Australasian Dermatology Registry

A Comparative Analysis of Atopic Dermatitis Registry Data: Insights from Australia (2023-2025), Europe, Asia, North and South America.

Lena Ly [1, 2], Julie Armstrong [1], Peter Foley [1, 3]

1. Dermatology, Skin Health Institute, Carlton, Australia
2. Dermatology, Eastern Health, Box Hill, Australia
3. Dermatology, St Vincents Hospital, Fitzroy, Australia

Declarations

Dr Ly is currently co-chair of the Atopic Dermatitis Scientific Advisory committee of the ADR; **Ms Julie Armstrong** is the Clinical Registry Co-Ordinator of the ADR; **A/Prof Foley** is the ADR co-convenor and chair of the Steering Committee

Dr Lena Ly has received fees, honoraria, research funding as a speaker, investigator, advisory board member, and/or consultant for: Abbvie, Arrotex, Eli Lilly, Galderma, Leo Pharma, L'oreal, and Sun Pharma.

Ms Armstrong has no relevant declarations.

Associate Professor Peter Foley has received fees, honoraria, grants, and/or research funding as a speaker, investigator, advisory board member, and/or consultant for: AbbVie, Akaal, Almirall, Alumis, Amgen, Apogee, Arcutis, Argenx, Arrotex/Juniper, Aslan, AstraZeneca, Avalo, Boehringer Ingelheim, Botanix Pharmaceuticals, Bristol Myers Squibb, Celgene, Celtaxsys, Claruvis, CSL, Cutanea, Dermira, Eli Lilly and Company, Evelo, Galderma, Genentech, Geneseq, GenesisCare, GlaxoSmithKline, Hexima, Incyte, Janssen, Kymab, LEO Pharma, L'Oreal, Mayne Pharma, MedImmune, Merck, Novartis, Oruka, Pfizer, Regeneron, ReistoneBiopharma, Roche, Sanofi Genzyme, Sun Pharma, Takeda, Teva, UCB Pharma, Valeant Pharmaceuticals, and ZaiLab.

Introduction

Atopic Dermatitis (AD) is a pruritic chronic inflammatory skin disease with significant global burden.

Learning Objectives

- To analyse existing AD registry data
- To appreciate differences in AD registry data worldwide
- To review our own reported registry data and make recommendations as appropriate
- To propose nation-specific management strategies for AD

Methods

- Two years (2023–2025) of key metrics from the Australian ADR were compared with key registry publications from Europe[1], Asia[2,3], North America[4], and South America[5] in patients with moderate to severe AD.
- Africa unfortunately is the only continent to lack an AD registry.
- PubMed search terms: registry, atopic dermatitis
- Selected by geographical representation and most recent publication dates.

Demographics

CHARACTERISTICS	ADR	TREAT [1]	ADDRESS-J [2]	TARGET [4]	MEASURE [5]
Nation	AUSTRALIA	GERMANY	JAPAN	USA	BRAZIL MEXICO ARGENTINA
Published Year	2025	2021	2022	2024	2025
Male	173 (50.6%) n=342	591 (57.7%) n=1025	173 (60.1%) n=288	137 (40.5%) n=436	82 (52.2%) n=157
Age, mean (SD)	42.6 (20.0) n=331	41.7 (14.6)	35.5 (10.5)	44 (19) n=338	36.6 (16.4)
12> years old	12 (3.3%)	N/A	N/A	98 (22%)	23 (13%)
Adult >18	331 (91.4%)	N/A	100%	338 (78%)	157 (87%)
BMI, mean (SD)	27.8 (6.4) n=256	25.9 (5.4) n=1009	22.7 (3.7)	NR	26.3 (4.5) n=157

- Patient demographics were similar in age and sex.
- North America did not record BMI; however did record median total body surface area 11%^ (n=338) and median height 169cm (n=72)
- About half were married or de-facto (52.7% Australia; 64.8% Germany)
- One third never married (36.1% Australia, 29.9% Germany)
- Key differences were noted in education between Australians and Germans at senior school level (35.3%, 62.7% respectively) and tertiary or vocational education levels (36%, 24.3% respectively).

^Total BSA: 0% (clear), >0% and <16% (mild), >¼16% and <¼40% (moderate), and >40% (severe).

