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Table SI. Differences in the baselined characteristics of patients with and without urticaria before and after PSM

Characteristics	Before PSM				After PSM			
	Control N=287,479	Urticaria N=192,647	P^2	SMD	Control N=166,921	Urticaria N=166,921	P^2	SMD
Gender = Female (%)	163807 (57.0)	111583 (57.9)	<0.001	0.019	97043 (58.1)	94855 (56.8)	<0.001	0.027
Age(Total) (Mean(SD))	42.33(16.85)	39.83 (17.10)	<0.001	0.147	40.55(17.00)	40.55(17.00)	1	<0.001
Age(Groups) Mean (SD)			<0.001	0.069			1	<0.001
6-11 year	10463(3.6)	8453 (4.4)			7525 (4.5)	7525 (4.5)		
12-17 year	5352 (1.9)	5204 (2.7)			3742 (2.2)	3742 (2.2)		
>18 year	271664 (94.5)	178990 (92.9)			155654 (93.3)	155654 (93.3)		
Medical Insurance(MI)			<0.001	0.195			<0.001	0.06
On-site MI	247684 (86.2)	165975 (86.2)			144458 (86.5)	147679 (88.5)		
Off-site MI	8358 (2.9)	1023 (0.5)			909 (0.5)	909 (0.5)		
Self-pay	31437 (10.9)	25649 (13.3)			21554 (12.9)	18333 (11.0)		
Having health care	39.77 (20.53)	35.41 (19.33)	<0.001	0.219	37.76 (19.51)	37.36 (19.63)	<0.001	0.02
Rank of hospitals = 3(%)	226180 (78.7)	159098 (82.6)	<0.001	0.099	133896 (80.2)	133955 (80.3)	0.801	0.001

¹
n (%)

² Wilcoxon Rank sum test; Chi-square test of Independence

Table SII. Comparison of comorbid characteristics between patients with and without urticaria at baseline after PSM

Characteristics	Ages 6-11			Ages 12-17			Ages >18			Total		
	Control	Urticaria	P^2	Control	Urticaria	P^2	Control	Urticaria	P^2	Control	Urticaria	P^2
	N=7,525 ¹	N=7,525 ¹		N=3,742 ¹	N=3,742 ¹		N=155,654 ¹	N=155,654 ¹		N=166,921 ¹	N=166,921 ¹	
Allergic Rhinitis	121 (1.6%)	246 (3.3%)	<0.001	64 (1.7%)	90 (2.4%)	0.034	3,085 (2.0%)	6,082 (3.9%)	<0.001	3,270 (2.0%)	6,418 (3.8%)	<0.001
Sinusitis	205 (2.7%)	174 (2.3%)	0.11	92 (2.5%)	52 (1.4%)	<0.001	2,059 (1.3%)	2,527 (1.6%)	<0.001	2,356 (1.4%)	2,753 (1.6%)	<0.001
Rhinosinusitis with Nasal Polyps	5 (<0.1%)	0 (0%)	0.062	8 (0.2%)	0 (0%)	0.008	120 (0.1%)	105 (<0.1%)	0.3	133 (<0.1%)	105 (<0.1%)	0.069
Asthma	154 (2.0%)	126 (1.7%)	0.091	43 (1.1%)	30 (0.8%)	0.13	2,856 (1.8%)	3,909 (2.5%)	<0.001	3,053 (1.8%)	4,065 (2.4%)	<0.001
Allergic Asthma	1 (<0.1%)	6 (<0.1%)	0.12	0 (0%)	3 (<0.1%)	0.2	309 (0.2%)	594 (0.4%)	<0.001	310 (0.2%)	603 (0.4%)	<0.001
Allergic Conjunctivitis	44 (0.6%)	106 (1.4%)	<0.001	6 (0.2%)	14 (0.4%)	0.073	261 (0.2%)	722 (0.5%)	<0.001	311 (0.2%)	842 (0.5%)	<0.001
Allergic (Eosinophilic) Gastroenteritis	0 (0%)	0 (0%)		0 (0%)	0 (0%)		1 (<0.1%)	5 (<0.1%)	0.2	1 (<0.1%)	5 (<0.1%)	0.2
Atopic Dermatitis	2 (<0.1%)	13 (0.2%)	0.004	4 (0.1%)	8 (0.2%)	0.2	73 (<0.1%)	399 (0.3%)	<0.001	79 (<0.1%)	420 (0.3%)	<0.001
Upper Respiratory Infection	982 (13%)	1,523 (20%)	<0.001	313 (8.4%)	217 (5.8%)	<0.001	14,441 (9.3%)	17,258 (11%)	<0.001	15,736 (9.4%)	18,998 (11%)	<0.001

