PAEDIATRIC HOSPITAL LEVEL STANDARD TREATMENT GUIDELINES AND ESSENTIAL MEDICINES LIST

CHAPTER 5: DERMATOLOGY

NEMLC 23 JUNE 2022

(For Final Ratification)

MEDICINE AMENDMENTS

SECTION	MEDICINE	ADDED/DELETED/NOT ADDED
5.1.2 Staphylococcal Scalded Skin Syndrome		
Medicine Treatment	Cephalexin, oral	Dose standardized to 25 mg/kg/dose
	Cephalexin, oral	Moved to first option
	Flucloxacillin	Moved to second option
	Clindamycin	Added for penicillin allergy
5.2.1 Erythema Multiforme		
Medicine Treatment	Cephalexin, oral	Dose standardized to 25 mg/kg/dose
	Cephalexin, oral	Moved to first option
	Flucloxacillin	Moved to second option
	Clindamycin	Added for penicillin allergy
5.2.2 Stevens-Johnson Syndrome/Toxic Epidermal Necrosis		
Medicine Treatment	Cephalexin, oral	Dose standardized to 25 mg/kg/dose
	Cephalexin, oral	Moved to first option
	Flucloxacillin	Moved to second option
	Clindamycin	Added for penicillin allergy
5.3.2 Acne		
Medicine Treatment	Benzoyl Peroxide	Added as first line for mild acne
	Doxycycline	Specified for inflammatory acne
	Topical retinoid	Added in combination with doxycycline
5.3.3 Cellulitis and Erysipelas		
Medicine Treatment (non-severe disease)	Cephalexin, oral	Dose standardized to 25 mg/kg/dose
	Cephalexin, oral	Moved to first option
	Flucloxacillin	Moved to second option
	Clindamycin	Added for penicillin allergy
5.3.4 Eczema		
Medicine Treatment	Cephalexin, oral	Dose standardized to 25 mg/kg/dose

General

Clindamycin, oral added: Penicillin allergy

An external comment was received indicating that clindamycin is preferable to azithromycin for penicillin allergy in skin conditions. [1, 2] The Committee agreed with this recommendation and applied this recommendation throughout the chapter.

Cephalexin/flucloxacillin

- An external comment was received indicating that the supply of flucloxacillin oral suspension has been problematic for many years. Cephalexin is included as an alternative, and thus the Committee agreed that the recommendations be switched, with cephalexin as first option, and flucloxacillin as an alternative.
- An external comment was received indicating that the dosing of cephalexin should preferably be standardised for simplicity as the dosing recommendations varies from 6.25 – 12.5 – 25 mg/kg/dose 6 hourly. It was proposed that higher dose of 25 mg/kg/dose 6 hourly as for flucloxacillin be included.
- An external comment was received indicating that the age-based dosing is simple but less accurate and should be either be included for all indications to cater for settings where the weight of the child is unknown/unmeasurable or not included at all. The text was amended to indicate 'where weight not available'.

5.1.2 Staphylococcal Scalded Skin Syndrome

The text was updated as follows:

- Cephalexin, oral, 25 mg/kg/dose 6 hourly for 7 days.
  Where weight is unknown:
  - Child < 2 years: 125 mg.
  - Child 2–10 years: 250 mg.
  - > 10 years: 500 mg.

OR

- Flucloxacillin, oral, 25mg/kg/dose 6 hourly for 7 days.

Penicillin allergy:

- Clindamycin, oral, 6 mg/kg/dose, 6 hourly for 10 days.

5.2.1 Erythema multiforme

The text was updated as follows:

[1] Stevens DL, et.al. Practice Guidelines for the Diagnosis and Management of skin and soft tissue infections: 2014 Update by Infectious Diseases Society of America. Clinical Infectious Diseases. 2014, 59 (2): e10-e52.
[2] Miller LG, et.al. Clindamycin versus Trimethoprim-sulfamethoxazole for uncomplicated skin infections. NEJM. 2015, 372 (12): 1093-1103.

- Cephalexin, oral, 25 mg/kg/dose 6 hourly.
  Where weight is unknown:
  - Child < 2 years: 125 mg.
  - Child 2–10 years: 250 mg.
  - > 10 years: 500 mg.

OR

- Flucloxacillin, oral, 25mg/kg/dose 6 hourly.

Penicillin allergy:

- Clindamycin, oral, 6 mg/kg/dose, 6 hourly.

5.2.2 Stevens-Johnson Syndrome/Toxic Epidermal Necrosis

The text was updated as follows:

- Cephalexin, oral, 25 mg/kg/dose 6 hourly.
  Where weight is unknown:
  - Child < 2 years: 125 mg.
  - Child 2–10 years: 250 mg.
  - > 10 years: 500 mg.

OR

- Flucloxacillin, oral, 25mg/kg/dose 6 hourly.

