



**16^e Journée
Scientifique conjointe
du Groupe de Recherche
sur le PSORIASIS
et du Groupe HS France**

Vendredi 7 octobre 2022

Espace du Centenaire
Maison de la RATP – Paris

Quoi de neuf *Psoriasis et HS pédiatrique*

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Hôpital Victor Dupouy, Argenteuil

Liens d'intérêt

AbbVie

Amgen

BMS

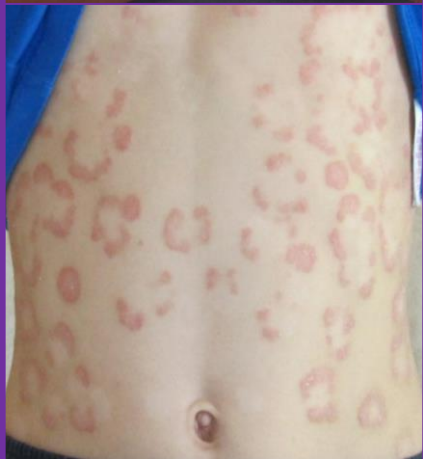
Janssen Cilag

Leo Pharma

Lilly

Novartis

Psoriasis



Etudes BiPe et Chi-PSoCov : cet après-midi !

Clinique

- Difficultés diagnostiques chez les enfants



Critères diagnostiques (2019) – Delphi (IPC)

- 41 participants



Major criteria

Scaly erythematous plaques on the extensor surfaces of the elbows and knees

Scaly erythematous plaques on the trunk triggered by a sore throat or other infection

Raindrop plaques typical of guttate disease on the trunk or limbs

Minor criteria

Scale and erythema in the scalp involving the hairline

Retroauricular erythema (including behind the earlobes)

Scaly erythema inside the external auditory meatus

Persistent well-demarcated erythematous scaly rash anywhere on the body

Fine scaly patches involving the upper thighs and buttocks

Well-demarcated erythematous rash in the napkin area involving the crural folds

Persistent erythema in the umbilicus

Nail pitting

Onycholysis of the nail(s)

Subungual hyperkeratosis of the nail(s)

Positive family history of psoriasis

Koebner phenomenon

Fusiform swelling of a toe or a finger suggestive of dactylitis

*Persistent well-demarcated facial rash with fine or absent scale

*Natal cleft erythema and/or skin splitting

Critères prédictifs de psoriasis chez l'enfant – DIPSOC – UK (2022)

- Critères prédictifs de psoriasis chez l'enfant – DIPSOC – UK (2022)
 - 330 enfants de 0 à 18 ans
 - 170 Psoriasis
 - 160 autres dermatoses érythémato-squameuses chroniques
 - Exclusion : pso posutuleux, érythrodermique, pso non confirmé
 - Études des 16 critères diagnostiques préalablement établis (+ 2)

Critères prédictifs de psoriasis chez l'enfant – DIPSOC – UK (2022)

- (i) scale and erythema in the scalp involving the hairline
- (ii) scaly erythema inside the external auditory meatus
- (iii) persistent well-demarcated erythematous rash anywhere on the body
- (iv) persistent erythema in the umbilicus
- (v) scaly erythematous plaques on the extensor surfaces of the elbows and/or knees,
- (vi) well demarcated erythematous rash in the napkin area involving the crural fold
- (vii) family history of psoriasis.

Intérêt pratique à préciser



Kapila S, Hong E, Fischer G. A comparative study of childhood psoriasis and atopic dermatitis and greater understanding of the overlapping condition, psoriasis-dermatitis. *Australas J Dermatol.* 2012 May;53(2):98-105.

IT, burden, ...

Relation médecin – confort du patient – parents
au centre de ces publications

Melin A, Sei JF, Corgibet F, Nicolas C, Maghia R, Halioua B, Beauchet A, Mahé E; the Fédération Française de Formation Continue et d'Evaluation en Dermatologie-Vénérologie. Therapeutic Inertia in the Management of Moderate-to-Severe Plaque Psoriasis in Adolescents. *Acta Derm Venereol.* 2021 Jun 22;101(6):adv00475.

Seyger MMB, Augustin M, Sticherling M, Bachhuber T, Fang J, Hetherington J, Lucas J, Meakin S, Richardson C, Paller AS. Physician-reported Clinical Unmet Needs, Burden and Treatment Patterns of Paediatric Psoriasis Patients: A US and EU Real-world Evidence Study. *Acta Derm Venereol.* 2022 Feb 28;102:adv00660.

Inertie thérapeutique

- FFFCEDV, GrPso, GR SFDP, SFD
- Novembre 2019
- Répondeurs. N = 168
 - Femmes : 73,8%
 - Age moyen : 48,6 ans
 - Travail
 - 38,7% libéraux
 - 29,2% hôpital
 - 30,4% les deux
- 132 (78,6%) voient régulièrement des adolescents avec psoriasis

Inertie thérapeutique

Reasons given by the dermatologists to justify therapeutic inertia	Yes <i>n</i> (%)
Medical practice	
I need time before reassessing treatment	88 (66.7)
Disease evaluation	
Favourable evolution of plaque psoriasis	106 (80.3)
Psoriasis was too localized	82 (62.1)
Adolescent status	
The adolescent refused	109 (82.6)
Reluctance of the adolescent or their parents to start a new treatment	93 (70.5)
The adolescent is satisfied with their current treatment, although this differs from your assessment of effectiveness	91 (68.9)
Lack of motivation from the adolescent	73 (55.3)
A recent change in treatment	73 (55.3)
Concomitant acute disease	73 (55.3)
The adolescent was unavailable (due to holidays, consultation hours, etc.)	69 (52.3)
Parental aspects	
Refusal by the parents	93 (70.5)
A request from the parents exclusively	73 (55.3)
Healthcare system	
The drugs are not licensed for adolescents	80 (60.6)

Response rate > 50% (for all the items, see Table SV¹).