Helicobacter Pylori (H. pylori) Infection	30 (0.4%)	11 (0.1%)	0.003	28 (0.7%)	13 (0.3%)	0.019	2,167 (1.4%)	3,299 (2.1%)	<0.001	2,225 (1.3%)	3,323 (2.0%)	<0.001
Parasitic Infection	2 (<0.1%)	8 (0.1%)	0.058	7 (0.2%)	14 (0.4%)	0.13	110 (<0.1%)	442 (0.3%)	<0.001	119 (<0.1%)	464 (0.3%)	<0.001
Chronic Cholecystitis	0(0%)	0(0%)		3(<0.1%)	1(<0.1%)	0.6	336(0.2%)	267(0.2%)	0.005	339(0.2%)	268(0.2%)	0.004
Oropharyngeal Infection and Cavity	1,296 (17%)	1,941 (26%)	<0.001	339 (9.1%)	291 (7.8%)	0.046	17,586 (11%)	21,112 (14%)	<0.001	19,221 (12%)	23,344 (14%)	<0.001
Viral Infection	249 (3.3%)	393 (5.2%)	<0.001	106 (2.8%)	120 (3.2%)	0.3	6,697 (4.3%)	9,177 (5.9%)	<0.001	7,052 (4.2%)	9,690 (5.8%)	<0.001
Vitamin D Deficiency	2 (<0.1%)	3 (<0.1%)	>0.9	3 (<0.1%)	1 (<0.1%)	0.6	27 (<0.1%)	39 (<0.1%)	0.14	32 (<0.1%)	43 (<0.1%)	0.2
Thyroid Disease	49 (0.7%)	15 (0.2%)	<0.001	116 (3.1%)	23 (0.6%)	<0.001	8,824 (5.7%)	8,451 (5.4%)	0.003	8,989 (5.4%)	8,489 (5.1%)	<0.001
Thyroiditis	3 (<0.1%)	1 (<0.1%)	0.06	11 (0.3%)	0 (0%)	<0.001	974 (0.6%)	1,198 (0.8%)	<0.001	988 (0.6%)	1,199 (0.7%)	<0.001
Autoimmune Thyroiditis	1 (<0.1%)	1 (<0.1%)	>0.9	4 (0.1%)	0 (0%)	0.12	192 (0.1%)	335 (0.2%)	<0.001	197 (0.1%)	336 (0.2%)	<0.001
Hypothyroidism	5 (<0.1%)	1 (<0.1%)	0.2	16 (0.4%)	4 (0.1%)	0.007	2,990 (1.9%)	2,912 (1.9%)	0.3	3,011 (1.8%)	2,917 (1.7%)	0.2
Hyperthyroidism	15 (0.2%)	8 (0.1%)	0.14	43 (1.1%)	8 (0.2%)	<0.001	2,053 (1.3%)	1,756 (1.1%)	<0.001	2,111 (1.3%)	1,772 (1.1%)	<0.001
Autoimmune Hepatitis	1 (<0.1%)	0 (0%)	>0.9	0 (0%)	0 (0%)		224 (0.1%)	160 (0.1%)	0.001	225 (0.1%)	160 (<0.1%)	<0.001

Autoinflammatory Disease	1 (<0.1%)	2 (<0.1%)	>0.9	0 (0%)	4 (0.1%)	0.12	24 (<0.1%)	91 (<0.1%)	<0.001	25 (<0.1%)	97 (<0.1%)	<0.001
Hypocomplementemia	0 (0%)	0 (0%)		0 (0%)	0 (0%)		0 (0%)	0 (0%)		0 (0%)	0 (0%)	
Connective Tissue Diseases	16 (0.2%)	0 (0%)	<0.001	31 (0.8%)	1 (<0.1%)	<0.001	1,653 (1.1%)	1,364 (0.9%)	<0.001	1,700 (1.0%)	1,365 (0.8%)	<0.001
Malignant Tumors	57 (0.8%)	4 (<0.1%)	<0.001	90 (2.4%)	2 (<0.1%)	<0.001	4,649 (3.0%)	1,907 (1.2%)	<0.001	4,796 (2.9%)	1,913 (1.1%)	<0.001
Mental disorders	96 (1.3%)	24 (0.3%)	<0.001	114 (3.0%)	29 (0.8%)	<0.001	11,846 (7.6%)	12,248 (7.9%)	0.007	12,056 (7.2%)	12,301 (7.4%)	0.10
Anxiety	0 (0%)	0 (0%)		20 (0.5%)	11 (0.3%)	0.11	2,612 (1.7%)	3,364 (2.2%)	<0.001	2,632 (1.6%)	3,375 (2.0%)	<0.001
Depression	1 (<0.1%)	0 (0%)	>0.9	36 (1.0%)	11 (0.3%)	<0.001	1,936 (1.2%)	1,875 (1.2%)	0.3	1,973 (1.2%)	1,886 (1.1%)	0.2
Sleep disturbance	75 (1.0%)	21 (0.3%)	<0.001	11 (0.3%)	7 (0.2%)	0.3	7,956 (5.1%)	9,303 (6.0%)	<0.001	8,042 (4.8%)	9,331 (5.6%)	<0.001
Vitiligo	35 (0.5%)	12 (0.2%)	<0.001	22 (0.6%)	12 (0.3%)	0.086	198 (0.1%)	366 (0.2%)	<0.001	255 (0.2%)	390 (0.2%)	<0.001
Diabetes	42 (0.6%)	6 (<0.1%)	<0.001	106 (2.8%)	7 (0.2%)	<0.001	20,361 (13%)	8,936 (5.7%)	<0.001	20,509 (12%)	8,949 (5.4%)	<0.001
Osteoporosis	1 (<0.1%)	0 (0%)	>0.9	3 (<0.1%)	1 (<0.1%)	0.6	3,369 (2.2%)	3,519 (2.3%)	0.068	3,373 (2.0%)	3,520 (2.1%)	0.074

¹_n (%)

² Chi-square test of Independence, Fisher's exact test

Table SIII. CCI Index Scoring System

Characteristics		Weightage
Complications	Coronary Artery Disease(CAD)	1
	Congestive Heart Failure(CHF)	1
	Chronic Lung Disease	1
	Canker Sores/ Aphthous Ulcers	1
	Peripheral Vascular Disease (PVD)	1
	Mild Liver Disease	1
	Cerebrovascular Disease	1
	Connective Tissue Diseases	1
	Diabetes	1
	Dementia	2
	Hemiparesis	2
	Moderate or Severe Kidney Disease	2
	Diabetes with end-organ damage	2
	Any type of Tumors/Cancer	2
	Leukemia	2
	Lymphoma	2
	Moderate or Severe Liver Disease	3
Metastatic Solid Tumor	6	
Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome(HIV/AIDS)	6	
Age	< 40 years	0
	41-45 years	1
	51-60 years	2
	61-70 years	3
	> 70 years	4

