

TOPICAL TREATMENT IN DERMATOLOGY

**REINHART SPEECKAERT
DEPT DERMATOLOGY
GHENT UNIVERSITY HOSPITAL**

Conflicts of interest

- **Copyright on the Cutaneous Inflammatory Disease Extent Score (CIDES) and Vitiligo Extent Score (VES) (with Prof Dr N van Geel)**
- **Owner of the Cream Calculator App (with Prof Dr N van Geel)**

TOPICAL TREATMENT

Advantages:

- Achieve high concentration of drug in skin
 - Minimal exposure to other organs
 - Stratum corneum is the rate-limiting barrier to percutaneous drug delivery
 - Drug penetration is inversely proportional to the thickness of the stratum corneum
-
- Regional differences in penetration (decreasing order)
 1. Mucous membrane
 2. Scrotum
 3. Eyelids
 4. Face
 5. Chest and back
 6. Upper arms and legs
 7. Lower arms and legs
 8. Dorsa of hands and feet
 9. Palmar and plantar sides of hands and feet
 10. Nails

SITE	Relative levels of absorption%
Sole	0.1
Palm	0.8
Forearm	1.0
Back	1.7
Scalp	3.5
Axila	3.6
Forehead	6.0
Scrotum	42

TOPICAL TREATMENT

Frequency of application

- Must be specified in order to maximize the response whilst avoiding side effects such as irritation.
- Emollients should be applied frequently enough to maintain their physical effect
- Active preparations are usually applied just once or twice a day
- As a general rule, twice daily application of drugs such as corticosteroids is only marginally more effective than once daily application
- Increasing the interval between applications can be a useful method of gradually reducing the intensity of a treatment

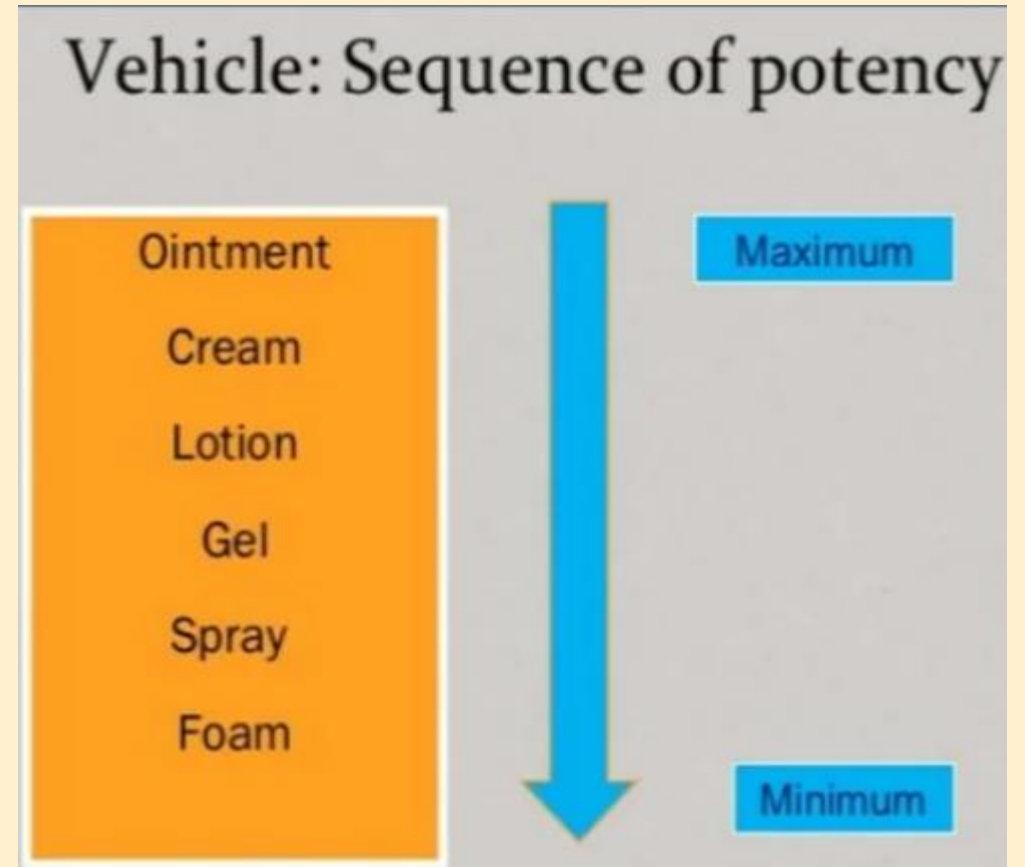
TOPICAL TREATMENT

- Vigorous rubbing or massaging of the drug increases the surface area and blood supply to the area locally, augmenting systemic absorption.
- Presence of hair follicles on a particular body site enhances drug delivery with the scalp and beard areas presenting less of a barrier when compared with the relatively hairless body sites

TOPICAL TREATMENT

PRESCRIPTION of topical medication must include:

- The vehicle or the formulation
- Concentration of the drug
- Frequency of application
- **Duration of application**
- **Quantity to be used**
- Site of application
- Precise timing of application



TOPICAL TREATMENT

OCCLUSION

- Vinyl gloves or plastic wrap, cotton gloves or socks
- Benefit: increased hydration and temperature, prevents wash off
- Increases efficacy but also side effects
- For best result, the patient should hydrate the skin by immersion in water for approximately 5 minutes before application
- With many drug, occlusion increases drug delivery by **10-100 times** the amount of drug delivered when not occluded

DURATION OF THERAPY

- Psoriasis:

Initial management:

NICE guidelines:

- Very potent corticosteroid 1x/d for 4 weeks at the same place. 4 weeks break between courses
- Potent corticosteroids: 8 weeks continuously
- Very potent corticosteroids not in children < 1 year

US guidelines:

- Topical corticosteroids should normally be limited to no more than twice daily for up to 2 to 4 weeks and no more than 50 g/w

Remarkably, most guidelines do not mention a maximum or ideal duration of the topical treatment: e.g. the Netherlands, Nordic, Germany, Scotland, South Africa, Malaysia, Canada, New Zealand

REVIEW ARTICLE

Topical corticosteroids in plaque psoriasis: a systematic review of risk of adrenal axis suppression and skin atrophy

E. Castela,^{*,†} E. Archier,[‡] S. Devaux,[§] A. Gallini,[¶] S. Aractingi,^{**} B. Cribier,^{††} D. Jullien,^{‡‡} F. Aubin,^{§§} H. Bachelez,^{¶¶} P. Joly,^{***} M. Le Maître,^{†††} L. Misery,^{‡‡‡} M.-A. Richard,[‡] C. Paul,[§] J.P. Ortonne[†]

There was **no evidence of clinically significant HPA axis suppression** due to absorption of topical steroids even when treating the scalp or in patients with extensive disease.

Risk of skin atrophy: Thirteen studies with topical steroid evaluating treatment durations from 4 weeks to 1 year were analysed. The **frequency of skin atrophy assessed clinically, varied from 0% to 5%** of patients.

DURATION OF THERAPY



Atopic dermatitis:

- Emollient therapy is the basis of AD treatment.
- Emollients are most effective if applied twice daily. Quantities required are usually high (150–200 g per week in young children, up to 500 g in adults).

Corticosteroids and topical calcineurin inhibitors:

- Traditionally, anti-inflammatory therapy was used on lesional skin **until resolution of AD**. Here the first-line treatment are corticosteroids, because TCI sting more intensely on inflamed skin,
- In moderate and frequently relapsing patients, a **proactive therapy** is recommended in which following initial daily therapy, a long-term anti-inflammatory treatment is applied twice weekly on frequently affected sites, in combination with emollients, which are used additionally on unaffected skin.