Inertie thérapeutique

Elements that could reduce therapeutic inertia	Yes <i>n</i> (%)
Medical training and information	
Specific medical training on new treatments for adolescents	123 (93.2)
Specific and continuous medical education on adolescent psoriasis	121 (91.7)
Personal experience with other adolescents	119 (90.2)
Guidelines for the management of plaque psoriasis in adolescents in France	115 (87.1)
Positive feedback from colleagues or patients	108 (81.8)
Identification of clear therapeutic objectives to be achieved	102 (77.3)
Adolescents and their family	
The adolescent's dissatisfaction with his/her treatment	117 (88.6)
The adolescent's insistence on changing treatment	105 (79.5)
The adolescent experiencing a major non-dermatological aggravation of symptoms	97 (73.5)
The presence of comorbidities	97 (73.5)
The patient's therapy is changing too often from treatment to treatment	95 (72.0)
Parent dissatisfaction with their child's treatment	79 (59.8)
Parent insistence on changing treatment	73 (55.3)
Healthcare system	
Access to a multidisciplinary consultation meeting to make the decision	99 (75.0)
Access to primary prescriptions (rather than access being restricted to hospital dermatologists)	77 (58.3)

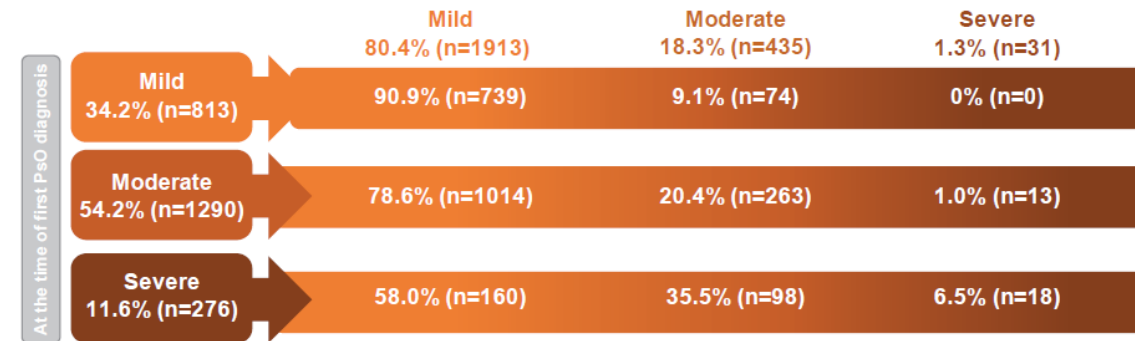
Besoins (Novartis)

- Etude transversale : besoins « inassouvis »

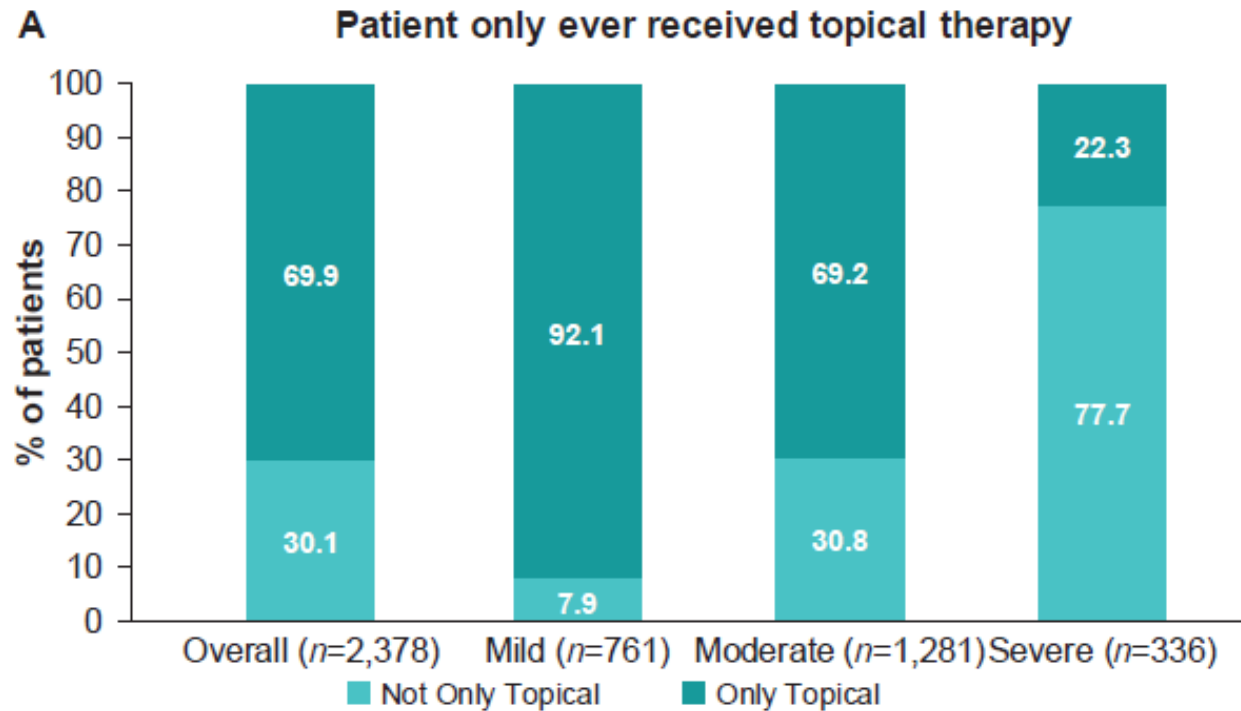
- Etats-Unis – 5 pays européens
- Février – Octobre 2020
- 324 Dermato / MG / pédiatres
 - Avec ≥ 10 cas de psoriasis vus par mois
- 2877 enfants psoriasiques de 4 à 17 ans

- Objectif principal :

- Besoins non satisfaits signalés par les médecins pour les enfants psoriasiques



Besoins (Novartis)



Thérapeutique

- Biothérapies
 - Efficacité
 - Tolérance
- Traitements oraux
- Recommandations
- La BD !

