

Paediatric atopic dermatitis: Evolving strategies for improved management



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Expert panel



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Agenda

Disease severity and family impact of paediatric atopic dermatitis

Stepping up care in paediatric atopic dermatitis

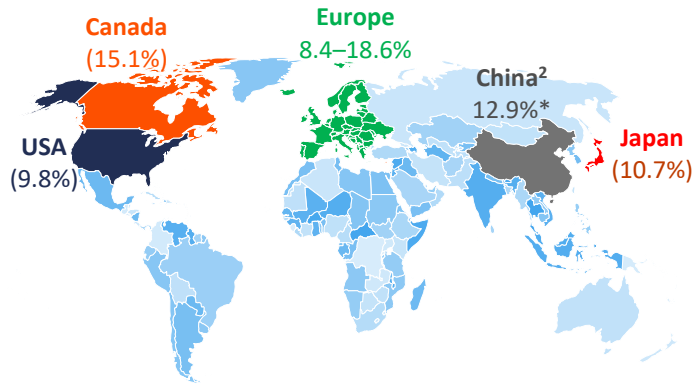
Optimizing care pathways in paediatric atopic dermatitis



Disease severity and family impact of paediatric atopic dermatitis

Epidemiology and symptom burden of paediatric AD

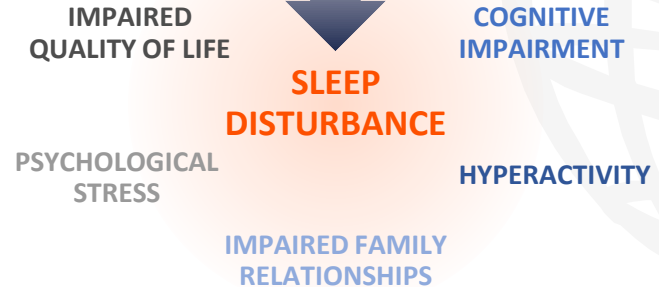
Epidemiology¹



Prevalence estimates for children and adolescents (6 months to <18 years; N=65,661) in 18 countries diagnosed with AD: 2.7–20.1%¹

Disease burden³

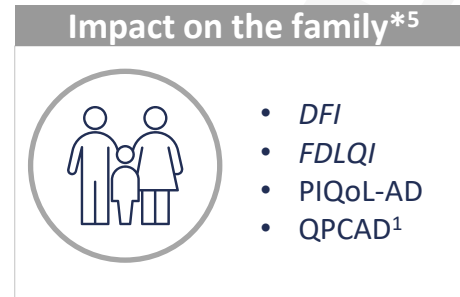
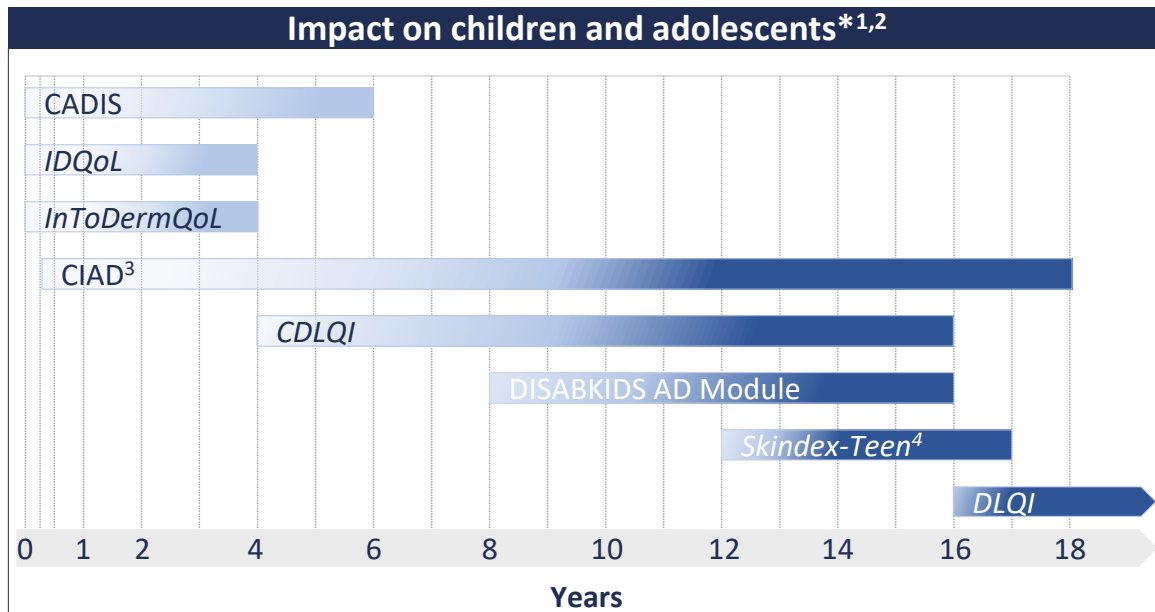
CHRONIC PRURITUS



*Children aged 1–7 years.
AD, atopic dermatitis.

