

**Supplemental table 1. Included and excluded diagnosis codes**

Category	<i>International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes<sup>A</sup></i>
<b>Antibiotic-inappropriate acute respiratory illness codes</b>	H65*, H68*, H69*, J00, J04*, J050, J06*, J09, J09X, J09X2, J09X3, J09X9, J10, J101, J102, J108*, J11, J111, J112, J118*, J20*-J21*, J30*, J40, J45*, R05, T784, T7840, T7840XA, T7849, T7849XA
<b>Exclusion codes (condition for which antibiotics are or may be indicated)<sup>B</sup></b>	A00*-A09*, A15*, A17*-A28*, A30*-A43*, A46, A48*-A59*, A63*-A71*, A74*-A75*, A77*-A79*, B012, B052, B0681, B35*-B36*, B47, B471, B479, B50*-B54, B58*-B59, B60, B600, B602, B90*, B92, B94, B940, B948, B949, B95*-B96*, B99*, D5701, D57211, D57411, D57811, D733, E0852, E0952, E1052, E1152, E1352, E321, G00*-G031, G038- G039, G04, G040, G042- G043*, G048*- G08, G92, H00*, H01, H010*, H04, H040, H0400*- H0402*, H043*, H044, H0441*- H0442*, H05, H050, H0501*- H0504*, H051, H0512*, H10, H102, H100*, H1022*- H1023*, H103*, H104, H1040*, H1042*- H1043*, H105, H1050*, H1052*, H108, H1082*, H1089, H109, H16, H160*- H1611*, H1614*, H162, H1620*, H1625*, H1629*-H1632*, H1639*, H168-H169, H20, H200, H2000- H2003*, H2005*, H201*, H2081*, H209, H2133*, H3312*, H44, H440*-H441*, H5701, H594*, H60, H600*- H603*, H606*-H610*, H62, H624*, H66*-H67*, H70*, H73, H730*-H732*, H75*, H94, H940*, I00-I09*, I30*, I33*, I38, I39, I400, I7026*, I7036*, I7046*, I7056*, I7066*, I7076*, I7301, I76, I891, I96, J01*-J03*, J05, J051*, J09X1, J100*, J110*, J12*-J18*, J32*, J340, J36, J390-J391, J41*-J44*, J47, J470-J471, J65, J680, J69, J690, J80, J84116, J85*-J86*, J9502, J95851, J982, J983, J985, J9851, K04, K040*, K041, K046, K047, K11, K112*, K113, K118- K12*, K27*, K35*-K37, K401*, K404*, K411*, K414*, K421, K431, K434, K441, K451, K461, K50014, K50114, K50814, K50914, K51014, K51214, K51314, K51414, K515*, K51814, K51914, K553*, K57, K570*, K571, K5712- K572*, K573, K5732- K5741, K575, K5752- K578*, K579, K5792- K5793, K593*, K61*, K630- K631, K65, K650- K653, K658- K659, K67-K681*, K750, K751, K803*, K822, K82A*, K830*, K832, K85*, K901, K902, K9081, K9185*, K9402, K9412, K9422, K9432, K9501, K9581, L00- L08*, L663, L70*, L718- L719, L73*, L88, M00*-M01*, M023*, M273, M2751, M46, M462- M463*, M465*, M60, M600*, M650*- M651*, M710*-M711*, M726, M793, M86*, N10-N12, N136, N151, N30, N300*- N302*, N308*-N309*, N34, N340- N342, N39, N390, N41, N410- N413, N431, N45*, N482, N48219 N4822, N493, N61*, N70*-N735, N751, N76, N760- N766, N77*, N980, N99511, N99521, N99531, O030, O0337, O0338, O035, O0387, O0388, O045, O0487, O0488, O070, O0737, O0738, O080, O0882, O0883, O23*, O2901*, O41, O411*, O740, O753, O85-O862*, O868*, O883*, O890, O8901, O91*, O98, O980*- O983*, O988*-O989*, O99, O998, O9982*- O9983*, P002, P027*, P23*, P24, P240, P2401, P36*- P372, P378-P39*, P582, P77*-P781, P7882, R1112- R1114, R15*-R16*, R19, R190*, R197, R36, R360, R369, R65, R652*, R788, R7881, S0007, S0007XA, S0027, S00271, S00271A, S00272, S00272A, S00279, S00279A, S0037, S0037XA, S0047, S00471, S00471A, S00472, S00472A, S00479, S00479A, S0057, S00571, S00571A, S00572, S00572A, S0087, S0087XA, S0097, S0097XA, S0105, S0105XA, S0115, S01151,