DURATION OF THERAPY

Atopic dermatitis:

- Flare-ups when used for **up to four(-six) weeks**, although many flare-ups may be adequately controlled with a shorter treatment course
- Very potent – potent: 45 gram/week
- Corticosteroids: twice daily application can improve itch control, but once daily treatment is sufficient in most case
- Best way to reduce TCS use is a stringent treatment of flares, followed by reduction in potency and starting **proactive therapy** in cases of frequent relapses
- **Corticofobia** (patients or parents fearing side-effects by corticosteroids) is frequent and needs to be addressed during patient education in order to to improve treatment adherence



BMJ Open Safety of topical corticosteroids in atopic eczema: an umbrella review

Emma Axon ¹, Joanne R Chalmers ¹, Miriam Santer ²,
Matthew J Ridd ³, Sandra Lawton ⁴, Sinead M Langan ⁵,
Douglas J C Grindlay ¹, Ingrid Muller ², Amanda Roberts ¹,
Amina Ahmed ¹, Hywel C Williams ¹, Kim S Thomas ¹

- Two 2-week randomised controlled trials (RCTs) found no significant increased risk with very potent TCS (0/196 TCS vs 0/33 vehicle in children,
- **Biochemical adrenal suppression** (cortisol) was 3.8% (95% CI 2.4% to 5.8%) in a meta-analysis of 11 uncontrolled observational studies (any potency TCS, 522 children;). Effects reversed when treatment ceased.
- No evidence of harm when TCS were used intermittently ‘as required’ to treat flares or ‘weekend therapy’ to prevent flares.
- **Skin thinning:** higher with TCS than TCI (meta-analysis of 4 RCTs: RR 4.86, 95% 1.06 to 22.28, n=4128) but very low rate (8/2068, 7 of which were using potent TCS).
- **How safe are TCS used proactively to prevent flares (‘weekend therapy’)?**
Skin thinning: no cases with 16–20 weeks of 2 days/week of potent TCS vs vehicle (5 RCTs, n=993).

TOPICAL THERAPY

Atopic dermatitis:

Topical calcineurine inhibitors: tacrolimus en pimecrolimus:

- The anti-inflammatory potency of 0.1% tacrolimus ointment is similar to corticosteroids with intermediate activity and more active than 1.0% pimecrolimus cream
- TCI can be used daily following control an acute flare, especially with the attempt to initiate pro-active therapy.
- Only reimbursed for atopic dermatitis



TOPICAL TREATMENT: HOW MUCH?

3. How to use Dalacin T

Always use this medicine exactly as your doctor or pharmacist has told you. Check with your doctor or pharmacist if you are not sure.

Usually, you should use this medicine twice a day, shake the bottle well before use. Wash the affected area and put on a **thin film** of solution or lotion.

3. How to use KLOBATE?

Instructions for appropriate method and dose/frequency of administration:

If you do not understand or have any difficulties, consult your doctor or pharmacist.

It is gently applied in a **thin layer** in the amount that will cover the affected area until recovery

Q: How should you use Halciderm Topical?

A: A **small amount** of your Cream should be applied to the area of the skin to be treated,

3. HOW TO USE HYDROCORTISONE CREAM

Always use Hydrocortisone Cream as explained in this leaflet. You should check with your doctor or pharmacist if you are not sure.

Use the **cream sparingly** over a small area once or twice a day.

TOPICAL TREATMENT: MORE INFO NECESSARY?

- Current standard = finger tip unit (1989)
 - Only for ointments containing cortisone
 - Only if the nozzle of the tube is 5 mm
 - Difficult and not accurate
 - Not very user-friendly
- => almost never used in daily practice



2 hand-
palmen = 1 finger tip unit

1 tablet van 150 mg per dag

Medicijn **m**[®] 150 mg

Lees voor het gebruik

30 tabletten voor oraal gebruik

Buiten het zicht en bereik van kinderen.

Bewaren in de oorspronkelijke verpakking voor bescherming

Zie de bijsluiter voor

tegen vocht. Bewaren beneden

meer informatie.

*Gebruik voerats niet te vaak
of vraag het misschien eens*

Medicijnaam[®] 

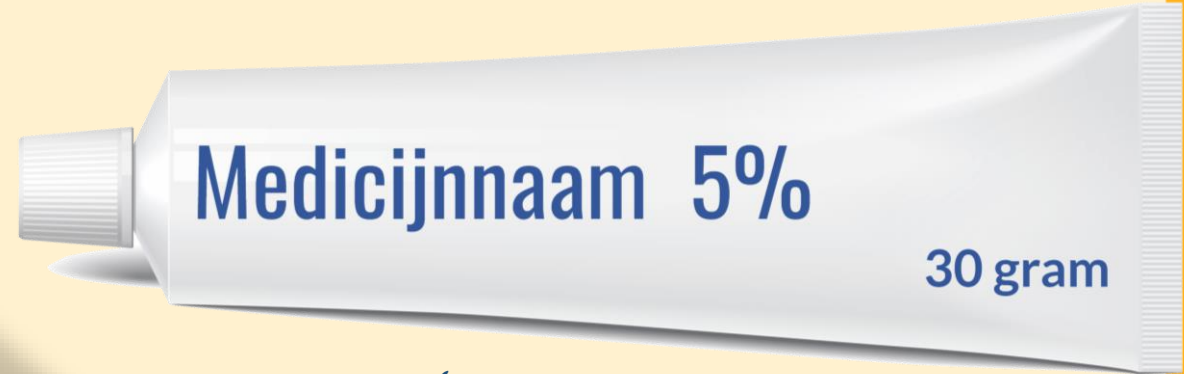
30 tabletten voor oraal gebruik

Lees voor het gebruik de bijsluiter.

Buiten het zicht en bereik van kinderen houden.

Bewaren in de oorspronkelijke verpakking ter bescherming
van het product tegen vocht. Bewaren beneden 25 graden.

Zie de bijsluiter voor
meer informatie.



"1 x per dag aanbrengen"

veelheid???

Bijsluiter:

- **Geen informatie**
- **"Breng een dunne laag aan"**
- **"Vraag het aan uw arts of apotheker"**



**Arts/apotheker/patiënt heeft geen
eenvoudige tools om dit te berekenen**

*Gebruik vooral niet te veel
of vraag het misschien eens*

Medicijnaam®

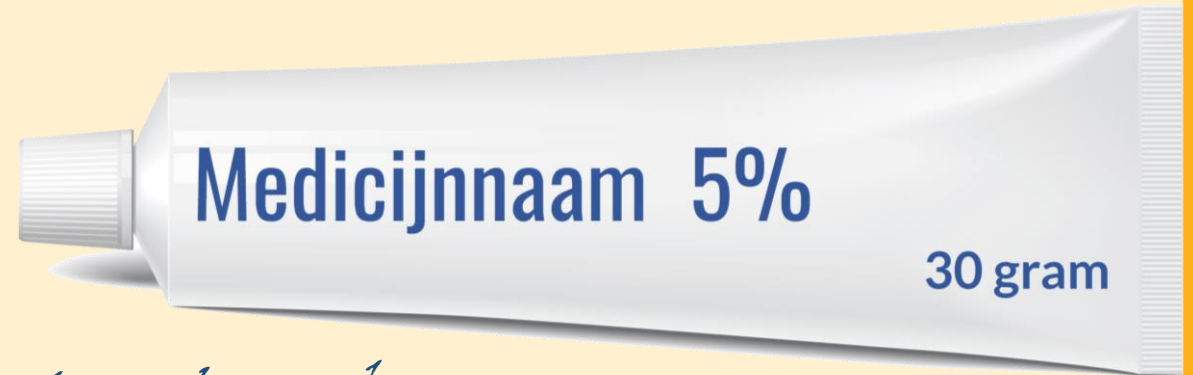
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meer informatie.



1 x per dag aanbrengen

Hoeveel?

Bijsluiter:

- *“Breng een dunne laag aan”*
- *“Vraag het aan uw arts of apotheker”*
- ...



