

Supplementary Table 1. Predictors of the prescription of antibiotics by Flemish GPs in adult acute cough patients. Figures are numbers (%) unless stated otherwise.^a

	Prescribed antibiotics (n = 500) ^a	Not prescribed antibiotics (n = 948) ^a	Crude OR (95% CI) ^b (n = 1448)	Significance	Adjusted OR ^c (95% CI) ^b (n = 819)	Significance
Demographics						
Mean age in years (SD)	42.05 (13.03)	40.23 (13.05)	1.01 (1.00 to 1.02)	†	1.02 (1.00 to 1.04)	
Men	220/472 (47)	391/904 (43)	1.07 (0.90 to 1.28)		2.20 (0.73 to 6.59)	
Comorbidity and risk						
Asthma	51/490 (10)	87/932 (9)	1.31 (0.97 to 1.76)		0.52 (0.21 to 1.26)	
COPD	54/493 (11)	57/930 (6)	2.39 (1.57 to 3.64)	†	0.77 (0.35 to 1.69)	
ACE inhibitor	17/490 (3)	18/926 (2)	2.13 (1.01 to 4.49)	†	1.05 (0.26 to 4.19)	
Aspiration risk	6/488 (1)	8/925 (1)	2.85 (1.87 to 4.34)	†	14.79 (1.24 to 176.71)	†
Thromboembolic risk	17/487 (3)	50/924 (5)	1.07 (0.69 to 1.64)		0.55 (0.15 to 2.08)	
Smoking	183/499 (37)	281/944 (30)	1.56 (1.25 to 1.95)	†	1.00 (0.59 to 1.68)	
Circumstances						
High workload	274/494 (55)	538/934 (58)	1.14 (0.88 to 1.47)		1.04 (0.68 to 1.59)	
Impression of sickness: ill	295/480 (61)	319/901 (35)	3.04 (2.29 to 4.04)	†	2.28 (1.47 to 3.53)	†
Demand for antibiotics	125/500 (25)	93/948 (10)	4.64 (2.96 to 7.26)	†	20.83 (8.86 to 48.99)	†
Demand for medication	253/491 (52)	480/938 (51)	0.97 (0.74 to 1.26)		0.98 (0.62 to 1.54)	
Symptoms						
Mean (SD) duration of coughing (days)	6.45 (5.04)	5.35 (4.73)	1.05 (1.03 to 1.07)	†	1.04 (0.99 to 1.10)	
Sputum	374/500 (75)	458/942 (49)	3.04 (2.32 to 3.97)	†	2.52 (1.62 to 3.92)	†
Fever	166/500 (33)	243/943 (26)	1.49 (1.17 to 1.89)	†	1.11 (0.67 to 1.83)	
Runny nose	306/496 (62)	581/940 (62)	1.04 (0.79 to 1.37)		0.96 (0.60 to 1.53)	
Headache	281/492 (57)	446/923 (48)	1.38 (1.12 to 1.71)	†	1.57 (1.03 to 2.37)	†
Muscle ache	175/486 (36)	301/925 (33)	1.27 (1.01 to 1.59)	†	0.75 (0.48 to 1.17)	
Sore throat	299/491 (61)	525/938 (56)	0.96 (0.77 to 1.19)		1.22 (0.77 to 1.96)	
Wheezing	138/487 (28)	136/929 (15)	2.34 (1.78 to 3.07)	†	0.63 (0.34 to 1.17)	
Short of breath	185/487 (38)	216/927 (23)	2.38 (1.85 to 3.05)	†	1.27 (0.68 to 2.37)	
Chest pain	215/489 (44)	263/922 (29)	2.02 (1.61 to 2.52)	†	1.68 (1.07 to 2.65)	†
Loss of appetite	164/482 (34)	194/901 (22)	2.20 (1.69 to 2.87)	†	1.22 (0.74 to 2.02)	
Limited activity	255/488 (52)	374/915 (41)	1.92 (1.47 to 2.52)	†	1.73 (0.87 to 3.42)	
Signs						
'Higher risk'	212/500 (42)	323/948 (34)	1.38 (1.11 to 1.71)	†	1.21 (0.78 to 1.87)	
Mean (SD) number of abnormal auscultatory findings	1.01 (1.09)	0.36 (0.75)	2.53 (2.02 to 3.18)	†	3.04 (2.03 to 4.54)	†
Percussion dullness	9/473 (2)	6/889 (1)	6.15 (0.71 to 53.21)		1.46 (0.15 to 13.80)	
Test ordering						
Radiograph	21/489 (4)	22/921 (2)	2.99 (1.49 to 6.03)	†	2.41 (0.58 to 10.06)	
Sputum analysis	7/487 (1)	8/917 (1)	2.90 (0.97 to 8.69)		0.45 (0.07 to 2.82)	
Infection parameters	17/485 (4)	13/915 (1)	3.72 (1.37 to 10.11)	†	28.04 (2.86 to 274.54)	†
Serology	6/480 (1)	12/914 (1)	1.72 (0.54 to 5.49)		0.11 (0.01 to 1.31)	
Other	11/481 (2)	28/917 (3)	1.50 (0.73 to 3.06)		1.76 (0.56 to 5.56)	
Prescriptions						
Referral	13/496 (3)	21/932 (2)	1.71 (0.98 to 3.00)		0.04 (0.01 to 0.14)	†
Follow-up contact	69/479 (14)	68/880 (8)	3.06 (1.99 to 4.69)	†	2.18 (0.81 to 5.85)	
GPs' characteristics						
Men	385/500 (77)	674/948 (71)	1.31 (0.86 to 2.02)		456.00 (0.04 to 4 930 000)	
UA graduate	198/500 (40)	433/948 (46)	0.84 (0.53 to 1.33)		1.70 (0.71 to 4.09)	
Professional training	111/456 (24)	259/890 (29)	0.85 (0.56 to 1.29)		0.20 (0.10 to 0.42)	†
Fee for service	497/500 (99)	926/948 (98)	4.06 (2.64 to 6.23)	†	1.63 (0.10 to 26.09)	
Not single-handed	199/489 (41)	451/941 (48)	0.74 (0.48 to 1.15)		0.51 (0.18 to 1.44)	
GPPTs in practice	66/500 (13)	197/948 (21)	0.65 (0.40 to 1.07)		1.11 (0.28 to 4.36)	
Part-time	59/489 (12)	198/333 (21)	0.52 (0.32 to 0.86)	†	1.35 (0.35 to 5.16)	
Province						
Antwerp	269 (54)	670 (71)	1		1	
Brussels	41 (8)	28 (3)	3.38 (1.16 to 9.84)	†	29.20 (4.85 to 176.71)	†
Limburg	35 (7)	37 (4)	2.24 (0.86 to 5.89)		2.75 (0.88 to 8.63)	
West Flanders	98 (20)	93 (10)	2.07 (1.25 to 3.43)	†	3.95 (1.60 to 9.76)	†
East Flanders	57 (11)	120 (13)	1.12 (0.60 to 2.11)		1.88 (0.37 to 9.50)	

