

### **Publication Audit and importance of Online Medical Journals**

I have read with interest your timely Editorial on “Publication Audit and the importance of Online Medical Journals “ in the January-March 2005 issue of Pakistan Journal of Medical Sciences Vol. 21 No.1. That was great. I wish we — Iran and Pakistan — will have closer cooperation in the field of medical Journalism in near future.

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### **Ofloxacin: laboratory evaluation of the antibacterial activity of 34 brands representing 31 manufacturers available in Pakistan**

This article published in your journal (Pak J Med Sci 2004;20(4):349-356) was distributed widely by “The Network”.

I would like to mention that neither the methodology of the above article is sound, nor the conclusion. First of all, the discs were prepared by the researchers and had no quality control. The dilution of drug is mentioned as 200 mg to 25 mg whereas it is 400µg to 50 µg per disc. That is the amount of drug in 0.02ml of the solution added to each disc. Secondly no conclusion may be drawn by one experiment only. The experiment had to be repeated several times with the same batch of the discs prepared and also with different batches of discs. Before starting the experiment sufficient number of discs had to be prepared in several groups / batches and then had to be selected randomly for the experiment.

The conclusion that the drugs were substandard or counterfeit is nullified by the results showing good antibacterial activity of same

product against Staph. aureus and Proteus but not against E. Coli. This indicates substandard preparation of the discs. The only conclusion which can be drawn from the study is, that the quality of drugs manufactured by local companies is not that poor as thought by our professionals. I think the experiment needs to be repeated properly before circulating the copies of the article.

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### **Author's response:**

I was very pleased to note the keen interest taken by Professor S.Q.Nizami in our paper evaluating the antibacterial activity of 34 brands of Ofloxacin available in Pakistan, which appeared in Pak J Med Science 2004;20(4):349-356. I appreciate the learned Professor's comments on the methodology, the conclusions and forward the following dialogue:

1. The article was a part of my dissertation, an additional requirement for an M.Sc. degree in Microbiology, in which I also included an ATCC Quinolone-sensitive *Pseudomonas aeruginosa* strain along with the *E.coli*, *Proteus* and *Staph* targets quoted in the paper, and also conducted MIC's which afforded supplementary data between the dilutions used. The thesis (available for consultation in the Jinnah University for Women library) was peer reviewed, and the fractional extract before submission for publication was incidentally also peer-reviewed by The NetWork through the Pakistan Medical Research Council in Islamabad, which consulted three referees, one of whom, I am given to understand, was an expert at AKUH, and their suggestions incorporated in the final manuscript.

Pakistan Journal of Medical Sciences must have also subjected the paper to peer-scrutiny before it went to press.

2. The 29 Ofloxacin brands each in 200mg tablet form, and 5 pre-mixed 100ml infusions were purchased by the NetWork for Consumer Protection in Islamabad, who dispatched portions of each of these by courier to me, and retained the remaining parts. Ample discs of each sample were carefully prepared as per NCCLS instructions in separate batches, and those used for challenging the target bacteria were randomly selected and set up on duplicate plates of culture; standard commercial Ofloxacin 10µg discs were included in each dish as known control.
3. While 28 of the 29 representative tablets gave either minor or moderate variations in the resultant zone diameters of inhibition, 4 of the 5 infusions afforded hardly any effect, but the 5<sup>th</sup> one offered analogous results with those of the tablets. The four in question were re-procured from the original stock retained in Islamabad, were also additionally purchased in Karachi, fresh discs made from both the representative samples, each culture challenged in duplicate, and practically the same disappointing effects recorded.
4. And Yes, when only a single 200mg tablet is dissolved in 10ml fluid, barely 0.02ml (containing 4mg) can be accommodated at a time in each disc (with drying in a desiccating jar in between each aliquot, thus multiplying ingredient concentration); more expedient is dissolving 5 crushed tablets in the fluid and using 0.2ml aliquots; an Errata specifying steps and disc contents listed in the 3 tables are in order.
5. The paper hints at differences in ingredient strength among the commercially available varieties tested, and indeed anyone cannot remain a head-hidden ostrich with press reports, for example in the daily Dawn, articulating "Substandard drugs

flood market" (12-12-04), "Spurious drugs" (Editorial, 9-1-04), "Spurious drugs being sold" (5-11-02), "Local companies producing sub-standard drugs" (22-7-01), "Spurious medicines sale to be checked" (12-2-05), and more relevant, the research study on 15 different brands of Ofloxacin tablets randomly selected from the local market, using probability sampling tools, carried out under the supervision of Dr. B. S. Naqvi, Professor of Pharmaceutics, Karachi University, which concluded that 4 of the samples had less potencies than the required specification, and that some "local pharma companies were generally producing sub-standard drugs which took longer times in disintegration and dissolution, thus offering no, or poor therapeutic effect" (Dawn, 22-7-01).

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### **Exchange of scientific information**

We have received the latest issue of Pak J Med Sci (January-March, 2005) containing our article "Ileocaecal Burkitt's Lymphoma in a 14 year old male: A Case Report and Review of Literature". Thank you a lot for this gesture. We, in India, appreciate your efforts to bind the two countries together via exchange of scientific information.

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