- **Meerderheid van de patiënten gebruikt een verkeerde hoeveelheid**
- **Gemiddeld wordt bij huidziekten 50% van de aanbevolen dosis gebruikt**

Gevolgen:

Gebruik van te weinig zalf/crème

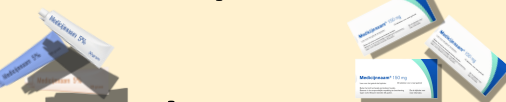
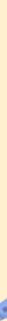


Onvoldoende effect

Ernstiger verloop van de aandoening

Medicatie in pilvorm

Voorschriften van andere crèmes/zalven



Gebruik van te veel zalf/crème



Meer bijwerkingen

Verdunning van de huid en striemen

Uitdroging van de huid

Irritatie, jeuk, roodheid



Vroegtijdige stop van de behandeling

 **kosten**

 **bijwerkingen**

 **levenskwiteit**

Ontgoocheling en frustratie



KLASSIEKE METHODE

- Finger tip unit



Hoeveelheid zalf die past op de top van de wijsvinger indien in rechte lijn uit tube

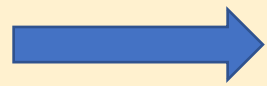


Aantal vingertopeenheden zalf per lichaamsdeel, voor verschillende leeftijden

leeftijd	gelaat en hals	arm en hand	been en voet	romp (voorkant)	romp (achterkant)	gehele lichaam	gram per week bij 1x daags smeren
3-12 maanden	1	1	1.5	1	1.5	8.5	30 g
1-2 jaar	1.5	1.5	2	2	3	13.5	50 g
3-5 jaar	1.5	2	3	3	3.5	18	65 g
6-10 jaar	2	2.5	4.5	3.5	5	24.5	85 g
volwassenen	2.5	4	8	7	7	40	140 g

KLASSIEKE METHODE

- Finger tip unit



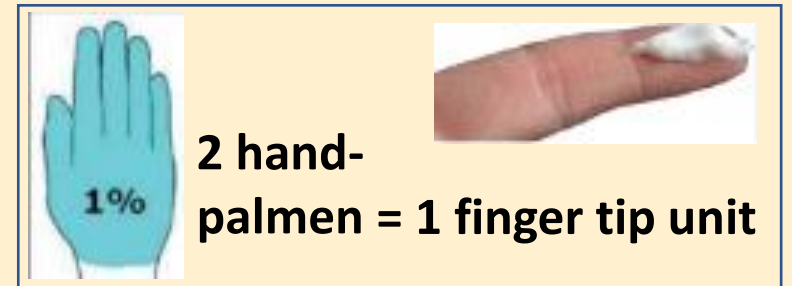
Hoeveelheid zalf die past op de top van de wijsvinger indien in rechte lijn uit tube



8,5 handpalmen



4,25 finger tip units



- Eenvoudig concept
- Geen extra hulpmiddel nodig



- Ingewikkelde schema's/berekening
- Meestal moeten geen volledige lichaamsdelen worden ingesmeerd maar enkel de plekken
- Dosering geldt enkel voor cortisonecrèmes (v.b. andere dosis voor hydraterende crèmes...)
- Er wordt geen rekening gehouden met gewicht

Huidige stand van zaken over instructies rond gebruik crèmes

2/3 van de voorschriften door dermatologen bevatten te weinig informatie

Are we giving patients enough information on how to use topical treatments? Br J Dermatol 2011;165:1332-6

Dermatologen en apothekers denken informatie te hebben gegeven rond dosering en frequentie, maar patiënten ervaren dit niet zo.

Knowledge and practices of community pharmacists in topical dermatological treatments. Int J Environ Res Public Health 2021; 18: 2928.

Patterns of dosage regimen instructions regarding topical medicines: how is the information received by patients. J Dermatol Treat 2021; Aug: 1-6.

Minstens 40% van de apothekers geven verkeerde instructies

A Survey on awareness of the "finger-tip unit" and medication guidance for the use of topical steroids among community pharmacists. Drug Discov Ther 2019;13:128-132.

Patiënten smeren het juiste aantal momenten in ongeveer de helft van de dagen

Adherence with topical treatment is poor compared with adherence with oral agents. Implications for effective clinical use of topical agents. J Am Acad Dermatol 2006.

Zalven/crèmes/gels worden vermoedelijk in maximaal 1/3 van de patiënten correct toegepast!

Topische therapieën zijn één van de slechts uitgevoerde medische behandelingen

95% van de patiënten onderdosereren hun behandeling

J Am Acad Dermatol 2008; 59:975-80

Slechts 26.5% van de eczeempatiënten gebruikt tussen 80-120% van de verwachte dosis tacrolimus.

J Dermatol Treat 2017; 28:327-331,

4 studies toonden aan dat patiënten tussen 35% en 72% van de aangewezen dosis gebruiken.

J Eur Acad Dermatol 2021; 3: 61-7,



Duidelijke instructies wat betreft de frequentie en de hoeveelheid zijn nodig om de resultaten van lokale behandeling te verbeteren.

J Dermatol Treat 2017; 28:327-331,

De kwaliteit van de voorschriften kan verbeterd worden door hulpmiddelen die de juiste hoeveelheid topische behandeling weergeven.

Br J Dermatol 2017; 176: 759-764.

Een correcte evaluatie van de grootte van de plekken, een precieze berekening van de dosis van de behandeling ... kan helpen om de behandeling beter vol te houden en betere resultaten te behalen,

J Eur Acad Dermatol Venereol 2005; Suppl 3:14-7

Is er nood aan een digitale oplossing?

We vroegen het anoniem aan 53 Belgische en Nederlandse dermatologen:

Ja!

98% meldt maandelijks dat een foutieve hoeveelheid zelf lijdt tot onvoldoende effect of bijwerkingen

95% overweegt een digitale applicatie te gebruiken om dit probleem op te lossen

63% zal dit zeker gebruiken

80% zou de tool minstens regelmatig (maandelijks) aanraden aan patiënten.

Wat is nodig?

- **Een eenvoudige en snelle tool om de aangetaste Huidoppervlakte in te schatten**
- **Snel aanpasbaar zijn bij veranderingen**
- **Betrouwbaar zowel voor patiënten als artsen**

DOI: 10.1111/jdv.15726

JEADV

ORIGINAL ARTICLE

Comparison of methods to estimate the affected body surface area and the dosage of topical treatments in psoriasis and atopic dermatitis: the advantage of a picture-based tool

R. Speeckaert,*  I. Hoorens, S. Corthals, L. Delbaere, J. Lambert, T. Lesseliers, S. Mylle, K. Ongenae, S. De Schepper, L. De Smet, M. Speeckaert, N. van Geel 

Department of Dermatology, Ghent University Hospital, Ghent, Belgium

*Correspondence: R. Speeckaert. E-mail: reinhart.speeckaert@ugent.be

BACKGROUND

Patient empowerment => patients gain control over health decisions



Increasing popularity of outcome measurement by patients



No easy tool to measure the disease extent (+ for each involved body area) of skin disorders by patients



**Therapeutic
choice**



Follow-up

BACKGROUND

Current gold standard = 1% hand rule

- Area of one hand (HSA%) is 13% lower than the accepted 1% value for all adults
- Men have a significantly higher HSA% than women
- Children have a significantly higher HSA% than adults
- HSA% falls with increasing BMI in adults
- A comparison of European, Chinese and Indian subcontinent ethnic groups showed that each group was different from the others

HOW CAN THE DISEASE EXTENT BE MEASURED BY PATIENTS?

AI BASED ON BODY SCAN PERFORMED BY THE PATIENT

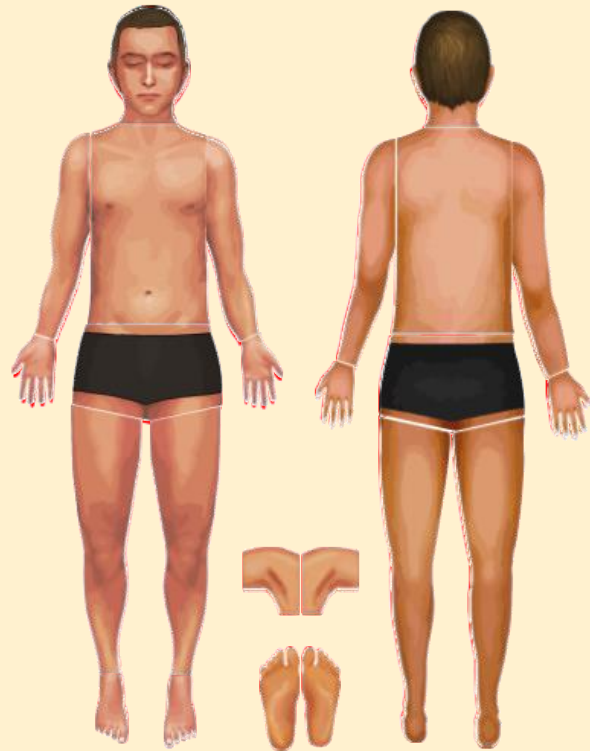
- + Potential to be very accurate
- Difficulties in several body areas
- **Practical** Lot of development issues (different skin disorders, skin type, lighting, quality smartphone camera...)
- **Not-visible**
- **Privacy**

