Dermatology Guidelines – Stevens-Johnson Syndrome & Toxic Epidermal Necrolysis

Acute cutaneous drug reactions are common in hospital. These guidelines will help you identify and manage two of the more severe types of cutaneous drug reaction.

Stevens-Johnson Syndrome (SJS):
Acute skin reaction characterised by:

- Mucocutaneous necrosis of at least two mucosal sites (eyes, lips, oesophagus, genitalia, upper respiratory tract)
- Widespread erythematous tender macules
- Flaccid blisters
- Target lesions

Note that in SJS <10% of the total body surface area is affected

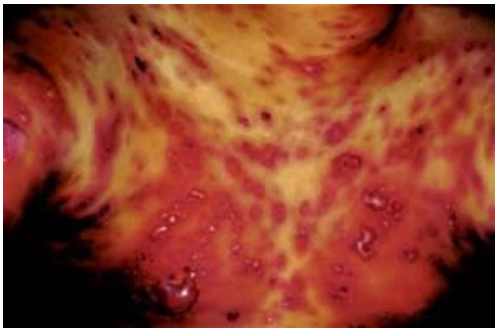
Toxic Epidermal Necrolysis (TEN):
Characterised by sheet-like skin loss with >30% of the total body surface area affected.
Please note there is overlap between SJS & TEN (erythema multiforme is a similar condition and is characterised by target lesions on the skin).

Erythema multiforme:
This an acute self-limiting condition, characterised by target lesions on the skin and is usually caused by an infection (commonly HSV) rather than a drug. Occasionally there may be a few oral ulcers. This is a much milder condition and therefore these guidelines are not applicable, but a Dermatology referral should still be made.

Aetiology:
Medications are the most common cause of SJS & TENS, with the following being particularly likely:

- Antibiotics: penicillins, cephalosporins and sulphonamides
- Anti-epileptics: carbamazepine, phenytoin and phenobarbital
- Allopurinol
- NSAIDs

If due to medication the reaction tends to be seen 3 days to 1 month after drug initiation
Infections can also cause the reaction and you should screen for herpes, mycoplasma and legionella if suspected, although this is much less likely than iatrogenic causes.



Authors: Dr Katie Tomlinson & Dr Emily Davies
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Initial Assessment

- Expose the skin; look at entire skin surface to identify areas affected.
- Examine the eyes, genitals and inside the mouth
- If concerned about the airway call ENT for urgent r/v

Fluid Balance

- Assess fluid balance and if clinically indicated:
  - Obtain IV access and begin fluid resuscitation with crystalloid (volume guided by BP)
  - Catheterise the patient
  - Initiate strict input-output monitoring

Medication Review

- Review current medication and hold any potentially causative agents (see list above) - **it is probably safest to hold all medications pending specialist r/v**

Swabs

- Take swabs of affected areas for MCS & viral serology
- Take bloods for FBC, U&Es, LFTs & clotting

Analgesia & skin care

- Prescribe regular and PRN analgesia in addition to:
  - 50:50 white soft paraffin:liquid parrafin hourly to lips
  - Corsadyl mouthwash QDS (diluted 50%)
  - Difflam mouthwash QDS
  - Emollin spray 2 hourly to skin

Dressings

- Ensure dressings are non-adhesive (e.g. mepitel) and do not use adhesive cannula covers
- Do not de-roof blisters as these provide a natural barrier
- Cover erosions with non-adhesive dressings

Ongoing management

- Punch biopsy of affected area - to be done by dermatology
- NG insertion if nutritional support needed
- Regular bloods - U&Es, protein
- Screen for HIV (100x more common in this patient population)
- RV patient at least daily (they may need transfer to ITU/burns unit)

Refer

- **Refer to dermatology: bleep the SHO on 2051 or call dermatology secretaries on extension 5396 for urgent same day r/v . Do not reply on e-referral alone.**
- **If out of hours transfer to Bristol Burns Unit**
- **Contact the med reg if suspicious of TEN**
- Refer to ophthalmology & ENT (if not done so already)

Further Management

- Prescribe prophylactic LMWH
- Request a pressure mattress
- Regular obs with emphasis on temperature control (rq a bear hugger if T < 36)

Please note that prophylactic antibiotics and steroids are not indicated

SCORTEN score can be calculated to predict mortality:

Score one point for each of the following:

- Age >40
- HR >120
- Urea >10
- Glucose >14
- Bicarbonate <20
- Initial percentage of epidermal detachment >10%
- Presence of malignancy

Mortality predicted by score:

0-1	>3.2%
2	>12.1%
3	>35.3%
4	> 58.3%
5	>90%

Reference:

Creamer, D., Walsh, S. A., Dziewulski, P…. & Smith, C. H. (2015). UK guidelines for the management of Stevens-Johnson syndrome/toxic epidermal necrolysis in adults. *Draft Guidelines, BAD.*

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