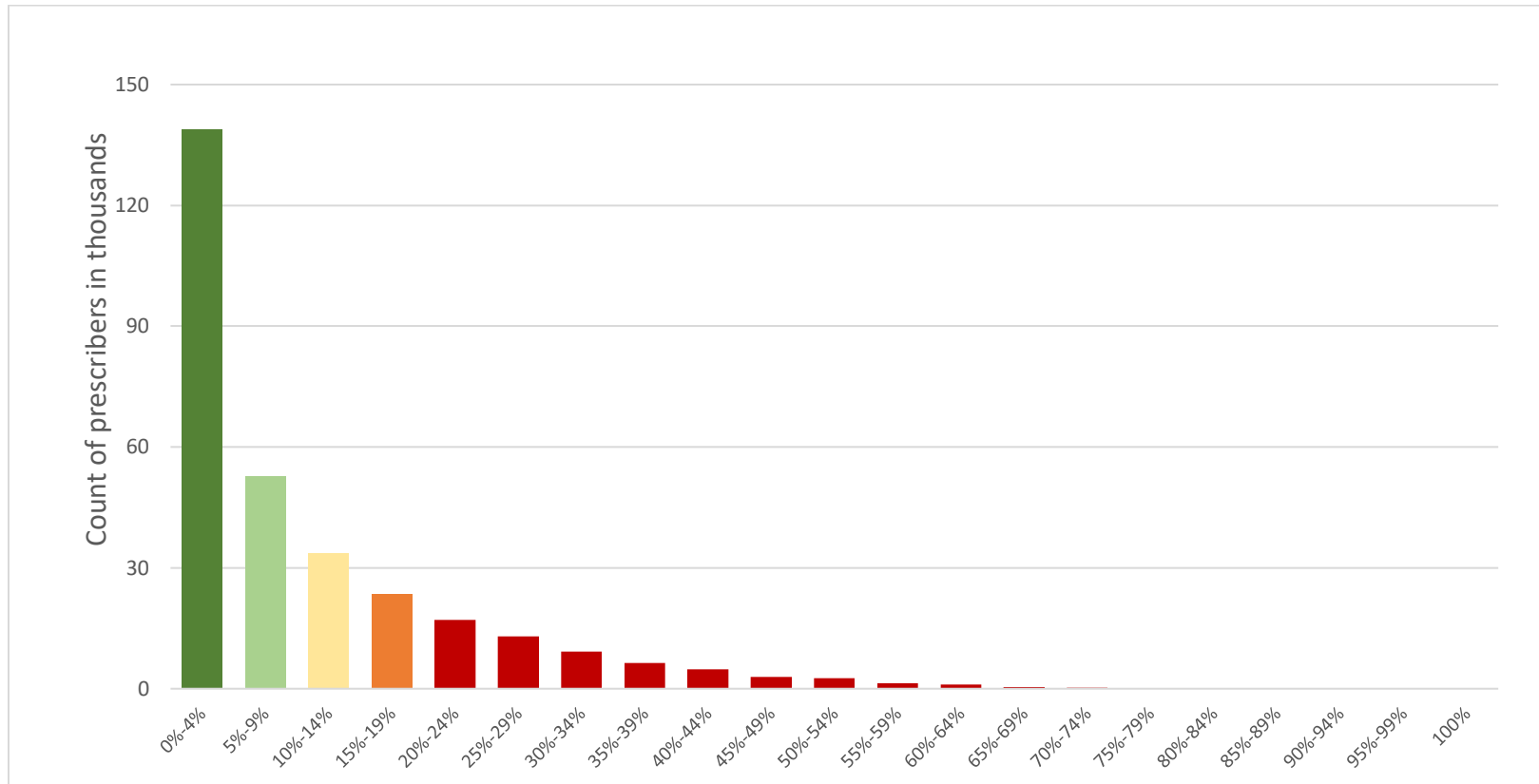
S01151A, S01152, S01152A, S01159, S01159A, S0125, S0125XA, S0135, S01351, S01351A, S01352, S01352A, S01359, S01359A, S0145, S01451, S01451A, S01452, S01452A, S01459, S01459A, S0155, S01551, S01551A, S01552, S01552A, S0185, S0185XA, S0195, S0195XA, S052, S0520, S0520XA, S0520XS, S0521, S0521XA, S0521XD, S0521XS, S0522, S0522XA, S0522XD, S0522XS, S053, S0530, S0530XA, S0530XD, S0530XS, S0531, S0531XA, S0531XD, S0531XS, S0532, S0532XA, S0532XD, S0532XS, S1017, S1017XA, S1087, S1087XA, S1097, S1097XA, S11015, S11015A, S11025, S11025A, S11035, S11035A, S1115, S1115XA, S1125, S1125XA, S2017, S20171, S20171A, S20172, S20172A, S20179, S20179A, S2037, S20371, S20371A, S20372, S20372A, S20379, S20379A, S2047, S20471, S20471A, S20472, S20472A, S20479, S20479A, S2097, S2097XA, S2105, S21051, S21051A, S21052, S21052A, S21059, S21059A, S2115, S21151, S21151A, S21152, S21152A, S21159, S21159A, S2125, S21251, S21251A, S21252, S21252A, S21259, S21259A, S2135, S21351, S21351A, S21352, S21352A, S21359, S21359A, S2145, S21451, S21451A, S21452, S21452A, S21459, S21459A, S2195, S2195XA, S3087, S30870, S30870A, S30871, S30871A, S30872, S30872A, S30873, S30873A, S30874, S30874A, S30875, S30875A, S30876, S30876A, S30877, S30877A, S3105, S31050, S31050A, S31051, S31051A, S3115, S31150, S31150A, S31151, S31151A, S31152, S31152A, S31153, S31153A, S31154, S31154A, S31155, S31155A, S31159, S31159A, S3125, S3125XA, S3135, S3135XA, S3145, S3145XA, S3155, S31551, S31551A, S31552, S31552A, S3165, S31650, S31650A, S31651, S31651A, S31652, S31652A, S31653, S31653A, S31654, S31654A, S31655, S31655A, S31659, S31659A, S31805, S31805A, S31815, S31815A, S31825, S31825A, S31835, S31835A, S4027, S40271, S40271A, S40272, S40272A, S40279, S40279A, S4087, S40871, S40871A, S40872, S40872A, S40879, S40879A, S4105, S41051, S41051A, S41052, S41052A, S41059, S41059A, S4115, S41151, S41151A, S41152, S41152A, S41159, S41159A, S5037, S50371, S50371A, S50372, S50372A, S50379, S50379A, S5087, S50871, S50871A, S50872, S50872A, S50879