MIL

Oxford University Hospitals NHS
NHS Foundation Trust

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This Medicines Information Leaflet is produced locally to optimise the use of medicines by encouraging prescribing that is safe, clinically appropriate and cost-effective to the NHS.

Cutaneous Drug Reactions - Management

This Medicines Information Leaflet (MIL) is applicable to all adult inpatients of the Oxford University Hospitals NHS Foundation Trust (OUH). This MIL covers the principles of managing cutaneous drug reactions, and referrals to dermatology urgently (Bleep #5044 between 9am – 5pm; switchboard between 5pm – 9pm; Medical SpR #1475 between 9pm – 9am) or non-urgently (via EPR Communicate).

Related guidance on the prescription of topical steroids and emollients can be found **here**.

Top Tips

- Cutaneous drug reactions are common. It affects 5-10% of inpatients.
- Onset is usually between 7-28 days after exposure, or sooner on re-exposure.
- Any drug can cause any rash. Withdraw likely agents / non-essential medications.

How to use this MIL

1. Use the **management pathway** (*see next page*) for initial assessment, identification of red flags, and basic principles of management.

2. **If the diagnosis is clear and is one of the following**:
   - Morbilliform rash
   - Acute urticaria
   - Erythroderma
   - Drug reaction with eosinophilia and systemic symptoms (DRESS)
   - Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis

   follow the specific management plan below as described in MILs (*see page 3*)

3. **If the diagnosis is unclear:**
   - **If red flags are present:** Urgent Dermatology SpR eferral [Bleep #5044] between 9-5pm; switchboard if between 5pm – 9pm; Medical SpR [Bleep #1475] between 9pm – 9am.
   - If no red flags: Non-urgent referral via EPR → Communicate → "Consult – Dermatology"

Cutaneous Drug Reactions - Management Pathway

Initial assessment

- Take detailed drug history, review drug chart with timelines, establish likely causative agent(s)
- Perform full physical examination including oral and genital mucosa
- Assess likelihood of a serious reaction – see red flags
- Management is dictated by severity

Red flags

Systemic features (fever, new or acute renal/hepatic derangement, lymphadenopathy), mucosal involvement, skin pain, dusky erythema, desquamation, facial oedema

If anaphylaxis = immediate anaphylaxis protocol

Present

Urgent Dermatology Review

Dermatology Reg, Bleep #5044 (9am – 5pm);
via switchboard (5pm – 9pm);
Medical SpR #1475 (9pm – 9am)

**Please discuss with Dermatology prior to prescribing oral steroids*

Absent

Principles of management

- Withdraw likely agent / all non-essential medications and document under allergies
- Emollients are essential to relieve dryness
- Soap substitutes
- Topical corticosteroids reduce itch in morbilliform or eczematous symptoms *(see Steroid and Emollients MILs)*
- Non-sedating antihistamines are the mainstay for urticaria e.g. Cetirizine 10mg OD or Fexofenadine 180mg OD

Investigations

- FBC (eosinophilia or lymphocytosis), U&Es, LFTs, CRP, clotting, complement level, TFTs, Glucose
- Refer to Dermatology to consider skin biopsy: contact via EPR *"Consult – Dermatology"*

Morbilliform Rash

- **Onset:** Presents 1-3 weeks after initial exposure; 1-3 days on re-exposure
- **Potential drugs:** Beta-lactam antibiotics, sulphonamides, NSAIDs, anti-convulsants
- **Signs**: Bilateral and symmetrical erythematous maculopapular drug eruption originating from the trunk and spreading to the limbs and neck
- **<u>Management</u>:**
  1) Stop and avoid suspected medication(s)

  2) Topical steroids / emollients (*See Steroid MILs*)

  3) **Refer for Dermatology review:** if any **red flag signs** or if considering systemic steroids

Acute Urticaria

- Rarely caused by drugs
- **Some drug causes:** Penicillin, cephalosporins, NSAIDs, opiates, thiazides, ACE-I, phenytoin
- **Signs:**
  - Anaphylaxis: *See Resus Council Anaphylaxis guidance*
  - Wheals (hives): resolves in mins to 24 hrs
  - Angioedema: resolves within 72 hrs
- **<u>Management</u>:** Non-sedating antihistamines e.g. Cetirizine 10-20mg OD

Erythroderma

- Exfoliative dermatitis
- **Drugs:** Sulphonamide, carbamazepine, allopurinol
- **Pre-existing skin conditions:** Eczema, psoriasis (especially after withdrawal of systemic steroids)
- **Signs:** Widespread erythema and dermatitis affecting more than or equal to 90% of body surface
- **<u>Management</u>: URGENT Dermatology referral**

DRESS (Drug reaction with eosinophilia and systemic symptoms)

- Also known as drug hypersensitivity syndrome
- **Onset:** 2-8 weeks from first exposure to drug, rash develops over several days
- **Drugs:** Sulphonamides, allopurinol, anti-convulsants
- **Signs:** Fever higher than 38^{o}C, morbilliform eruption (see morbilliform rash above), eosinophilia, lymphadenopathy, multi-organ involvement
- **<u>Management</u>: URGENT Dermatology review** *(see next page)*

DRESS presents as: Morbilliform eruption with systemic features.	1) Stop suspected medication(s) 2) Bloods: FBC, U+E, LFT, Clotting, Viral screen (Hep B/C, EBV, CMV, HHV-6, HSV), TFTs, Glucose
Stevens-Johnson Syndrome / Toxic Epidermal Necrolysis  	• **Signs:** Red flag features in the flowchart above Systemic features (fever, new or acute renal / hepatic derangement, lymphadenopathy), mucosal involvement, skin pain, dusky erythema, desquamation, facial oedema **If anaphylaxis** = Anaphylaxis protocol (Link) • **Some drug causes:** Penicillin, cephalosporins, co-trimoxazole, anti-convulsants, allopurinol, paracetamol, NSAIDs • **Management: URGENT Dermatology referral** but start investigations in the flowchart above to facilitate diagnosis

References:

1. British Association of Dermatologists 2023, Guidelines and Standards, accessed 1 August 2023, <www.bad.org.uk>
2. Oxford University Hospitals NHS Foundation trust, Dermatology Department, Churchill Hospital
3. Images: Obtained with patient consent

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