NON-AI MODEL

- + All body areas
- Subjective

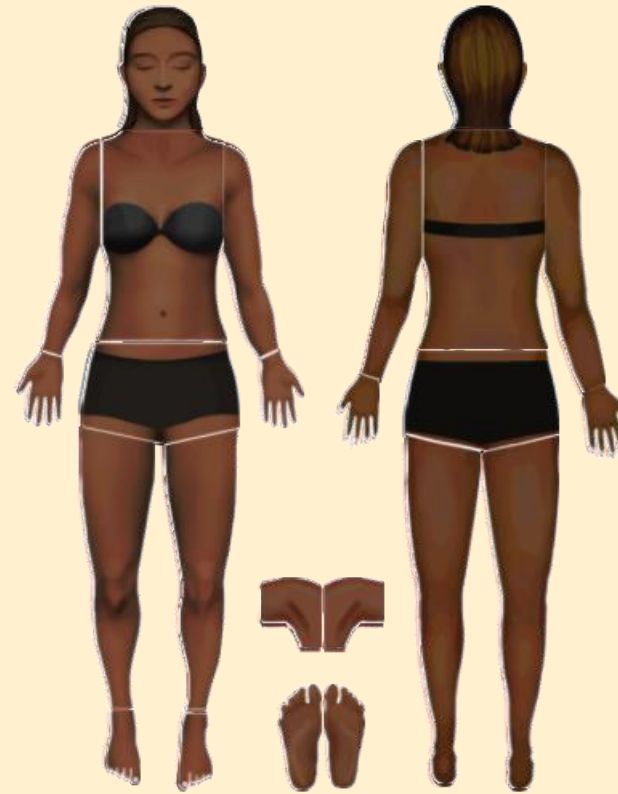
BACKGROUND

Based on previous work of our group (idea Prof Nanja van Geel) in vitiligo:
use pictures that mimic the natural progression of skin disorders



PSORIASIS

**ATOPIC
DERMATITIS**



VITILIGO

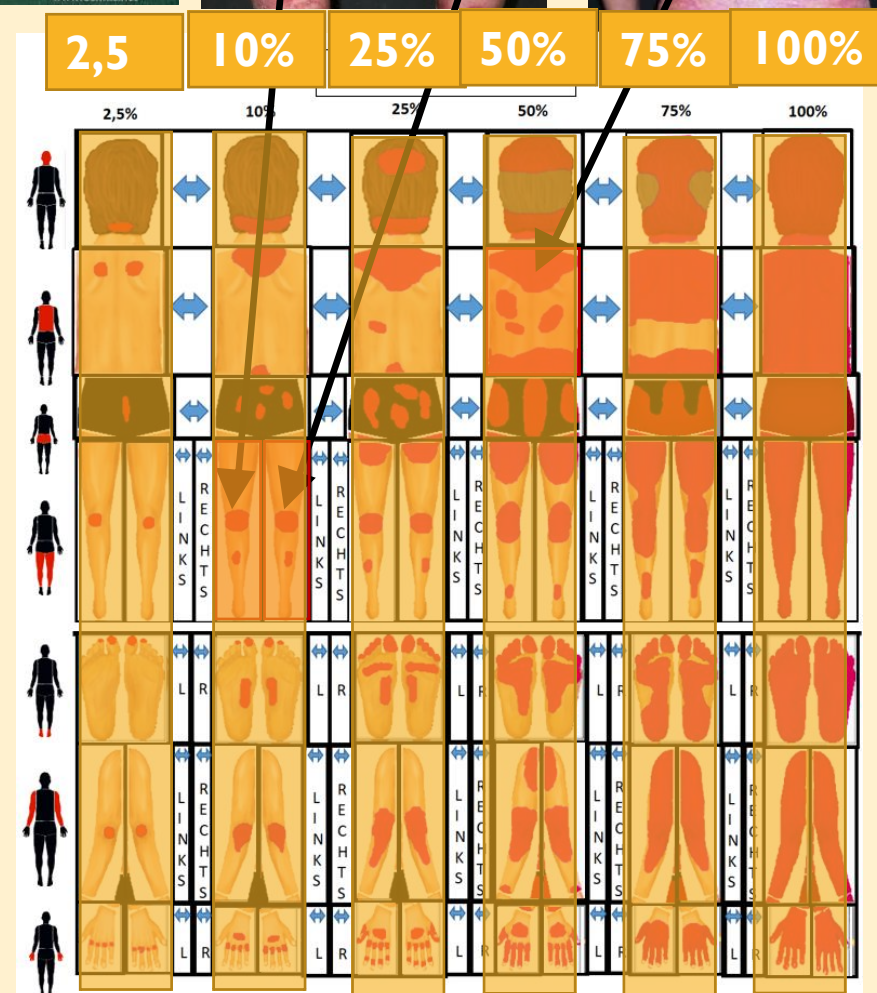
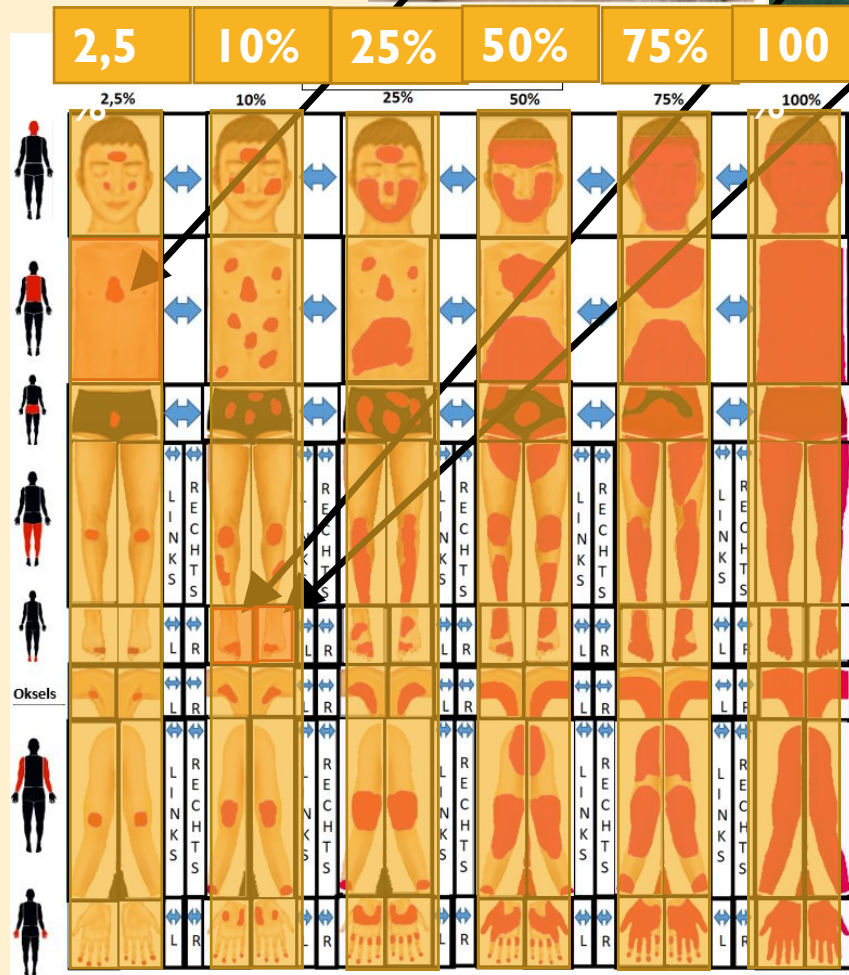
ACNE



Nieuwe tool om oppervlakte huidziekte in te schatten:

