

**Appendix 1: Diagnostic read codes used to define upper respiratory tract infections for analysis of secondary objectives.**

Read code	Read term
1C9..	Sore throat symptom
1C92.	Has a sore throat
1C93.	Persistent sore throat
1C9Z.	Sore throat symptom NOS
2DB6.	O/E - follicular tonsillitis
2DC2.	O/E - granular pharyngitis
A123.	Tuberculous laryngitis
A34..	Streptococcal sore throat and scarlatina
A340.	Streptococcal sore throat
A3401	Streptococcal laryngitis
A3402	Streptococcal pharyngitis
A3403	Streptococcal tonsillitis
A340z	Streptococcal sore throat NOS
A34z.	Streptococcal sore throat with scarlatina NOS
A3830	Fusobacterial necrotising tonsillitis
A552.	Postmeasles otitis media
AA12.	Vincent's pharyngitis
F51..	Nonsuppurative otitis media + eustachian tube disorders
F510.	Acute non suppurative otitis media
F5100	Acute otitis media with effusion
F5101	Acute serous otitis media
F5102	Acute mucoid otitis media
F5103	Acute sanguinous otitis media
F5104	Acute allergic serous otitis media
F5106	Acute allergic sanguinous otitis media
F510z	Acute nonsuppurative otitis media NOS
F511.	Chronic otitis media with effusion, serous
F5111	Serosanguinous chronic otitis media
F511z	Chronic serous otitis media NOS
F512.	Chronic otitis media with effusion, mucoid
F5121	Mucosanguinous chronic otitis media
F512z	Chronic mucoid otitis media NOS
F513.	Chronic otitis media with effusion, other
F5130	Chronic allergic otitis media
F5131	Chronic otitis media with effusion, purulent
F513z	Other chronic nonsuppurative otitis media NOS
F514.	Unspecified nonsuppurative otitis media
F5140	Allergic otitis media NOS
F5141	Serous otitis media NOS
F5142	Catarrhal otitis media NOS
F5143	Mucoid otitis media NOS
F514z	Nonsuppurative otitis media NOS

F518.	Chronic otitis media with effusion, unspecified
F52..	Suppurative and unspecified otitis media
F520.	Acute suppurative otitis media
F5200	Acute suppurative otitis media tympanic membrane intact
F5201	Acute suppurative otitis media tympanic membrane ruptured
F5203	Acute suppurative otitis media due to disease EC
F520z	Acute suppurative otitis media NOS
F521.	Chronic suppurative otitis media, tubotympanic
F522.	Chronic suppurative otitis media, atticofurcal
F523.	Chronic suppurative otitis media NOS
F524.	Purulent otitis media NOS
F5240	Bilateral suppurative otitis media
F525.	Recurrent acute otitis media
F526.	Acute left otitis media
F527.	Acute right otitis media
F528.	Acute bilateral otitis media
F52z.	Otitis media NOS
F540.	Acute myringitis without otitis media
F541.	Chronic myringitis without mention of otitis media
FyuP0	[X]Other acute nonsuppurative otitis media
FyuP2	[X]Other chronic suppurative otitis media
FyuP3	[X]Otitis media in bacterial diseases classified elsewhere
FyuP4	[X]Otitis media in viral diseases classified elsewhere
FyuP5	[X]Otitis media in other diseases classified elsewhere
H00..	Acute nasopharyngitis
H01..	Acute sinusitis
H010.	Acute maxillary sinusitis
H011.	Acute frontal sinusitis
H012.	Acute ethmoidal sinusitis
H013.	Acute sphenoidal sinusitis
H01y.	Other acute sinusitis
H01y0	Acute pansinusitis
H01yz	Other acute sinusitis NOS
H01z.	Acute sinusitis NOS
H02..	Acute pharyngitis
H020.	Acute gangrenous pharyngitis
H021.	Acute phlegmonous pharyngitis
H022.	Acute ulcerative pharyngitis
H023.	Acute bacterial pharyngitis
H0230	Acute pneumococcal pharyngitis
H0231	Acute staphylococcal pharyngitis
H023z	Acute bacterial pharyngitis NOS
H024.	Acute viral pharyngitis
H025.	Allergic pharyngitis
H02z.	Acute pharyngitis NOS
H03..	Acute tonsillitis

