Paediatric atopic dermatitis: Evolving strategies for improved management

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Expert panel

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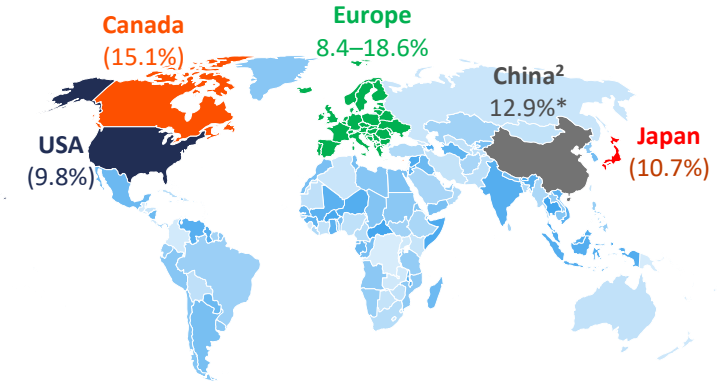
Agenda

- 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

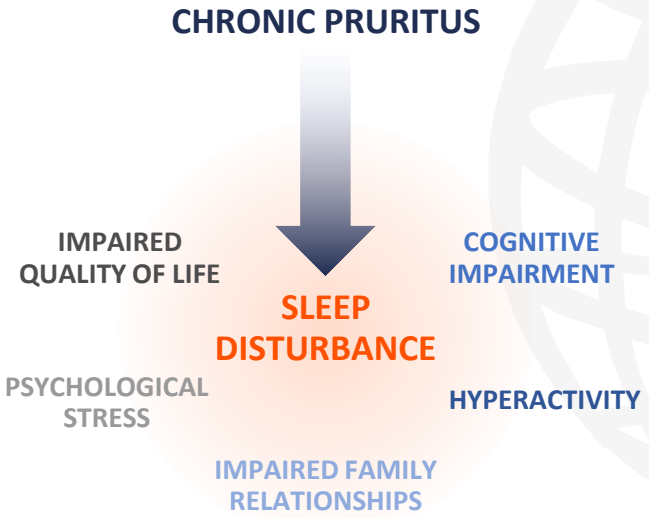
Epidemiology and symptom burden of paediatric AD

Epidemiology[1]



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 burden[3]



*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.

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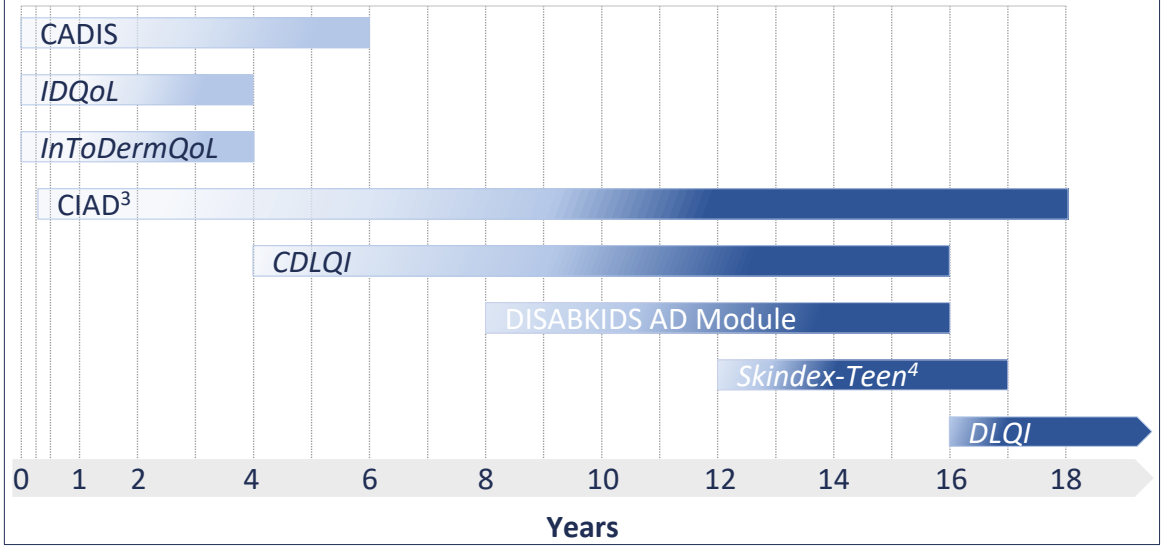
Measuring impact of AD on QoL in paediatric patients

Impact on children and adolescents*[1,2]



Impact on the family*[5]

- *DFI*
- *FDLQI*
- PIQoL-AD
- QPCAD[1]

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 practice[1]

*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.

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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

AD, atopic dermatitis; QoL, quality of life.

De Graaf M, et al. *J Eur Acad Dermatol Venereol.* 2022;36:2153–65.

Stepping up care in paediatric atopic dermatitis

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

FDA

Dupilumab (anti-IL-4Rα)[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-4Rα)[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 A[9]

AD, atopic dermatitis; EMA, European Medicines Agency; FDA, US Food and Drug Administration; IL, interleukin; IL-4Rα, 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.

