SUPPLEMENTARY DATA SECTION

Supplementary table S1. Association of 6-month culture conversion with injectable use at baseline

Primary exposure - outcome	n/N	Unadjusted analysis			Adjusted analyses			
		Percent culture converted (95% CI)	Crude OR (95% CI) [a] N=1125	p value	Model 1 *complete case*: adjusted OR (95% CI) [b] N=938	p value	Model 2 *missing indicator*: adjusted OR (95% CI) [c] N=1110	p value
All-oral regimen	526/625	83.8 (71.9 – 91.3)	Reference	0.24	Reference	0.40	Reference	0.31
Injectable-containing regimen	425/497	85.5 (81.0 – 89.1)	1.25 (0.87 – 1.81)		0.80 (0.48 – 1.34)		0.80(0.51– 1.24)	

OR odds ratio; CI confidence interval

[a] adjusted for clustering by site

[b] adjusted for clustering by country and *a priori* covariates (age, sex, year of enrolment, previous history of TB treatment, HIV status, baseline resistance profile, BMI<18.5, presence of extensive disease at baseline (cavitation and at least 3+ smear grade), inclusion of Group A drugs in the baseline regimen as binary variables (e.g. linezolid 0/1; bedaquiline 0/1 etc.), delamanid, at least 5 effective drugs in the baseline regimen, anaemia, hepatitis C seropositivity (complete case analysis: N=938)

[c] adjusted for clustering by country and *a priori* covariates (age, sex, year of enrolment, previous history of TB treatment, HIV status, baseline resistance profile, BMI<18.5, presence of extensive disease at baseline (cavitation and at least 3+ smear grade), inclusion of Group A drugs in the baseline regimen as binary variables (e.g. linezolid 0/1; bedaquiline 0/1 etc.), delamanid, at least 5 effective drugs in the baseline regimen, anaemia, hepatitis C seropositivity (including missing indicator variables: N=1110; *model dropped missing indicator for low BMI (n=10) as predicted outcome perfectly)

Supplementary table S2. Association by injectable agent in baseline injectable containing regimens with 6-month culture conversion compared to all-oral regimen

		Unadjusted analysis			Adjusted analyses			
By injectable agent at baseline	n/N	Percent culture converted (95% CI)	Crude OR (95% CI)[a] N=1125	p value	Model 1 *Complete case:* adjusted OR (95% CI)[b] N=938	p value	Model 2 *Missing indicator:* adjusted OR (95% CI)[c] N=1110	p value
No SLI	522/623	83.8 (71.9 – 91.2)	Reference	0.12	Reference	0.44	Reference	0.24
Amikacin	118/138	85.5 (81.1 – 89.0)	1.05(0.58 – 1.92)		0.72 (0.33 – 1.58)		0.65 (0.33 – 1.27)	
Kanamycin	62/69	89.9 (80.8 – 94.9)	2.68 (1.12 – 6.43)		1.62 (0.51 – 5.21)		1.54 (0.59 – 4.00)	
Capreomycin	245/290	84.5 (76.1 – 90.3)	1.11 (0.72 – 1.71)		0.74 (0.42 – 1.33)		0.72 (0.43 – 1.20)	

OR odds ratio; CI confidence interval

[a] adjusted for clustering by site

[b] adjusted for clustering by country and *a priori* covariates (age, sex, year of enrolment, previous history of TB treatment, HIV status, baseline resistance profile, BMI<18.5, presence of extensive disease at baseline (cavitation and at least 3+ smear grade), inclusion of Group A drugs in the baseline regimen as binary variables (e.g. linezolid 0/1; bedaquiline 0/1 etc.), delamanid, at least 5 effective drugs in the baseline regimen, anaemia, hepatitis C seropositivity (complete case analysis: N=941)

[c] Mixed effects logistic regression model adjusted for clustering by country and *a priori* covariates (age, sex, year of enrolment, previous history of TB treatment, HIV status, baseline resistance profile, BMI<18.5, presence of extensive disease at baseline (cavitation and at least 3+ smear grade), inclusion of Group A drugs in the baseline regimen as binary variables (e.g. linezolid 0/1; bedaquiline 0/1 etc.), delamanid, at least 5 effective drugs in the baseline regimen, anaemia, hepatitis C seropositivity (including missing indicator variables: N=1115; *model dropped missing indicator for low BMI (n=10) as predicted outcome perfectly)

Supplementary table S3. Assessing for effect modification of the association of injectable use at baseline and 6-month culture conversion by baseline resistance to any injectable (N=1064*)