, S50879A, S5105, S51051, S51051A, S51052, S51052A, S51059, S51059A, S5185, S51851, S51851A, S51852, S51852A, S51859, S51859A, S6037, S60371, S60371A, S60372, S60372A, S60379, S60379A, S6047, S60470, S60470A, S60471, S60471A, S60472, S60472A, S60473, S60473A, S60474, S60474A, S60475, S60475A, S60476, S60476A, S60477, S60477A, S60478, S60478A, S60479, S60479A, S6057, S60571, S60571A, S60572, S60572A, S60579, S60579A, S6087, S60871, S60871A, S60872, S60872A, S60879, S60879A, S6105, S61051, S61051A, S61052, S61052A, S61059, S61059A, S6115, S61151, S61151A, S61152, S61152A, S61159, S61159A, S6125, S61250, S61250A, S61251, S61251A, S61252, S61252A, S61253, S61253A, S61254, S61254A, S61255, S61255A, S61256, S61256A, S61257, S61257A, S61258, S61258A, S61259, S61259A, S6135, S61350, S61350A, S61351, S61351A, S61352, S61352A, S61353, S61353A, S61354, S61354A, S61355, S61355A, S61356, S61356A, S61357, S61357A, S61358, S61358A, S61359, S61359A, S6145, S61451, S61451A, S61452, S61452A, S61459, S61459A, S6155, S61551, S61551A, S61552, S61552A, S61559, S61559A, S7027, S70271, S70271A, S70272, S70272A, S70279, S70279A, S7037, S70371, S70371A, S70372, S70372A, S70379, S70379A, S7105,

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<sup>A</sup> \* indicates a code for which all child codes are included. For example, J06\* would include J06, J060, and J069.

<sup>B</sup> Visits containing these codes were excluded from this analysis even if they contained ICD-10-CM codes for antibiotic-inappropriate acute respiratory illnesses.

**Supplemental Figure 1. Distribution of prescriber percent of visits with antibiotic prescription (PIAPI) for visits related to antibiotic-inappropriate acute respiratory illnesses**



IQVIA Medical Claims Data (Dx) and IQVIA Longitudinal Prescription Data (LRx) data, 2019. Nine percent of prescribers accounted for all PIAPI values greater than or equal to 30%, meaning 9% of prescribers prescribe unnecessary antibiotics in at least 30% of visits for antibiotic-inappropriate acute respiratory illnesses