

Table SI. ICD-10 codes for comorbidities included in the study.

ICD-10 Code	Comorbidity
C00-C96	Malignant neoplasms
C43	Malignant melanoma of skin
C44	Other and unspecified malignant neoplasm of skin
C50	Malignant neoplasms of breast
C61	Malignant neoplasm of prostate
C73	Malignant neoplasm of thyroid gland
D00-D09	In situ neoplasms
D10-D48	Non-malignant neoplasms
D50-D53	Nutritional anemias
E00-E07	Thyroid diseases
E10-14	Diabetes
E66	Metabolic syndrome
E78	Dyslipidemia
F32	Depression
F41	Anxiety disorders
I10	Hypertension
J00-J99	Diseases of the respiratory system
J30	Vasomotor and allergic rhinitis
J44	Other chronic obstructive pulmonary disease
J45	Asthma
K50.90	Crohn's disease
K51	Ulcerative colitis
K90.0	Coeliac disease
L20-L30	Dermatitis and eczema
L20.0	Atopic dermatitis
L28	Lichen simplex chronicus and prurigo
L29	Pruritus
L30.0, L30.3	Nummular dermatitis, Infectious eczematous dermatitis
L30.8, L30.9	Other and unspecified dermatitis
L40	Psoriasis
L95	Vasculitis limited to skin
M06.9	Rheumatoid arthritis
M32	Systemic Lupus erythematosus
M35.0	Sjogren's syndrome
T78.3	Angioedema

Table SII. Yearly crude prevalence and incidence of chronic spontaneous urticaria in secondary care with 95% confidence intervals.

Year	Crude prevalence rate (per 100,000) [95% CI]	Crude incidence rate (per 100,000) [95% CI]
2001	36.32 [34.47,38.18]	9.0 [8.07,9.92]
2002	44.6 [42.55,46.65]	8.67 [7.76,9.59]
2003	51.54 [49.35,53.74]	7.29 [6.46,8.12]
2004	57.99 [55.67,60.32]	6.96 [6.15,7.77]
2005	64.42 [61.97,66.86]	6.9 [6.10,7.71]
2006	71.45 [68.89,74.02]	7.52 [6.68,8.36]
2007	78.62 [75.93,81.30]	7.83 [6.98,8.68]
2008	85.45 [82.66,88.24]	7.62 [6.78,8.45]
2009	93.1 [90.19,96.00]	8.47 [7.59,9.34]
2010	100.03 [97.04,103.03]	7.69 [6.86,8.52]
2011	108.01 [104.91,111.12]	9.04 [8.14,9.94]
2012	115.91 [112.70,119.11]	8.94 [8.04,9.83]
2013	124.23 [120.92,127.54]	9.63 [8.70,10.57]
2014	133.06 [129.64,136.47]	10.27 [9.31,11.24]
2015	143.42 [139.88,146.95]	11.58 [10.57,12.59]
2016	153.7 [150.04,157.35]	11.24 [10.25,12.24]
2017	164.51 [160.73,168.28]	11.94 [10.92,12.95]
2018	175.83 [171.94,179.73]	12.58 [11.53,13.63]
2019	187.08 [183.07,191.10]	12.38 [11.35,13.41]
2020	196.8 [192.69,200.91]	11.04 [10.06,12.02]
2021	206.4 [202.20,210.59]	11.25 [10.26,12.23]
2022	212.03 [207.79,216.28]	7.59 [6.78,8.40]

CI, confidence interval

Table SIII. Comorbidities in all patients and in subgroups based on sex and omalizumab use.

