

M. A. Khan, M.D.
 Board Certified Dermatologist
 SKIN AND ALLERGY CLINIC
 4761 Higbee Avenue N.W.
 Canton, Ohio 44718-2551
 Tel: 330-492-1117
 Tel: 330-492-6702

DAPSONE FLOWSHEET

Patient Name _____

FDA Indication: ___ *DH* (DOC. Start at 50mg/d. Usual maint. dose 100-200/d; some as low as 25mg/d)
 ___ *Leprosy* (100mg/d)

Off Label Use:
 ___ *Linear IgA/CBDC* (100-200mg/d) ___ *PG* ___ *pustular psoriasis*
 ___ *Bullous SLE* (50mg/d) ___ *Sweets* ___ *Relapsing PC*
 ___ *EED* (50-200mg/d) ___ *Behcets/Apth Ulcers* ___ *N-C acne*
 ___ *Granuloma faciale* (25-100mg/d) ___ *LCV*
 ___ *PV/PF* (up to 300mg/d) ___ *BP/CP* ___ *other* _____

Contraindications:

Absolute: ___ hypersensitivity
Relative: ___ G6PD deficiency (esp. in African-Americans, Middle Eastern heritage, Asians)
 ___ Significant cardiopulmonary disease.
 ___ Significant hematological disease.
 ___ Sulfa allergy
 (cautious use in pts with sulfa allergy may be attempted. Cross-reactivity is relatively rare and mild)

Available as: 25mg & 100mg scored tablets

Gluten-free diet option discussed with pt: ___ yes ___ N/A

Vitamin E 800 IU/day: ___ Yes ___ No

<u>LABS</u>	<u>Baseline</u>	<u>1wk</u>	<u>2wks</u>	<u>3wks</u>	<u>4wks</u>	<u>6wks</u>	<u>8wks</u>	<u>12wks</u>	<u>6mos</u>	<u>9mos</u>	<u>12mos</u>
CBC/Diff *	___	___	___	___	___	___	___	___	___	___	___
H&P**	___	___	___	___	___	___	___	___	___	___	___
LFTs	___	___	___	___	___	___	___	___	___	___	___
BUN/Creat	___	___	___	___	___	___	___	___	___	___	___
U/A	___	___	___	___	___	___	___	___	___	___	___
G6PD level	___	___	___	___	___	___	___	___	___	___	___

Methemoglobin level: PRN***
 Retic count: PRN****

*If sig. dose increase, monitor more closely. If mild iron def, folate or B12 def exists, correct before tx.
 **Baseline- emphasis on cardiopulmonary, gastrointestinal, neurologic, renal systems.
 F/up- reassess for peripheral motor damage, methemoglobinemia.
 ***Check if excessive fatigue, HA's or cardiopulmonary sx's occur.
 ****May be used to monitor body's bounce-back from fall in Hgb (if necessary).

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DAPSONE INFORMATION

Inexpensive – (0.15 – 0.60 cents per day)

Preg. Cat C - Although no harmful effects have been demonstrated on fetal development in-utero.

T1/2- varies from 10-50 hours; remains in circulation for up to 30d after d/c.

Metabolized in liver; **excreted** by kidneys. Also **excreted** in breast milk, so don't give to nursing mothers.

MOA- *In leprosy*- inhibits folic acid pathway.

In inflammatory conditions- not well understood. May inhibit neutrophil chemotaxis and binding to IgA.

O.D. or toxicity tx: **1. Activated charcoal.** Dapsone undergoes sig. enterohepatic circulation and this will increase elimination by 5x.

2. Methylene blue- emergency: 1-2mg/kg given slowly IV. Effect is w/in 30 minutes.

May have to repeat.

-non-emergency- 3-5mg/kg q4-6 hrs orally.

NOTE: Methylene blue depends on G6PD. Will not work in fully expressed G6PD pts, so don't give.

What to expect **DH:** DOC. Response w/in 24-36 hrs. **Linear IgA/CBDC:** rapid response w/in 24-48hrs.

Bullous SLE: dramatic response with doses as low as 50mg/d. **Leprosy:** monotherapy with dapsone is ineffective in all cases. **EED:** responds dramatically. **BP/CP, subcorneal pustular dermatosis (IgA pemphigus), PV, PF, EBA:** highly variable response; better if neutrophil predominant infiltrate. **LCV/urticarial vasculitis:** varying success. **Sweets, PG, Behcets:** good responses have been reported. Less pathergy in Behcets. **SLE, SCLE, relapsing polychondritis,**

GA: successes reported but no controlled studies. **Brown recluse spider bites:** no clear benefit demonstrated. **Granuloma faciale, pustular psoriasis, panniculitis, acne rosacea, N-C acne:** reported to be somewhat responsive. No controlled studies.

S/E: Hemolytic anemia: dose related. Occurs in everybody on dapsone to some degree. Older RBCs more susceptible. Most pts will have a 2g/dl drop in Hgb with re-equilibration at 1g/dl below normal. Retic count may be used to monitor body's bounce back ability. G6PD deficient pts more affected.

Methemoglobinemia: dose related. Degree of cyanosis not predictive of degree of methemoglobinemia. Pts with sig. cardiopulmonary dz or low baseline Hgb levels may not be able to tolerate low levels of methemoglobin. Vitamin E 800 IU/d and cimetidine 400mg tid has been shown to provide a small amount of protection from formation of methemoglobin and hemolysis.

