Health and Social Care

Department of Health
An Roinn Sláinte
Männystrie O Poustie
www.health-ni.gov.uk

Interface Pharmacist Network Specialist Medicines

Dapsone

Dermatology / Immunology Shared Care Guideline

Specialist Details	Patient Identifier
Name: _____	
Location: _____	
Tel: _____	**Date:** _____

Introduction

Dapsone is an antibacterial medicine belonging to the sulphonamide class of antibiotics. It also acts as an anti-inflammatory and can be used to treat a range of inflammatory skin conditions.
Licensed indications include: Dermatitis herpetiformis and other dermatoses
Unlicensed indications include: neutrophilic dermatoses (e.g. Sweet's syndrome, pyoderma gangrenosum, erythema elevatum diutinum); immunobullous dermatoses (e.g. pemphigus, bullous pemphigoid, linear IgA disease); vasculitis, chronic spontaneous urticaria, subcorneal pustular dermatosis, hidradenitis suppurativa, severe acneiform eruption, lupus, granuloma faciale.

Adult dosage and administration

Adults: Initially 50mg daily, gradually increased to 300mg daily if required. The dose should be reduced according to response, usually to 25-50mg daily, which may be continued for a number of years.
Maintenance dosage for patients with dermatitis herpetiformis can often be reduced in patients receiving a gluten-free diet.
Dosage should be reduced in the elderly where there is impairment of hepatic function
Available as: 50mg & 100mg tablets.

Hospital specialist responsibilities

- Assess patient's suitability for treatment with dapsone
- Agree shared care with patient's GP
- Advise GP on dose of dapsone to be prescribed.
- Provide the patient/carer with relevant (written) information on use, side effects (including 'dapsone hypersensitivity syndrome') and need for monitoring of medication.
- Undertake baseline tests as indicated in monitoring table below
- Review results of safety monitoring and request additional tests as required
- Monitor disease response to treatment and need to continue therapy
- Continue to review the patient at agreed specified intervals, sending a written summary to the GP whenever the patient is reviewed
- Provide any other advice or information for the GP if required

Monitoring table		**Hospital Specialist**	**GP**			**Hospital Specialist**
Test	**Indication**	Pre-Treatment Baseline	During Treatment			At review
			First month	Next 3 months	Thereafter	
FBC	Baseline assessment, Dose Adjustment	✓	Every week	Every month	Every 3 months	As part of review or as clinically indicated
LFTs						
U&Es						
G6PD (in at risk groups e.g. African, Asian, Mediterranean or Middle-Eastern descent)	Baseline assessment	If clinically indicated	Not routinely required			If clinically indicated
There may be clinical circumstances where the frequency of monitoring may vary and this should be specified by the initiating specialist						

GP responsibilities

- Prescribe dapsone
- Arrange and record ongoing monitoring as advised by specialist (see monitoring table), ensuring practice systems are in place to recall patients for monitoring blood tests
- Prevent ongoing prescription if patient is not compliant with monitoring
- Continued prescribing is appropriate for patients attending regular review
- Report any adverse drug reactions to initiating specialist and the usual bodies (e.g. MHRA/CHM)
- Ensure no interactions with other medicines
- Ask about oral ulceration/sore throat, unexplained rash, or unusual bruising at every consultation

Action required in event of monitoring abnormalities

Test		Action required

• WCC < 3.5 x 10^9/L
• Neutrophils < 1.5 x 10^9/L
• Platelets < 150 x 10^9/L
• Haemoglobin:
  ○ < 130 g/L in males ≥ 15 years old **OR**
  ○ < 120 g/L in non-pregnant females ≥ 12 years old **OR**
  ○ fall of > 20g/L from baseline
• MCV > 105 fL (check B12, folate and TFTs and start supplementation if low)
• U&Es – if any unexpected deranged results that cannot be explained by any other factors
		• **Stop dapsone**
		• Repeat test and discuss with hospital specialist

• Aspartate transaminase (AST) or alanine transaminase (ALT)	> 2 x upper limit of normal (ULN) and < 3 x ULN	• Check for other causes of deranged LFTs including infection/ alcohol excess/ other medications. If persistently elevated without other obvious cause: suggest stopping dapsone and contacting hospital specialist.
	> 3 x ULN	• **Stop dapsone** • Repeat test and discuss with hospital specialist

Please note: An unusual fall or rise or a consistent downward or upward trend in any value should prompt review of the patient and extra vigilance. Some patients may have abnormal baseline values, specialist will advise.