H030.	Acute erythematous tonsillitis
H031.	Acute follicular tonsillitis
H032.	Acute ulcerative tonsillitis
H033.	Acute catarrhal tonsillitis
H034.	Acute gangrenous tonsillitis
H035.	Acute bacterial tonsillitis
H0350	Acute pneumococcal tonsillitis
H0351	Acute staphylococcal tonsillitis
H035z	Acute bacterial tonsillitis NOS
H036.	Acute viral tonsillitis
H037.	Recurrent acute tonsillitis
H03z.	Acute tonsillitis NOS
H04..	Acute laryngitis and tracheitis
H040.	Acute laryngitis
H0400	Acute oedematous laryngitis
H0401	Acute ulcerative laryngitis
H0402	Acute catarrhal laryngitis
H0403	Acute phlegmonous laryngitis
H0404	Acute haemophilus influenzae laryngitis
H0406	Acute suppurative laryngitis
H040w	Acute viral laryngitis unspecified
H040x	Acute bacterial laryngitis unspecified
H040z	Acute laryngitis NOS
H04z.	Acute laryngitis and tracheitis NOS
H050.	Acute laryngopharyngitis
H051.	Acute upper respiratory tract infection
H053.	Tracheopharyngitis
H054.	Recurrent upper respiratory tract infection
H055.	Pharyngolaryngitis
H0605	Acute tracheobronchitis
H12..	Chronic pharyngitis and nasopharyngitis
H121.	Chronic pharyngitis
H1210	Simple chronic pharyngitis
H1211	Atrophic pharyngitis
H1212	Granular pharyngitis
H1213	Hypertrophic pharyngitis
H1214	Pharyngitis keratosa
H1215	Pharyngitis sicca
H1216	Chronic follicular pharyngitis
H121z	Chronic pharyngitis NOS
H122.	Chronic nasopharyngitis
H12z.	Chronic pharyngitis and nasopharyngitis NOS
H13..	Chronic sinusitis
H130.	Chronic maxillary sinusitis
H131.	Chronic frontal sinusitis
H132.	Chronic ethmoidal sinusitis

H133.	Chronic sphenoidal sinusitis
H135.	Recurrent sinusitis
H13y.	Other chronic sinusitis
H13y0	Chronic pansinusitis
H13y1	Pansinusitis
H13yz	Other chronic sinusitis NOS
H13z.	Chronic sinusitis NOS
H140.	Chronic tonsillitis
H143.	Chronic adenotonsillitis
H14y5	Caseous tonsillitis
H14y6	Lingular tonsillitis
H16..	Chronic laryngitis and laryngotracheitis
H160.	Chronic laryngitis
H1600	Chronic simple laryngitis
H1601	Chronic catarrhal laryngitis
H1602	Chronic hypertrophic laryngitis
H1603	Chronic atrophic laryngitis
H1604	Laryngitis sicca
H160z	Chronic laryngitis NOS
H16z.	Chronic laryngitis NOS
H2710	Influenza with laryngitis
H2711	Influenza with pharyngitis
H300.	Tracheobronchitis NOS
H301.	Laryngotracheobronchitis
H31y1	Chronic tracheobronchitis
Hyu00	[X]Other acute sinusitis
Hyu01	[X]Acute pharyngitis due to other specified organisms
Hyu02	[X]Acute tonsillitis due to other specified organisms
Hyu22	[X]Other chronic sinusitis
X00mG	Pharyngitis
X00mq	Vincent's tonsillitis
X00n2	Vincent's laryngitis
X1002	Acute upper respiratory infection
X1003	Viral upper respiratory tract infection NOS
X70ld	Fusobacterial necrotising tonsillitis
Xa05b	Acute laryngitis and tracheitis
Xa7I0	Tonsillitis
Xa9Bk	Otitis media with effusion - serous
Xa9BI	Otitis media with effusion - mucoid
Xa9Bm	Otitis media with effusion - purulent
XE0sE	Sore throat symptom
XE0XI	Common cold
XE0Xm	Acute sinusitis
XE0Xn	Acute pharyngitis
XE0Xq	Upper respiratory infection NOS
XE0Xz	Chronic pharyngitis