Table SIV. Comparison of *CCI* between patients with and without urticaria during the 12-month follow-up period

Characteristics	Ages 6-11			Ages 12-17			Ages >18			Total		
	Control	Urticaria	P^1	Control	Urticaria	P^1	Control	Urticaria	P^1	Control	Urticaria	P^1
	N=7,525	N=7,525		N=3,742	N=3,742		N=155,654	N=155,654		N=166,921	N=166,921	
CCI			<0.001			<0.001			<0.001			<0.001
Mean	0.10	0.02		0.25	0.02		1.79	1.31		1.68	1.22	
(Standard Deviation)	(0.43)	(0.17)		(0.81)	(0.19)		(2.30)	(1.75)		(2.26)	(1.72)	
Median	0.00	0.00		0.00	0.00		1.00	1.00		1.00	0.00	
(Interquartile Range)	(0.00,	(0.00, 0.00)		(0.00,	(0.00, 0.00)		(0.00, 3.00)	(0.00, 2.00)		(0.00, 3.00)	(0.00, 2.00)	
(IQR)	0.00)			0.00)								
Minimum	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	
Maximum	8.00	4.00		10.00	3.00		22.00	19.00		22.00	19.00	

¹
Wilcoxon rank sum test

Table SV. Comparison of CCI between patients with and without urticaria during the 24-month follow-up period

Characteristics	Ages 6-11		<i>P</i> ¹	Ages 12-17		<i>P</i> ¹	Ages >18		<i>P</i> ¹	Total		
	Control	Urticaria		Control	Urticaria		Control	Urticaria		Control	Urticaria	<i>P</i> ¹
	N=7,525	N=7,525	N=3,742	N=3,742	N=155,654	N=155,654	N=166,921	N=166,921				
CCI			<0.001			<0.001			<0.001			<0.001
Mean	0.10	0.02		0.25	0.02		1.79	1.31		1.68	1.22	
(Standard Deviation)	(0.43)	(0.17)		(0.81)	(0.19)		(2.30)	(1.75)		(2.26)	(1.72)	
Median	0.00	0.00		0.00	0.00		1.00	1.00		1.00	0.00	
(Interquartile Range) (IQR)	(0.00, 0.00)	(0.00, 0.00)		(0.00, 0.00)	(0.00, 0.00)		(0.00, 3.00)	(0.00, 2.00)		(0.00, 3.00)	(0.00, 2.00)	
Minimum	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	
Maximum	8.00	4.00		10.00	3.00		22.00	19.00		22.00	19.00	

¹ Wilcoxon rank sum test

Table SVI. Population characteristics of patients with urticaria at baseline

Characteristics	Ages 6-11	Ages 12-17	Ages >18	p^2
	N=8,453 ¹	N=5,204 ¹	N=178,990 ¹	
Age				
Mean(Standard Deviation)	7.98(1.70)	14.88(1.79)	42.05(15.61)	
Median(Interquartile Range,IQR)	8.00(6.00, 9.00)	15.00(13.00, 17.00)	39.00(29.00, 54.00)	
Gender				<0.001
Male	4,697(56%)	2,655(51%)	73,712(41%)	
Female	3,756(44%)	2,549(49%)	105,278(59%)	

¹_n (%)

²*Kruskal-Wallis test; Chi-square test of Independence*

Table SVII. Demographic characteristics of AU and CU groups in different ages at baseline

Characteristics	Ages 6-11			Ages 12-17			Ages >18			Total		
	Acute	Chronic	P^2	Acute	Chronic	P^2	Acute	Chronic	P^2	Acute	Chronic	P^2
	Urticaria	Urticaria		Urticaria	Urticaria		Urticaria	Urticaria		Urticaria		
	N=7,402 ¹	N=1,051 ¹		N=4,494 ¹	N=710 ¹		N=144,912 ¹	N=34,078 ¹		N=156,808 ¹	N=35,839 ¹	
CCI			0.2			0.8			<0.001			<0.001
Mean (SD)	7.97 (1.69)	8.05(1.72)		14.86 (1.79)	14.87 (1.75)		41.63 (15.66)	43.86 (15.24)		39.27 (17.19)	42.24	
Median(IQR)	8.00 (6.00, 9.00)	8.00 (6.00, 9.00)		15.00 (13.00, 17.00)	15.00 (13.00, 16.00)		38.00 (29.00, 54.00)	42.00 (31.00, 55.00)		36.00 (27.00, 52.00)	40.00 (30.00, 55.00)	
Gender			0.6			0.093			<0.001			<0.001
Male	4,104 (55%)	593 (56%)		2,272 (51%)	383(54%)		59,114 (41%)	14,598 (43%)		65,490 (42%)	15,574(43%)	
Female	3,298 (45%)	458 (44%)		2,222 (49)	327 (46%)		85,798(59%)	19,480 (57%)		91,318 (58%)	20,265 (57%)	

¹ n (%); ² Wilcoxon rank sum test; IQR: Interquartile Range; SD:Standard Deviation

Table SVIII. Comparison of comorbidities in AU and CU patients during the 12-month follow-up period