Psoriasis – Biothérapies – *Efficacité*

- Essais randomisés
- Vs placebo ou comparatifs
 - Adalumimab vs méthotrexate
 - Ixekizumab vs etanercept (+ placebo)
 - Secukinumab vs etanercept (+ placebo)
- Données au long cours

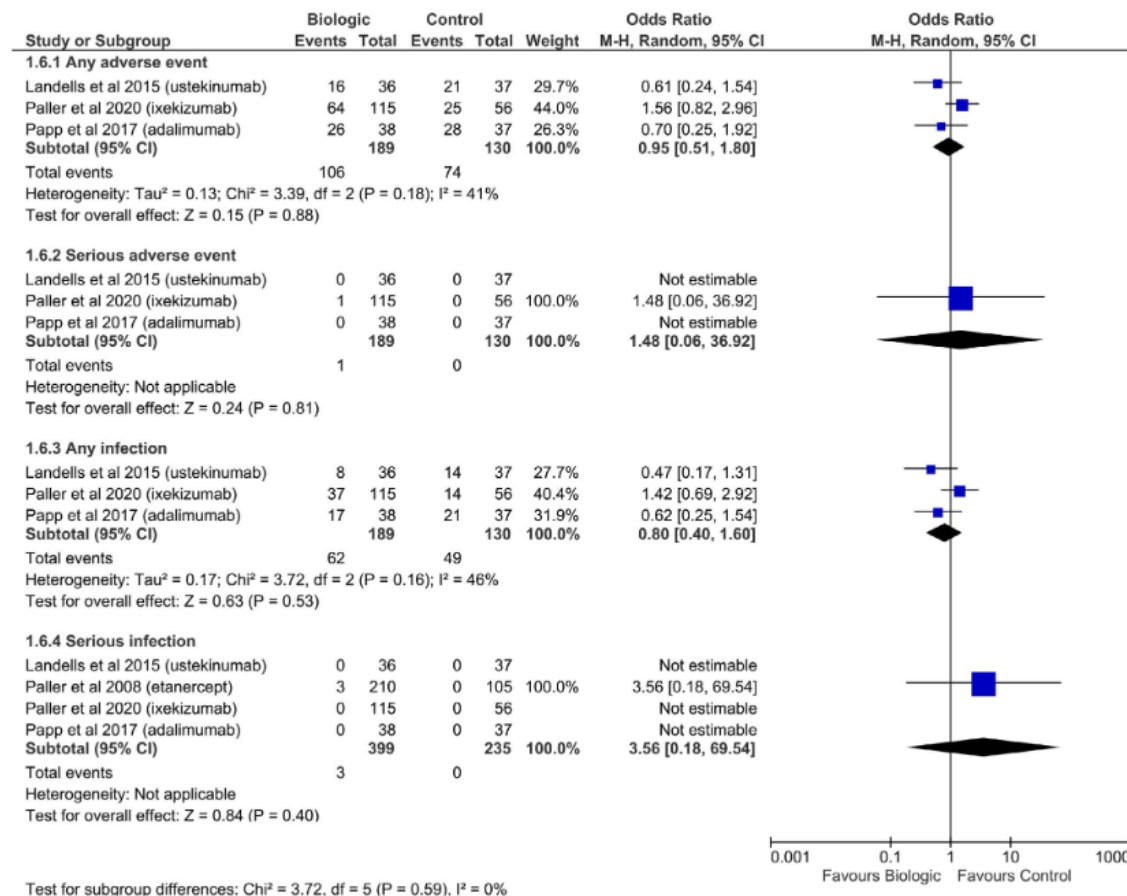
Psoriasis – Biothérapies – *Efficacité*

Treatment	Reference	Population ¹		Severity of plaque psoriasis	Dosage ³	Injection regimen	Evaluation at W12, % ⁴			
		N ²	Age (y)				PGA 0/1	PASI 75	PASI 90	PASI 100
Etanercept	Paller, 2008 [56]	106	≥4 – <18	Moderate-to-severe	0.8 mg/kg (max: 50 mg)	1/W	53	57	27	-
	Paller, 2020 [61]	30	≥6 – <18	Severe	0.8 mg/kg (max: 50 mg)	1/W	53	63	40	17
	Bodemer, 2020 [60]	41	≥6 – <18	Severe	0.8 mg/kg (max: 50 mg)	1/W	34.1	63.4	29.3	17.1
Adalimumab	Papp, 2017 [51]	38	≥4 – <18	Severe	0.8 mg/kg (max: 40 mg) ⁵	W0 and W1; then Q2W	60.5 ⁶	57.9 ⁶	29 ⁶	18 ⁶
Ustekinumab	Landells, 2015 [63]	36	≥12 – <18	Moderate-to-severe	≤ 60 kg: 0.75 mg/kg	W0 and W4; then Q12 W	69.4	80.6	61.1	38.9
	Philipps, 2020 [64]	44	≥6 – <12	Moderate-to-severe	> 60 – ≤ 100 kg: 45 mg		77.3	84.1	63.6	34.1
Ixekizumab	Paller, 2020 [61]	115	≥6 – <18	Moderate-to-severe	< 25 kg: 20 mg	W0 (2 injections); then Q4W	81	89	78	50
		38	≥6 – <18	Severe	25–50 kg: 40 mg > 50 kg: 80 mg		76	84	76	61
Secukinumab	Bodemer, 2020 [60]	40	≥6 – <18	Severe	< 50 kg: 75 mg	W0; then Q1W (4 times); then Q4W	70.0	80.0	72.5	30.0
	EMA, 2020 [65]	42	≥6 – <18	Moderate-to-severe	≥ 50 kg: 150 mg		78.6	92.9	69.0	59.5