Penicillin allergy:

- Clindamycin, oral, 6 mg/kg/dose, 6 hourly.

5.3.2 Acne

Benzoyl peroxide topical: Added for mild acne

In line with the Primary Health Care, benzoyl peroxide 5% gel was added as a first-line option for mild acne.

Comedonal Acne and Inflammatory Acne

Topical retinoids were retained for the management of comedonal acne. Doxycycline in combination with a topical retinoid was retained for inflammatory acne. **Error! Bookmark not defined.**,**Error! Bookmark not defined.**,4

Topical retinoids therapeutic class

It is recommended that topical retinoids be declared a therapeutic class for this indication. Although there have been studies evaluating the various retinoids, the limitations of the studies prohibit direct efficacy

comparison of the various agents. [3,4] Thus until strong data suggest superiority of one agents, it is proposed that these agents be considered a class in terms of efficacy and safety.

The class members and equivalent strengths are recommended as follows:

- Tretinoin topical 0.05%
- Adapalene topical 0.1%
- Isotretinoin topical 0.05%

The Text was updated as follows:

For Mild Acne

- Benzoyl peroxide 5%, gel, apply in the morning to affected areas as tolerated.
  - Wash off in the evening
  - If ineffective and tolerated, increase application to 12 hourly.
  - If ineffective after 4 months, move to topical retinoid therapy.

For comedonal acne:

Topical retinoid, e.g.:

- Tretinoin cream/gel 0.05%, topical, applied sparingly once daily at bedtime until substantial improvement.
  - To limit skin irritation, introduce topical retinoid gradually - apply on alternate days (at night) for 1 - 2 weeks.
  - Avoid contact with eyes and mucous membranes.
  - To prevent irritation,
  - Limit exposure to sunlight, especially with concomitant use of doxycycline.

For inflammatory acne:

- Doxycycline, oral, 100 mg once daily for a maximum of three months.
  AND

Topical retinoid, e.g.:

- Tretinoin cream/gel 0.05%, topical, applied sparingly once daily at bedtime.

5.3.3 Cellulitis and Erysipelas

The text was updated as follows:

- Cephalexin, oral, 25 mg/kg/dose 6 hourly for 7 days.
  Where weight is unknown:
  - Child < 2 years: 125 mg.
  - Child 2–10 years: 250 mg.
  - > 10 years: 500 mg.

OR

[3] Shalita A, Weiss JS, Chalker DK, et al. A comparison of the efficacy and safety of adapalene gel 0.1% and tretinoin gel 0.025% in the treatment of acne vulgaris: a multicenter trial. J Am Acad Dermatol. 1996;34:482-485.

[4] Kakita L. Tazarotene versus tretinoin or adapalene in the treatment of acne vulgaris. J Am Acad Dermatol. 2000;43: S51-S54.

- Flucloxacillin, oral, 25mg/kg/dose 6 hourly for 7 days.

Penicillin allergy:
- Clindamycin, oral, 6 mg/kg/dose, 6 hourly for 10 days.

5.3.4 Eczema

The text was updated as follows:

- Cephalexin, oral, 25 mg/kg/dose, 6 hourly.

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NEMLC 9 DECEMBER 2021

MEDICINE AMENDMENTS

SECTION	MEDICINE	ADDED/DELETED/NOT ADDED
5.3.2 Acne		
Medicine Treatment	Under review	Added as first line for comedonal acne
	Doxycycline	Specified for inflammatory acne
	Topical retinoid	Added in combination with doxycycline
	Isotretinoin	Referral to specialist for consideration
5.3.6 Psoriasis		
Medicine Treatment	Salicylic acid 2% in white soft paraffin	Added for scalp lesions in children 12 years and older
	Salicylic acid 2% in which soft paraffin	Recommended to be used in conjunction
	Mild Coal Tar Shampoo	
	Betamethasone 1%	

5.3.2 Acne

Comedonal Acne
Under review: First line therapy for acne is still currently under-review. External comment in this area is encouraged.

Inflammatory Acne
Doxycycline: *Specified for inflammatory acne*
Topical Retinoid: *Added in combination with doxycycline*

Ineffective therapy
Isotretinoin: *Referral to specialist for consideration*

Doxycycline which was initially recommended as first line therapy, was moved to use in inflammatory acne in combination with a topical retinoid, which is in line with recommendations in acne guidelines.[Error! Bookmark not defined.,Error! Bookmark not defined.,4]

For patients where treatment is ineffective or refractory, it was recommended that a referral criteria be added for consideration of oral isotretinoin, which has been reviewed and approved in the Tertiary setting for moderate to severe recalcitrant nodular acne.[5]

Topical retinoids therapeutic class

It is recommended that topical retinoids be declared a therapeutic class for this indication. Although there have been studies evaluating the various retinoids, the limitations of the studies prohibit direct efficacy comparison of the various agents. [6,7] Thus until strong data suggest superiority of one agents, it is proposed that these agents be considered a class in terms of efficacy and safety.

