

Table S1 Types, categorization, classifications, and Anatomical Therapeutic Chemical (ATC) classification system codes, and Korea Food & Drug Administration drug classification numbers of study medications

Type of medications	Classification	ATC codes*	KFDA-DCN [†]
Fluoroquinolones	Ofloxacin	J01MA01	203901ATB, 203904ATB, 203902BIJ, 203907BIJ, 203940BIJ
	Ciprofloxacin	J01MA02	134103ATB, 134105ATB, 134109ATB, 134103ACH, 134108ATR, 134101BIJ, 134104BIJ, 134106BIJ, 134133BIJ, 134134BIJ, 134135BIJ
	Pefloxacin	J01MA03	209501ATB
	Enoxacin	J01MA04	152001ATB, 152002ATB
	Norfloxacin	J01MA06	203301ATB, 203302ATB, 203303ATB, 203302ACH, 203303ACH
	Lomefloxacin	J01MA07	184901ATB, 184903ATB, 184904ATB, 184901ACH
	Fleroxacin	J01MA08	159401ATB, 159402ATB
	Sparfloxacin	J01MA09	230701ATB, 230702ATB
	Rufloxacin	J01MA10	358801ATB
	Grepafloxacin	J01MA11	167401ATB
	Levofloxacin	J01MA12	183201ATB, 183202ATB, 183203ATB, 183205ATB, 183202BIJ, 183203BIJ, 183205BIJ, 183206BIJ, 183233BIJ, 183234BIJ, 183235BIJ, 183236BIJ
	Moxifloxacin	J01MA14	380301ATB, 380302BIJ, 380335BIJ, 801601BIJ
	Gemifloxacin	J01MA15	442901ATB, 442902BIJ
	Gatifloxacin	J01MA16	434801ATB
	Prulifloxacin	J01MA17	552901ATB
	Pazufloxacin	J01MA18	566901BIJ
	Garenoxacin	J01MA19	560301ATB
Tosufloxacin	J01MA22	242201ATB, 242202ATB	

*, ATC codes: Anatomical Therapeutic Chemical (ATC) classifications system codes; [†], KFDA-DCN: Korea Food & Drug Administration drug classification numbers.

Table S2 Definition of severe pneumonia based on the Solutions for Korean Medical Fee Contract System

	Codes in Korean Medical Fee Contract System
Chest CT	HA424 or HA434 or HA464 or HA474 or HA444
Oxygen supply	M0040
ICU admission	AJ0, AJ1, AJ2, AJ3, AJ4, AJ5, 19001, 19002, 19003, 19004, 19005, 19400, 19402, 19412, 19422, 19442, 19410, 19420, 19430, 19450, 19200, 19202, 19212, 19222, 19242, 19210, 19220, 19230, 19240, 19250, 19260, 19280, 19290, 19300, 19302, 19312, 19322, 19342, 19310, 19320, 19330, 19340, 19350, 19360, 19380, 19390, 19500, 19510, 19520, 19530, 1954-, 19550, 19560, 19580, 19590
Tracheal intubation	M5859
Ventilator care or cardiopulmonary resuscitation	M08XX, M58XX

Table S3 Diagnoses and their matched coding criteria based on the Korean Classification of Disease 6 (KCD-6) and the International Classification of Disease 10 codes (ICD-10)

Categories	ICD-10
Achilles tendinopathy	S86.08 or M76.6, not S86.00
Cardiovascular diseases	I0X.X or I1X.X or I2X.X or I3X.X or I40.9 or I42.X or I45.X or I47.X or I48.X or I49.X or I50.X or I51.X or P29.X or I7X.X or Q2X.X or S06.X
Congenital respiratory diseases	E84.X or P26.8 or P26.9 or P27.X or P28.5 or Q32.X or Q33.X or Q34.X
Neuromusculoskeletal diseases	G04.X or G05.X or G06.X or G11.X or G12.X or G31.X or G37.X or G7X.X or G80.X or G8X.X or G90.X or G91.X or G92.X or G93.X or G94.X or G95.X or I61.X or I62.X or I63.X or I64.X or I67.X or I69.X or I82.X or I84.X or Q00.X or Q01.X or Q02.X or Q03.X or Q04.X or T90.X
Genetic metabolic diseases	E03.X or E2X.X or E7X.X or E80.X or E81.X or E82.X or E83.X or E84.X or E85.X
Immunodeficiency	B20.4 or B24.X or B25.X or B37.1 or B37.5 or B37.7 or B59.X or D8X.X
Neoplasms	C2X.X or C3X.X or C4X.X or C5X.X or C6X.X or C7X.X or C8X.X or C9X.X or D03.X or D05.X or D38.X or D4X.X or D76.X or Z51.X or Z54.X
Autoimmune diseases	M06.X or M08.X or M32.9 or M33.0 or M33.1 or M35.0 or M35.9
Transplant and complications	Z94.X or T85.X or T86.X