Psoriasis – Biothérapies – Tolérance

Table 2. AEs Attributed to a Systemic Medication

Systemic Agent, No. (%) (N = 390) ^a	Patients Developing ≥1 AEs, No. (%) ^b	Patients Developing ≥1 Medication-Related AEs, No. (%) ^{c,d}	Mean No. of AEs per Treatment Year
Methotrexate (270 [69.2%])	144 (53.3)	Total, 130 (48.1); nausea, 46 (17.0); elevated transaminase levels, 36 (13.3); dyspepsia, 19 (7.0); fatigue, 17 (6.3); infections, 12 (4.4) ^f ; abnormal WBC count, 10 (3.7)	0.96
Biologic agents (106 [27.2%])	47 (44.3)	Total, 41 (38.7); injection site reactions, 20 (18.9); infections, 12 (11.3) ^g ; fatigue, 2 (1.9); headache, 2 (1.9); diarrhea, 2 (1.9)	0.60
Etanercept (80 [20.5%])	37 (46.3)	Total, 31 (38.8); injection site reactions, 19 (23.8); infections, 7 (8.8) ^h ; gastrointestinal, 4 (5.0) ⁱ ; laboratory, 3 (3.8) ^j	
Adalimumab (19 [4.9%])	7 (36.8)	Total, 7 (36.8); infections, 3 (15.8) ^k ; laboratory test results, 2 (10.5) ^l ; injection site reactions, 1 (5.3); headache, 1 (5.3)	
Ustekinumab (5 [1.3%])	3 (60.0)	Total, 3 (60.0); infections, 2 (40.0) ^m ; fatigue, 2 (40.0); diarrhea, 1 (20.0)	
Infliximab (2 [0.5%])	0	Total, 0	
Acitretin (57 [14.6%])	38 (66.7)	Total, 38 (66.7); cheilitis, 17 (29.8); xerosis, 15 (26.3); hyperlipidemia, 8 (14.0); elevated transaminase levels, 4 (7.0); epistaxis, 3 (5.3)	1.92
Cyclosporine (30 [7.7%])	13 (43.3)	Total, 11 (36.7); gingival hyperplasia, 4 (13.3); hypertrichosis, 4 (13.3); headache, 3 (10.0); hypertension, 2 (6.7); loss of appetite, 1 (3.3)	1.32
Fumaric acid esters (19 [4.9%])	13 (68.4)	Total, 13 (68.4); flushing, 8 (42.1); diarrhea, 6 (31.6); abdominal pain, 5 (26.3); abnormal WBC count, 4 (21.1); headache, 2 (10.5)	1.68



Bronckers IMGJ, Seyger MMB, West DP, Lara-Corrales I, Tollefson M, Tom WL, Hogeling M, Belazarian L, Zachariae C, Mahé E, Siegfried E, Philipp S, Szalai Z, Vleugels RA, Holland K, Murphy R, Baselga E, Cordoro K, Lambert J, Alexopoulos A, Mrowietz U, Kievit W, Paller AS; Psoriasis Investigator Group (PsIG) of the Pediatric Dermatology Research Alliance and the European Working Group on Pediatric Psoriasis (EWGPP). Safety of Systemic Agents for the Treatment of Pediatric Psoriasis. JAMA Dermatol. 2017 Nov 1;153(11):1147-1157.

Sun HY, Phan K, Paller AS, Sebaratnam DF. Biologics for pediatric psoriasis: A systematic review and meta-analysis. Pediatr Dermatol. 2022 Jan;39(1):42-48.

Psoriasis – Biothérapies – *Tolérance*

- Excellente, mais ?
 - Risque infectieux sous anti-TNF alpha
 - Tuberculoses sous adalimumab (Thaçi D)
 - Prise de poids sous adalimumab (Phan C, Zitouni J)
 - MICI sous anti-IL 17 (Paller AS, Magnolo N)

Paller AS, Seyger MMB, Alejandro Magariños G, Bagel J, Pinter A, Cather J, Keller S, Rodriguez Capriles C, Gontijo Lima R, Gallo G, Little CA, Edson-Heredia E, Li L, Xu W, Papp K; IXORA-PEDS study group. Efficacy and safety of ixekizumab in a phase III, randomized, double-blind, placebo-controlled study in paediatric patients with moderate-to-severe plaque psoriasis (IXORA-PEDS). *Br J Dermatol*. 2020 Aug;183(2):231-241.

Magnolo N, Kingo K, Laquer V, Browning J, Reich A, Szepietowski JC, Keefe D, Mazur R, Ghelani P, Forrer P, Wraith L, Patekar M. A phase 3 open-label, randomized multicenter study to evaluate efficacy and safety of secukinumab in pediatric patients with moderate to severe plaque psoriasis: 24-week results. *J Am Acad Dermatol*. 2022 Jan;86(1):122-130.

Phan C, Beauchet A, Burztejn AC, Severino-Freire M, Barbarot S, Girard C, Lasek A, Reguiat Z, Hadj-Rabia S, Abasq C, Brenaut E, Droitcourt C, Perrussel M, Mallet S, Phan A, Lacour JP, Khemis A, Bourrat E, Chaby G, Deborde R, Plantin P, Maruani A, Piram M, Maccari F, Fougousse AC, Kupfer-Bessaguet I, Balguérie X, Barthelemy H, Martin L, Quiles-Tsimaratos N, Mery-Brossard L, Pallure V, Lons-Danic D, Bouilly-Auvray D, Beylot-Barry M, Puzenat E, Aubin F, Mahé E; Groupe de Recherche de la Société Française de Dermatologie Pédiatrique; Groupe de Recherche sur le Psoriasis de la Société Française de Dermatologie. Biological treatments for paediatric psoriasis : a retrospective observational study on biological drug survival in daily practice in childhood psoriasis. *J Eur Acad Dermatol Venereol*. 2019 Oct;33(10):1984-1992.

Thaçi D, Papp K, Marcoux D, Weibel L, Pinter A, Ghislain PD, Landells I, Hoeger PH, Unnebrink K, Seyger MMB, Williams DA, Rubant S, Philipp S. Sustained long-term efficacy and safety of adalimumab in paediatric patients with severe chronic plaque psoriasis from a randomized, double-blind, phase III study. *Br J Dermatol*. 2019 Dec;181(6):1177-1189.