XE0Y0	Chronic maxillary sinusitis
XE0Y1	Chronic frontal sinusitis
XE0Y3	Chronic tonsillitis
XE17C	Chronic non-suppurative otitis media with effusion - mucoid
XE17D	Otitis media NOS
XE1ok	Barotrauma, otitic
XE2aC	Acute tonsillitis
XE2QD	Acute otitis media with effusion
XM1QH	Sinusitis
XM1QI	Maxillary sinusitis
XM1QJ	Frontal sinusitis
XM1QM	Sore throat - chronic
XM1QW	Respiratory tract infection

**Appendix 2: Diagnostic read codes used to define lower respiratory tract infections for analysis of secondary objectives**

Read code	Read term
65VA.	Notification of whooping cough
A0222	Salmonella pneumonia
A054.	Amoebic lung abscess
A11..	Pulmonary tuberculosis
A110.	Infiltrative lung tuberculosis
A111.	Nodular lung tuberculosis
A112.	Tuberculosis of lung with cavitation
A113.	Tuberculosis of bronchus
A115.	Tuberculous bronchiectasis
A116.	Tuberculous pneumonia
A11y.	Other specified pulmonary tuberculosis
A11z.	Pulmonary tuberculosis NOS
A1202	Tuberculous hydrothorax
A1221	Isolated bronchial tuberculosis
A1240	TB lung confirm sputum microscopy with or without culture
A1241	Tuberculosis of lung, confirmed by culture only
A1242	Tuberculosis of lung, confirmed histologically
A1243	Tuberculosis of lung, confirmed by unspecified means
A1251	Tuberculosis lung bact and histological examin not done
A203.	Primary pneumonic plague
A204.	Secondary pneumonic plague
A205.	Pneumonic plague, unspecified
A33..	Whooping cough
A330.	Bordetella pertussis
A331.	Bordetella parapertussis
A33y.	Whooping cough - other specified organism
A33y0	Bordetella bronchiseptica
A33yz	Other whooping cough NOS
A33z.	Whooping cough NOS
A3B3.	Friedlander's bacillus infection
A3BX4	Streptococ pneumon/cause/disease classified/oth chapters
A3BXA	Mycoplasma pneumoniae [PPLO] cause/dis classifd/oth chaptr
A3BXB	Klebsiella pneumoniae/cause/disease classifd/oth chapters
A3By1	Eaton's agent infection
A3By4	Pleuropneumonia-like organism (PPLO) infection
A73x.	Ornithosis with other specified complications
A73y.	Ornithosis with unspecified complications
A73z.	Unspecified Ornithosis
AB24.	Candidiasis of lung
AB30.	Primary pulmonary coccidioidomycosis
AB405	Histoplasma capsulatum with pneumonia