- 6 verschillende categorieën van uitgebreidheid
- figuren helpen bij de score

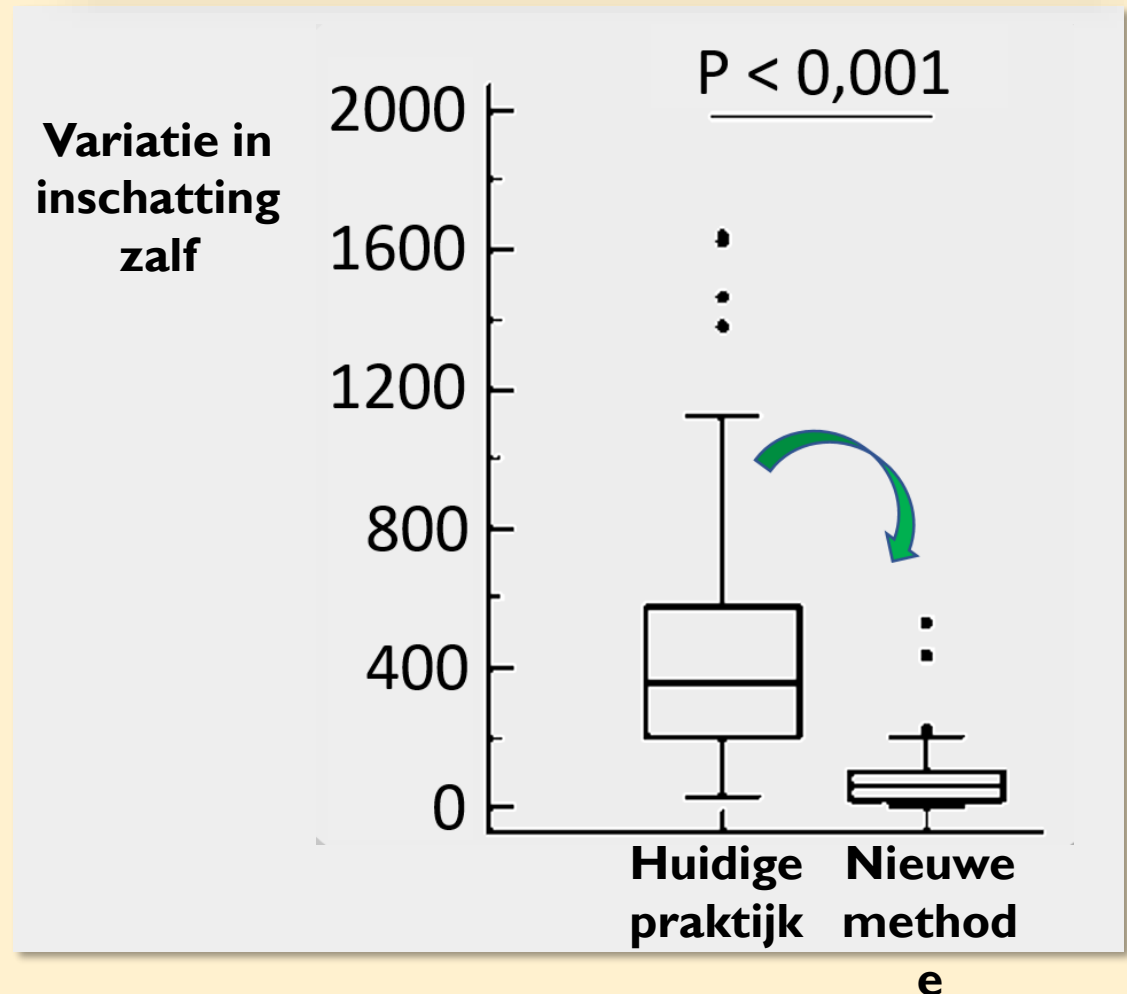
=> per lichaamsdeel juiste categorie scoren (2,5% - 5% - 10% ...)



**Methode gepubliceerd in
het Europees tijdschrift
voor huidziekten.**

Nieuwe methode:

- **Betrouwbaar**
- **Snel (20-60 sec)**
- **Gebruiksvriendelijk**
- **Score patiënt/arts
vergelijkbaar**



2 studies: (I) **physicians score** the BSA% of patients with psoriasis and atopic dermatitis
(II) **patients score** their own BSA% compared to physicians



Comparison of methods to estimate the affected body surface area and the dosage of topical treatments in psoriasis and atopic dermatitis: the advantage of a picture-based tool

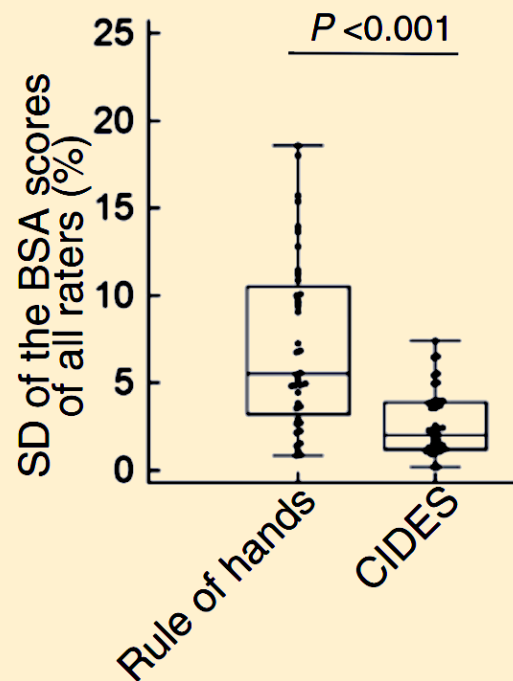
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JEADV 2019, 33, 1726–1732

The reliability of the Self-Assessment Cutaneous Inflammatory Disease Extent Score (SA-CIDES) and the rule of hands to assess the involved body surface area in psoriasis and eczema

R. Speeckaert, J. Lambert, L. Delbaere, T. Lesseliers, N. van Geel

Br J Dermatol. 2021 Jan;184(1):171-173.



- New method better than the current gold standard
- Both reliable when used by physicians and patients
 - => interrater physicians: ICC: 0.92 (95%CI: 0.88-0.95)
 - => intrarater physicians: ICC: 0.96 (95%CI: 0.95-0.97)
 - => physician vs patient: ICC: 0.93 (0.88-0.97)
- Easy and fast

Rule of hands
ICC: 0.79
ICC: 0.95
ICC: 0.80

Hulpmiddel voor topische behandeling

- Gratis website en App die toont hoeveel zalf/crème/gel/lotion de patiënt moet gebruiken
- Per huidziekte en type product worden de werking en de bijwerkingen uitgelegd.
- De hoeveelheid wordt berekend aan de hand van de uitgebreidheid van de huidaandoening, het type product, de lengte en het gewicht.¹
- De patiënt kan dit zelf doen (< 2 min)!²
- Aangepaste berekeningen voor kinderen
- De evolutie van de huidaandoening kan in de loop van de tijd worden opgevolgd (ook zinvol voor follow-up onder systeemtherapie).

Referenties:

1. J Eur Acad Dermatol Venereol. 2019 Sep;33(9):1726-1732. doi: 10.1111/jdv.15726
2. Br J Dermatol. 2021 Jan;184(1):171-173. doi: 10.1111/bjd.19430.

Creamcalculator.com of 'Cream Calculator' in de Google Play en Apple store.

1 Vul de basisgegevens in

Kies je geslacht of selecteer 'kind'
 Man Vrouw Kind

Huidziekte
Psoriasis

Kies uw huidtype
 Licht Donker

Merk of generieke naam
Diprosone

Diprosone creme/cream 20 gr
Diprosone creme/cream 30 gr
Diprosone creme/cream 50 gr
Diprosone creme/cream 100 gr

2 'Uitgebreide opties' voor gedetailleerde berekening

VERBERG UITGEBREIDE OPTIES

Optioneel

Lengte m Gewicht kg

Leeftijd jr


Hetzelfde product op alle lichaamsdelen?

