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TREATMENT PATTERNS OF PEDIATRIC PATIENTS WITH ATOPIC DERMATITIS: A 10 YEAR ANALYSIS IN A REFERRAL UNIVERSITY HOSPITAL

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BACKGROUND

- **Atopic dermatitis (AD)** is a prevalent chronic inflammatory skin disease in children, requiring long-term and multimodal management.
- While **topical corticosteroids remain the cornerstone of AD management**, concerns regarding potential side effects often lead caregivers and physicians to consider non-steroidal alternatives, such as topical calcineurin inhibitors, topical phosphodiesterase-4 inhibitors.
- However, real-world evidence on **treatment patterns and determinants of therapy remains limited.**

OBJECTIVE

Primary outcome

- To study topical non-steroidal drug use and treatment trends in pediatric atopic dermatitis patients at a referral center over 10 years

Secondary outcome

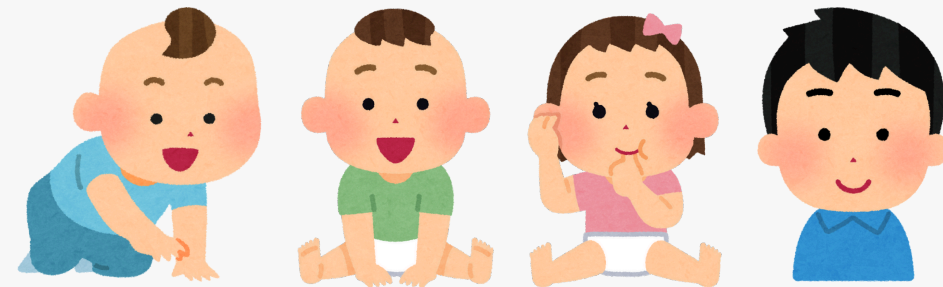
- To study the factors associated with the use of topical non-steroidal agents compared with other treatments

METHOD

Inclusion criteria: Children 0 - 18 years old was diagnosed Atopic dermatitis

Period: 1 January 2015 - 30 December 2024

Design: Retrospective cross-sectional study



3,982 patients

were analyzed

- Percentile, Mean, Median
- Multivariable logistic regression

- Demographic characteristics
- Healthcare utilization
- Treatment pattern prescriptions

- **Percentile, Mean, Median:** identify characteristic of patient atopic dermatitis
- **Multivariable logistic regression:** identify factors associated with topical non-steroidal medication use

RESULTS

Table 1. Clinical characteristics of Thai pediatric atopic dermatitis between January 2015 and December 2024

Characteristics	n	%
Sex		
• Male	1,958	49.2
• Female	2,024	50.8
Age at first diagnosis (years)		
• ≤ 1	785	19.7
• 1.1 - 5	927	23.3
• 5.1 - 11	1,083	27.2
• 11.1 - 18	1,187	29.8
Mean (SD)	7.7 (5.86)	-
Median (Min : Max)	2 (0 : 18)	-
Current primary payor		
• NHSO ¹	974	24.5
• CGD ²	1,571	39.4
• Self-pay	1,393	35.0
• Insurance	44	1.1