Agranulocytosis: Idiosyncratic. Mechanism not known. 1 in 240-425 pts. Has occurred as early as 3 wks. All cases developed w/in 12wks. Fever, pharyngitis, sepsis. Mortality rate 50%. If promptly d/c'ed, recovery in 7-14d. Granulocyte colony-stimulating factor may speed recovery.

Neuropathy: Distal motor neuropathy with some sensory involvement. Distal motor weakness of hands and legs; wasting hand muscles. Most pts recover completely with d/c of dapsone. Recovery can take from 2wks to 2yrs. Mechanism of neuropathy unknown.

Retinal damage: permanent, has been reported with overdosage. Thought to be due to hypoxia.

Acute psychosis: usually in leprosy pts.

GI: Upset minimized if taken with food. Primary hepatocellular hepatitis, cholestatic hepatitis, hypoalbuminemia, gall bladder perforation, pancreatitis.

Dapsone hypersensitivity syndrome: mononucleosis-like eruption with fever; skin eruption has ranged from maculopapular to TEN; hepatitis; peripheral eosinophilia.

Fatalities have been reported. Tx with steroids have been tried but due to its rarity, cannot say it helps.

Cutaneous hypersensitivity eruptions: Maculopapular, EM or TEN (rare). Photosensitivity.

Carcinogenesis: animal studies have shown a sl. Increase in malignancies if taken for 2 yrs or more. Not documented in humans.

Interactions: Increase dapsone levels: trimethoprim, probenecid, folic acid antagonists (pyrimethamine, MTX, etc)

Decrease dapsone levels: activated charcoal; PABA; rifampin.

May increase hemolysis: sulfonamides, hydroxychloroquine.

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DAPSONE CONSENT FORM

Dapsone is a drug that may benefit your medical condition. Like any drug, it has side-effects. Although dapsone is a safe drug when taken by most patients, it has some unusual side-effects and it is not possible to determine before-hand which patients may get these side-effects. This form lists some of the side-effects and also is an agreement for you to abide by as a responsible patient.

Dapsone may cause the following:

Initials

- ___01 Upset stomach. I understand dapsone is best taken with food or milk to minimize this effect.
- ___02 Anemia. This is a reduction in my red blood cell count which carry the oxygen in the blood.
- ___03 Agranulocytosis. This is a rare reaction that occurs in less than 0.5% of patients taking dapsone. It is where your body stops producing a certain type of white blood cell. This is a potentially life-threatening reaction. It is idiosyncratic which means we cannot predict who may get this reaction. If promptly discovered, recovery in 7-14 days usually occurs.
- ___04 Methemoglobinemia. This causes a reduction in the oxygen carrying ability of red blood cells. As a result, your lips or fingers may acquire a blue appearance. A small amount of blueness may occur and this does not necessarily need treatment or mean that something is going wrong. If you feel shortness of breath, excessive tiredness, or other symptoms, treatment may be required.
- ___05 Neuropathy. This is a decrease in the nerves ability to function. With dapsone, this usually involves the nerves of the hands, feet, legs and may cause some degree of weakness in these muscles. If this occurs, after stopping dapsone, the nerves eventually recover. Optic nerve damage may lead to loss of vision & blindness.
- ___06 Retinal damage. This is damage to the back of the eyes and may permanently affect vision or cause blindness. This has been reported with overdose of dapsone.
- ___07 Hepatitis. This is inflammation of the liver. This usually resolves when dapsone is discontinued.
- ___08 Hypersensitivity syndrome. Symptoms include fever, severe skin rash and hepatitis. This is a rare but potentially life-threatening reaction.
- ___09 I understand I will need frequent blood tests, especially in the first 3 months of treatment (when most of these reactions occur) and I agree to comply with these tests to help monitor for these reactions.
- ___10 I understand it is important to keep all follow-up appointments to help monitor for these reactions.
- ___11 I understand I should carry a medication card stating that I am taking dapsone.
- ___12 I agree to take dapsone exactly as prescribed and I am not to increase the dose without checking with my doctor first.
- ___13 I understand to report to my doctor immediately if any of the following occur:
 - A. Prolonged fever.
 - B. Flu-like like nausea, vomiting, weakness, fever, sore throat.
 - C. Excessive fatigue, shortness of breath or chest pain.
 - D. Weakness in my hands, legs or feet out of the ordinary.
 - E. Abdominal pain, pale colored stools, or notice my eyes or skin acquires a yellow tint.
- ___14 Although dapsone has not been reported to cause fetal harm during pregnancy, I understand it is best to avoid pregnancy while taking dapsone.
- ___15 Increased sensitivity to sunlight may occur and it is best to use sunscreen and protective clothing when prolonged sun-exposure is anticipated.
- ___16 Other unusual side-effects have been reported and a complete listing may be obtained by requesting the package insert from the pharmacist.

I have read the above 16 items and have been given an opportunity to have all my questions answered. Treatment alternatives have also been discussed with me, including doing nothing. I hereby consent to be placed on dapsone.

Patient name & signature _____ Date _____

Physician name & signature _____ Date _____

Witness name & signature _____ Date _____