The class members and equivalent strengths are recommended as follows:

- Tretinoin topical 0.05%
- Adapalene topical 0.1%
- Isotretinoin topical 0.05%

Caution around risk of teratogenicity with tretinoin and other topical retinoid retained

A comment was received proposing that the risk is only applicable with oral retinoid. The caution however was retained until there is a stronger evidence base on safety.[8] This is in line with the Primary Healthcare STGs and EML 2020, which retains the warning.

The text was amended as follows:

MEDICINE TREATMENT

- ~~Doxycycline, oral, 100 mg once daily for a maximum of three months.~~

~~**If ineffective, after 3 months:**~~

~~To limit skin irritation, introduce topical retinoids, gradually at night.~~

~~Topical retinoid, e.g.:~~

- ~~Tretinoin cream/gel 0.05%, topical, applied sparingly once daily at bedtime until substantial improvement.~~
  - ~~Avoid contact with eyes and mucous membranes.~~
  - ~~To prevent irritation, introduce tretinoin gradually - apply on alternate days for 1 - 2 weeks.~~
  - ~~Limit exposure to sunlight, especially with concomitant use of doxycycline.~~

[5] National Department of Health. Tertiary and Quaternary Essential Medicine List Recommendations. July 2021.

[6] Shalita A, Weiss JS, Chalker DK, et al. A comparison of the efficacy and safety of adapalene gel 0.1% and tretinoin gel 0.025% in the treatment of acne vulgaris: a multicenter trial. J Am Acad Dermatol. 1996;34:482-485.

[7] Kakita L. Tazarotene versus tretinoin or adapalene in the treatment of acne vulgaris. J Am Acad Dermatol. 2000;43: S51-S54.

[8] Topical retinoids (caution in pregnancy): Kaplan YC, Ozsarfati J, Etwel F, Nickel C, Nulman I, Koren G. Pregnancy outcomes following first-trimester exposure to topical retinoids: a systematic review and meta-analysis. Br J Dermatol. 2015 Nov;173(5):1132-41. https://www.ncbi.nlm.nih.gov/pubmed/26215715

For comedonal acne:
Topical retinoid, e.g.:

- Tretinoin cream/gel 0.05%, topical, applied sparingly once daily at bedtime until substantial improvement.
  - To limit skin irritation, introduce topical retinoid gradually - apply on alternate days (at night) for 1 - 2 weeks.
  - Avoid contact with eyes and mucous membranes.
  - To prevent irritation,
  - Limit exposure to sunlight, especially with concomitant use of doxycycline.

For inflammatory acne:

- Doxycycline, oral, 100 mg once daily for a maximum of three months.

AND

Topical retinoid, e.g.:

- Tretinoin cream/gel 0.05%, topical, applied sparingly once daily at bedtime.

Tretinoin is teratogenic. Do not use where pregnancy is a possibility. If used, ensure adequate contraception. Teratogenic risk also applies to males.

To avoid sun irritation:

- Sunscreen, topical, applied daily.

REFERRAL

» Ineffective treatment: referral for consideration of isotretinoin oral therapy.
» Recalcitrant and/or fulminant acne.
» Psychologically disturbed or depressed patient.
» Young females with premenstrual flare or with clinical signs of hyperandrogenism for consideration of oral contraceptives.

5.3.6 Psoriasis

Scalp lesions

Salicylic acid 2% in white soft paraffin*: added for children 12 years and older*
Salicylic acid 2%/coal tar shampoo/betamethasone 1%: *recommended to be used in conjunction*

It was proposed that for psoriasis scalp lesions be managed with a combination of salicylic acid, coal tar shampoo and betamethasone, rather than either mild coal tar shampoo OR betamethasone alone.

Topical corticosteroids are the mainstay for treatment of psoriasis, however the addition of coal tar and salicylic acid can be a valuable adjunctive therapy by promoting reduction of psoriatic scale. [9]

The text was amended as follows:

For scalp lesions:

- ~~Mild coal tar shampoo.~~

~~OR~~

- ~~Betamethasone 1% scalp application, apply 12 hourly.~~

To remove scales on scalp:

- Salicylic acid 2% in white soft paraffin, if required, in children 12 years and older:

AND

- Wash with mild coal tar shampoo.

AND/

- Betamethasone 1% scalp application, apply 12 hourly.

[9] Psoriasis therapy: Mosca M, Hong J, Hadeler E, Brownstone N, Bhutani T, Liao W. Scalp Psoriasis: A Literature Review of Effective therapies and updated recommendations for practical management. Dermatol Ther. 2021, 11:769-797.