Characteristics	Ages 6-11			Ages 12-17			Ages >18			Total		
	Acute urticaria	Chronic urticaria	<i>P</i> ²	Acute urticaria	Chronic urticaria	<i>P</i> ²	Acute urticaria	Chronic urticaria	<i>P</i> ²	Acute urticaria	Chronic urticaria	<i>P</i> ²
	N=7,402	N=1,051		N=4,494	N=710		N=144,912	N=34,078		N=156,808	N=35,839	
Allergic Rhinitis	298 (4.0%)	67 (6.4%)	<0.00 ₁	98 (2.2%)	28 (3.9%)	0.005	4,896 (3.4%)	2,176 (6.4%)	<0.00 ₁	5,292 (3.4%)	2,271 (6.3%)	<0.00 ₁
Sinusitis	163 (2.2%)	27 (2.6%)	0.5	53 (1.2%)	10 (1.4%)	0.6	2,018 (1.4%)	701 (2.1%)	<0.00 ₁	2,234 (1.4%)	738 (2.1%)	<0.00 ₁
Rhinosinusitis with Nasal Polyps	0 (0%)	0 (0%)		0 (0%)	0 (0%)		54 (<0.1%)	24 (<0.1%)	0.008	54 (<0.1%)	24 (<0.1%)	0.006
Asthma	130 (1.8%)	32 (3.0%)	0.004	35 (0.8%)	16 (2.3%)	<0.00 ₁	3,145 (2.2%)	1,242 (3.6%)	<0.00 ₁	3,310 (2.1%)	1,290 (3.6%)	<0.00 ₁
Allergic Asthma	2 (<0.1%)	2 (0.2%)	0.078	3 (<0.1%)	3 (0.4%)	0.037	435 (0.3%)	222 (0.7%)	<0.00 ₁	440 (0.3%)	227 (0.6%)	0.001
Allergic Conjunctivitis	129 (1.7%)	28 (2.7%)	0.038	16 (0.4%)	10 (1.4%)	0.001	666 (0.5%)	285 (0.8%)	<0.00 ₁	811 (0.5%)	323 (0.9%)	<0.00 ₁
Allergic (Eosinophilic) Gastroenteritis	0 (0%)	0 (0%)		0 (0%)	0 (0%)		6 (<0.1%)	3 (<0.1%)	0.4	6 (<0.1%)	3 (<0.1%)	0.4
Atopic Dermatitis	9 (0.1%)	4 (0.4%)	0.068	5 (0.1%)	3 (0.4%)	0.083	333 (0.2%)	223 (0.7%)	<0.00 ₁	347 (0.2%)	230 (0.6%)	<0.00 ₁

Upper Respiratory Infection	1,462 (20%)	286 (27%)	<0.001	291 (6.5%)	62 (8.7%)	0.026	13,435 (9.3%)	4,717 (14%)	<0.001	15,188 (9.7%)	5,065 (14%)	<0.001
Helicobacter Pylori (H. pylori) Infection	9 (0.1%)	3 (0.3%)	0.2	10 (0.2%)	3 (0.4%)	0.4	2,882 (2.0%)	1,136 (3.3%)	<0.001	2,901 (1.9%)	1,142 (3.2%)	<0.001
Parasitic Infection	6 (<0.1%)	2 (0.2%)	0.3	20 (0.4%)	3 (0.4%)	>0.9	376 (0.3%)	101 (0.3%)	0.2	402 (0.3%)	106 (0.3%)	0.2
Chronic Cholecystitis	0(0%)	0(0%)		0(0%)	0(0%)		158(0.1%)	46(0.1%)	0.2	158(0.1%)	46(0.1%)	0.15
Oropharyngeal Infection and Cavity	1,698 (23%)	343 (33%)	<0.001	350 (7.8%)	84 (12%)	<0.001	16,902 (12%)	5,631 (17%)	<0.001	18,950 (12%)	6,058 (17%)	<0.001
Viral Infection	325 (4.4%)	66 (6.3%)	0.006	127 (2.8%)	35 (4.9%)	0.003	7,501 (5.2%)	2,288 (6.7%)	<0.001	7,953 (5.1%)	2,389 (6.7%)	<0.001
Vitamin D Deficiency	9 (0.1%)	0 (0%)	0.6	3 (<0.1%)	1 (0.1%)	0.4	48 (<0.1%)	11 (<0.1%)	>0.9	60 (<0.1%)	12 (<0.1%)	0.7
Thyroid Disease	19 (0.3%)	3 (0.3%)	0.7	35 (0.8%)	7 (1.0%)	0.6	7,579 (5.2%)	2,262 (6.6%)	<0.001	7,633 (4.9%)	2,272 (6.3%)	<0.001
Thyroiditis	0 (0%)	0 (0%)		2 (<0.1%)	0 (0%)	>0.9	1,030 (0.7%)	326 (1.0%)	<0.001	1,032 (0.7%)	326 (0.9%)	<0.001
Autoimmune Thyroiditis	1 (<0.1%)	0 (0%)	>0.9	1 (<0.1%)	0 (0%)	>0.9	332 (0.2%)	112 (0.3%)	<0.001	334 (0.2%)	112 (0.3%)	<0.001
Hypothyroidism	1 (<0.1%)	0 (0%)	>0.9	5 (0.1%)	2 (0.3%)	0.2	2,493 (1.7%)	806 (2.4%)	<0.001	2,499 (1.6%)	808 (2.3%)	<0.001
Hyperthyroidism	5 (<0.1%)	2 (0.2%)	0.2	14 (0.3%)	3 (0.4%)	0.7	1,511 (1.0%)	445 (1.3%)	<0.001	1,530 (1.0%)	450 (1.3%)	<0.001

