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## Corrigendum

# Corrigendum to “Correlating *rrs* and *eis* promoter mutations in clinical isolates of *Mycobacterium tuberculosis* with phenotypic susceptibility levels to the second-line injectables” [Int. J. Mycobacteriol. 5 (1) 2016 1–6] ☆



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The authors regret that

There is a column shift in Table 1, WT row i.e. Total No. of isolates were shifted to LPA; No. Of isolates to Total no. of isolates; AMK MICs are shifted to No. of isolates.

Unfortunately, we have realized that there are typographical errors in the final published version of the manuscript. We have highlighted the corrected sentences.

(a) In Materials and Methods under section of Quantitative DST:

Six concentrations of KAN and seven concentrations of AMK and CAP were used to establish the MICs for the *M. tuberculosis* isolates included in this study.

This should be corrected to

Six concentrations of KAN and AMK; seven concentrations of CAP were used to establish the MICs for the *M. Tuberculosis* isolates included in this study.

(b) In Materials and Methods under section of setting and ethical approval:

Written consent was waived for all participants as the study was carried out on 90 archived isolates for which pyrosequencing, GenoTypeMTBDRsl assay (version 1) and MGIT960 DST (utilizing WHO-approved critical concentrations) were previously performed.

This should be changed to

A written consent was waived for all participants as the study was carried out on 90 archived isolates, for which GenoTypeMTBDRsl assay (version 1) and MGIT960 DST (utilizing WHO-approved critical concentrations) had been previously performed. Pyrosequencing was performed on 20 representative isolates.

(c) In Results:

Titled “Table 1: Mutations found within *Mycobacterium tuberculosis* clinical isolates and their associated minimum inhibitory concentrations against the second-line injectables” in the column titled CAP, in the row G-10A,

0.125 should be corrected to 1.25

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(d) In Results; under section

Phenotypic DST and MIC results:

Sixty phenotypically XDR-TB strains were included in this study. Eleven (found to have *eis* promoter mutations) were resistant to KAN at the critical concentration, but sensitive to AMK and CAP. Forty-eight isolates (determined to have the *rrs* A1401G mutation) were found to be resistant to KAN, AMK, and CAP. One isolate (with WT sequences for both the *rrs* and *eis* promoter) was also resistant to KAN, AMK, and CAP at the critical concentration. Thirty isolates were pan susceptible to all drugs tested. The MICs of AMK, KAN, and CAP for all isolates are shown in Table 1.

This should be changed to

Phenotypic results:

Of the eleven found to have *eis* promoter mutations eight were resistant to KAN at the critical concentration, but sensitive to AMK and CAP whereas, three were sensitive to AMK, KAN and CAP at critical concentration. Forty-eight isolates (determined to have the *rrs* A1401G mutation) were found to be resistant to KAN, AMK, and CAP. One isolate (with WT sequences for both the *rrs* and *eis* promoter) was also resistant to KAN, AMK, and CAP at the critical concentration. Thirty isolates were pan susceptible to all drugs tested.

Genotypic results:

The agreement between the GenoType MTBDRsl assay results (based solely upon the presence of resistance-associated *rrs* mutations) and the phenotypic DST was 97% for AMK, 96% for KAN, and 86% for CAP

Should be changed to

The agreement between the GenoType MTBDRsl assay results (based solely upon the presence of resistance-associated *rrs* mutations) and the phenotypic DST was 98.8% for AMK and CAP; 90% for KAN.

(e) At all instances of 0.625 for KAN and CAP; 0.25 for AMK the  $\leq$  symbol needs to be included before the actual number, that is, 0.625 needs to be changed to  $\leq 0.625$  and 0.25 should be changed to  $\leq 0.25$ .

Please also include this symbol  $\leq$  in Table 1 (see below)

(f) In Results; Correlation of KAN MICs with Resistance-Associated Mutations

Should be changed to

Correlation of AMK, KAN and CAP MICs with Resistance-Associated Mutations.

Under the same section Correlation of KAN MICs with Resistance-Associated Mutations

Isolates harboring the *rrs* A1401G mutation had AMK, KAN and CAP MICs of >40, >20, and 5–15 mg/L, respectively, whereas isolates with *eis* promoter mutations were found to have AMK, KAN and CAP MICs ranging from 0.25–1.0, 5.0–10, and 0.625–2.5 mg/L, respectively (Table 1).