Gezicht Lichaam Hoofdhuid

Merk- of generieke naam (gezicht)

3 Duid de grootte aan van de zone die behandeld wordt

17.5%



KLIK HIER

0%

0%	12.5%	25%
62.5%	10%	17.5%
25%	37.5%	50%

TOTAAL



Hoeveelheid = 1.18 gr
= 2.2
Vingertop eenheden
= 23.7
maal de grootte van een appelpit

crème
Betamethasonevaleraat 50 gr

50 gr crème zal leeg zijn na 42.21 dagen

© 2021



language/langue: Taal



FOLLOW-UP

START

ABOUT

LOGOUT

Please choose your gender or select 'child'

Man Woman Child

Skin disease

Select disease

Please choose your skin type

Light Dark

Brand or generic name

Type your product

Search

[MORE EXTENSIVE OPTIONS](#)

Continue

FRONT BODY

BACK BODY

Choose for each body part the percentage which best represents the extent of your skin disease. You can tap on the percentage and pick the right option or swipe the picture to the left. Pay only attention to the size of the affected skin area and not to the shape or location.

TAP HERE

0%



TAP HERE

0%



TAP HERE

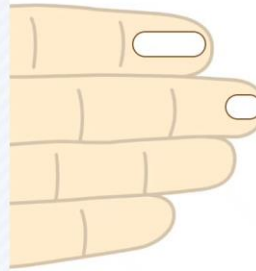
0%

Continue



weeks. In case of frequent relapses it can be useful to use cortisone creams or other anti-inflammatory products 2 times a week as a maintenance therapy.

SCALP



Quantity = 0.24 gr

= 1.5

Finger tips units

= 4.8

drop(s)

solution (lotion)

Diprosalic
lotion/scalp/lösung
30 ml

30 gr solution (lotion)
will be empty after
126.15 days

Corticoid creams can be used for several weeks daily until the skin disease has improved. The product

Back

Cream => # finger tip units

Lotion => # drops

Spray => # seconds



WWW.CREAMCALCULATOR.COM

'CREAM CALCULATOR' IN GOOGLE PLAY OR APP STORE

VOLLEDIG GRATIS APPLICATIE DIE DOOR IEDEREEN KAN GEBRUIKT WORDEN

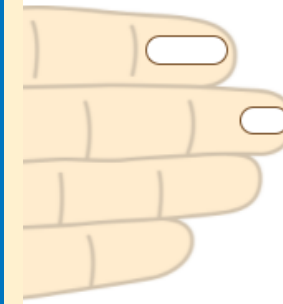
BIJNA ALLE TOPISCHE MEDICATIE OP VOORSCHRIFT + HEEL WAT HYDRATERENDE PRODUCTEN EN ZONNEGRÈMES

Cream Calculator

- An App to inform patients about the amount of topical treatment they have to apply
- User instructions according to the skin disease
- Education regarding expected results + adverse events

www.creamcalculator.com
or download in the Google
Play/App Store

- Patterns for **psoriasis, atopic dermatitis, acne, vitiligo, and general pattern** for other skin disorders
- Adapted calculations for men, women, children, obese patients
- Different dosages for **emollients, corticoid, retinoids, sunscreen...** according to the literature
- All topical treatments on prescription of Belgium, the Netherlands, France, Germany, UK, USA
- **Dutch, French, English, German**
- The link to the App can be given to patients without much additional information
- **Inclusive** (women, men, children, light and dark skin types)



Quantity = 0.84 gr

= 1.6

Finger tips units

= 16.7

fold the size of an apple seed

ointment

Elocom zalf/oint/pom 20 gr

20 gr ointment will be empty after 23.93 days

Corticoid creams can be used for several weeks daily until the skin disease has improved. The product should be rubbed in until it disappears. After clearance of the skin, maintenance with emollients is often advocated. In case of frequent relapses, a maintenance treatment using a topical corticoid twice weekly can be useful with limited risk of adverse events. Application under occlusion can be useful to enhance the efficacy for thickened skin areas. No more than 4 weeks of continuous use or no more than 45 grams a week is advisable for strong corticoids.

Possible
stretch

Back



Current state:

- A lot of media attention at launch (Radio I en II, Nieuwsblad, HLN, Eos, Libelle, deapotheker.be, Metro, despecialist.eu, mednet.nl, numerikare.be, Goed Gevoel, vrt.be, safardia.nl,...)
- Lots of users at launch with good feedback
- Clinical study proving superiority over standard practice is going on.

Challenges:

- How to inform patients that such an App exists?
- Help from pharmacists needed!

VITILIGO CALCULATOR: VITILIGO EXTENT SCORE (VES)

- Designed to measure the **extent and activity** of vitiligo by physicians and patients,
- www.vitiligo-calculator.com, 'Vitiligo Calculator' in the App Store

VITILIGO calculator

Home

Calculators

Legal Notice

Updates

Construction and copyright of the VES calculator:
Nanja van Geel (coordinator), Reinhart Speeckaert

VITILIGO CALCULATOR

The VES (Vitiligo Extent Score) is a measure to express the overall vitiligo involvement of the body (extent). This calculator (including VES, SAVES, VESplus and VSAS) is intended for use by **physicians** in clinical trials and daily practice for the assessment of vitiligo.

VES Calculator

VESplus Calculator

SA-VES Calculator

VSAS Calculator

van Geel N, Lommerts J, Bekkenk M, Wolkerstorfer A, Prinsen CAC, Eleftheriadou V, Taïeb A, Picardo M, Ezzedine K, Speeckaert R. Development and Validation of the Vitiligo Extent Score (VES): an International Collaborative Initiative. *J Invest Dermatol*. 2016

van Geel N, Lommerts JE, Bekkenk MW, Prinsen CA, Eleftheriadou V, Taïeb A, Picardo M, Ezzedine K, Wolkerstorfer A, Speeckaert R; international Vitiligo Score Working Group. Development and validation of a patient-reported outcome measure in vitiligo: The Self Assessment Vitiligo Extent Score (SA-VES). *v. J Am Acad Dermatol*. 2017


van Geel N, Bekkenk M, Lommerts JE, Ezzedine K, Harris J, Hamzavi I, Eleftheriadou V, Picardo M, Taïeb A, Prinsen CAC, Wolkerstorfer A, Speeckaert R. The Vitiligo Extent Score (VES) and the VESplus are responsive instruments to assess global and regional treatment response in patients with vitiligo. *J Am Acad Dermatol*. 2018

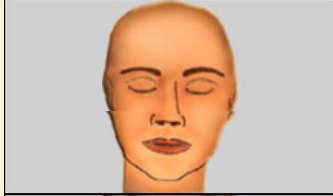




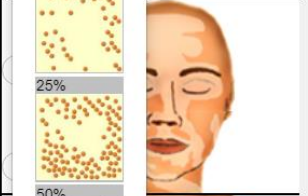

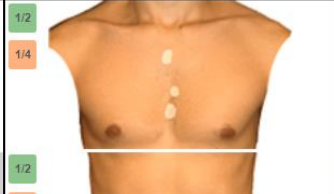



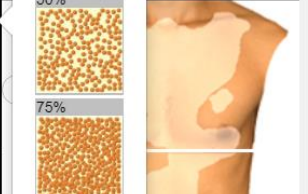



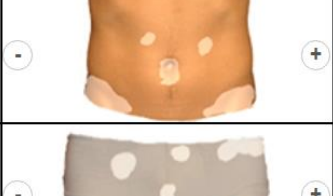
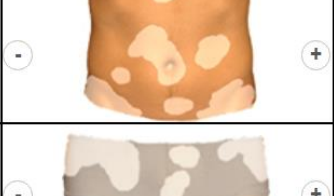





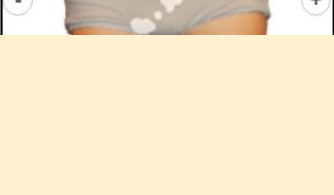
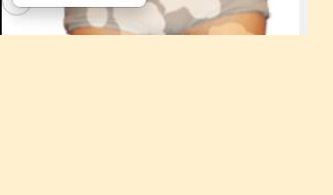
van Geel N, Wolkerstorfer A, Lommerts JE, Ezzedine K, Eleftheriadou V, Hamzavi I, Harris J, Picardo M, Taïeb A, Prinsen CAC, Bekkenk M, Speeckaert R. Validation study of the Vitiligo Extent Score-plus. *J Am Acad Dermatol*. 2018 May;78(5):1013-101

VITILIGO CALCULATOR: VITILIGO EXTENT SCORE (VES)