Autoimmune Hepatitis	0 (0%)	0 (0%)		0 (0%)	0 (0%)		143 (<0.1%)	50 (0.1%)	0.015	143 (<0.1%)	50 (0.1%)	0.009
Autoinflammatory Disease	1 (<0.1%)	0 (0%)	>0.9	3 (<0.1%)	2 (0.3%)	0.14	40 (<0.1%)	20 (<0.1%)	0.005	44 (<0.1%)	22 (<0.1%)	0.002
Hypocomplementemia	1 (<0.1%)	0(0%)	>0.9	0 (0%)	0 (0%)		1(<0.1%)	1(<0.1%)	0.3	2(<0.1%)	1(<0.1%)	0.5
Connective Tissue Diseases	2 (<0.1%)	0 (0%)	>0.9	7 (0.2%)	2 (0.3%)	0.4	1,072 (0.7%)	396 (1.2%)	<0.001	1,081 (0.7%)	398 (1.1%)	<0.001
Malignant Tumors	10 (0.1%)	0 (0%)	0.6	5 (0.1%)	0 (0%)	>0.9	1,935 (1.3%)	429 (1.3%)	0.3	1,950 (1.2%)	429 (1.2%)	0.5
Mental disorders	28 (0.4%)	3 (0.3%)	>0.9	58 (1.3%)	14 (2.0%)	0.15	10,878 (7.5%)	3,317 (9.7%)	<0.001	10,964 (7.0%)	3,334 (9.3%)	<0.001
Anxiety	3 (<0.1%)	0 (0%)	>0.9	20 (0.4%)	4 (0.6%)	0.6	3,536 (2.4%)	1,001 (2.9%)	<0.001	3,559 (2.3%)	1,005 (2.8%)	<0.001
Depression	1 (<0.1%)	0 (0%)	>0.9	22 (0.5%)	7 (1.0%)	0.10	1,885 (1.3%)	511 (1.5%)	0.004	1,908 (1.2%)	518 (1.4%)	<0.001
Sleep disturbance	22 (0.3%)	3 (0.3%)	>0.9	18 (0.4%)	3 (0.4%)	>0.9	8,308 (5.7%)	2,608 (7.7%)	<0.001	8,348 (5.3%)	2,614 (7.3%)	<0.001
Vitiligo	11 (0.1%)	3 (0.3%)	0.4	16 (0.4%)	4 (0.6%)	0.3	280 (0.2%)	117 (0.3%)	<0.001	307 (0.2%)	124 (0.7%)	<0.001
Diabetes	6 (<0.1%)	0 (0%)	>0.9	7 (0.2%)	1 (0.1%)	>0.9	7,562 (5.2%)	2,118 (6.2%)	<0.001	7,575 (4.8%)	2,119 (5.9%)	<0.001

Osteoporosis	0 (0%)	0 (0%)	4 (<0.1%)	1 (0.1%)	0.5	2,812 (1.9%)	955 (2.8%)	<0.00 1	2,816 (1.8%)	956 (2.7%)	<0.00 1
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¹n (%) ² *Chi-square test of Independence, Fisher's exact test*

Table SIX. Comparison of comorbidities in AU and CU patients during the 24-month follow-up period

Characteristics	Ages 6-11			Ages 12-17			Ages >18			Total		
	Acute urticaria	Chronic urticaria	<i>P</i> ²	Acute urticaria	Chronic urticaria	<i>P</i> ²	Acute urticaria	Chronic urticaria	<i>P</i> ²	Acute urticaria	Chronic urticaria	<i>P</i> ²
	N=3,312 ¹	N=526 ¹		N=2,110 ¹	N=364 ¹		N=93,718 ¹	N=24,401 ¹		N=99,140 ¹	N=25,291 ¹	
Allergic Rhinitis	188 (5.7%)	59 (11%)	<0.001	71 (3.4%)	19 (5.2%)	0.081	5,111 (5.5%)	2,452 (10%)	<0.001	5,370 (5.4%)	2,530 (10%)	<0.001
Sinusitis	114 (3.4%)	22 (4.2%)	0.4	48 (2.3%)	12 (3.3%)	0.2	2,404 (2.6%)	924 (3.8%)	<0.001	2,566 (2.6%)	958 (3.8%)	<0.001
Rhinosinusitis with Nasal Polyps	0 (0%)	0 (0%)		0 (0%)	0 (0%)		63 (<0.1%)	35 (0.1%)	<0.001	63 (<0.1%)	35 (0.1%)	<0.001
Asthma	93 (2.8%)	25 (4.8%)	0.016	24 (1.1%)	6 (1.6%)	0.4	3,223 (3.4%)	1,382 (5.7%)	<0.001	3,340 (3.4%)	1,413 (5.6%)	<0.001
Allergic Asthma	4 (0.1%)	3 (0.6%)	0.059	3 (0.1%)	4 (1.1%)	0.011	466 (0.5%)	248 (1.0%)	<0.001	473 (0.5%)	255 (1.0%)	<0.001
Allergic Conjunctivitis	83 (2.5%)	21 (4.0%)	0.051	11 (0.5%)	4 (1.1%)	0.3	724 (0.8%)	362 (1.5%)	<0.001	818 (0.8%)	387 (1.5%)	<0.001
Allergic (Eosinophilic) Gastroenteritis	0 (0%)	0 (0%)		0 (0%)	0 (0%)		4 (<0.1%)	4 (<0.1%)	0.063	4 (<0.1%)	4 (<0.1%)	0.059
Atopic Dermatitis	8 (0.2%)	2 (0.4%)	0.6	4 (0.2%)	4 (1.1%)	0.020	324 (0.3%)	258 (1.1%)	<0.001	336 (0.3%)	264 (1.0%)	<0.001
Upper Respiratory Infection	832 (25%)	203 (39%)	<0.001	183 (8.7%)	51 (14%)	0.001	14,801 (16%)	5,452 (22%)	<0.001	15,816 (16%)	5,706 (23%)	<0.001

