

**Table S1: Drugs used in treatment by MDR-TB patient group**

	MDR-TB, susceptible to FQ & INJ ("MDR-TB only") (N=4763) N (%)	MDR- TB+INJr (N=1130) N (%)	MDR-TB +FQr (N=426) N (%)	XDR-TB (N=405) N (%)*	TOTALS (N=6724) N (%)
<b>Group 1</b>					
Ethambutol	2401 (50)	315 (28)	117 (27)	123 (30)	2956 (44 )
Pyrazinamide	3436 (72)	609 (54)	226 (53)	225 (56)	4496(67)
Rifabutin	35 (1)	16 (1)	11 (3)	10 (2)	72 (1)
<b>Group 2</b>					
Any fluoroquinolone	4346 (91)	1043 (92)	309(73)	309 (76)	6007 (89)
Ciprofloxacin	228 (5)	68 (6)	15 (4)	6 (1)	317 (5)
Ofloxacin or levofloxacin <750mg	4237 (89)	1009 (89)	271 (64)	286 (71)	5803 (86)
Gatifloxacin, levofloxacin ≥750 mg, moxifloxacin or sparfloxacin	90 (4)	26 (3)	32 (7)	21 (5)	169 (5)
<b>Group 3</b>					
Any injectable drug	4119 (86)	942 (83)	324 (76)	334 (82)	5719 (85)
Any second-line injectable drug (i.e. excluding streptomycin)	3603 (76)	834 (74)	253 (59)	282 (69)	4972 (74)
Streptomycin	616 (13)	135 (12)	94 (22)	68 (17)	913 (14)
Amikacin or kanamycin	3306 (69)	251 (22)	214 (50)	132 (33)	3903 (59)
Capreomycin	481 (10)	633 (56)	63 (15)	164 (40)	1341 (20)
Enviomycin	20 (0.5)	8 (1)	3 (1)	4 (1)	35 (0.5)
<b>Group 4</b>					
Any Group 4 drug used	4531 (95)	1090 (96)	398 (93)	384 (95)	6403 (95)
Ethionamide	2279 (48)	253 (22)	79 (19)	97 (24)	2708 (40)
Prothionamide	1959 (41)	629 (56)	274 (64)	224 (55)	3086 (46)
Ethionamide or prothionamide	4158 (87)	864 (76)	344 (81)	318 (79)	5684 (85)
Cycloserine or terizidone	2760 (58)	1002 (89)	379 (89)	341 (84)	4482 (67)
p-aminosalicylic acid (PAS)	1682 (35)	520 (46)	271 (64)	242 (60)	2715 (40)
0 Group 4 drugs used	232 (5)	40 (4)	28 (7)	21 (5)	321 (5)
2 Group 4 drugs used	1406 (30)	510 (45)	134 (31)	126 (31)	2176 (32)
3 Group 4 drugs used	1334 (28)	393 (35)	231 (54)	196 (48)	2154 (32)
<b>Group 5</b>					
Any Group 5 drug used	828 (18)	500 (44)	155 (36)	172 (43)	1655 (25)
Amoxicillin/clavulanate	242 (5)	127 (11)	83 (19)	102 (25)	554 (8)
Clofazimine	246 (5)	78 (7)	28 (7)	23 (6)	375 (6)
Imipenem	6 (0.2)	0 (-)	0 (-)	1 (-)	7 (0.1)
Linezolid	15 (0.4)	6 (1)	8 (3)	9 (3)	38 (1)
Macrolides	147 (3)	51 (5)	88 (21)	58 (14)	344 (5)
Thiacetazone	311 (7)	315 (28)	13 (3)	38 (9)	677 (11)
0 Group 5 drugs used	3935 (83)	630 (56)	271 (64)	233 (57)	5069 (76)
1 Group 5 drug used	679 (14)	423 (37)	96 (23)	116 (29)	1314 (18)
2 Group 5 drugs used	126 (3)	63 (6)	48 (11)	51 (13)	288 (5)
3+ Group 5 drugs used	23 (0.5)	14 (1)	11 (3)	5 (1)	53 (1)
<b>Adjunctive Pulmonary Resection Surgery performed</b>	189 (4)	72 (6)	64 (15)	48 (11)	373 (6)

\* Percentages – rounded to nearest whole number unless 0.5 or less. May not add to 100% due to rounding.