AB415	Histoplasma duboisii with pneumonia
AB501	Primary pulmonary blastomycosis
AB504	Acute pulmonary blastomycosis
AB511	Pulmonary paracoccidioidomycosis
AB636	Aspergillus bronchitis
AD04.	Toxoplasma pneumonitis
Ayu39	[X]Whooping cough due to other Bordetella species
Ayu3A	[X]Whooping cough, unspecified
H06..	Acute bronchitis and bronchiolitis
H060.	Acute bronchitis
H0600	Acute fibrinous bronchitis
H0601	Acute membranous bronchitis
H0602	Acute pseudomembranous bronchitis
H0603	Acute purulent bronchitis
H0604	Acute croupous bronchitis
H0605	Acute tracheobronchitis
H0606	Acute pneumococcal bronchitis
H0607	Acute streptococcal bronchitis
H0608	Acute haemophilus influenzae bronchitis
H0609	Acute neisseria catarrhalis bronchitis
H060A	Acute bronchitis due to mycoplasma pneumoniae
H060B	Acute bronchitis due to coxsackievirus
H060C	Acute bronchitis due to parainfluenza virus
H060D	Acute bronchitis due to respiratory syncytial virus
H060E	Acute bronchitis due to rhinovirus
H060F	Acute bronchitis due to echovirus
H060v	Subacute bronchitis unspecified
H060w	Acute viral bronchitis unspecified
H060x	Acute bacterial bronchitis unspecified
H060z	Acute bronchitis NOS
H061.	Acute bronchiolitis
H0615	Acute bronchiolitis due to respiratory syncytial virus
H0616	Acute bronchiolitis due to other specified organisms
H062.	Acute lower respiratory tract infection
H06z.	Acute bronchitis or bronchiolitis NOS
H06z0	Chest infection NOS
H06z1	Lower resp tract infection
H06z2	Recurrent chest infection
H07..	Chest cold
H1yz0	Abscess of trachea
H2...	Pneumonia and influenza
H20..	Viral pneumonia
H200.	Pneumonia due to adenovirus
H201.	Pneumonia due to respiratory syncytial virus
H202.	Pneumonia due to parainfluenza virus
H203.	Pneumonia due to human metapneumovirus

H20y.	Viral pneumonia NEC
H20y0	Severe acute respiratory syndrome
H20z.	Viral pneumonia NOS
H21..	Lobar (pneumococcal) pneumonia
H22..	Other bacterial pneumonia
H220.	Pneumonia due to klebsiella pneumoniae
H221.	Pneumonia due to pseudomonas
H222.	Pneumonia due to haemophilus influenzae
H223.	Pneumonia due to streptococcus
H2230	Pneumonia due to streptococcus, group B
H224.	Pneumonia due to staphylococcus
H22y.	Pneumonia due to other specified bacteria
H22y0	Pneumonia due to escherichia coli
H22y1	Pneumonia due to proteus
H22y2	Pneumonia - Legionella
H22yX	Pneumonia due to other aerobic gram-negative bacteria
H22yz	Pneumonia due to bacteria NOS
H22z.	Bacterial pneumonia NOS
H23..	Pneumonia due to other specified organisms
H230.	Pneumonia due to Eaton's agent
H231.	Pneumonia due to mycoplasma pneumoniae
H232.	Pneumonia due to pleuropneumonia like organisms
H233.	Chlamydial pneumonia
H23z.	Pneumonia due to specified organism NOS
H24..	Pneumonia with infectious diseases EC
H240.	Pneumonia with measles
H241.	Pneumonia with cytomegalic inclusion disease
H242.	Pneumonia with ornithosis
H243.	Pneumonia with whooping cough
H244.	Pneumonia with tularaemia
H245.	Pneumonia with anthrax
H246.	Pneumonia with aspergillosis
H247.	Pneumonia with other systemic mycoses
H2470	Pneumonia with candidiasis
H2471	Pneumonia with coccidioidomycosis
H2472	Pneumonia with histoplasmosis
H247z	Pneumonia with systemic mycosis NOS
H24y.	Pneumonia with other infectious diseases EC
H24y0	Pneumonia with actinomycosis
H24y1	Pneumonia with nocardiasis
H24y2	Pneumonia with pneumocystis carinii
H24y3	Pneumonia with Q-fever
H24y4	Pneumonia with salmonellosis
H24y5	Pneumonia with toxoplasmosis
H24y6	Pneumonia with typhoid fever
H24y7	Pneumonia with varicella