Configure **1** Calculator **2** Overview **3**

This is a tool for physicians. Please select for each area 1 picture which best represents the extent of the vitiligo lesions. [instructions VESplus](#)

You can optionally use the 'plus' tool 

	 1/2 1/4	 1/2	 +	 -	 +
	 1/2 1/4	 1/2	 +	 -	 +
	 1/2 1/4	 1/2	 +	 -	 +
	 1/2 1/4	 1/2	 +	 -	 +

5%
10%
25%
50%
75%
90%
reset

WHEN TO GO FOR SYSTEMIC TREATMENT? PSORIASIS

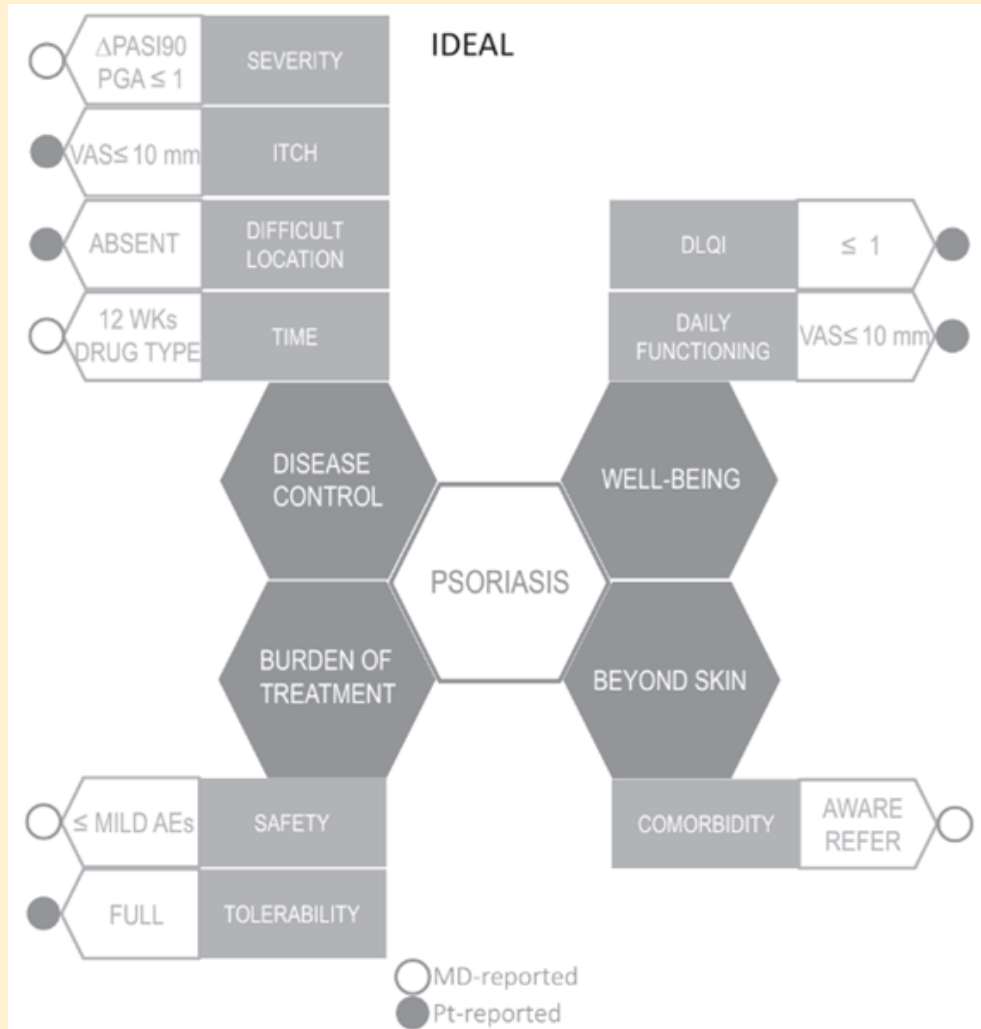
International Psoriasis Council (IPC):

Psoriasis patients should be classified as candidates for topical therapy or candidates for systemic therapy. The latter are patients who meet at least 1 of the following criteria:

- 1. BSA (10%)**
- 2. Disease involving special areas***
- 3. Failure of topical therapy**

***psoriasis affecting more impactful sites such as the face, palms, soles, genitalia, scalp, or nails"**

WHEN TO GO FOR SYSTEMIC TREATMENT? PSORIASIS: TREAT TO TARGET



Consider a change in therapy if the following targets are not reached within 12 weeks:

Targets:

PASI90 or PGA ≤ 1

VAS for itch ≤ 10 mm

absence of disturbing lesions

no moderate to severe adverse events

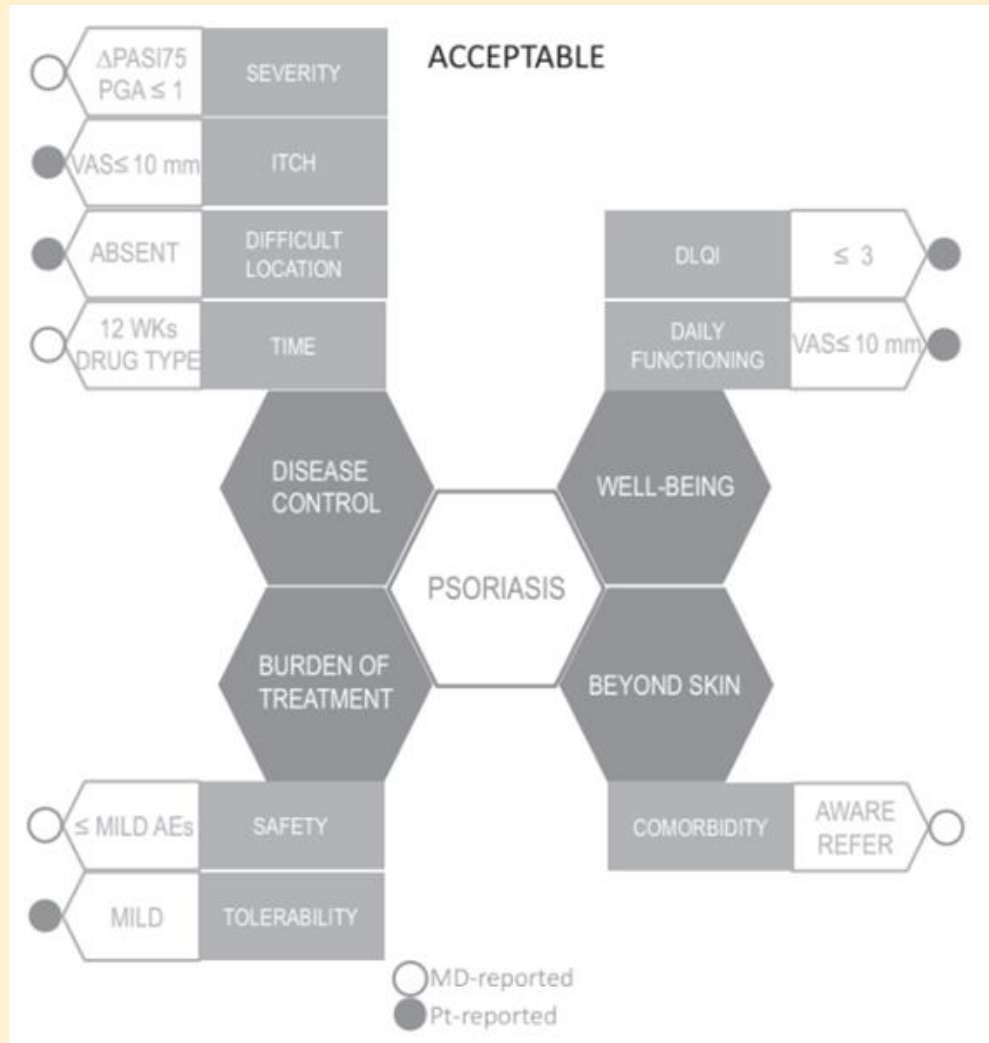
DLQI ≤ 1

incapacity daily functioning VAS score ≤ 10 mm

A Belgian consensus on the definition of a treat-to-target outcome set in psoriasis management

L. Grine,^{1,2} M. de la Brassinne,³ P.-D. Ghislain,⁴ T. Hillary,⁵ J. Lambert,⁶ S. Segaeert,⁷ F. Willaert,⁸ Belgian Psoriasis T2T Specialist Group,[†] J. Lambert^{1,2,*}

WHEN TO GO FOR SYSTEMIC TREATMENT? PSORIASIS: TREAT TO TARGET



In certain cases (e.g. pregnancy and history of cancer), not all systemic therapies can be prescribed. For these cases, the patient and physician can aim for 'acceptable' targets.