Helicobacter Pylori (H. pylori) Infection	10 (0.3%)	4 (0.8%)	0.11	12 (0.6%)	3 (0.8%)	0.5	3,474 (3.7%)	1,342 (5.5%)	<0.001	3,496 (3.5%)	1,349 (5.3%)	<0.001
Parasitic Infection	3 (<0.1%)	2 (0.4%)	0.14	8 (0.4%)	1 (0.3%)	>0.9	291 (0.3%)	100 (0.4%)	0.016	302 (0.3%)	103 (0.4%)	0.011
Chronic Cholecystitis	0(0%)	0(0%)		0(0%)	0(0%)		205(0.2%)	65(0.3%)	0.2	205(0.2%)	65(0.3%)	0.13
Oropharyngeal Infection and Cavity	1,010 (30%)	226 (43%)	<0.001	249 (12%)	58 (16%)	0.027	18,457 (20%)	6,624 (27%)	<0.001	19,716 (20%)	6,908 (27%)	<0.001
Viral Infection	220 (6.6%)	58 (11%)	<0.001	92 (4.4%)	26 (7.1%)	0.021	7,767 (8.3%)	2,803 (11%)	<0.001	8,079 (8.1%)	2,887 (11%)	<0.001
Vitamin D Deficiency	5 (0.2%)	0 (0%)	>0.9	2 (<0.1%)	1 (0.3%)	0.4	55 (<0.1%)	19 (<0.1%)	0.3	62 (<0.1%)	20 (<0.1%)	0.4
Thyroid Disease	12 (0.4%)	3 (0.6%)	0.4	24 (1.1%)	4 (1.1%)	>0.9	7,611 (8.1%)	2,527 (10%)	<0.001	7,647 (7.7%)	2,534 (10%)	<0.001
Thyroiditis	0 (0%)	0 (0%)		1 (<0.1%)	1 (0.3%)	0.3	1,127 (1.2%)	419 (1.7%)	<0.001	1,128 (1.1%)	420 (1.7%)	<0.001
Autoimmune Thyroiditis	1 (<0.1%)	0 (0%)	>0.9	0 (0%)	1 (0.3%)	0.15	370 (0.4%)	138 (0.6%)	<0.001	371 (0.4%)	139 (0.5%)	<0.001
Hypothyroidism	2 (<0.1%)	0 (0%)	>0.9	6 (0.3%)	1 (0.3%)	>0.9	2,419 (2.6%)	884 (3.6%)	<0.001	2,427 (2.4%)	885 (3.5%)	<0.001
Hyperthyroidism	2 (<0.1%)	1 (0.2%)	0.4	8 (0.4%)	3 (0.8%)	0.2	1,432 (1.5%)	493 (2.0%)	<0.001	1,442 (1.5%)	497 (2.0%)	<0.001
Autoimmune Hepatitis	0 (0%)	0 (0%)		0 (0%)	0 (0%)		154 (0.2%)	59 (0.2%)	0.011	154 (0.2%)	59 (0.2%)	0.007

Autoinflammatory Disease	1	0	>0.9	3	0	>0.9	37	24	<0.001	41	24	<0.001
	(<0.1%)	(0%)		(0.1%)	(0%)		(<0.1%)	(<0.1%)		(<0.1%)	(<0.1%)	
Hypocomplementemia	1	0	>0.9	0	0		1	2	0.11	2	2	0.2
	(<0.1%)	(0%)		(0%)	(0%)		(<0.1%)	(<0.1%)		(<0.1%)	(<0.1%)	
Connective Tissue Diseases	1	0	>0.9	4	1	0.5	1,057	419	<0.001	1,062	420	<0.001
	(<0.1%)	(0%)		(0.2%)	(0.3%)		(1.1%)	(1.7%)		(1.1%)	(1.7%)	
Malignant Tumors	4	0	>0.9	4	0	>0.9	1,742	486	0.2	1,750	486	0.095
	(0.1%)	(0%)		(0.2%)	(0%)		(1.9%)	(2.0%)		(1.8%)	(1.9%)	
Mental disorders	25	7	0.2	41	8	0.7	10,655	3,710	<0.001	10,721	3,725	<0.001
	(0.8%)	(1.3%)		(1.9%)	(2.2%)		(11%)	(15%)		(11%)	(15%)	
Anxiety	2	0	>0.9	14	2	>0.9	3,641	1,194	<0.001	3,657	1,196	<0.001
	(<0.1%)	(0%)		(0.7%)	(0.5%)		(3.9%)	(4.9%)		(3.7%)	(4.7%)	
Depression	2	0	>0.9	20	3	>0.9	1,924	624	<0.001	1,946	627	<0.001
	(<0.1%)	(0%)		(0.9%)	(0.8%)		(2.1%)	(2.6%)		(2.0%)	(2.5%)	
Sleep disturbance	15	7	0.023	14	4	0.3	8,431	3,032	<0.001	8,460	3,043	<0.001
	(0.5%)	(1.3%)		(0.7%)	(1.1%)		(9.0%)	(12%)		(8.5%)	(12%)	
Vitiligo	13	3	0.5	9	4	0.11	285	117	0.014	307	124	0.005
	(0.4%)	(0.6%)		(0.4%)	(1.1%)		(0.3%)	(0.5%)		(0.3%)	(0.5%)	
Diabetes	5	1	0.6	8	0	0.6	7,165	2,172	<0.001	7,178	2,173	<0.001
	(0.2%)	(0.2%)		(0.4%)	(0%)		(7.6%)	(8.9%)		(7.2%)	(8.6%)	
Osteoporosis	0	0		5	1	>0.9	3,094	1,100	<0.001	3,099	1,101	<0.001
	(0%)	(0%)		(0.2%)	(0.3%)		(3.3%)	(4.5%)		(3.1%)	(4.4%)	