MDR-TB = resistance to at least isoniazid **and** rifampicin

XDR-TB = MDR-TB plus resistance to any fluoroquinolone **and** any second-line injectable drug (amikacin/kanamycin and/or capreomycin)

MDR-TB+FQr = MDR-TB plus resistance to any fluoroquinolone, but susceptible to amikacin/kanamycin and/or capreomycin (at least one second-line injectable drug tested)

MDR-TB+INJr = MDR-TB plus resistance to amikacin/kanamycin and/or capreomycin, but susceptible to fluoroquinolones

MDR-TB, susceptible to FQ & INJ = MDR-TB, but susceptible to fluoroquinolones, amikacin/kanamycin and capreomycin (at least one second-line injectable drug tested)

Later-generation fluoroquinolone = gatifloxacin, levofloxacin, moxifloxacin, sparfloxacin

Macrolides = azithromycin, clarithromycin, roxithromycin

**Table S2: Patient series included in the analysis by MDR-TB patient group**

Authors of patient series (Reference)	Setting	MDR-TB+INJr	MDR-TB+FQr	XDR-TB	Total Analysed*
Avendaño M., Goldstein R. (24)	Canada	3	8	0	64
Burgos M. et al (25)	USA	1	0	0	45
Chan E.D. et al (26)	USA	22	11	9	102
Chiang C.Y. et al (27)	Taiwan, China	13	0	0	125
Cox H. et al (28)	Uzbekistan	21	0	0	77
DeRiemer K. et al (29)	Mexico	-	-	-	0
Escudero E. et al (30)	Spain	0	4	3	16
Geerligs W.A. et al (31)	Netherlands	3	0	0	43
Granich R.M. et al (32)	USA	3	3	1	18
Holtz T.H. et al (33)	S. Africa	19	0	30	1786
Kim D.H. et al (34)	Rep. of Korea	107	152	66	1354
Kim H-R. et al (35)	Rep. of Korea	24	39	28	210
Kwon Y.S. et al (36)	Rep. of Korea	14	40	26	155
Lemaine V. et al (37)	Latvia	444	18	47	992
Lockman S. et al (38)	Estonia	134	13	65	283
Masjedi M.R. et al (39)	Iran (Islamic Rep.)	0	4	16	22
Migliori G.B. et al (40)	Italy	16	9	12	86
Mitnick C.M. et al (41)	Peru	48	9	6	220
Munsiff S.S. et al (42)	USA	40	2	0	107
Narita M. et al (43)	USA	3	1	1	67
O’Riordan P. et al (44)	UK	0	0	0	28
Palmero D.J. et al (45)	Argentina	-	-	-	0
Park S.K. et al (46)	Rep. of Korea	20	26	11	142
Pérez-Guzmán C. et al (47)	Mexico	-	-	-	0
Quy H.T. et al (48)	Viet Nam	-	-	-	0
Schaaf H.S. et al (49)	S. Africa	2	0	0	2
Shin S.S. et al (50)	Russian Fed.	188	48	73	569
Shiraishi Y. et al (51)	Japan	0	0	0	1
Tupasi T.E. et al (52)	Philippines	2	37	10	169
Uffredi M-L. et al (53)	France	3	2	1	41
Yew W.W. et al (54),(55)	China (Hong Kong SAR)	-	-	-	0
<b>TOTAL</b>		<b>1130</b>	<b>426</b>	<b>405</b>	<b>6724</b>

\* Total analysed = patients whose MDR-TB strains were tested for susceptibility to at least one fluoroquinolone and at least one second-line injectable drug (amikacin/kanamycin and/or capreomycin).