Comorbidity	Total	Comorbidities in males vs. females			Comorbidities in omalizumab users vs. non-users		
		Males	Females	p -value	Omalizumab -users	Omalizumab non-users	p-value
Malignant neoplasms	457 (5.2%)	140 (5.3%)	317 (5.2%)	0.769	27 (7.3%)	430 (5.1%)	0.064
Malignant melanoma of skin	35 (0.4%)	11 (0.4%)	24 (0.4%)	0.855	<5 (1.3%)	32 (0.4%)	0.198
Other and unspecified malignant neoplasm of skin	67 (0.8%)	25 (0.9%)	42 (0.7%)	0.191	<5 (1.3%)	63 (0.7%)	0.472
Malignant neoplasms of breast	115 (1.3%)	<5 (0.2%)	113 (1.8%)	< 0.001	8 (2.2%)	107 (1.3%)	0.14
Malignant neoplasm of prostate	52 (0.6%)	51 (1.9%)	<5 (0.1%)	< 0.001	1 (0.3%)	51 (0.6%)	0.41
Malignant neoplasm of thyroid gland	26 (0.3%)	<5 (0.2%)	23 (0.4%)	0.039	<5 (1.3%)	25 (0.3%)	0.926
In situ neoplasms	46 (0.5%)	8 (0.3%)	38 (0.6%)	0.061	<5 (1.3%)	42 (0.5%)	0.129
Non-malignant neoplasms	1395 (15.9%)	287 (10.9%)	1108 (18.0%)	< 0.001	73 (19.7%)	1322 (15.7%)	0.039
Nutritional anemias	137 (1.6%)	26 (1.0%)	111 (1.8%)	0.004	6 (1.6%)	131 (1.6%)	0.922
Thyroid diseases	490 (5.6%)	48 (1.8%)	442 (7.2%)	< 0.001	31 (8.4%)	459 (5.5%)	0.016
Diabetes	362 (4.1%)	135 (5.1%)	227 (3.7%)	0.002	21 (5.7%)	341 (4.1%)	0.124
Metabolic syndrome	274 (3.1%)	63 (2.4%)	211 (3.4%)	0.01	20 (5.4%)	254 (3.0%)	0.01
Dyslipidemia	296 (3.4%)	136 (5.2%)	160 (2.6%)	< 0.001	22 (5.9%)	274 (3.3%)	0.005
Depression	756 (8.6%)	139 (5.3%)	617 (10.0%)	< 0.001	46 (12.4%)	710 (8.4%)	0.007
Anxiety disorders	458 (5.2%)	83 (3.1%)	375 (6.1%)	< 0.001	26 (7.0%)	432(5.1%)	0.109
Hypertension	813 (9.3%)	299 (11.3%)	514 (8.4%)	< 0.001	48 (13.0%)	765 (9.1%)	0.012
Diseases of the respiratory system	3124 (35.6%)	907 (34.4%)	2217 (36.1%)	0.134	177 (47.8%)	2947 (35.0%)	<0.001
Vasomotor and allergic rhinitis	519 (5.9%)	104 (3.9%)	415 (6.8%)	< 0.001	24 (6.5%)	495 (5.9%)	0.63
Other chronic obstructive pulmonary disease	78 (0.9%)	37 (1.4%)	41 (0.7%)	< 0.001	5 (1.4%)	73 (0.9%)	0.322
Asthma	939 (10.7%)	215 (8.2%)	724 (11.8%)	< 0.001	58 (15.7%)	881 (10.5%)	0.002
Crohns disease	64 (0.7%)	17 (0.6%)	47 (0.8%)	0.545	<5 (1.3%)	62 (0.7%)	0.664
Ulcerative colitis	120 (1.4%)	37 (1.4%)	83 (1.4%)	0.845	6 (1.6%)	114 (1.4%)	0.665
Coeliac disease	78 (0.9%)	17 (0.6%)	61 (1.0%)	0.111	6 (1.6%)	72 (0.9%)	0.124
Dermatits and eczema	1900 (21.6%)	478(18.1%)	1422 (23.1%)	< 0.001	70(18.9%)	1830 (21.7%)	0.196
Atopic dermatitis	503 (5.7%)	90 (3.4%)	413 (6.7%)	< 0.001	16 (4.3%)	487 (5.8%)	0.236
Lichen simplex chronicus and prurigo	64 (0.7%)	23 (0.9%)	41 (0.7%)	0.3	<5 (1.3%))	62 (0.7%)	0.664
Pruritus	171 (1.9%)	42 (1.6%)	129 (2.1%)	0.116	8 (2.2%)	163(1.9%)	0.759
Nummular dermatitis, Infectious eczematous dermatitis	170 (1.9%)	58 (2.2%)	112 (1.8%)	0.239	<5 (1.3%)	167 (2.0%)	0.109
Other and unspecified dermatitis	782 (8.9%)	219 (8.3%)	563 (9.2%)	0.19	29 (7.8%)	753 (8.9%)	0.462

Psoriasis	179 (2.0%)	63 (2.4%)	116 (1.9%)	0.127	7 (1.9%)	172 (2.0%)	0.839
Vasculitis limited to skin	50 (0.6%)	24 (0.9%)	26 (0.4%)	0.005	5 (1.4%)	45 (0.5%)	0.041
Rheumatoid arthritis	21 (0.2%)	5 (0.2%)	16 (0.3%)	0.534	0 (0.0%)	21 (0.2%)	
Systemic Lupus erythematosus	31 (0.4%)	<5 (0.2%)	28 (0.5%)	0.013	<5 (1.3%)	29 (0.3%)	0.534
Sjogrens syndrome	56 (0.6%)	5 (0.2%)	51 (0.8%)	< 0.001	<5 (1.3%)	53 (0.6%)	0.669
Angioedema	516 (5.9%)	199 (7.5%)	317 (5.2%)	< 0.001	24 (6.5%)	492 (5.8%)	0.609