These include the following:

PASI75 or PGA ≤ 1

VAS for itch ≤ 10 mm

absence of disturbing lesions

no moderate to severe adverse events

DLQI ≤ 3

incapacity daily functioning VAS score ≤ 10 mm

A Belgian consensus on the definition of a treat-to-target outcome set in psoriasis management

L. Grine,^{1,2} M. de la Brassinne,³ P.-D. Ghislain,⁴ T. Hillary,⁵ J. Lambert,⁶ S. Segaert,⁷ F. Willaert,⁸ Belgian Psoriasis T2T Specialist Group,[†] J. Lambert^{1,2,*}

WHEN TO GO FOR SYSTEMIC TREATMENT? PSORIASIS: TREAT TO TARGET

Topical treatment



Phototherapy
Cyclosporin
MTX



Biologics:

- Anti-IL23: risankizumab, guselkumab, tildrakizumab, ustekinumab (anti-IL-12/23)
- Anti-IL17: ixekizumab, bimekizumab, secukinumab
- Anti-IL17R: brodalumab
- Anti-TNF: adalimumab, golimumab, infliximab
- Anti-TNF-R: etanercept

Non-biologic:

- Apremilast

WHEN TO GO FOR SYSTEMIC TREATMENT? PSORIASIS: WHICH BIOLOGIC?

> J Eur Acad Dermatol Venereol. 2020 Aug;34(8):1654-1665. doi: 10.1111/jdv.16684.

Practical
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J L W Lambert
R Speeckaert

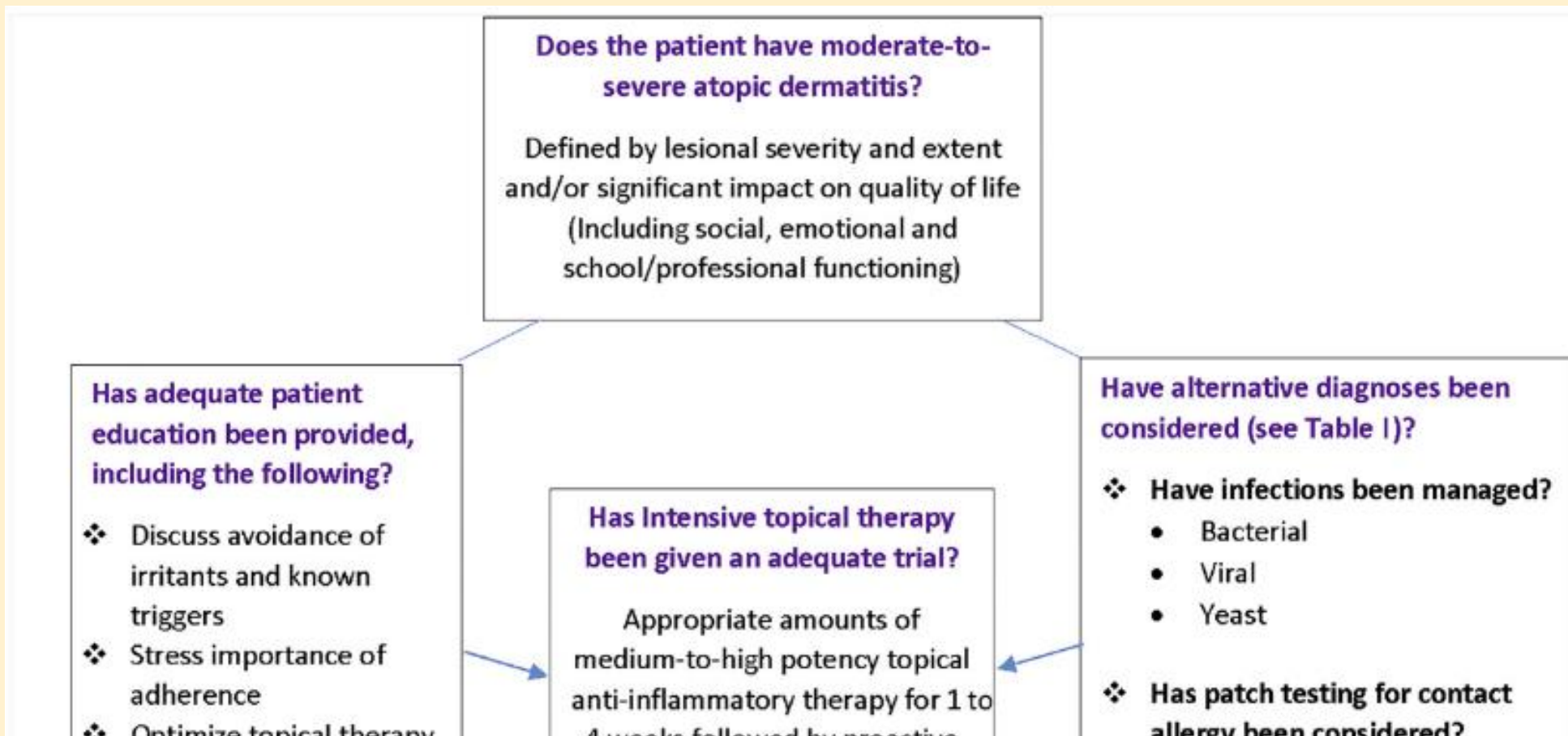
Strong recommendation in favour <i>"Will likely be beneficial"</i>	Weak recommendation in favour <i>"Might be beneficial"</i>	Weak recommendation against <i>"Will (likely) not help but cause no harm"</i>	Strong recommendation against <i>"Likely to cause harm"</i>	Insufficient evidence to make a recommendation
Psoriasis arthritis MTX APR ADA, CERT, ETA, IFX IXE, SECU, UST	CYCLO* BROD* GUS*, RIS*, TIL*	ACIT* FUM*		
Inactive inflammatory bowel disease (IBD) IFX, ADA, CERT* UST	CYCLO*, MTX*, FUM* APR* GUS*, RIS*, TIL*	ACIT*	ETA* SEC*, IXE*, BROD*	
Active inflammatory bowel disease (IBD) ADA, CERT*, IFX UST	MTX*, CYCLO*	ACIT*	ETA* SEC*, IXE*, BROD*	FUM* APR* GUS*, RIS*, TIL*
Demyelinating diseases FUM UST*	MTX* IXE*, SECU*	ACIT*	ADA*, CERT*, ETA*, IFX*	CYCLO* APR GUS*, RIS*, TIL* BROD*

J L W Lambert¹, S Segaeert², F D'Ghijslain³, T Hillyary⁴, A Nikkels⁵, F Willeert⁶, J Lambert⁷,
R Speeckaert¹

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WHEN TO GO FOR SYSTEMIC TREATMENT? ATOPIC DERMATITIS

International Eczema Council:



WHEN TO GO FOR SYSTEMIC TREATMENT? ATOPIC DERMATITIS

Topical treatment



Short courses of steroids

MTX

Cyclosporin

Phototherapy (not reimbursed)



Biologic: dupilumab, tralokinumab

JAK inhibitors: baricitinib, upadacitinib, abrocitinib

Belgian AD guidelines will be published this year:

Prof. Hilde Lapeere, Prof. M. Baeck, Prof. Julien Lambert, Prof. Bita Dezfoulian, Dr. Pierre-Paul Roquet-Gravy,
Prof. Reinhart Speeckaert, Dr. A. Stockmann, Prof. Jonathan White, Prof. Jan Gutermuth

CONCLUSION

- Topical treatments is one of the most incorrectly used pharmaceutical interventions
- Duration of the treatment is often intentionally kept vague in guidelines
- Skin atrophy exists, but only after prolonged inappropriate use in skin conditions with an impaired epidermal barrier
- Dermatologists and pharmacists need to collaborate to improve patient education and information