

## Corrigendum

# Corrigendum to “Application of PK/PD Modeling in Veterinary Field: Dose Optimization and Drug Resistance Prediction”

**Ijaz Ahmad,<sup>1,2</sup> Lingli Huang,<sup>1</sup> Haihong Hao,<sup>3</sup> Pascal Sanders,<sup>4</sup> and Zonghui Yuan<sup>1,3</sup>**

<sup>1</sup>*National Reference Laboratory of Veterinary Drug Residues (HZAU) and MAO Key Laboratory for Detection of Veterinary Drug Residues, Huazhong Agricultural University, Wuhan, Hubei 430070, China*

<sup>2</sup>*The University of Agriculture Peshawar, Khyber Pakhtunkhwa 25130, Pakistan*

<sup>3</sup>*MOA Laboratory for Risk Assessment of Quality and Safety of Livestock and Poultry Products, Huazhong Agricultural University, Wuhan, Hubei 430070, China*

<sup>4</sup>*Laboratory of Fougères, French Agency for Food, Environmental and Occupational Safety, 94701 Maisons-Alfort Cedex, France*

Correspondence should be addressed to Ijaz Ahmad; [ijaz\\_pharma@yahoo.com](mailto:ijaz_pharma@yahoo.com)

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In the article titled “Application of PK/PD Modeling in Veterinary Field: Dose Optimization and Drug Resistance Prediction” [1], there was an error in Table 3. Some antibiotic groups were not correctly classified in Table 3 as raised by Benini and Fumagalli in [2]. The correct statement is that ketolides exhibit concentration-dependent killing and have prolonged persistence and the PK/PD indices responsible for efficacy are AUC<sub>24</sub>/MIC. Clindamycin and vancomycin exhibit time-dependent killing and have moderate to prolonged persistence and PK/PD indices responsible for efficacy are AUC<sub>24</sub>/MIC. The corrected table is shown as follows (see Table 3).

TABLE 3: Classification of antibacterial drugs according to pharmacokinetics and pharmacodynamics indices: different groups of antibacterials, their bacterial effect, and PK/PD integration most closely related their clinical effect.

Group	Drugs	PK/PD indices	Activity	Bacterial effect	Duration of PAE	References
1	Aminoglycosides	$C_{max}/MIC$ or $AUC/MIC$	Primarily bactericidal	Concentration-dependent	Prolonged	Martinez et al., 2014 [17]
	Fluoroquinolone	$AUC/MIC$	Bactericidal	Concentration-dependent	Prolonged	Martinez et al., 2014 [17]
	Enrofloxacin e	$C_{peak}/MIC/AUC : MIC$	Bacteriostatic bactericidal	Concentration-dependent		Balaje et al., 2013 [49]
	Azithromycin	$AUC_{24}/MIC$				
	Tetracycline	$AUC_{24}/MIC$	Bacteriostatic	Time-dependent	Prolonged	Martinez et al., 2014 [17]
	Colistin	$AUC/MIC$		Concentration-dependent	Short	Hengzhuang et al., 2012 [59]
	Metronidazole	$C_{peak}/MIC/AUC : MIC$		Concentration-dependent		Paul et al., 2005 [60]
2	Ketolides	$AUC/MIC$	Bacteriostatic or bactericidal	Concentration-dependent	Prolonged	Martinez et al., 2014 [17]
	Penicillins Carbapenems Cephalosporins	$\%T > MIC$	Bactericidal	Time-dependent	Non or brief against Gram-negative and prolonged against Gram-positive	Martinez et al., 2014 [17]
	Lincosamides (clindamycin)	$AUC/MIC$	Bacteriostatic	Time-dependent	Brief	Martinez et al., 2014 [17]
	Trimethoprim	$\%T > MIC$	Bacteriostatic alone and bactericidal with combination	Time-dependent	Brief	Martinez et al., 2014 [17]
	Glycopeptides (vancomycin)	$AUC/MIC$	Bactericidal	Time-dependent	Prolonged	Martinez et al., 2014 [17]

## References

- [1] I. Ahmad, L. Huang, H. Hao, P. Sanders, and Z. Yuan, "Application of PK/PD modeling in veterinary field: dose optimization and drug resistance prediction," *BioMed Research International*, vol. 2016, Article ID 5465678, pp. 1-12, 2016.
- [2] A. Benini and G. F. Fumagalli, "Comment on 'application of PK/PD modeling in veterinary field: Dose optimization and drug resistance prediction,'" *BioMed Research International*, vol. 2017, pp. 1-2, 2017.