

# Lack of Evidence for Conducting Meta-analysis of Prevalence of Drug-resistant *Pseudomonas aeruginosa* in Iranian Burned Patients

Dear Editor,

Recently, we read with great interest the meta-analysis which was reported by Tarashi *et al.*<sup>[1]</sup> and evaluated the studies included in their article. We detected some important viewpoints about the validity of extracted data. In reported data about Japoni's *et al.* study,<sup>[2]</sup> a serious blunder was seen in the frequency of drug resistance in Fars province-Iran. According to the tarashi *et al* report, a bias was seen which

produce wrong results about the prevalence of imipenem resistance in hospitalized burn patients in Iran,<sup>[1]</sup> Either similar error was seen about the data of Akhavan-Tafti *et al.* study<sup>[3]</sup> in meropenem resistance.

Despite the authors declared that their search strategy limited to March 2006–May 2015, but 13 articles were ignored during this time, and either few references were related to later years (2016 and 2017). Missing this impressive number of articles reduce the search quality and so the results [Table 1].

Following the mentioned lack of evidence, the authors declared that the included articles in their meta-analysis were limited to isolates collected from burn patients, but Jazani's *et al.* study,<sup>[4]</sup> was carried out on *Pseudomonas aeruginosa* isolates were collected from other clinical specimens.

Finally, the authors should perform sensitivity analysis excluding studies with a high risk of bias to explore the influence of biased studies. Moreover, the authors did not assess the quality of studies. Therefore, it is concluded that, the current meta-analysis producing incorrect results due to inappropriate search and in the following mistake reports.

**Table 1: List of Ignored Articles**

Number	References
1	Salimi (2010): Molecular epidemiology and drug susceptibility of <i>P. aeruginosa</i> strains isolated from burn patients
2	Beheshti (2011): Bacteriology of burns and antibiogram in an Iranian burn care center
3	Ghazvini (2008): Bacteriology and antibiotic sensitivity patterns of burn wound infections in Imam Reza Burn Care Center, Mashhad
4	Mashouf (2008): Diagnostic multiplex polymerase chain reaction assay for the identification of <i>P. aeruginosa</i> from the skin biopsy specimens in burn wound infections and detection of antibiotic susceptibility
5	Fazeli (2014): Molecular epidemiology and mechanisms of antimicrobial resistance in <i>P. aeruginosa</i> isolates causing burn wound infection in Iran
6	Shafaei (2013): Determination of prevalent bacteria in burn infections compared to patients environmental bacteria in Burn Ward of Shahid Zarreh Hospital in Sarie, Iran
7	Fazeli (2010): Determination of drug resistance patterns and detection of bla-VIM gene in <i>P. aeruginosa</i> strains Isolated from burned patients in the Imam Mosa Kazem hospital
8	Ghanbarzadeh (2015): Biofilm formation and virulence factors among <i>P. aeruginosa</i> isolated from burn patients
9	Emami (2015): Detection of blaPER-1 and blaOxa10 among imipenem resistant isolates of <i>P. aeruginosa</i> isolated from burn patients hospitalized in Shiraz Burn Hospital
10	Owlia (2006): Drug resistance of isolated strains of <i>P. aeruginosa</i> from burn wound infections to selected antibiotics and disinfectants
11	Mamani (2009): Frequency of bacterial burn wounds infection and antimicrobial resistance in burn center of Hamedan
12	Faghri (2007): Study of bacterial infections among Burn Patients Hospitalized in Isfahan Burn Center 1383–1384
13	Farajzadeh Sheikh (2014): Detection of Metallo- $\beta$ Lactamases Among Carbapenem-Resistant <i>P. aeruginosa</i>

*P. aeruginosa*: *Pseudomonas aeruginosa*

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## Conflicts of interest

There are no conflicts of interest.

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Susceptibility patterns and cross-resistance of antibiotics against *Pseudomonas aeruginosa* isolated from burn patients in the South of Iran. Burns 2006;32:343-7.

3. Akhavan-Tafti F, Eslami G, Zandi H, Mousavi SM, Zarei M. Prevalence of blaVIM, blaIPM and blaNDM metallo-beta-lactamases enzymes in *Pseudomonas aeruginosa* isolated from burn wounds in Shahid Sadoughi burn hospital, Yazd, Iran. J Isfahan Med Sch 2014;31:1955-64.
4. Jazani NH, Babazadeh H, Sabahi Z, Zartoshti M. The evaluation of antibiotic resistance to cefepime in hospital isolates of *Pseudomonas aeruginosa*. J Med Biomed Sci 2010;9:17

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