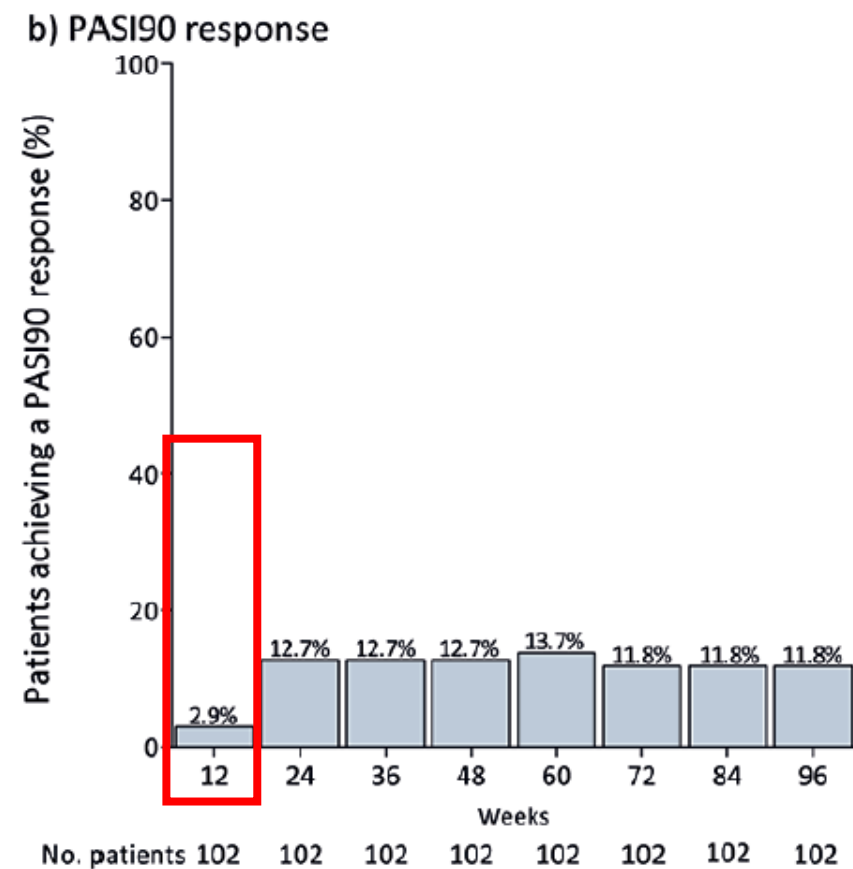
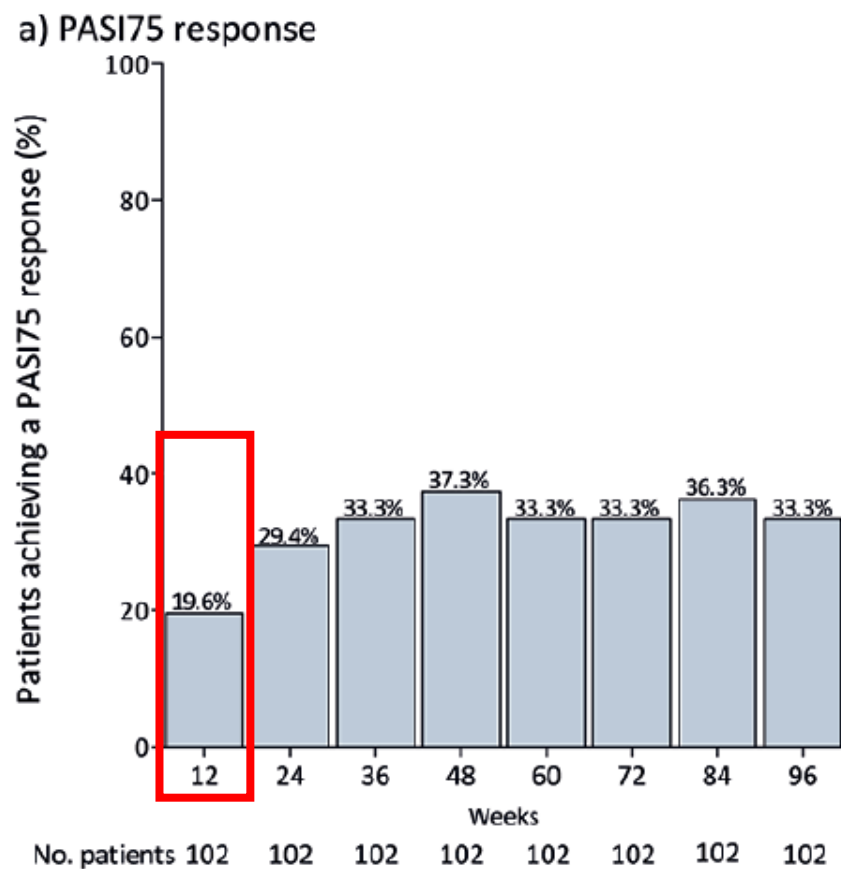
Psoriasis – Biothérapies – *Bilan*

- Alertes \Rightarrow même mesures que pour l'adulte
- Ex :
 - Prise en charge de l'excès de poids
 - Recherche de tuberculose
 - Vaccins, grippe
 - Suivi dentaire
 - Varicelle ?

Molécules orales – *Méthotrexate*

- Registre prospectif néerlandais Child-Capture (2008-2020)
- Monocentrique :
 - Department of Dermatology, Radboud University Nijmegen Medical Centre (Seyger M)
- NB : aux Pays-Bas : méthotrexate, ttt de 1^{ère} intention
- 105 enfants avec méthotrexate inclus