MDR-TB: resistance to at least isoniazid **and** rifampicin

XDR-TB: At least MDR-TB plus resistance to any fluoroquinolone **and** any second-line injectable drug (amikacin/kanamycin and/or capreomycin)

MDR-TB+FQr = MDR-TB plus resistance to any fluoroquinolone, but susceptible to amikacin/kanamycin and/or capreomycin (and at least one second-line injectable drug tested)

MDR-TB+INJr = MDR-TB plus resistance to amikacin/kanamycin and/or capreomycin, but susceptible to fluoroquinolones

MDR-TB, susceptible to FQ & INJ = MDR-TB but susceptible to fluoroquinolones, and to amikacin/kanamycin and/or capreomycin (at least one second-line injectable drug tested)

**Table S3 - Odds of treatment success vs fail/relapse/death by specific regimens and MDR-TB patient group**

Regimen*	MDR-TB susceptible to FQ & INJ ("MDR-TB only")			MDR-TB+INJr			MDR-TB+FQr			XDR-TB			Total
	N	aOR	(95%CI)	N	aOR	(95%CI)	N	aOR	(95%CI)	N	aOR	(95%CI)	
Regimen 1	1803	1.0	(reference)	154	1.0	(reference)	97	1.0	(reference)	60	1.0	(reference)	3466
Regimen 2	148	<b>0.6</b>	<b>(0.4, 0.96)</b>	82	0.5	(0.2, 1.2)	12	<b>0.2</b>	<b>(0.1, 0.7)</b>	20	1.1	(0.3, 4.6)	316
Regimen 3	165	1.1	(0.7, 1.8)	381	<b>0.5</b>	<b>(0.3, 0.9)</b>	23	0.5	(0.2, 1.4)	81	0.6	(0.2, 1.5)	871
Regimen 4	500	0.8	(0.5, 1.2)	144	0.7	(0.3, 1.3)	67	1.7	(0.4, 6.6)	42	0.4	(0.1,1.3)	1363
Regimen 5	119	<b>0.5</b>	<b>(0.3, 0.8)</b>	23	0.6	(0.2, 1.5)	41	0.7	(0.3, 1.5)	39	1.0	(0.4, 2.9)	343
Regimen 6	68	<b>0.4</b>	<b>(0.2, 0.7)</b>	12	<b>0.1</b>	<b>(0.03, 0.4)</b>	13	1.4	(0.5, 4.4)	9	0.4	(0.1, 1.6)	254
Regimen 7	15	<b>0.1</b>	<b>(0.04, 0.2)</b>	3	0.2	(0.1, 1.1)	3	0.7	(0.1, 5.1)	8	3.8	(0.6, 23.2)	121

\* Regimens:

Regimen 1- ofloxacin or later-generation fluoroquinolone + kanamycin; no capreomycin

Regimen 2- ofloxacin or later-generation fluoroquinolone + kanamycin + capreomycin

Regimen 3- ofloxacin or later-generation fluoroquinolone + capreomycin; no kanamycin

Regimen 4- ofloxacin or later-generation fluoroquinolone, no capreomycin, no kanamycin

Regimen 5- No ofloxacin or later-generation fluoroquinolone, any second-line injectable drug

Regimen 6- No ofloxacin or later-generation fluoroquinolone, no second-line injectable drug, at least one Group 4 or Group 5 drug

Regimen 7- None of the above – first-line drugs only

aOR (adjusted odds ratios): odds ratios of treatment success (cure and completion) versus treatment failure or relapse adjusted for age, sex, HIV infection, past TB treatment, past MDR treatment (treatment for more than 1 month with two or more second line drugs), and extent of disease. If there were <15 observations no estimate was derived.

CI = confidence interval. Success = cure or treatment completion (see also Methods)

Total = all patients in data set who received this regimen regardless of treatment outcome

N = number of patients who received the regimen in the particular MDR-TB patient group and had an outcome success, treatment failure or relapse.

Later-generation fluoroquinolones = gatifloxacin, levofloxacin, moxifloxacin, sparfloxacin

Group 4 drugs =ethionamide, prothionamide, cycloserine, terizidone, and *p*-aminosalicylic acid (PAS)

Group 5 drugs = amoxicillin/clavulanate, macrolides (azithromycin, clarithromycin, roxithromycin), clofazimine, thiacetazone, imipenem, linezolid, high-dose isoniazid, and thioridazine.