H24yz	Pneumonia with other infectious diseases EC NOS
H24z.	Pneumonia with infectious diseases EC NOS
H25..	Bronchopneumonia due to unspecified organism
H26..	Pneumonia due to unspecified organism
H260.	Lobar pneumonia due to unspecified organism
H2600	Lung consolidation
H261.	Basal pneumonia due to unspecified organism
H262.	Postoperative pneumonia
H263.	Pneumonitis, unspecified
H270.	Influenza with pneumonia
H2700	Influenza with bronchopneumonia
H2701	Influenza with pneumonia, influenza virus identified
H270z	Influenza with pneumonia NOS
H28..	Atypical pneumonia
H2B..	Community acquired pneumonia
H2C..	Hospital acquired pneumonia
H2y..	Other specified pneumonia or influenza
H2z..	Pneumonia or influenza NOS
H30..	Bronchitis unspecified
H300.	Tracheobronchitis NOS
H301.	Laryngotracheobronchitis
H302.	Wheezy bronchitis
H30z.	Bronchitis NOS
H31..	Chronic bronchitis
H310.	Simple chronic bronchitis
H3100	Chronic catarrhal bronchitis
H3101	Smokers' cough
H310z	Simple chronic bronchitis NOS
H311.	Mucopurulent chronic bronchitis
H3110	Purulent chronic bronchitis
H3111	Fetid chronic bronchitis
H311z	Mucopurulent chronic bronchitis NOS
H312.	Obstructive chronic bronchitis
H3120	Chronic asthmatic bronchitis
H3121	Emphysematous bronchitis
H3122	Acute exacerbation of chronic obstructive airways disease
H312z	Obstructive chronic bronchitis NOS
H313.	Mixed simple and mucopurulent chronic bronchitis
H31y.	Other chronic bronchitis
H31y1	Chronic tracheobronchitis
H31yz	Other chronic bronchitis NOS
H31z.	Chronic bronchitis NOS
H33zz	Asthma NOS
H341.	Post-infective bronchiectasis
H3y0.	Chronic obstruct pulmonary dis with acute lower resp infectn
H530.	Abscess of lung

H5300	Single lung abscess
H5301	Multiple lung abscess
H5303	Abscess of lung with pneumonia
H530z	Abscess of lung NOS
H5400	Hypostatic pneumonia
H5401	Hypostatic bronchopneumonia
H5832	Eosinophilic bronchitis
Hyu08	[X]Other viral pneumonia
Hyu09	[X]Pneumonia due to other aerobic gram-negative bacteria
Hyu0A	[X]Other bacterial pneumonia
Hyu0B	[X]Pneumonia due to other specified infectious organisms
Hyu0C	[X]Pneumonia in bacterial diseases classified elsewhere
Hyu0D	[X]Pneumonia in viral diseases classified elsewhere
Hyu0E	[X]Pneumonia in mycoses classified elsewhere
Hyu0F	[X]Pneumonia in parasitic diseases classified elsewhere
Hyu0G	[X]Pneumonia in other diseases classified elsewhere
Hyu0H	[X]Other pneumonia, organism unspecified
Hyu1.	[X]Other acute lower respiratory infections
Hyu10	[X]Acute bronchitis due to other specified organisms
Hyu11	[X]Acute bronchiolitis due to other specified organisms
Hyu6.	[X]Suppurative & necrotic conditions of lower respir tract
SP131	Other aspiration pneumonia as a complication of care
SP132	Post operative chest infection
X1004	Infection of lower respiratory tract
X1006	Chest infection - unspecified bronchitis
X1007	Acute bacterial bronchitis
X1009	Acute mycoplasmal bronchitis
X100A	Acute chlamydial bronchitis
X100B	Acute viral bronchitis
X100C	Acute viral bronchiolitis
X100d	Rickettsial pneumonia
X100D	Acute bronchiolitis due to adenovirus
X100e	Glandular fever pneumonia
X100E	Pneumonia
X100g	Herpes simplex pneumonia
X100G	Atypical pneumonia
X100h	Giant cell pneumonia
X100H	Bacterial pneumonia
X100j	Chronic bronchial sepsis
X100J	Pneumococcal pneumonia
X100K	Pneumonic plague
X100L	Meningococcal pneumonia
X100M	Bronchopneumonia
X100N	Chlamydial pneumonia
X100O	Neonatal chlamydial pneumonia
X100R	Fungal pneumonia