Molécules orales – Méthotrexate



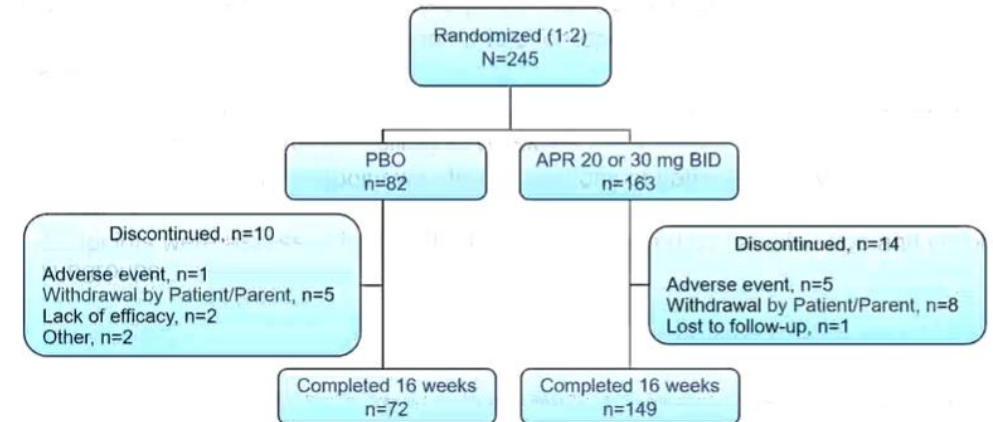
Molécules orales – *Méthotrexate*

	AE	Persistent AE
	All patients (n = 105)	All patients (n = 105)
Total AEs	90 (86.7)	49 (46.7)
Gastrointestinal AEs, total	75 (71.4)	41 (39.0)
Nausea	64 (61.0)	37 (35.2)
Abdominal pain	24 (22.9)	15 (14.3)
Vomiting	15 (14.3)	7 (6.7)
Loss of appetite	15 (14.3)	10 (9.5)
Diarrhoea	10 (9.5)	2 (1.9)
Dyspepsia	11 (10.5)	2 (1.9)
Oral ulcers	6 (5.7)	0
Dysphagia	2 (1.9)	1 (1.0)
Constipation	1 (1.0)	0
General AEs		
Fatigue	49 (46.7)	25 (23.8)
Headache	15 (14.3)	4 (3.8)
Dizziness	7 (6.7)	3 (2.9)
Weight loss	2 (1.9)	0

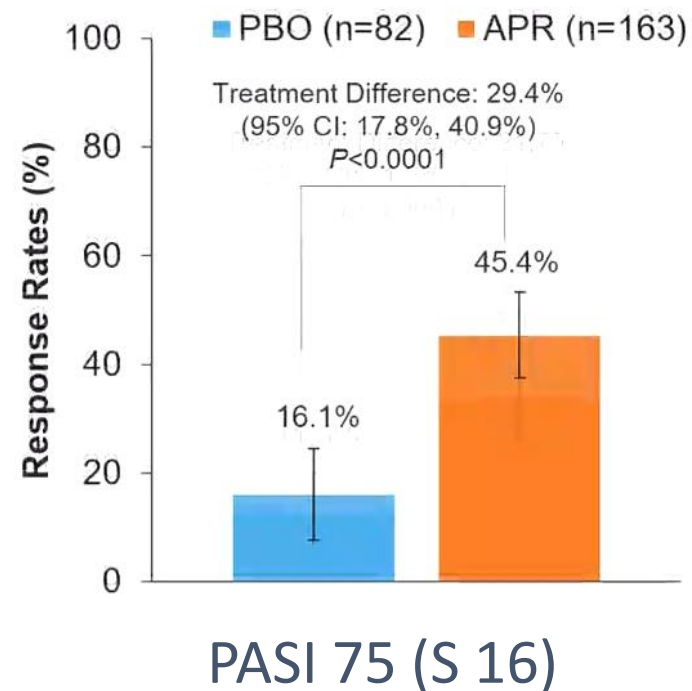
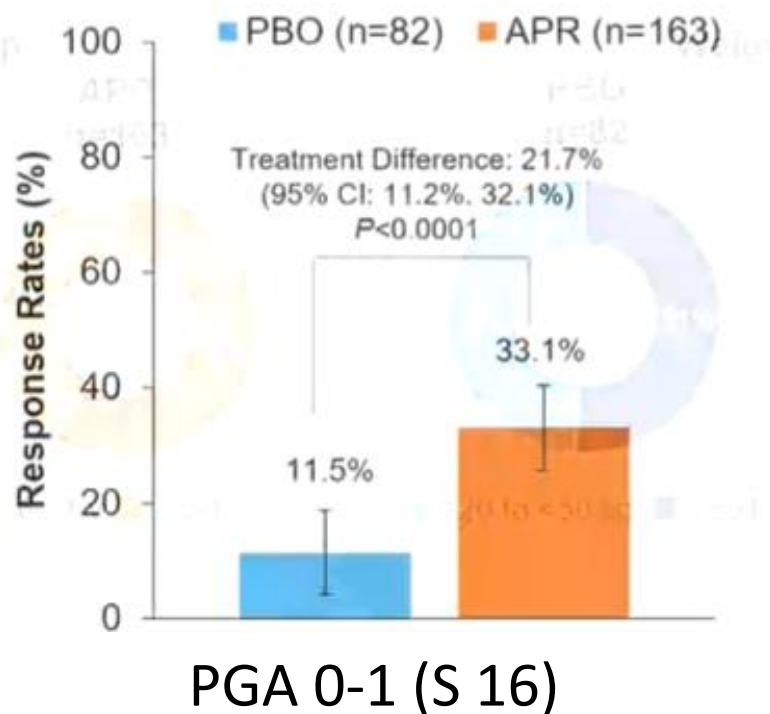
Molécules orales – Apremilast



- Critères d'inclusion :
 - 6 - 17 ans
 - Psoriasis PASI ≥ 12 ; SCA ≥ 10 ; PGA ≥ 3
 - Psoriasis non contrôlé par des traitements locaux
- 245 enfants randomisés



Molécules orales – Apremilast



L'effet est plus faible chez les enfants ≥ 50 kg et ≥ 11 ans

Molécules orales – Apremilast

- Tolérance

Overview of TEAEs and Most Commonly Reported TEAEs (Weeks 0 to 16)		
Patients, n (%)	PBO (n=80)	APR (n=163)
Any TEAE	33 (41.3)	106 (65.0)
Any drug-related TEAE	12 (15.0)	68 (41.7)
Any severe TEAE	1 (1.3)	2 (1.2)
Any serious TEAE	1 (1.3)	2 (1.2)
TEAE leading to drug withdrawal*	1 (1.3)	5 (3.1)
TEAEs occurring in ≥5% of patients		
Diarrhea ¹	8 (10.0)	33 (20.2)
Nausea	2 (2.5)	32 (19.6)
Abdominal pain	8 (10.0)	32 (19.6)
Vomiting	2 (2.5)	29 (17.8)
Headache	4 (5.0)	17 (10.4)
Pyrexia	1 (1.3)	11 (6.7)
Nasopharyngitis	3 (3.8)	10 (6.1)
Abdominal pain upper	4 (5.0)	9 (5.5)
COVID-19	5 (6.3)	5 (3.1)