1. Silverberg JI, et al. *Ann Allergy Asthma Immunol.* 2021;126:417–28.e2; 2. Guo Y, et al. *Sci Rep.* 2016;6:29751; 3. Cameron S, et al. *Allergy.* 2023;DOI: 10.1111/all.15818.

Measuring impact of AD on QoL in paediatric patients



There are many new tools to assess QoL in paediatric patients with AD. They are typically used in clinical trials; most are poorly validated and generally unavailable for use in routine clinical practice¹

*Questionnaires that are not specific to AD are italicized.

AD, atopic dermatitis; CADIS, Childhood Atopic Dermatitis Impact Scale; CDLQI, Children's dermatology life quality index; CIAD, Childhood Impact of AD; DFI, Dermatitis Family Index; DLQI, Dermatology Life Quality Index; FDLQI, Family DLQI; IDQoL, Infant's dermatitis QoL index; InToDermQoL, Infants and Toddlers Dermatology QoL; PIQoL-AD, Parents' index of QoL in AD; QoL, quality of life; QPCAD, QoL in Primary Caregivers of Children with AD/QoL in Parents of Children with AD.

1. Na CH, et al. *Children (Basel)*. 2019;6:133; 2. Gabes M, et al. *Pediatr Allergy Immunol*. 2020;31:66-77; 3. McKenna SP, et al. *Health Qual Life Outcomes*. 2007;5:45;

4. Smidt A, et al. *Arch Dermatol*. 2010;146:865-9; 5. Ali F, et al. *Acta Derm Venereol*. 2020;100:adv00161.

Systemic treatment of children and adolescents with AD

- Delphi method used to reach consensus on the use of systemic treatment in children with severe AD
- Nineteen physicians from Northern Europe selected for their expertise in managing childhood AD

Systemic therapy is recommended for children aged ≥ 2 years with a clear clinical diagnosis of severe AD and persistent disease uncontrolled after optimizing non-systemic therapy

Assessing the severity and burden of childhood AD

- A comprehensive evaluation of the psychological, social and behavioural impact of AD, including school/work absenteeism, on the patient and family is recommended
- A comprehensive evaluation of the burden of AD on the family is recommended
- The impact of a child's AD on the quality of life of the patient and the wider family should be thoroughly evaluated
- The use of validated tools to assess disease severity, symptom burden, treatment success and patient's QoL is encouraged



Stepping up care in paediatric atopic dermatitis



Overview of regulatory agency-approved systemic treatments for moderate-to-severe paediatric AD



FDA

Dupilumab (anti-IL-4R α)¹

- Adult and paediatric patients aged ≥ 6 months

Abrocitinib (JAKi)⁵

- Adult and paediatric patients aged ≥ 12 years

Upadacitinib (JAKi)⁶

- Adult and paediatric patients aged ≥ 12 years



EMA

Dupilumab (anti-IL-4R α)²

- Adult and paediatric patients aged ≥ 6 months

Lebrikizumab (anti-IL-13)³

- Adult and paediatric patients aged ≥ 12 years

Tralokinumab (anti-IL-13)⁴

- Adult and paediatric patients aged ≥ 12 years

Baricitinib (JAKi)⁷

- Adults and paediatric patients aged ≥ 2 years

Upadacitinib (JAKi)⁸

- Adults and paediatric patients aged ≥ 12 years

Other agents used off-label for systemic therapy in paediatric patients with severe AD include methotrexate and cyclosporin A⁹

AD, atopic dermatitis; EMA, European Medicines Agency; FDA, US Food and Drug Administration; IL, interleukin; IL-4R α , IL-4 receptor alpha; JAKi, Janus kinase inhibitor.