Should be changed to

Isolates harboring the *rrs* A1401G mutation had AMK, KAN and CAP MICs of >40, >20, and 5–15 mg/L, respectively, whereas isolates with *eis* promoter mutations were found to have AMK, KAN and CAP MICs ranging from  $\leq 0.25$ –1.0 mg/L,  $\leq 0.625$ –10 mg/L, and  $\leq 0.625$ –2.5 mg/L, respectively (Table 1).

**Table 1 – Mutations found within *Mycobacterium tuberculosis* clinical isolates and their associated MICs against the second line injectables.**

Mutation	LPA <sup>a</sup>	Total No. of Isolates	No. of Isolates	MIC (mg/L)		
				AMK	KAN	CAP
<i>rrs</i>						
A1401G	MUT1	48	25	>40	>20	5.0
			20	>40	>20	10
			3	>40	>20	15
<i>eis</i>						
G-10C	Wild-type	3	1	0.5	2.5	$\leq 0.625$
			1	$\leq 0.25$	5.0	$\leq 0.625$
			1	0.5	5.0	$\leq 0.625$
G-10A	Wild-type	3	1	1.0	5.0	2.5
			1	1.0	2.5	1.25
			1	0.5	10	$\leq 0.625$
C-12T	Wild-type	2	1	0.5	5.0	$\leq 0.625$
			1	$\leq 0.25$	5.0	$\leq 0.625$
C-14T	Wild-type	3	1	$\leq 0.25$	10	$\leq 0.625$
			1	1.0	10	1.25
			1	$\leq 0.25$	$\leq 0.625$	$\leq 0.625$
WT						
WT <sup>b</sup>		1	1	4.0	10	5.0
WT		30	25	$\leq 0.25$	$\leq 0.625$	$\leq 0.625$
			5	0.5	$\leq 0.625$	1.25

Note: AMK = amikacin; CAP = capreomycin; KAN = kanamycin; WT = wild type.

a Line probe assay.

b One isolate, characterized as WT, but resistant to AMK, KAN, and CAP at their respective break points, could contain a mutation in gene regions not assessed by MTBDRsl or pyrosequencing.

The *eis* promoter mutations correlated with low-level AMK and CAP resistance, and moderate-level KAN resistance.

Should be changed to

**The *eis* promoter mutations correlated with low-level AMK and CAP resistance, and low to moderate-level KAN resistance.**

(g) In Discussion;

The *eis* promoter mutations C-14T and G-10A corresponded to low- or moderate-level resistance to KAN, with KAN MICs generally ranging from 2.5 µg/mL to 10 µg/mL.

This should be changed to

**The *eis* promoter mutations C-14T and G-10A corresponded to low- or moderate-level resistance to KAN, with KAN MICs ranging from ≤ 0.625 mg/L to 10 mg/L.**

(h) Heading of the [Table 2](#) i.e. Table 2 – Pyrosequencing results for 20 *Mycobacterium tuberculosis* clinical isolates with wild-type MTBDRsl assay results Should be Changed to Table 2: Pyrosequencing results for 20 *Mycobacterium tuberculosis* clinical isolates with Genotype MTBDRsl assay results.

**Table 2 – Pyrosequencing results for 20 *Mycobacterium tuberculosis* clinical isolates with Genotype MTBDRsl assay results.**

No. of Isolates	GenoType MTBDRsl assay	DST			PSQ
		AMK	KAN	CAP	
8	WT	Susceptible	Resistant	Susceptible	<i>eis</i> mutation
3	WT	Susceptible	Susceptible	Susceptible	<i>eis</i> mutation
4	WT	Susceptible	Susceptible	Susceptible	WT
1	WT	Resistant	Resistant	Resistant	WT
4	<i>rrs</i> -MUT1	Resistant	Resistant	Resistant	A1401G

Note: AMK = amikacin; CAP = capreomycin; DST = drug-susceptibility testing; KAN = kanamycin; PSQ = pyrosequencing; WT = wild type.