



SDI Review Form 1.6

Journal Name:	British Microbiology Research Journal
Manuscript Number:	2014_BMRJ_12342
Title of the Manuscript:	A cross sectional study on prevalence of antibiotic resistance and efflux pump inhibiton of isolated cultures from poultry, dairy farms and MTCC strains from reservoirs
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	The present study aims to evaluate the role of efflux pumps in fluoroquinolone resistance by using efflux pump inhibitors. The subject is very interesting but the number of bacterial strains isolated from the different places are absolutely insufficient to draw general conclusions. The places of isolation are heterogeneous and the identification of bacteria reveals different species with very different characteristics. The identification of field strains is at genus level and relatively to the study on the susceptibility to antimicrobial agents are not indicated breakpoints of reference for the different species. For the reasons listed above, I think that the article can not be accepted as original research but only as short research. It is clear that the structure of the article will be modified on the basis of the instructions for authors.	Heterogeneous samples was carried out with an aim to check if, isolates from poultry and dairy possesses more resistance to antibiotics as compared to reservoirs. Done
Minor REVISION comments	Abbreviation Row 35: Please replace Celcius with Celsius Materials and method It is unclear the choice of bacterial species collected by Microbial Type Culture Collection Institute of Microbial Technology and National Dairy Research Institute. It highlights a disparity between the Gram-positive (n.13) and Gram-negative (n.6) bacteria collected from the reference centers. How were stored MTCC and NCDC strains? How were revitalized? It is not clear the reason for which were chosen places of bacteria isolation. Also, if you have used selective media for the bacteria isolation, what criteria were they chosen? Detailed in material and method	Done All the bacterial strains collected from reference centres were different in their isolation source. Strains were revitalized as per standard protocols supplied by IMTECH and NCDC respectively.



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	Please indicate if you have made a survey on the use of antibiotics on farms sampled. Farm owners informed that antibiotics are routinely given along with feeds. Row 86: Please correct the method of culturing and isolation. The bibliographic reference to the techniques of culturing and isolation (19) is not appropriate. It is referred to the method for the determination of sensitivity to antibiotics. Done In addition to selective media isolation, other methods have been used for bacterial identification? Please you should specify them. Detailed in material and method Row 90: Please make uniform indications °C, e.g. 37 °C Done Rows 94-96: Why did you use those antibiotics? They were the ones most commonly used on farms? First half of the study was carried out on various classes of antibiotics attacking different target sites in bacteria. The second half of the study was aimed for fluoroquinolone resistance as it is a commonly available resistance in bacteria as was confirmed in present study also. Row 97: Please write 10 µg/mL. Done Row 98: Please add CFU/mL. Done Row 99: Please replace Macfar Land with McFarland; Please make uniform indications °C. Done Row 101: Please enter the zones diameter for the interpretation of the antibiogram; e.g in Reference, Performance standard for antimicrobial disk and dilution susceptibility test for bacteria isolated from animals. Done Row 113: Please write 10 µg/mL. Done Row 118: Please enter the bibliographic reference for the MIC breakpoints interpretation. Done Results Row 131: Please replace cocci with colonies Done Row 132: Please replace cocci with cocci Done In the results have been shown resistant strains but no reference	
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	is made to brekpoints used to assess the sensitivity or resistance. In addition, these are different in relation to the bacterial species tested and its origin (animal or human). Done Row 168: Please separates “up” from “to”. Done Row 176: Please write µg/mL. Done The tables are too large. Please, you can group the results by bacterial species or for isolation sites. Done Discussion Rows 209-210: The sentence “Antibiotics are routinely used along with growth promoters in poultry and cattle feed” refers to the situation in Europe, but the research has been done in India. Please replace the previous sentence with one referring to India. Done Row 227: Please make uniform the terms "Piperine" and "Plumbagin" in the text, or initial letter in uppercase or lowercase. Done References Please reduce the number of references to the essentials in relation to a potential change to a short research.	
<u>Optional/General</u> comments	I suggest the same study carried out on a single bacterial specie isolated from a single source. We recommend using robustt techniques for bacterial identification and breakpoints approved for that specie isolated from that particular organism (animal or human).	