Effect modification by baseline resistance to any injectable	n/N	Unadjusted analysis: Percent culture converted (95% CI)	Unadjusted analysis: Crude OR (95% CI)[a] N=1069	Unadjusted analysis: p value	Adjusted analyses: Model 1 *Complete case:* aOR (95% CI)[b] N=902	Adjusted analyses: p value	Adjusted analyses: Model 2 *Missing indicator:* aOR (95% CI)[c] N=1050^	Adjusted analyses: p value
No baseline resistance to any injectable (N=562)								
All-oral regimen	221/257	86.0 (64.3 - 95.4)	Reference		Reference		Reference	
Injectable-containing regimen	262/305	85.9 (83.2 - 88.3)	1.27 (0.73 – 2.24)	LRT for effect modification: 0.61	0.69 (0.31 – 1.53)	LRT for effect modification : 0.69	0.64 (0.32 – 1.27)	LRT for effect modification : 0.56
Evidence of baseline resistance to an injectable (N=502)								
All-oral regimen	269/321	82.5 (73.4 - 89.0)	Reference		Reference		Reference	
Injectable-containing regimen	153/181	84.5 (72.7 - 91.8)	1.05 (0.62 – 1.77)		0.85 (0.44 – 1.65)		0.83 (0.46 – 1.49)	

OR odds ratio; CI confidence interval *N=56 were missing data on baseline resistance to injectable agent and were excluded from this analysis

[a] adjusted for clustering by site

[b] adjusted for clustering by country and *a priori* covariates (age, sex, year of enrolment, previous history of TB treatment, baseline resistance profile, HIV status, BMI<18.5, presence of extensive disease at baseline (cavitation and at least 3+ smear grade), inclusion of Group A drugs in the baseline regimen as binary variables (e.g. linezolid 0/1; bedaquiline 0/1; fluoroquinolone 0/1, delamanid 0/1), at least 5 effective drugs in the baseline regimen, anaemia, hepatitis C seropositivity (complete case analysis)

[c] Mixed effects logistic regression model adjusted for clustering by country and *a priori* covariates (age, sex, year of enrolment, previous history of TB treatment, baseline resistance profile, HIV status, BMI<18.5, presence of extensive disease at baseline (cavitation and at least 3+ smear grade), inclusion of Group A drugs in the baseline regimen as binary variables (e.g. linezolid 0/1; bedaquiline 0/1; fluoroquinolone 0/1, delamanid 0/1), at least 5 effective drugs in the baseline regimen, anaemia, hepatitis C seropositivity (including missing indicator variables: N=1050^; model dropped missing indicator for low BMI (n=9) as predicted outcome perfectly and dropped missing indicator for hepatitis C seropositivity (n=5))

Supplementary table S4: Assessing for effect modification of the association of injectable use and 6-month culture conversion by HIV status (N=1104*)

Effect modification by HIV status	n/N	Unadjusted analysis: Percent culture converted (95% CI)	Unadjusted analysis: Crude OR (95% CI)[a] N=1104	p value	Adjusted analyses: Model 1 *Complete case:* aOR (95% CI)[b] N=938	p value	Adjusted analyses: Model 2 *Missing indicator:* aOR (95% CI)[c] N=1094	p value	Adjusted analyses: Model 3 *Deaths & losses excluded:* aOR (95% CI)[d] N=1025	p value
HIV negative (N=986)										
All-oral regimen	463/534	86.7 (76.3 – 93.0)	Reference		Reference		Reference		Reference	
Injectable-containing regimen	390/452	86.3 (81.7 – 89.9)	1.17 (0.79 – 1.74)	0.39^	0.74 (0.43 – 1.25)	0.23^	0.68 (0.43 – 1.09)	0.17^	0.50 (0.28 – 0.91)	0.18^
HIV positive (N=118)										
All-oral regimen	58/88	65.9 (58.1 – 72.9)	Reference		Reference		Reference		Reference	
Injectable-containing regimen	24/30	80.0 (69.2 – 87.7)	1.92 (0.65 – 5.63)		1.88 (0.41– 8.64)		1.63 (0.47 – 5.62)		1.66 (0.30 – 9.27)	

OR odds ratio; CI confidence interval *N=16 were missing data on baseline HIV status

[a] adjusted for clustering by country

[b] adjusted for clustering by country and *a priori* covariates (age, sex, year of enrolment, previous history of TB treatment, baseline resistance profile, BMI<18.5, presence of extensive disease at baseline (cavitation and at least 3+ smear grade), inclusion of Group A drugs in the baseline regimen as binary variables (e.g. linezolid 0/1; bedaquiline 0/1 etc.), delamanid, baseline resistance to any injectable agent, at least 5 effective drugs in the baseline regimen, anaemia, hepatitis C seropositivity (complete case analysis: N=905)