1. FDA. Dupilumab PI. 29 September 2023; 2. EMA. Dupilumab SmPC. 11 October 2023; 3. EMA. Lebrikizumab. Summary of opinion. 14 September 2023. Available at:

www.ema.europa.eu/en/documents/smop-initial/chmp-summary-positive-opinion-ebglyss_en.pdf (accessed 3 November 2023); 4. EMA. Tralokinumab SmPC. 30 October 2023;

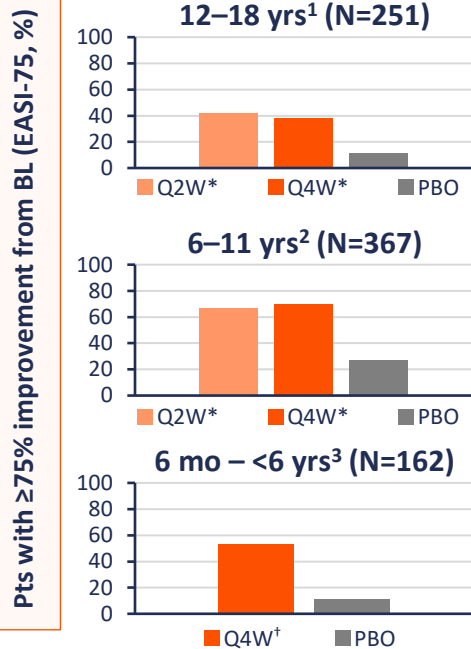
5. FDA. Abrocitinib. PI. 9 February 2023; 6. FDA. Upadacitinib. PI. 22 June 2023; 7. EMA. Baricitinib SmPC. 30 October 2023; 8. EMA. Upadacitinib SmPC. 29 August 2023;

9. Lockhart MK, Siegfried EC. *Dermatol Clin*. 2022;40:137–43.

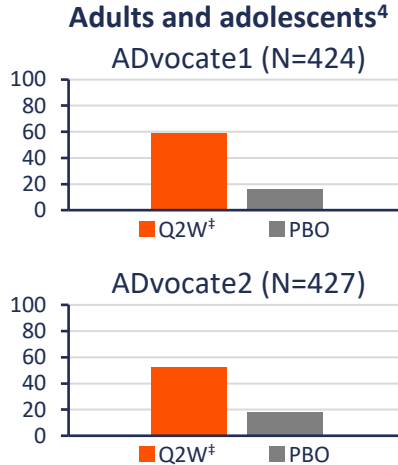
All PIs available at: www.accessdata.fda.gov/scripts/cder/daf/index.cfm; all SmPCs available at: www.ema.europa.eu/en/medicines; all URLs accessed 3 November 2023.

Efficacy of mAbs at 16 weeks for treating AD

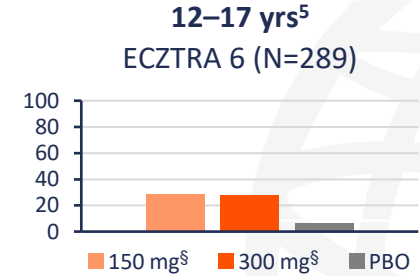
Dupilumab (LIBERTY programme)



Lebrikizumab (ADvocate)



Tralokinumab



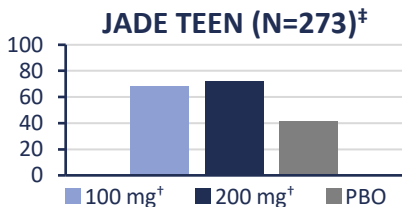
Direct comparisons between trials should not be made due to differences in trial design

*2QW: 200 mg body weight <60 kg or 300 mg body weight ≥60 kg, 4QW: 300 mg; †200 mg: ≥5 kg – <15 kg or 300 mg: ≥15 kg – <30 kg; ‡Q2W; §250 mg. AD, atopic dermatitis; BL, baseline; EASI, Eczema Area and Severity Index; mAb, monoclonal antibody; mo, months; PBO, placebo; pts, patients; Q2W, every 2 weeks; Q4W, every 4 weeks; yrs, years.

1. Simpson EL, et al. *JAMA Dermatol.* 2020;156:44–56; 2. Paller AS, et al. *J Am Acad Dermatol.* 2020;83:1282–93; 3. Paller AS, et al. *Lancet.* 2022;400:908–19; 4. Silverberg JI, et al. *N Engl J Med.* 2023;388:1080–91; 5. Paller AS, et al. *JAMA Dermatol.* 2023;159:596–605.