NHSO¹: National Health Security Office
CGD²: Civil Government Department

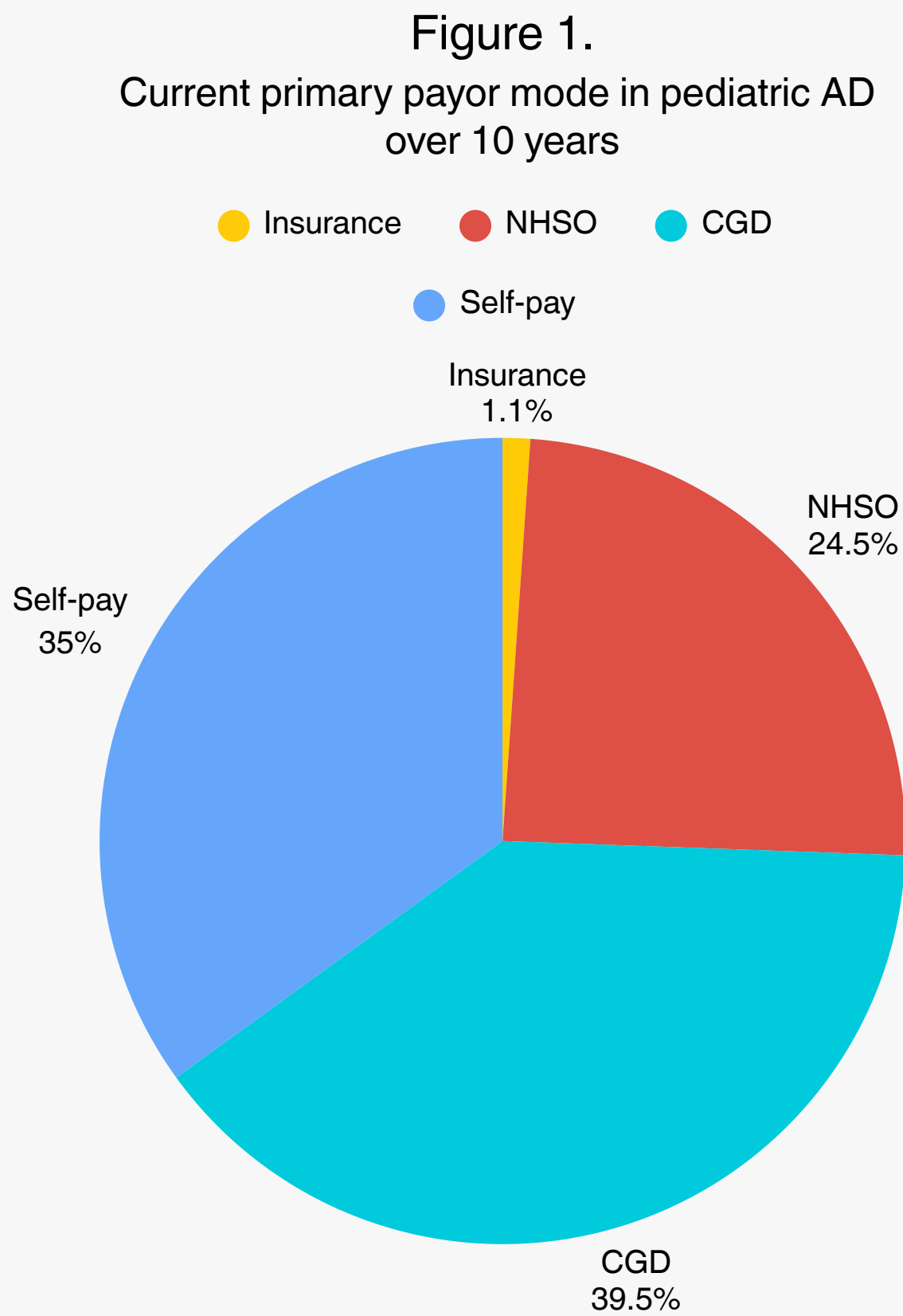


Figure 2. Medication use in children with atopic dermatitis during January 2015 - December 2024