X100S	Pulmonary mucormycosis
X100V	Chronic pulmonary coccidioidomycosis
X100W	Pulmonary blastomycosis
X100X	Haemorrhagic pneumonia
X100Y	Mycobacterial pneumonia
X101i	Chron obstruct pulmonary dis wth acute exacerbation, unspec
X101j	Occupational chronic bronchitis
X1038	Lupus pneumonia
X104j	Tuberculous bronchopleural fistula
X104k	Bronchial sepsis
X104U	Tracheal sepsis
X70Ra	Chronic pulmonary African histoplasmosis
X70Rg	Chronic pulmonary blastomycosis
X70RK	Acute pulmonary histoplasmosis capsulati
X70RL	Chronic pulmonary histoplasmosis capsulati
X70RZ	Acute pulmonary African histoplasmosis
X70Ua	Capillaria aerophila chest infection
Xa0IY	Lobar pneumonia
Xa0IZ	Asthmatic bronchitis
Xa0Y7	Non-tuberculous mycobacterial pneumonia
Xa35I	Acute infective exacerbation chronic obstruct airway disease
Xa7nL	Basal pneumonia
Xa7nM	Left lower zone pneumonia
Xa7nN	Right lower zone pneumonia
Xa7nP	Left upper zone pneumonia
Xa7nT	Right middle zone pneumonia
Xa7nU	Right upper zone pneumonia
Xa97Z	Pulmonary mycobacterium avium-intracellulare infection
Xaa7C	Eosinophilic bronchitis
XaBE9	Basal pneumonia due to unspecified organism
XaBfJ	Secondary bacterial pneumonia
XaBM8	Recurrent chest infection
XaDcD	Bacterial lower respiratory infection
XaDcV	Viral lower respiratory infection
XaDsa	Infective pneumonia
XaDtB	Acute infective bronchitis
XaDth	Acute infective tracheobronchitis
XaDtl	Legionnaire's disease
XaDtP	Bronchitis
XaFrU	Postoperative pneumonia
XaJEI	Bilateral pneumonia
XaREU	Aspergillus bronchitis
XaYby	Hantavirus pulmonary syndrome
XaYYt	Acute bronchiolitis due to human metapneumovirus
XaYYu	Pneumonia due to human metapneumovirus
XaZ1k	Community acquired pneumonia

XaZ1I	Hospital acquired pneumonia
XE0Qw	Whooping cough
XE0Xr	Acute bronchitis
XE0Xs	Chest infection NOS
XE0Xt	Acute lower respiratory tract infection
XE0YG	Viral pneumonia
XE0YH	Pneumococcal lobar pneumonia
XE0YI	Pneumonia with infectious diseases EC
XE0YJ	Bronchopneumonia due to unspecified organism
XE0YL	Bronchitis unspecified
XE0YM	Purulent chronic bronchitis
XE0Yt	Acute: [bronchitis]/[chest infections]/[tracheobronchitis]
XE0ZF	Pneumonia and influenza &/or pneumonia
XE0ZH	Pneumonia: [lobar] or [pneumococcal]
XE0ZN	Chronic: [bronchitis NOS] or [tracheobronchitis]
XE2b5	Psittacosis
XM0rv	Pneumonia NOS
XM1QV	Infection of lower respiratory tract and mediastinum
XM1QX	Acute wheezy bronchitis
XSCET	Bacterial infection due to <i>Klebsiella pneumoniae</i>

**Appendix 3: Table 1 extended: Demographic features of unmatched and matched populations commencing either extrafine fixed dose beclometasone or fine fixed dose fluticasone**