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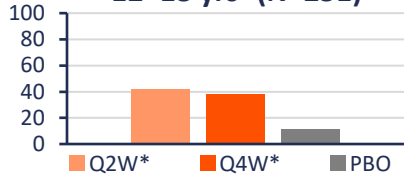
Efficacy of mAbs at 16 weeks for treating AD

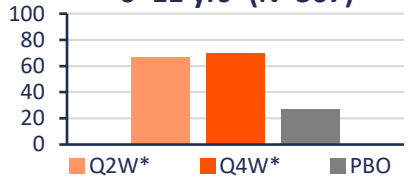
Dupilumab (LIBERTY programme)

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

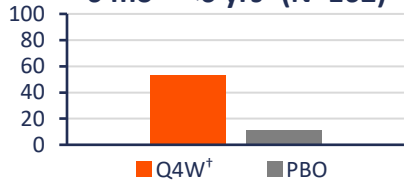
12–18 yrs[1] (N=251)



6–11 yrs[2] (N=367)



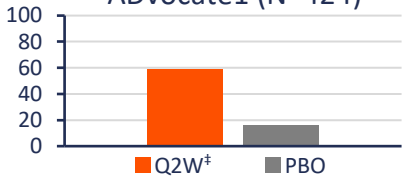
6 mo – <6 yrs[3] (N=162)



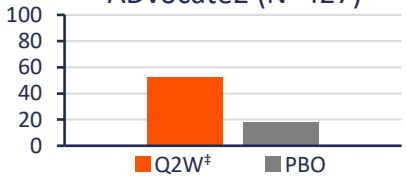
Lebrikizumab (ADvocate)

Adults and adolescents[4]

ADvocate1 (N=424)



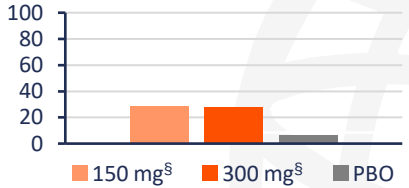
ADvocate2 (N=427)



Tralokinumab

12–17 yrs[5]

ECZTRA 6 (N=289)



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.

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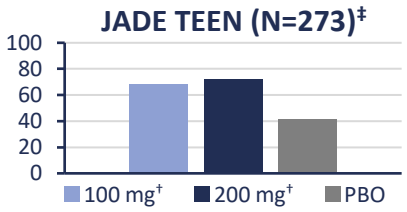
Efficacy of JAK inhibitors at 12/16 weeks for treating AD

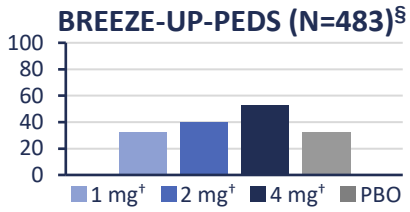
Pts with ≥75% improvement from BL (EASI-75, %)

Abrocitinib (12–17 yrs)*[1]

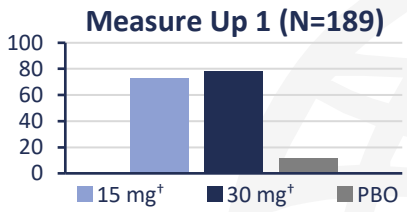


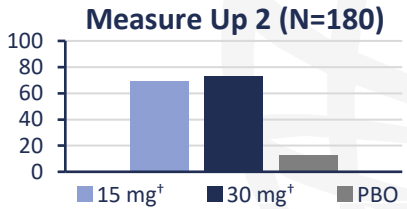
Protocol deviation in the PBO group:
One patient aged 18 years

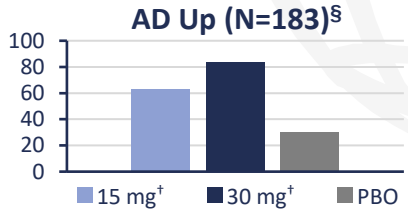
Baricitinib (2–17 yrs)‡[2]



Upadacitinib (12–17 yrs)‡[3]







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

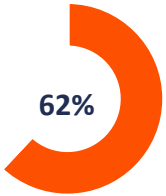
*Data collected at 12 weeks; †QD; ‡data collected at 16 weeks; §patients received concomitant topical therapy.
AD, atopic dermatitis; BL, baseline; EASI, Eczema Area and Severity Index; JAK, Janus kinase; PBO, placebo; pts, patients; QD, every day; yrs, years.

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

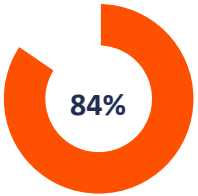
LIBERTY AD PED-OLE at week 28[1] (N=104)



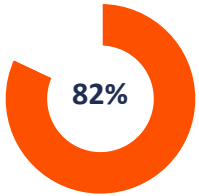
EASI-75

Lebrikizumab at 52 weeks

ADvocate 1 and 2 (N=851)[3]



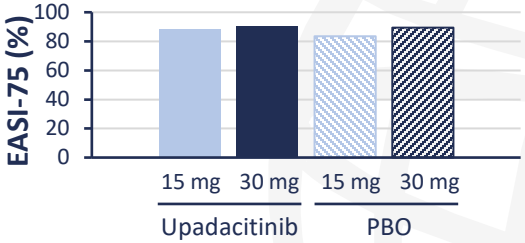
ADore (12–<18 yrs) (N=172)[4]



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 ≥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.

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Optimizing care pathways in paediatric atopic dermatitis

Strategies for ensuring effective management of AD[1–3]

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

AD, atopic dermatitis; HCP, healthcare professional.

1. Lundin S, et al. *BMJ Open*. 2021;11:e044777; 2. Vazquez-Ortiz M, et al. *Allergy*. 2020;75:1850–80; 3. Lozano P, et al. *Pediatrics*. 2018;141:e20171284.

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