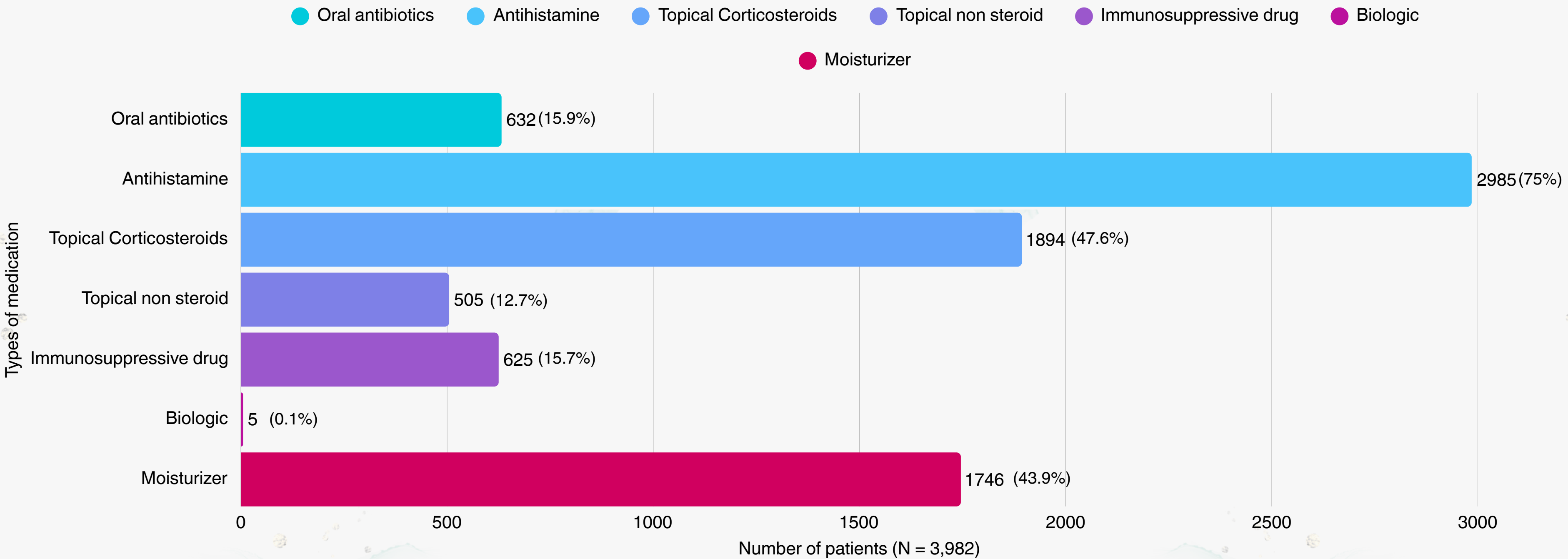


Table 2. Age-stratified characteristics and medication use in atopic dermatitis treatment

Medication	Age group								Total	
	≤ 1 (n = 785)		1.1 - 5 (n = 927)		5.1 - 11 (n = 1,083)		11.1 - 18 (n = 1,187)		n = 3,982	
	n	%	n	%	n	%	n	%	n	%
Oral antibiotics	115	14.7%	192	20.7%	190	17.5%	135	11.4%	632	15.9%
Antihistamine	437	55.7%	748	80.7%	846	78.1%	954	80.4%	2,985	75%
Topical Corticosteroids	596	75.9%	482	52%	453	41.8%	363	30.6%	1,894	47.6%
• High Potency	4	0.5%	20	2.2%	54	5%	57	4.8%	135	3.4%
• Moderate Potency	381	48.5%	378	40.8%	369	34.1%	309	26%	1,437	36.1%
• Low potency	304	38.7%	156	16.8%	79	7.3%	28	2.4%	567	14.2%
Topical Non-steroid medication	114	14.5%	108	11.6%	163	15.1%	120	10.1%	505	12.7%
Systemic immune suppressive drug	71	9%	136	14.6%	192	17.8%	226	19%	625	15.7%
Biologic	1	0.1%	0	0%	4	0.4%	0	0%	5	0.1%
Moisturizer	332	42.3%	397	42.8%	507	46.8%	510	43%	1,746	43.9%
• Plain	229	29.2%	282	30.4%	338	31.2%	265	22.3%	1,114	28%
• Moisturizer Plus	134	17.1%	159	17.2%	217	20%	284	23.9%	794	19.9%

Table 3. Factors associated with topical non-steroid medication

Factors	Topical non-steroid medication (n = 505)	Odds ratio (OR)	95% CI	p-value
Sex <ul style="list-style-type: none">• Male• Female	244 (48.3%) 261 (51.7%)	1.000 (Ref.) 1.040	0.86 - 1.25	0.681
Age at first diagnosis (years) <ul style="list-style-type: none">• ≤ 1• 1.1 - 5• 5.1 - 11• 11.1 - 18	114 (22.6%) 108 (21.4%) 163 (32.3%) 120 (23.7%)	1.000 (Ref.) 0.776 1.043 0.662	 0.58 - 1.03 0.80 - 1.35 0.50 - 0.87	 0.079 0.751 0.003
Current primary payor <ul style="list-style-type: none">• NHSO¹• CGD²• Self-pay• Insurance	31 (6.1%) 340 (67.3%) 131 (25.9%) 3 (0.6%)	1.000 (Ref.) 8.402 3.158 2.226	 5.76 - 12.25 2.12 - 4.71 0.65 - 7.58	 < 0.001 < 0.001 0.201

NHSO¹: National Health Security Office

CGD²: Civil Government Department

CONCLUSIONS

- Pediatric **atopic dermatitis** management in Thai referral center was dominated by **moderate-potency corticosteroids**, with limited use of biologics and topical non-steroidal medications.
- **Younger age and insurance scheme significantly influenced access to topical non-steroidal medications** compared with adolescents, reflecting disparities in treatment availability.
- These findings emphasize the need to improve equitable access to advanced therapies in pediatric AD care.

THANK YOU

FOR YOUR ATTENTION