Variable		Unmatched		Matched	
		Initiating ef-FDC-BDP n=9740	Initiating fp-FDC-F n=10308	Initiating ef-FDC-BDP n = 6658	Initiating fp-FDC-F n=6658
Season of index date	Spring, n (%)	2215 (22.7)	2176 (21.1)	1828 (27.5)	1954 (29.3)
	Summer, n (%)	2681 (27.5)	3038 (29.5)	1545 (23.2)	1434 (21.5)
	Autumn, n (%)	2286 (23.5)	2271 (22.0)	1568 (23.6)	1399 (21.0)
	Winter, n (%)	2558 (26.3)	2823 (27.4)	1717 (25.8)	1871 (28.1)
<b>Comorbidities</b>					
Mental disorder	Yes, n (%)	191 (2.0)	210 (2.0)	127 (1.9)	134 (2.0)
Glaucoma	Yes, n (%)	328 (3.4)	313 (3.0)	217 (3.3)	194 (2.9)
Cataract	Yes, n (%)	1321 (13.6)	1374 (13.3)	855 (12.8)	849 (12.8)
Atrial fibrillation	Yes, n (%)	702 (7.2)	753 (7.3)	474 (7.1)	467 (7.0)
Moderate renal impairment	Yes, n (%)	983 (10.1)	1151 (11.2)	664 (10.0)	659 (9.9)
Pneumonia in baseline	Yes, n (%)	210 (2.2)	191 (1.9)	135 (2.0)	135 (2.0)
LAMA before index date	No LAMA, n (%)	6221 (63.9)	6049 (58.7)	4234 (63.6)	4249 (63.8)
	Glycopyrronium, n (%)	481 (4.9)	372 (3.6)	313 (4.7)	317 (4.8)
	Tiotropium, n (%)	2269 (23.3)	2486 (24.1)	1526 (22.9)	1499 (22.5)
	Aclidinium, n (%)	406 (4.2)	253 (2.5)	224 (3.4)	218 (3.3)
	Umeclidinium, n (%)	363 (3.7)	1148 (11.1)	361 (5.4)	375 (5.6)
ICS, prescriptions in the year prior to index date	0, n (%)	6336 (65.1)	7724 (74.9)	4731 (71.1)	4756 (71.4)
	1-2, n (%)	1146 (11.8)	1019 (9.9)	692 (10.4)	717 (10.8)
	3-5, n (%)	1074 (11.0)	716 (6.9)	600 (9.0)	541 (8.1)
	6-9, n (%)	757 (7.8)	556 (5.4)	418 (6.3)	422 (6.3)

	≥10, n (%)	427 (4.4)	293 (2.8)	217 (3.3)	222 (3.3)
LABA (mono or FDC) prescriptions	0, n (%)	7939 (81.5)	8217 (79.7)	5461 (82.0)	5448 (81.8)
	1-2, n (%)	475 (4.9)	543 (5.3)	305 (4.6)	338 (5.1)
	3-5, n (%)	436 (4.5)	462 (4.5)	279 (4.2)	277 (4.2)
	6-9, n (%)	431 (4.4)	531 (5.2)	273 (4.1)	283 (4.3)
	≥10, n (%)	459 (4.7)	555 (5.4)	340 (5.1)	312 (4.7)
LAMA prescriptions	0, n (%)	6221 (63.9)	6049 (58.7)	4234 (63.6)	4249 (63.8)
	1-2, n (%)	848 (8.7)	998 (9.7)	557 (8.4)	595 (8.9)
	3-5, n (%)	821 (8.4)	938 (9.1)	558 (8.4)	526 (7.9)
	6-9, n (%)	807 (8.3)	1058 (10.3)	549 (8.2)	587 (8.8)
	≥10, n (%)	1043 (10.7)	1265 (12.3)	760 (11.4)	701 (10.5)
SABA prescriptions	≥1, n (%)	7468 (76.7)	7597 (73.7)	4856 (72.9)	4822 (72.4)
SAMA prescriptions	≥1, n (%)	389 (4.0)	388 (3.8)	260 (3.9)	239 (3.6)
Theophylline prescriptions	≥1, n (%)	52 (0.5)	83 (0.8)	40 (0.6)	51 (0.8)
Leukotriene Receptor Antagonists prescriptions	≥1, n (%)	106 (1.1)	90 (0.9)	66 (1.0)	62 (0.9)
Macrolides prescriptions	0, n (%)	8188 (84.1)	8509 (82.5)	5603 (84.2)	5522 (82.9)
	1, n (%)	990 (10.2)	1184 (11.5)	667 (10.0)	764 (11.5)
	2, n (%)	321 (3.3)	350 (3.4)	220 (3.3)	224 (3.4)
	3, n (%)	117 (1.2)	134 (1.3)	81 (1.2)	75 (1.1)
	4, n (%)	59 (0.6)	62 (0.6)	44 (0.7)	31 (0.5)
	≥5, n (%)	65 (0.7)	69 (0.7)	43 (0.6)	42 (0.6)
Mucolytics prescriptions	≥1 n (%)	636 (6.7)	695 (6.7)	418 (6.3)	440 (6.6)
Maintenance OCS prescriptions	≥1, n (%)	231 (2.4)	254 (2.5)	141 (2.1)	146 (2.2)
Oral corticosteroids, average daily dose for all	0, n (%)	5172 (53.1)	5645 (54.8)	3679 (55.3)	3670 (55.1)

