

## LETTER TO THE EDITOR

This letter has been sent to the Editorial Office on January 2011. It concerns with the article of Abou-Dobara MI, Deyab MA, Elsayy EM, Mohamed HH. "Antibiotic susceptibility and genotype patterns of *Escherichia coli*, *Klebsiella pneumoniae* and *Pseudomonas aeruginosa* isolated from urinary tract infected patients", published in No 3/2010 *Polish Journal of Microbiology*. It has been passed immediately to the authors of discussed article asking them to respond to the comments. We have never got an answer.

Dear Editor,

I have read the article with great interest by Abou-Dobara *et al.* in the third issue 2010 *Polish Journal of Microbiology*, about antibiotic susceptibility and genotype patterns of *Escherichia coli*, *Klebsiella pneumoniae* and *Pseudomonas aeruginosa* isolated from patients with urinary tract infection (UTI) (Abou-Dobara *et al.*, 2010). UTIs are among the most frequent bacterial diseases both in community-acquired and nosocomial infections with high morbidity and mortality rates. Gram negative bacilli including *E. coli*, *K. pneumoniae* and *P. aeruginosa* are encountered as the leading causative agents in this disease (Thomas J.G., 2000). The antimicrobial resistance patterns of these bacteria are important so as to start an appropriate empirical treatment in order to avoid complications. In the present study although Abou-Dobara *et al.* aimed to examine the antimicrobial susceptibility of the isolates, but there are some points conflicting with our classical microbiology knowledge:

In the article, Abou-Dobara *et al.* separated *P. aeruginosa* isolates into three patterns; 1. Resistant to amikacin, piperacillin/tazobactam, nitrofurantoin (NF), cefotaxime, norfloxacin and trimethoprim-sulfamethoxazole (SXT); 2. Resistant to NF, cefotaxime, norfloxacin and SXT; 3. Resistant to NF and SXT. The authors stated that they have examined the susceptibility of SXT and NF for *P. aeruginosa* in order to classify this species according to antibiotic resistance patterns. However, *P. aeruginosa* is already resistant to SXT due to MexAB-OprM porin (Livermore D.M., 2002). Likewise, NF has no effect on *Pseudomonas* spp. (Joseph D.C., *et al.*, 2003). In addition, the authors noted that they evaluated the antimicrobial susceptibility tests according to National Committee for Clinical Laboratory Standards. This institution is currently named as "Clinical and Laboratory Standards Institute-(CLSI)", has no recommendations for *P. aeruginosa* about SXT and NF susceptibility break points. (CLSI, 2008) On this account SXT and NF susceptibility should not be tested for *P. aeruginosa*. Thereby, the antibiotic pattern classification of *P. aeruginosa* would be in two patterns.

Secondly, the authors denoted that they have used some methods including Gram staining in the division of bacterial isolates into three groups – *E. coli* isolates as group 1, *K. pneumoniae* isolates as group 2, and *P. aeruginosa* isolates as group 3. Owing to the fact that all these three species are Gram negative bacilli, Gram staining method can not be performed for the differentiation of these bacteria (Ayers L.W. 2000).

Thirdly, ideally, type cultures of *E. coli*, *K. pneumoniae* and *P. aeruginosa* should be used for such a study so as to standardize the identification and antimicrobial susceptibility tests of these bacteria.

### References

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