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**Table SI. Definition of moderate-to-severe atopic dermatitis in children (0–11 years), adolescents (12–17 years), and adults (18 years and older)**

Domain	Variable	Inclusion criteria
Topical moisturizers (ATC)	reimbursed emollients, emollients and protectives (D02A)	≥500g/calendar year (for 0–5 years old); ≥1000g/calendar year (for 6 years old and older)
	<i>And/Or</i>	
Topical corticosteroids (ATC)	mild corticosteroids (D07AA) for children only; moderate corticosteroids (D07AB) for all age groups; potent corticosteroids (D07AC) for all; very potent corticosteroids (D07AD) for adults only	≥100 g/calendar year
	<i>And/Or</i>	
Calcineurin inhibitors (ATC)	tacrolimus (D11AH01), pimecrolimus (D11AH02)	≥60 g/calendar year
	<i>And/Or</i>	
Antibiotics (ATC)	oral antibiotics (J01) for children only; topical antibiotics (D06A) for all age groups	≥1 prescription during study period
	<i>And/Or</i>	
Sedating antihistamines (ATC)	hydroxyzine (N05BB01)	≥1 prescription during study period 2016–2020
	<i>And/Or</i>	
Systemic (oral) AD medication (ATC)	glucocorticoids (H02AB), ciclosporin (L04AD01), azathioprine (L04AX01), methotrexate (L04AX03), mycophenolic acid (L04AA06)	≥1 prescription during study period 2016–2020
	<i>And/Or</i>	
Dupilumab (ATC)	dupilumab (D11AH05) for adolescents and adults	≥1 prescription during study period 2016–2020
	<i>And</i>	
AD-specific visit at primary care (ICD-10; ICPC-2)	Number of visits (L20; S87)	≥2 visits during study period 2016–2020
	<i>Or</i>	
AD-specific out-patient visit at secondary care (ICD-10)	Number of visits (L20)	≥1 visit during study period 2016–2020

AD: atopic dermatitis; ATC: Anatomical Therapeutic Chemical; ICD-10: International Classification of Diseases, 10th Revision; ICPC-2: International Classification of Primary Care, 2nd edition

**Table SII. Percent distribution of specific comorbidities of special interest, with diagnosis codes, in adults (aged over 18 years) with moderate-to-severe AD and the reference population during their follow-up period**

Diagnosis codes (ICD-10 / ICPC-2)	Adults with moderate-to-severe AD	Reference population (N=155,024)
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<b>(N=31,298)</b>			
Diagnosis		n (%)	n (%)
<i>Atopic</i>			
Asthma	J45 / R96	4432 (14.2)	5848 (3.8)
Contact allergy	L23 / S88	3264 (10.4)	649 (0.4)
Allergic rhinitis	J30 / R97	2985 (9.5)	2563 (1.7)
Conjunctivitis	H10 / F70, F71	2746 (8.8)	4787 (3.1)
Food allergy	T78.0 / A92	642 (2.1)	619 (0.4)
Sinusitis with nasal polyps	J32.9 / R75	320 (1.0)	895 (0.6)
Alopecia areata	L63 / S23	195 (0.6)	241 (0.2)
Chronic spontaneous urticaria	L50.1 / S98	153 (0.5)	177 (0.1)
<i>Psychiatric</i>			
Anxiety	F41 / P74, P76	3650 (11.7)	11079 (7.1)
Depression	F32 / P76	2865 (9.2)	8481 (5.5)
ADHD	F90 / P81	502 (1.6)	1270 (0.8)
<i>Gastrointestinal</i>			
Gastroenteritis	A08.4, A09, K52.0, K52.1, K52.2, K52.88, K52.9 / D11, D70, D73, D94, D99	2456 (7.8)	7383 (4.8)
Irritable bowel syndrome	K58 / D93	730 (2.3)	1882 (1.2)
Ulcerative colitis	K51 / D94	412 (1.3)	1171 (0.8)
Crohn's disease	K50 / D94	258 (0.8)	527 (0.3)
<i>Other</i>			
Migraine	G43 / N89	1636 (5.2)	5013 (3.2)
Obesity	E66 / T82, T83	1214 (3.9)	3400 (2.2)
Eczema herpeticum	B00 / S71	787 (2.5)	753 (0.5)
<i>Cancer</i>			
Lymphomas	C81-C86 / B72	167 (0.5)	313 (0.2)
Skin cancer	C43 / S77	78 (0.2)	290 (0.2)
Cervical cancer	C53 / X75	10 (<0.1)	69 (<0.1)

AD: atopic dermatitis; ADHD: attention-deficit hyperactivity disorder; ICD-10: International Classification of Diseases, 10th Revision; ICPC-2: International Classification of Primary Care, 2nd edition