prescriptions,  
(acute and long-  
term, mg)

	>0 <2.5, n (%)	3922 (40.3)	3980 (38.6)	2577 (38.7)	2550 (38.3)
	≥2.5, n (%)	646 (6.7)	683 (6.7)	402 (6.1)	438 (6.6)
Influenza vaccination	Yes, n (%)	4720 (48.5)	4338 (42.1)	2948 (44.3)	2951 (44.3)
Pneumococcal vaccination	Yes, n (%)	1164 (12.0)	1200 (11.6)	717 (10.8)	752 (11.3)
Exacerbations in the year prior to index date	0, n (%)	3902 (40.1)	4214 (40.9)	2798 (42.0)	2741 (41.2)
	1, n (%)	2583 (26.5)	2826 (27.4)	1765 (26.5)	1839 (27.6)
	≥2, n (%)	3255 (33.4)	3268 (31.7)	2095 (31.5)	2078 (31.2)
Acute OCS courses	0, n (%)	5611 (57.6)	6130 (59.5)	3969 (59.6)	3978 (59.7)
	1, n (%)	2226 (22.9)	2305 (22.4)	1478 (22.2)	1501 (22.5)
	2, n (%)	1013 (10.4)	972 (9.4)	663 (10.0)	602 (9.0)
	3, n (%)	468 (4.8)	460 (4.5)	296 (4.4)	286 (4.3)
	4, n (%)	203 (2.1)	222 (2.2)	126 (1.9)	147 (2.2)
	≥5, n (%)	219 (2.2)	219 (2.1)	126 (1.9)	144 (2.2)
Antibiotics courses	0, n (%)	5586 (57.4)	5972 (57.9)	3913 (58.8)	3897 (58.5)
	1, n (%)	2232 (22.9)	2383 (23.1)	1538 (23.1)	1515 (22.8)
	≥2, n (%)	1922 (19.7)	1953 (19.0)	1207 (18.1)	1246 (18.7)
FEV1 % predicted in 5-years period	N (% non-missing)	8091	8797	5530 (83.1)	5478 (82.3)
	<30, n (%)	326 (4.0)	346 (3.9)	223 (4.0)	207 (3.8)
	30 <50, n (%)	1704 (21.1)	2047 (23.3)	1238 (22.4)	1217 (22.2)
	50 <80, n (%)	4145 (51.2)	4529 (51.5)	2830 (51.2)	2804 (51.2)
	≥80, n (%)	1916 (23.7)	1875 (21.3)	1239 (22.4)	1250 (22.8)

**Abbreviations:** ef-FDC-BDP: extrafine particle fixed dose beclometasone; fp-FDC-F: fine-particle fixed dose fluticasone; FEV1: forced expiratory volume in one second; ICS, inhaled corticosteroid; LABA: long-acting beta agonist; LAMA: long-acting muscarinic antagonist; OCS: Oral corticosteroids; SABA: short acting beta agonist; SAMA: short acting muscarinic antagonists.