¹ n (%) ² Chi-square test of Independence, Fisher's exact test

Table SX. Comparison of CCI in AU and CU patients during the 12-month follow-up period

Characteristics	Ages 6-11			Ages 12-17			Ages >18			Total		
	Acute	Chronic	<i>P</i> ¹	Acute	Chronic	<i>P</i> ¹	Acute	Chronic	<i>P</i> ¹	Acute	Chronic	<i>P</i> ¹
	Urticaria	Urticaria		Urticaria	Urticaria		Urticaria	Urticaria		Urticaria	Urticaria	
	N=7,402	N=1,051		N=4,494	N=710		N=144,912	N=34,078		N=156,808	N=35,839	
CCI			0.084			0.001			<0.001			<0.001
Mean	0.02	0.03		0.02	0.04		1.20	1.40		1.12	1.34	
(Standard Deviation)	(0.17)	(0.17)		(0.17)	(0.21)		(1.70)	(1.74)		(1.66)	(1.72)	
Median	0.00	0.00		0.00	0.00		0.00	1.00		0.00	1.00	
(Interquartile Range)	(0.00,	(0.00, 0.00)		(0.00,	(0.00, 0.00)		(0.00, 2.00)	(0.00, 2.00)		(0.00, 2.00)	(0.00, 2.00)	
(IQR)	0.00)			0.00)								
Minimum	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	
Maximum	4.00	1.00		3.00	3.00		19.00	17.00		19.00	17.00	

¹ Wilcoxon rank sum test

Table SXI. Comparison of CCI in AU and CU patients during the 24-month follow-up period

Characteristics	Ages 6-11			Ages 12-17			Ages >18			Total		
	Acute Urticaria ^a	Chronic Urticaria	<i>P</i> ¹	Acute Urticaria ^a	Chronic Urticaria	<i>P</i> ¹	Acute Urticaria	Chronic Urticaria	<i>P</i> ¹	Acute Urticaria	Chronic Urticaria	<i>P</i> ¹
	N=3,312	N=526		N=2,110	N=364		N=93,718	N=24,401		N=99,140	N=25,291	
CCI			0.090			0.6			<0.001			<0.001
Mean	0.04	0.05		0.03	0.02		1.37	1.58		1.30	1.52	
(Standard Deviation)	(0.22)	(0.23)		(0.26)	(0.14)		(1.90)	(1.95)		(1.88)	(1.94)	
Median	0.00	0.00		0.00	0.00		1.00	1.00		1.00	1.00	
(Interquartile Range)	(0.00,	(0.00,		(0.00,	(0.00,		(0.00,	(0.00,		(0.00,	(0.00,	
(IQR)	0.00)	0.00)		0.00)	0.00)		2.00)	3.00)		2.00)	2.00)	
Minimum	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	
Maximum	4.00	2.00		6.00	1.00		23.00	21.00		23.00	21.00	

¹ *Wilcoxon rank sum test*

Table SXII. Proportion of drug used in AU and CU patients during the 12-month follow-up period

Characteristics	Ages 6-11		P^2	Ages 12-17		P^2	Ages >18		P^2	Total		
	Acute urticaria	Chronic urticaria		Acute urticaria	Chronic urticaria		Acute urticaria	Chronic urticaria		Acute urticaria	Chronic urticaria	P^2
	N=7,402 ¹	N=1,051 ¹	N=4,494 ¹	N=710 ¹	N=144,912 ¹	N=34,078 ¹	N=156,808 ¹	N=35,839 ¹				
Hormones	1091 (15%)	170 (16%)	0.2	911 (20%)	141 (20%)	0.8	34,541 (24%)	8,396 (25%)	0.002	36,543 (23%)	8,707 (24%)	<0.001
Prednisone	338 (4.6%)	52 (4.9%)	0.0	222 (4.9%)	31 (4.4%)	0.5	4,100 (2.8%)	883 (2.6%)	0.016	4,660 (3.0%)	966 (2.7%)	0.005
Methylprednisolone	0 (0%)	0 (0%)		0 (0%)	0 (0%)		3 (<0.1%)	1 (<0.1%)	0.6	3 (<0.1%)	1 (<0.1%)	0.6
Dexamethasone	689 (9.3%)	102 (9.7%)	0.7	507 (11%)	72 (10%)	0.4	17,378 (12%)	4,030 (12%)	0.4	18,574 (12%)	4,204 (12%)	0.5
Triamcinolone	22 (0.3%)	0 (0.6%)	0.10	36 (0.8%)	5 (0.7%)	0.8	1,324 (0.9%)	521 (1.5%)	<0.001	1,382 (0.9%)	526 (1.5%)	<0.001
Triamcinolone acetonide	137 (1.9%)	30 (2.9%)	0.029	223 (5.0%)	55 (7.7%)	0.002	14,803 (10%)	4,220 (12%)	<0.001	15,163 (9.7%)	4,305 (12%)	<0.001
2 nd generation of H1-antihistamines	4,984 (67%)	857 (82%)	<0.001	2,944 (66%)	563 (79%)	<0.001	101,902 (70%)	28,854 (85%)	<0.001	109,830 (70%)	30,274 (84%)	<0.001
Loratadine	2,277 (31%)	463 (44%)	<0.001	803 (18%)	143 (20%)	0.14	19,392 (13%)	6,418 (19%)	<0.001	22,472 (14%)	7,024 (20%)	<0.001
Cetirizine	450 (6.1%)	100 (9.5%)	<0.001	131 (2.9%)	30 (4.2%)	0.061	1,722 (1.2%)	943 (2.8%)	<0.001	2,303 (1.5%)	1,073 (3.0%)	<0.001
Levocetirizine	2,215	521	<0.001	1,242	321	<0.001	46,002	15,767	<0.001	49,459	16,609	<0.001