Action required in event of abnormal signs/symptoms

Unexplained sore throat / mouth ulcers / fever	• Arrange urgent FBC • Consider stopping dapsone and contact initiating specialist
Unexplained abnormal purpura / bruising / bleeding / jaundice	• **Stop dapsone** and discuss with hospital specialist • Arrange urgent FBC, Clotting, LFTs
Signs of peripheral neuropathy (peripheral paraesthesiae, sensation loss, weakness)	• **Stop dapsone** and discuss with hospital specialist
* Dapsone Hypersensitivity Syndrome (e.g. widespread rash, pruritus, fever, eosinophilia)	• **Stop dapsone** and discuss with hospital specialist immediately • Check observations and arrange urgent FBC, LFT, U&E • Likely to need treatment with oral prednisolone
Methhaemogobinaemia (very rare). Typically presents as light-headedness, headache, fatigue, breathlessness and/or blue colour of lips/skin	• Refer patient to the Emergency Department immediately • **Stop dapsone** and discuss with hospital specialist immediately
Stevens Johnson syndrome or Toxic epidermal necrolysis	

Adverse effects, precautions and contraindications

Adverse effects are dose related.
Agranulocytosis; appetite decreased; haemolysis; haemolytic anaemia; headache; hepatic disorders; hypoalbuminaemia; insomnia; lepra reaction; methaemoglobinaemia; motor loss; nausea; peripheral neuropathy; photosensitivity reaction; psychosis; severe cutaneous adverse reactions (SCARs); skin reactions; tachycardia; vomiting
A **dapsone hypersensitivity syndrome*** may occur after 3-6 weeks therapy; symptoms include **rash, which is always present**, fever, and eosinophilia. If dapsone is not stopped immediately, the syndrome may progress to exfoliative dermatitis, hepatitis, albuminuria and psychosis. Deaths have been recorded. Most patients require steroid therapy for several weeks, possibly due to the prolonged elimination time of the drug.

Cautions
Patients with cardiac, pulmonary, cerebrovascular, peripheral vascular disease, anaemia (severe anaemia should be treated before starting dapsone), methaemoglobin reductase deficiency, or haemoglobin M.

Diabetes monitoring. Dapsone does not impact on the control of diabetes however in patients with diabetes, consider alternative methods to monitor diabetes control other than HbA1c as **dapsone may artificially lower HbA1c test results.**

Live Vaccines: Consult the Green Book and take additional advice from initiating specialist if required.

Contraindications include: Known hypersensitivity to sulfonamides or sulfones, severe anaemia, porphyria, severe glucose-6-phosphate dehydrogenase deficiency.

Pregnancy: Dapsone should only be given during pregnancy when benefit outweighs risk. Folic acid should be considered if treatment continues during pregnancy.

Breast feeding: Dapsone diffuses into breast milk and there has been a report of haemolytic anaemia in a breast fed infant. A decision should be made to discontinue breast feeding or discontinue the drug taking into consideration the importance of the drug to the mother.

Common drug interactions

Trimethoprim - increases dapsone levels, leading to an increased risk of side effects.
Probenecid - can increase dapsone levels, leading to an increased risk of side effects.
Folic acid antagonists - increase dapsone levels, leading to an increased risk of side effects.
Rifampicin and **rifabutin** - decrease dapsone levels.
A number of other medicines (see BNF for full list) can increase the risk of methaemoglobinaemia when given with dapsone.

Communication

For any queries relating to this patient's treatment with dapsone, please contact the specialist named at the top of this document.

This information is not inclusive of all prescribing information and potential adverse effects.
Please refer to full prescribing data in the SPC at www.medicines.org.uk or the BNF

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