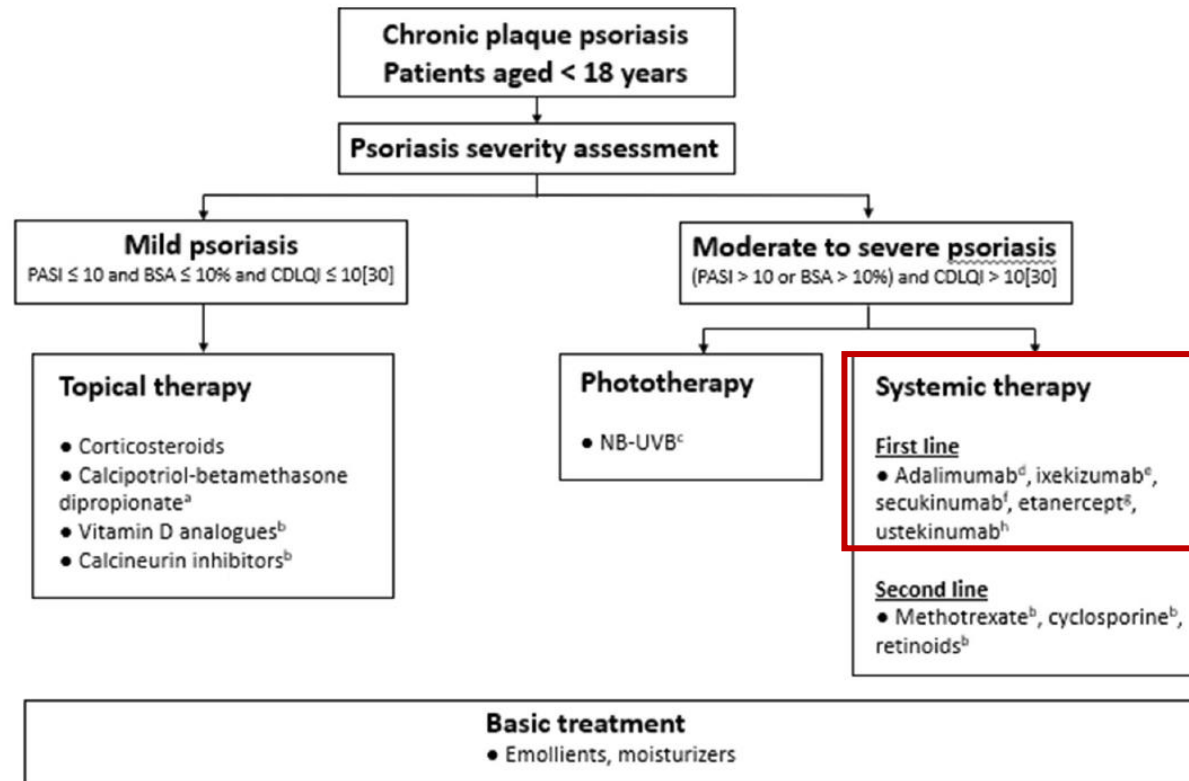
Molécules orales – « *Synthèse* »

- Méthotrexate
 - 12,9% de PASI 75 à 3 mois
 - 61% des nausées

- Aprémilast
 - 45% de PASI 75 à 4 mois
 - 20% des nausées

Place de ces traitements à définir

Recommandations – *Italie*



La BD éducative (2021)



La BD éducative (2021)



Bande dessinée



Version numérique

Merci à Novartis et HB Editions

La BD éducative (2021)



Merci à Novartis et HB Editions



Maladie de Verneuil



HS – Clinique

- Registres « numériques »

- Population :

1094 enfants vs 7633 adultes →

1162 enfants vs 38 140 adultes ↓

	Dépression	OR (IC95%) ; p
Enfants HS	11,7%	1.42 (0.999-2.01) ; .051
Enfants non HS	4,1%	
Adultes HS	30,0%	1,26 (1.25-1.28) ; < .001
Adultes non HD	16,9%	

Comorbidities of Pediatric and Adult Patients With Hidradenitis Suppurativa

Comorbidities	Participants, No. (%)		P value
	Pediatric	Adult	
Cutaneous			
Acne vulgaris	558 (51.00)	1888 (24.73)	<.001
Pyoderma gangrenosum	6 (0.55)	54 (0.71)	.55
Pilonidal cyst	73 (6.67)	385 (5.04)	.02
Acne conglobata	503 (45.98)	1610 (21.09)	<.001
Endocrinologic			
Diabetes			
Type 1	20 (1.83)	215 (2.82)	.06
Type 2	50 (4.57)	1665 (21.81)	<.001
Hypothyroidism	64 (5.85)	1164 (15.25)	<.001
Polycystic ovary syndrome	76 (6.95)	490 (6.03)	.24
Precocious puberty	15 (1.37)	0	<.001
Obesity, unspecified	369 (33.73)	3343 (43.80)	<.001
Metabolic syndrome	47 (4.30)	313 (4.1)	.76
Psychiatric			
MDD, recurrent, unspecified	59 (5.39)	566 (7.41)	.02
Anxiety disorder, unspecified	367 (33.55)	3216 (42.13)	<.001
Tobacco use	10 (0.91)	1394 (18.26)	<.001
Other psychoactive abuse, uncomplicated	9 (0.82)	45 (0.59)	.26
Cardiovascular			
Essential (primary) hypertension	22 (2.01)	3018 (39.54)	<.001
Hyperlipidemia, unspecified	47 (4.30)	2530 (33.14)	<.001
Autoimmune			
Crohn disease	19 (1.74)	139 (1.82)	.85
Arthropathy, unspecified	11 (1.00)	440 (5.76)	<.001
Spondyloarthropathy	0	0	>.99

Wright S, Strunk A, Garg A. Prevalence of depression among children, adolescents, and adults with hidradenitis suppurativa. J Am Acad Dermatol. 2022 Jan;86(1):55-60.

