with differential, hepatic panel, complete metabolic panel with special attention to renal function, UA

MONITORING

CBC should be checked weekly for 4 weeks, then every 2 weeks until week 12.

Hepatic panel, CMP and UA should be repeated at week 12.

All of the above labs should be repeated every 3 to 4 months after week 12.