	(30%)	(50%)		(28%)	(45%)		(32%)	(46%)		(32%)	(46%)	
Desloratadine	174 (2.4%)	78 (7.4%)	<0.001	171 (3.8%)	60 (8.5%)	<0.001	5,827 (4.0%)	2,898 (8.5%)	<0.001	6,172 (3.9%)	3,036 (8.5%)	<0.001
Desloratadine citrate	78 (1.1%)	7 (0.7%)	0.2	81 (1.8%)	15 (2.1%)	0.6	842 (0.6%)	165 (0.5%)	0.031	1,001 (0.6%)	187 (0.5%)	0.011
Fexofenadine	41 (0.6%)	10 (1.0%)	0.12	347 (7.7%)	97 (14%)	<0.001	13,085 (9.0%)	4,777 (14%)	<0.001	13,473 (8.6%)	4,884 (14%)	<0.001
Mizolastine	0 (0%)	0 (0%)		15 (0.3%)	6 (0.8%)	0.056	890 (0.6%)	783 (2.3%)	<0.001	905 (0.6%)	789 (2.2%)	<0.001
Ebastine	524 (7.1%)	85 (8.1%)	0.2	839 (19%)	199 (28%)	<0.001	41,436 (29%)	14,740 (43%)	<0.001	42,799 (27%)	15,024 (42%)	<0.001
Olopatadine	21 (0.3%)	6 (0.6%)	0.14	122 (2.7%)	31 (4.4%)	0.015	4,610 (3.2%)	1,744 (5.1%)	<0.001	4,753 (3.0%)	1,781 (5.0%)	<0.001
Rupatadine	3 (<0.1%)	2 (0.2%)	0.12	89 (2.0%)	26 (3.7%)	0.005	1,691 (1.2%)	707 (2.1%)	<0.001	1,783 (1.1%)	735 (2.1%)	<0.001
Bepotastine besilate	18 (0.2%)	2 (0.2%)	>0.9	67 (1.5%)	13 (1.8%)	0.5	716 (0.5%)	269 (0.8%)	<0.001	801 (0.5%)	284 (0.8%)	<0.001
H1-antihistamines	634 (8.6%)	169 (16%)	<0.001	405 (9.0%)	99 (14%)	<0.001	18,649 (13%)	5,250 (15%)	<0.001	19,688 (13%)	5,518 (15%)	<0.001
Ketotifen	274 (3.7%)	122 (12%)	<0.001	42 (0.9%)	44 (6.2%)	<0.001	1,126 (0.8%)	874 (2.6%)	<0.001	1,442 (0.9%)	1,040 (2.9%)	<0.001
Chlorpheniramine	270 (3.6%)	46 (4.4%)	0.2	39 (0.9%)	3 (0.4%)	0.2	1,641 (1.1%)	524 (1.5%)	<0.001	1,950 (1.2%)	573 (1.6%)	<0.001

Cyproheptadine	0 (0%)	1 (<0.1%)	0.12	7 (0.2%)	1 (0.1%)	>0.9	222 (0.2%)	85 (0.2%)	<0.001	229 (0.1%)	87 (0.2%)	<0.001
Diphenhydramine	102 (1.4%)	13 (1.2%)	0.7	301 (6.7%)	39 (5.5%)	0.2	13,828 (9.5%)	3,171 (9.3%)	0.2	14,231 (9.1%)	3,223 (9.0%)	0.6
Doxepin	2 (<0.1%)	0 (0%)	>0.9	8 (0.2%)	2 (0.3%)	0.6	522 (0.4%)	233 (0.7%)	<0.001	532 (0.3%)	235 (0.7%)	<0.001
Triprolidine	0 (0%)	0 (0%)		24 (0.5%)	16 (2.3%)	<0.001	2,388 (1.6%)	929 (2.7%)	<0.001	2,412 (1.5%)	945 (2.6%)	<0.001
Tripterygium Wilfordii	1 (<0.1%)	2 (0.2%)	0.043	3 (<0.1%)	2 (0.3%)	0.14	718 (0.5%)	578 (1.7%)	<0.001	722 (0.5%)	582 (1.6%)	<0.001
Cyclosporine	1 (<0.1%)	0 (0%)	>0.9	0 (0%)	1 (0.1%)	0.14	66 (<0.1%)	65 (0.2%)	<0.001	67 (<0.1%)	66 (0.2%)	<0.001
Omalizumab	0 (0%)	0 (0%)		0 (0%)	0 (0%)		1 (<0.1%)	0 (0%)	>0.9	1 (<0.1%)	0 (0%)	>0.9
Hydroxychloroquine	0 (0%)	0 (0%)		1 (<0.1%)	0 (0%)	>0.9	38 (<0.1%)	12 (<0.1%)	0.4	39 (<0.1%)	12 (<0.1%)	0.4
Thalidomide	0 (0%)	0 (0%)		0 (0%)	0 (0%)		129 (<0.1%)	88 (0.3%)	<0.001	129 (<0.1%)	88 (0.2%)	<0.001

¹ n (%)

² Chi-square test of Independence, Fisher's exact test