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Table 2 continued. Predictors of the prescription of antibiotics by Flemish GPs in adult acute cough patients. Figures are numbers (%) unless stated otherwise.^a

	Prescribed antibiotics (n = 500) ^a	Not prescribed antibiotics (n = 948) ^a	Crude OR (95% CI) ^b (n = 1448)	Significance	Adjusted OR ^c (95% CI) ^b (n = 819)	Significance
Peak flow meter	483/500 (97)	904/948 (95)	1.70 (0.98 to 2.96)		3.43 (0.25 to 46.94)	
Spirometer	93/500 (19)	303/948 (32)	0.61 (0.37 to 0.99)	†	0.44 (0.21 to 0.90)	†
Training practice	137/500 (27)	355/948 (37)	0.72 (0.46 to 1.13)		1.32 (0.61 to 2.85)	
Academic link	126/500 (25)	342/948 (36)	0.71 (0.46 to 1.11)		1.44 (0.67 to 3.10)	
Records of home visits	376/500 (75)	808/948 (85)	0.61 (0.35 to 1.07)		1.38 (0.68 to 2.81)	
Computerised records	333/500 (67)	663/948 (70)	1.08 (0.65 to 1.80)		1.28 (0.60 to 2.72)	
Complementary medicine	8/500 (2)	29/948 (3)	0.53 (0.40 to 0.70)		0.20 (0.04 to 1.15)	
Year of birth	55.99 (7.64)	55.56 (8.39)	1.01 (0.99 to 1.03)		1.22 (1.01 to 1.47)	†
Mean (SD) number of patient encounters per week	112.14 (46.08)	101.06 (40.08)	1.01 (1.00 to 1.01)	†	1.00 (0.99 to 1.02)	
Mean (SD) number of home visits per week	38.63 (18.80)	30.53 (17.41)	1.02 (1.01 to 1.03)	†	1.03 (1.00 to 1.06)	
Mean (SD) number of medical representatives/month	15.82 (8.18)	15.27 (11.89)	1.01 (0.98 to 1.04)		1.04 (0.98 to 1.10)	
Mean (SD) ATC J cost ratio	16.54 (6.64)	14.28 (6.23)	1.05 (1.02 to 1.08)	†	0.94 (0.84 to 1.06)	
Mean (SD) ATC J volume ratio	3.60 (1.44)	2.91 (1.28)	1.35 (1.19 to 1.53)	†	1.58 (0.97 to 2.57)	
Design						
Registration year: 2001	190/500 (38)	481/948 (51)	0.64 (0.52 to 0.80)	†	0.74 (0.42 to 1.28)	
Registration group: intervention	227/500 (45)	406/948 (43)	0.99 (0.63 to 1.55)		0.75 (0.32 to 1.78)	
Year*group: 2001*intervention	78/190 (41)	206/481 (43)	0.57 (0.40 to 0.82)	†	0.72 (0.23 to 2.29)	
Interaction terms of final model						
Demand for antibiotics*number of abnormal auscultatory findings			1.76 (1.30 to 2.38)		0.23 (0.13 to 0.41)	
Patient sex*age			1.00 (1.00 to 1.01)		0.98 (0.96 to 1.01)	
GP's sex*year of birth			1.01 (1.00 to 1.01)		0.90 (0.76 to 1.06)	

ACE = angiotensin converting enzyme. ATC J = Anatomical Therapeutic Chemical J. GPPT = GP in professional training. SD = standard deviation. UA = University of Antwerp. ^aDenominators vary due to missing values. ^bScore test using alternating logistic regression; †P < 0.05. ^cAdjusted for all variables in the final model. dGPs in professional training.