[c] Mixed effects logistic regression model adjusted for clustering by country and *a priori* covariates (age, sex, year of enrolment, previous history of TB treatment, baseline resistance profile, BMI<18.5, presence of extensive disease at baseline (cavitation and at least 3+ smear grade), inclusion of Group A drugs in the baseline regimen as binary variables (e.g. linezolid 0/1; bedaquiline 0/1 etc.), delamanid, baseline resistance to any injectable agent, at least 5 effective drugs in the baseline regimen, anaemia, hepatitis C seropositivity (including missing indicator variables: N=1099; model dropped missing indicator for low BMI (n=10) as predicted outcome perfectly)

[d] Mixed effects logistic regression model adjusted for clustering by country and *a priori* covariates (age, sex, year of enrolment, previous history of TB treatment, baseline resistance profile, BMI<18.5, presence of extensive disease at baseline (cavitation and at least 3+ smear grade), inclusion of Group A drugs in the baseline regimen as binary variables (e.g. linezolid 0/1; bedaquiline 0/1 etc.), delamanid, baseline resistance to any injectable agent, at least 5 effective drugs in the baseline regimen, anaemia, hepatitis C seropositivity (including missing indicator variables having dropped N=69 deaths and losses: N=1025; model dropped missing indicator for low BMI (n=10) as predicted outcome perfectly)

^ Likelihood ratio test for effect modification

Supplementary table S5. Characteristics of patients initiating a bedaquiline and/or delamanid-containing regimen with a baseline culture and known HIV status, from April 1, 2015 – March 31, 2017 (N=1104)

	Stratified by HIV status and Injectable use at baseline			
	HIV positive (N=118)		HIV negative (N=986)	
Characteristic	All-oral regimen (N=88)	Injectable-containing regimen (N=30)	All-oral regimen (N=534)	Injectable-containing regimen (N=452)
	n (%) [a]	n (%) [a]	n (%) [a]	n (%) [a]
Demographic				
Median age at treatment initiation (range)	39 (24 - 76)	39.5 (26 – 53)	36 (15 - 69)	34 (15 - 67)
Female	23 (25.8)	8 (26.7)	178 (33.1)	156 (34.5)
Country				
Armenia	4 (5.5)	3 (11.1)	32 (6.0)	35 (7.7)
Bangladesh	0 (0)	0 (0)	143 (26.6)	16 (3.5)
Belarus	5 (5.6)	3 (10.0)	29 (5.4)	16 (3.5)
Ethiopia	1 (1.1)	7 (23.3)	2 (0.4)	6 (1.3)
Georgia	5 (5.6)	8 (26.7)	62 (11.6)	105 (23.2)
Haiti	1 (1.1)	0 (0)	1 (0.2)	0 (0)
Indonesia	0 (0)	0 (0)	17 (3.2)	3 (0.7)
Kazakhstan	1 (1.1)	0 (0)	136 (25.5)	83 (18.4)
Kenya	0 (0)	0 (0)	1 (0.2)	2 (0.4)
Kyrgyzstan	0 (0)	0 (0)	4 (0.8)	4 (0.9)
Lesotho	56 (62.9)	7 (23.3)	15 (2.8)	5 (1.1)
Myanmar	3 (3.7)	0 (0)	10 (1.9)	1 (0.2)
North Korea	0 (0)	0 (0)	0 (0)	0 (0)
Pakistan	1 (1.1)	0 (0)	55 (10.2)	108 (23.9)
Peru	2 (3.4)	2 (6.7)	24 (4.5)	64 (14.2)
South Africa	9 (10.1)	0 (0)	3 (0.6)	0 (0)
Vietnam	0 (0)	0 (0)	0 (0)	4 (0.4)

