Therapeutic Guidelines

Types of cutaneous drug reactions, their time courses, and some commonly implicated drugs

Reaction	Signs and symptoms	Typical onset after drug exposure [NB1] [NB2]	Some commonly implicated drugs
exanthematic (morbilliform; most common)	typically begins on trunk and upper limbs polymorphous exanthematic or urticarial lesions on limbs confluent lesions on upper chest purpuric lesions on ankles and feet	1 week to 1 month	almost all drugs, but most frequent with antibacterials (eg beta lactams, macrolides, quinolones, sulfonamides), many antiepileptics, allopurinol, antiretrovirals, NSAIDs, gold, blood products, cytotoxic drugs
urticarial	transient erythematous or oedematous patches	hours to 6 days	antibacterials, NSAIDs (ACEIs trigger angioedema, usually without urticaria)
phototoxic eruption	presents as an exaggerated sunburn (eg erythema, oedema, blistering, weeping, desquamation) confined to sun-exposed areas	hours to 2 days	doxycycline, NSAIDs (eg piroxicam, naproxen), amiodarone [NB3], retinoids, sulfonamides, thiazides, griseofulvin, voriconazole
photoallergic eruption	eczematous or lichenoid can extend beyond sun-exposed areas	24 to 48 hours after sun exposure	chlorpromazine, piroxicam, thiazides, sulfonylureas, amiodarone, sulfonamides
lichenoid	widespread, itchy, erythrodermic, scaly, lumpy rash mucous membrane involvement unusual may be photosensitive	months or even years	ACEIs, beta blockers, chloroquine, ethambutol, gold, hydroxychloroquine, hydroxycarbamide (hydroxyurea), interferon alfa, lithium, methyldopa, penicillamine, sulfonylureas, thiazide diuretics
cutaneous vasculitis	usually presents as palpable purpura on the lower legs may spread or form plaques, bullae or ulcers	7 to 21 days	allopurinol, beta lactams, sulfonamides, carbamazepine, diuretics (furosemide [frusemide], thiazides), NSAIDs, phenytoin
fixed drug eruption	round to oval, sharply marginated, red to violet inflamed plaques that sometimes evolve to blisters solitary or few lesions on face, hands, feet or genital area may involve lips and mouth	up to 2 weeks (after first exposure) or faster onset (after subsequent exposure)	NSAIDs, sulfonamides, pseudoephedrine, penicillins, tetracyclines, phenobarbital (phenobarbitone), lamotrigine, phenytoin, quinine

continued next page

Types of cutaneous drug reactions, their time courses, and some commonly implicated drugs (cont.)

Reaction	Signs and symptoms	Typical onset after drug exposure [NB1] [NB2]	Some commonly implicated drugs
Severe cutaneous adverse reactions (SCARs)			
Stevens–Johnson syndrome (SJS) [NB4]	significant initial influenza-like symptoms widespread mucocutaneous exfoliation with or without blisters (over 10% of body surface area)	within weeks (up to 2 months for antiepileptics)	antiepileptics, sulfonamides, allopurinol, NSAIDs, beta lactams
toxic epidermal necrolysis (TEN) [NB4]	significant initial influenza-like symptoms widespread mucocutaneous exfoliation with or without blisters (over 30% of body surface area)	within 1 week (up to 2 months for antiepileptics)	antiepileptics, sulfonamides, allopurinol, NSAIDs, beta lactams
drug rash with eosinophilia and systemic symptoms (DRESS)	initial influenza-like symptoms exanthematic rash (may also be exfoliative or erythrodermic) nonfollicular pustules facial oedema, lymphadenopathy, peripheral eosinophilia (over 1.5 x 10^9/L) and internal organ involvement (frequently liver involvement)	1 to 8 weeks, occasionally up to 4 months	aromatic antiepileptics (phenytoin, carbamazepine, oxcarbazepine), barbiturates, lamotrigine, sulfonamides, dapsone, minocycline, azathioprine, abacavir, nevirapine, allopurinol
acute generalised exanthematous pustulosis (AGEP)	fever, widespread nonfollicular sterile pustules, large areas of oedematous erythema usually starts on the face or axillae marked neutrophilia	hours to 2 weeks	terbinafine, antibacterials (beta lactams, macrolides, quinolones), calcium channel blockers, antimalarials, pholcodine, paracetamol

ACEIs = angiotensin converting enzyme inhibitors; NSAIDs = nonsteroidal anti-inflammatory drugs

NB1: The information in this column is based on reported data and expert opinion.

NB2: Typical onset times are presented as ranges, but most skin reactions occur during the first prolonged exposure to the drug.

NB3: Amiodarone can cause slate-blue discoloration of sun-exposed skin.

NB4: Stevens–Johnson syndrome and toxic epidermal necrolysis are the same disorders of different severity.