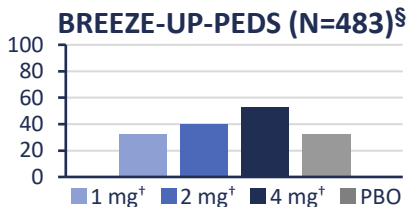
Efficacy of JAK inhibitors at 12/16 weeks for treating AD

Abrocitinib (12–17 yrs)*¹

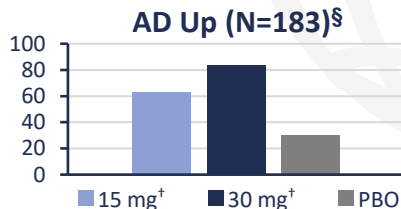
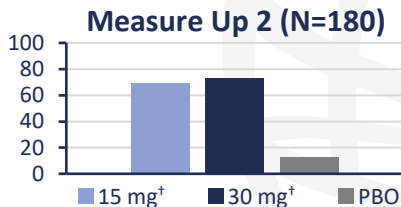
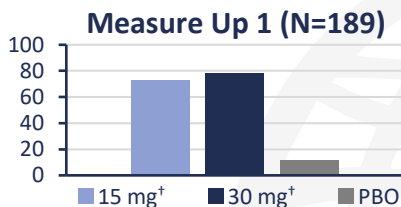


Protocol deviation in the PBO group:
One patient aged 18 years

Baricitinib (2–17 yrs)^{‡2}



Upadacitinib (12–17 yrs)^{‡3}



Pts with ≥75% improvement from BL (EASI-75, %)

Direct comparisons between trials should not be made due to differences in trial design

*Data collected at 12 weeks; [†]QD; [‡]data collected at 16 weeks; [§]patients received concomitant topical therapy.

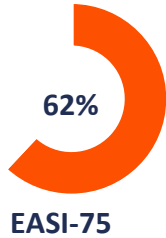
AD, atopic dermatitis; BL, baseline; EASI, Eczema Area and Severity Index; JAK, Janus kinase; PBO, placebo; pts, patients; QD, every day; yrs, years.

1. Eichenfield LF, et al. *JAMA Dermatol.* 2021;157:1165–73; 2. Torrelo A, et al. *Br J Dermatol.* 2023;189:23–32; 3. Paller AS, et al. *JAMA Dermatol.* 2023;159:526–35.

Long-term extension data in paediatric patients

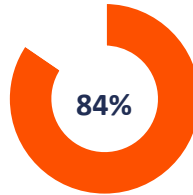
Dupilumab

LIBERTY AD PED-OLE at week 28¹
(N=104)

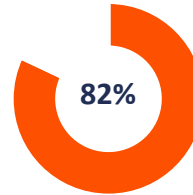


Lebrikizumab at 52 weeks

ADvocate 1 and 2 ADore (12–<18 yrs)
(N=851)³ (N=172)⁴

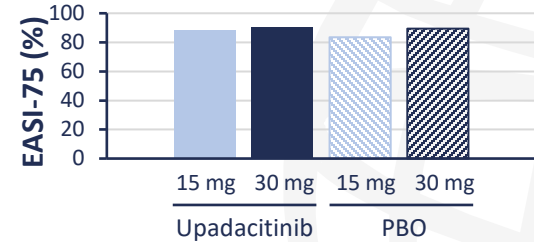


EASI-75



Upadacitinib to 140 weeks

Measure Up 1 (12–75 yrs)⁵
(N=596)



Inflammatory biomarkers at week 16 (6 mo–17 yrs)²

- **TARC/CCL17, LDH and total IgE:** Significantly reduced in all age groups ($p < 0.0001$ vs PBO)
- **Eosinophil levels:** No changes vs PBO

Direct comparisons between trials should not be made due to differences in trial design

EASI-75, patients with $\geq 75\%$ improvement from baseline in the Eczema Area and Severity Index; IgE, immunoglobulin E; LDH, lactate dehydrogenase; PBO, placebo; TARC/CCL17, thymus- and activation-regulated chemokine.

1. Paller A, et al. Presented at: The EADV Congress, Berlin, Germany. 11–14 October 2023. Abstr 5041; 2. Beck L, et al. Presented at: The EADV Congress, Berlin, Germany. 11–14 October 2023. Abstr. 3523; 3. Pinter A, et al. Presented at: The EADV Congress, Berlin, Germany. 11–14 October 2023. Abstr. 3350; 4. Paller AS, et al. *Dermatol Ther (Heidelb)*. 2023;13;1517–34; 5. Silverberg A, et al. Presented at: The EADV Congress, Berlin, Germany. 11–14 October 2023. Abstr. 4392.



Optimizing care pathways in paediatric atopic dermatitis



Strategies for ensuring effective management of AD¹⁻³



INFANCY TO CHILDHOOD

- Parent/caregiver predominately responsible for disease management
- Parent/caregiver-directed education to ensure optimal disease management and patient care

ADOLESCENTS

- Increasing patient responsibility for disease management
- Patient-directed education about the disease and its management
- Development of skills in self-management and self-advocacy

YOUNG ADULTS

- Patient takes full responsibility for self-management and self-advocacy
- Patient-centred care through patient-HCP partnering to individualize care