Comorbidities

The most common non-atopic comorbidity

- for Australians - depression (18.5%)
- for Germany - hypertension (18.8%)

Depression and anxiety outcomes were assessed by 2 groups using different scoring systems

- The North American registry (TARGET)
  - PROMIS Depression 52 (10), mean (SD)
  - PROMIS Anxiety 55 (11), mean (SD)
  - Patient-Reported Outcomes Measurement Information System (PROMIS)
- Australian registry (ADR)
  - Hospital Anxiety and Depression Scale (HADS)

ALLERGIC COMORBIDITIES	ADR	TREAT [1]	ADDRESS-J [2]
TH2 inflammatory comorbidities	NR	NR	217 (75.3%)
Allergic rhino conjunctivitis	156 (60.5%)	650 (65.9%)	NR
Bronchial asthma	124 (48.1%)	443 (44.3%)	NR
Contact allergy	72 (27.7%)	NR	NR
Food allergy	91 (35.3%)	NR	NR

NON ATOPIC COMORBIDITIES	ADR n = 271	TREAT [1] n=1025
Hypertension	40 (14.7%)	189 (18.8%)
Heart disease	2 (0.8%)	12 (1.9%)
Stroke	8 (3.0%)	4 (0.5%)
Diabetes mellitus type 1	0	1 (0.1%)
Diabetes mellitus type 2	17 (6.3%)	36 (3.5%)
Crohn's disease/Ulcerative colitis	1 (0.4%)	12 (1.2%)
Renal failure	NR	11 (1.1%)
Rheumatoid arthritis	NR	3 (0.3%)
Depression	50 (18.5%)	97 (9.7%)
Cancer	13 (4.8%)	16 (2.0%)

Severity

- Variable severity scores reported with EASI; SCORAD; DLQI, ITCH, SLEEP
- Non uniform, thus hard to draw comparisons

SEVERITY	ADR	TREAT [1]	ADDRESS-J [3]	TARGET [4]	MEASURE [5]
EASI					
Baseline, mean (SD)	28.2 (10.3) (n =128)	16.1 (12.9) (n=1015)	25.4 (15.5) (n=288)	NR	18.2 (12.6)
Most recent, mean (SD)	3.9 (7.5) (n=227)	NR	NR	NR	NR
SCORAD Severity (moderate/severe) median (SD)	NR	295 (29%) / 577 (56.8%)	NR	38.1 (215)	NR
DLQI					
Baseline, mean (SD)	19.0 (6.7) (n=75)	11.8 (7.8)	8.3 (6.4)*	NR	11.4
Most recent, mean (SD)	6.2 (6.5) (n=309)	NR	NR	NR	NR
Severity (moderate/very large/ extremely large)	NR	232 / 356 / 160	NR	51 (46%) (n=197)	NR
Itch severity					
NRS, most recent, mean (SD)	3.8 (2.8) (n=236)		6.5 (2.2)	NR	6.1 (7)
PROMIS itch/mood/sleep mean (SD)	NR	NR	NR	46 (11)	NR
Sleep disturbance					
	3.2 (3.1) (n=199)	163 (16.1%) / 235 (23.2%)	NR	NR	118 (66%)
	Most recent, mean (SD)	(Increased / High FSS)	NR	NR	Any sleep issues

Treatment

Topical corticosteroid and calcineurin inhibitors used worldwide

- Australia, Germany, South America, Japan (74 - 91%)
- North America (40%)

Some uncommon treatments reported by ADDRESS-J

- skin protectants
- Kampo herbal drug
- compound drug (corticosteroids and antihistamines)
- NSAIDs
- psychotherapy

TREATMENT	ADR	TREAT [1]	ADDRESS-J [3]	TARGET [4]	MEASURE [5]
Advanced targeted therapy	232	1015	288	338	157
Dupilumab					
Dupilumab - First systemic	NR	98 (9.7%)	NR	74 (21.9%)	24 (23.8%)
Dupilumab - Current systemic	188 (81%)	NR	6 (2.1%)	NR	NR
JAK inhibitor					
Upadacitinib - Current systemic	24 (10.3%)	1 (0.1%)	NR	1 (0.3%)	NR
JAKi (other)^ - Current systemic	NR	6 (0.6%)	NR	2 (0.6%)	NR
^ = abrocitinib, tralokinumab, baricitinib, unspecified)					
Oral traditional systemic	127				
Current	27 (21.3%)	NR	86 (29.9%)	215 (50%)	77 (50%)
Previous	100 (78.7%)	980 (97%)	42 (14.6%)	46 (14%)	144 (91.7%)
NBUVB	101				
Current	10 (9.9%)	NR	35 (12.2%)	33 (10%)	NR
Previous	91 (90.1%)	381 (38%)	16 (5.6%)	45 (13%)	NR
Topicals					
Current	207 (89%)	927 (91.3%)	287 (99.7%)	135 (40%)	117 (74.5%)

- Australia has only two targeted therapies for approved use in AD (dupilumab and Upadacitinib)
- The only biologic approved in Japan at time of data collection was dupilumab

Key Take Aways

- National registries provide essential real-world data for a better understanding of disease, management and patient outcomes.
- Worldwide, atopic disease comorbidities were similar
- Non-atopic comorbidities differed in prevalence with hypertension leading in Germany and depression in Australia.
- Users of topical therapies was lowest in North America compared to other nations (both at baseline and with advanced systemic therapies)
- Patient access to targeted treatments across the world is influenced by local government policy and thus can contribute to differences observed in registry data.

References

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For more information about the Australasian Dermatology Registry:
www.australasiandermatologyregistry.org.au

Author's Contact Card

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