Calendar year of study recruitment				
2015	3 (3.4)	4 (13.3)	41 (7.6)	47 (10.4)
2016	18 (20.2)	16 (53.3)	149 (27.7)	209 (46.2)
2017	51(58.4)	7 (23.3)	242 (45.0)	149 (33.0)
2018	16 (18.0)	3 (10.0)	106 (19.7)	47 (10.4)
Comorbidities				
Diabetes mellitus (HIV+ N=86; HIV- N=970) [a]	5 (8.6)	0 (0)	86 (16.6)	47 (10.5)
Hepatitis B serology positive (HIV+ N=116; HIV- N=982)	9 (10.3)	3 (10.0)	28 (5.2)	6 (1.3)
Hepatitis C serology positive (HIV+ N=115; HIV- N=983)	14 (16.3)	14 (46.7)	67 (12.5)	49 (10.8)
At least one other co-morbidity [b]	12 (13.5)	7 (23.3)	61 (11.3)	35 (7.7)
Tuberculosis-related				
Prior tuberculosis treatment				
No prior treatment	25 (28.1)	7 (23.3)	29 (6.8)	47 (11.6)
Prior treatment only with first line drugs	27 (30.3)	2 (6.7)	68 (15.9)	26 (6.4)
Prior treatment with second line drugs	36 (40.9)	21 (70.0)	332 (77.4)	332 (82.0)
Cavitary disease and smear status (N=977) [c]	37 (43.5)	12 (56.7)	352 (66.7)	317 (71.6)
No cavitary disease, smear status <3+	25 (40.3)	8 (40.0)	134 (27.7)	124 (30.2)
Cavitary disease, smear status <3+	25 (40.3)	7 (35.0)	260 (53.6)	227 (55.2)
No cavitary disease, smear status 3+	6 (9.7)	2 (10.0)	16 (3.3)	16 (3.9)
Cavitary disease, smear status 3+	6 (9.7)	3 (15.0)	74(15.4)	44 (10.7)
Baseline resistance profile [d]				
MDR/RR-TB without injectable or fluoroquinolone resistance	34 (38.2)	3 (10.0)	126 (23.6)	60 (13.3)
MDR/RR-TB without testing for injectable or fluoroquinolone resistance	19 (21.4)	2 (6.7)	25 (4.7)	4 (0.9)
MDR/RR-TB with any injectable resistance	9 (10.1)	2 (6.7)	63 (11.8)	29 (6.4)
MDR/RR-TB with any fluoroquinolone resistance	7 (7.9)	13 (43.3)	87 (16.2)	221 (48.9)
XDR-TB	19 (21.6)	9 (30.0)	223 (41.8)	134 (29.7)
No result for MDR/RR-TB	0 (0)	1 (3.3)	10 (1.9)	4 (0.9)
Anaemia (haemaglobin<10.0 g/dL) (HIV+ N=108; HIV- N=951)	29 (35.4)	6 (23.1)	62 (12.1)	38 (8.7)
Body mass index <18.5 (HIV+ N=115; HIV- N=979)	43 (50.0)	12 (41.4)	242 (45.6)	185 (41.3)
Baseline regimen characteristics				

Drugs comprising the baseline regimen				
Bedaquiline	31 (35.2)	18 (60.0)	389 (72.9)	363 (80.3)
Delamanid	61 (69.3)	13 (43.3)	238 (44.6)	101 (22.4)
Bedaquiline and delamanid	4 (4.5)	1 (3.3)	93 (17.3)	12 (2.7)
Moxifloxacin or levofloxacin	65 (73.0)	11 (36.7)	327 (61.0)	242 (53.5)
Linezolid	39 (44.3)	27 (90.0)	439 (82.3)	401 (88.7)
Clofazimine	48 (55.1)	25 (83.3)	409 (76.8)	317 (70.1)
Cycloserine	62 (69.7)	20 (66.7)	329 (61.9)	320 (70.8)
Imipenem/cilastatin or meropenem/cilastatin	11 (12.4)	5 (16.7)	177 (32.9)	47 (10.4)
Prothionamide or ethionamide	43 (48.3)	12 (40.0)	109 (20.3)	149 (33.0)
Median number of drugs included in baseline regimen (interquartile range)	6 (5 - 6)	6 (6 – 7)	6 (5 - 6)	6 (6 - 7)
Median number of likely effective drugs included in baseline regimen (interquartile range; range) [e]	5 (4 - 6)	5 (4 – 6)	4 (4 - 5)	5 (4 - 5)
At least 5 effective drugs included in the baseline regimen	60 (68.2)	20 (66.7)	237 (44.4)	249 (55.1)
HIV-related				
Baseline CD4 count (cell / mm^3)	195 (60 – 308)	221 (86 – 411)		
On ART at baseline (N=113: no injectable-84, on injectable-29)	70 (83.3)	23 (79.3)	-	-
Time on ART (years) median (IQR) (N=92: no injectable-70, on injectable-22)	1.7 (0.2 – 6.5)	1.7 (0.5 – 4.0)	-	-
Lost to follow-up	4/88 (4.6)	1/30 (3.3)	14/534 (2.6)	8/452 (1.8)
Died	12/88 (13.6)	2/30 (6.7)	15/534 (2.8)	11/452 (2.4)

RR/ MDR-TB rifampicin resistance / multidrug resistant tuberculosis; XDR-TB extensively drug-resistant TB

[a] Diabetes determined based on laboratory results (i.e., random blood sugar > 200 mg/dL or 11.1 (mmol/L); fasting blood sugar ≥ 126 mg/dL and a HbA1c result ≥ 6.5%; or two HbA1c results ≥ 6.5%) or clinician report

[b] Co-morbidity other than HIV, hepatitis B, hepatitis C and diabetes mellitus

[c] Clinical phenotype of extensive disease defined by a baseline sputum smear grade ≥3+ and presence of cavitation on chest radiography

[d] Resistance profile categories are mutually exclusive

[e] A drug was considered likely effective if all reported testing to that drug confirmed susceptibility or no resistance to the drug was reported and the patient had not previously received the drug for one month or more. Otherwise the drug was not considered likely effective.