Hallock KK, Mizerak MR, Dempsey A, Maczuga S, Kirby JS. Differences Between Children and Adults With Hidradenitis Suppurativa. JAMA Dermatol. 2021 Sep 1;157(9):1095-1101.

HS – Clinique

- 71 enfants vs 799 adultes
 - Population :
 - 15 H / 56 F
 - Age moyen : 15,3 years (8-17 and)
 - Sévérité :
 - Hurley II-III : 54,9%
 - Facteurs de risque :
 - Tabac : 23,9%
 - Surpoids / obésité : 59,2%
 - Sévérité associée à :
 - Âge plus élevé (OR 1.43, 95% CI: 1.01 to 2.02)
 - BMI (OR 1.26, 95% CI: 1.07–1.48)

Acne « conglobata » – Verneuil – SAPHO

- À l'initiation de l'isotrétinoïne (voire cyclines) : « acné fulminans »



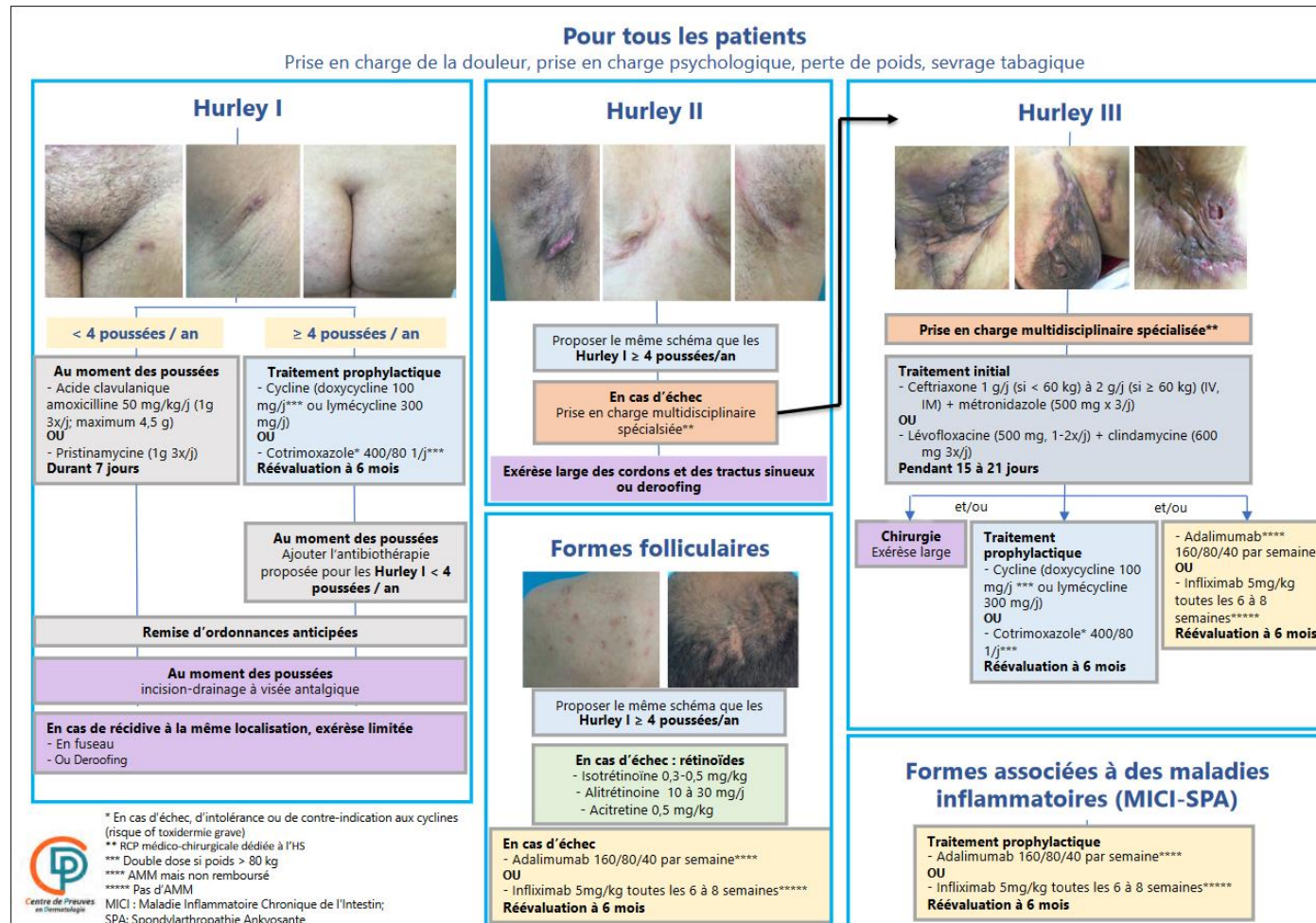
Chen W, Ito T, Lin SH, Song Z, Al-Khuzaei S, Jurik AG, Plewig G. Does SAPHO syndrome exist in dermatology? *J Eur Acad Dermatol Venereol*. 2022 Sep;36(9):1501-1506.

Revuz J, Poli F. L'acne conglobata existe-t-elle ?. *Ann Dermatol Venereol*. 2019 Jan;146(1):1-3.

Poli F, Revuz J. « Poussées inflammatoires d'acné » sous isotrétinoïne révélant une hidradénite suppurée : 4 cas. *Ann Dermatol Venereol*. 2019 Jan;146(1):4-8.

Trave I, Micalizzi C, Molle M, Castelli R, Cozzani E, Parodi A. Acne Fulminans Induced by Lymecycline in a Patient with Hidradenitis Suppurativa: A Case Report. *Case Rep Dermatol*. 2022 May 9;14(2):112-116.

Maladie de Verneuil – Recos



Maladie de Verneuil

A red starburst graphic with multiple points, containing white text.

**Importance de la
sensibilisation des
pédiatres et MG**

Annonce

2 postes à pourvoir

Assistant, PH

Service de Dermatologie

Hôpital Victor Dupouy, Argenteuil