Skin Immune-Related Adverse Event Management Algorithm

Grading of Skin toxicity	Action	Follow-up
Grade 1 Localised maculopapular rash (<10% BSA)	**Investigations** • Examination - exclude other causes ie. viral illness, infection, other drug reaction **Management** • Continue IO therapy • Photograph rash and record BSA • Symptomatic management ie emollient with paraffin (cetraben). • Consider antihistamines if itching • Consider mild topical steroid (Hydrocortisone)	**If remains stable / resolves:** • No further follow up required **If worsens / persists:** • Treat as Grade 2
Grade 2 Rash affecting 10-30% BSA	**Investigations** • As per G1 • Bloods (immunotherapy panel) **Management** • Photograph rash and record BSA • Symptomatic management • Consider moderate (Betnovate) to high (Dermovate) potency topical steroids	**If improves:** • If improving on topical steroids, continue for 2 weeks. Repeat treatment if flare. **If worsens or persists:** • If persists for over 5 days or worsens then then treat as grade 3
Grade 3 Rash >30% BSA Red flags: Mucosal involvement **Bullous / blistering** **SCAR** Skin shedding Fever Hypothermia Pustules	**Investigations** • As per G2 • Bacterial and viral wound swabs **Management** • Consider admission • Photograph rash and record BSA • Hold I-O therapy • Urgent Dermatology referral +/- biopsy • Symptomatic management • Initial high potency topical steroids • Abx and antivirals not indicated unless proven infection.	**If symptoms worsen or persist:** • If refractory to topical steroids or **extensive rash**, then start oral prednisolone at 0.5mg/day and can increase up to 1mg/kg/day (max 60mg per 24hrs) **If symptoms resolving:** • If improving and on oral steroids to wean over >4 weeks (see separate document). • Can re-start I-O therapy when symptoms reduce to <Grade 1 and Prednisolone <10mg/day
Grade 4 Rash > 50% BSA with severe life threatening symptoms, requiring immediate intervention	**Investigations** • As per G3 **Management** • Admission • Photograph rash and record BSA • Consider permanently discontinuing I-O therapy • Urgent Dermatology referral +/- biopsy • IV methylprednisolone 1-2mg/k/day • IV fluid hydration and fluid balance	**If symptoms resolving:** • If improving convert to oral prednisolone 1mg/kg/day and wean slowly under guidance of dermatology **If symptoms worsen or persist:** • If refractory to IV steroids, then continue management under guidance of dermatology

Immunotherapy-related skin toxicity – additional information

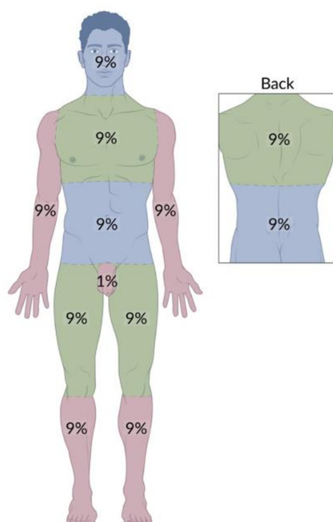
An approach to itching without a rash:

- Investigations:
  - FBC, U&Es, LFTs, Cortisol, TFTs, Glucose
- Management:
  - Non-sedating antihistamines e.g. Fexofenadine / Cetirizine OR sedating long-acting hydroxyzine
  - If persists, add in topical emollient for dry skin / 1% menthol in aqueous cream
  - If still persisting, discuss with dermatology to consider gabapentin or pregabalin

Topical steroid advice:

Topical Steroid Ladder	
Mild	Hydrocortisone
Moderate	Betnovate
High	Dermovate

Body Surface Area Diagram:



For Images of drug induced skin reactions: visit Dermatology MILS on Drug induced skin reactions (OUH only).

Issue date:	
Version No:	2.0
Authors:	Zoe Scabbiolo Anil Babar Alekhia Nippani