

What could be done in order to prevent antibiotic resistance nationally and internationally?

Antimicrobial resistance is a public health concern due to not effective prevention and treatment in wide range of infections caused by bacteria (i.e., MDR-TB, XDR-TB), parasites (Malaria resistance to Chloroquine), viruses (i.e., HIV and Influenza A, H1N1), and fungi.^[1-3] There are several mechanisms in implementation of bacteria resistance against antibiotics.^[4] In this letter to editor I am not going to explain that. In fact, I am looking for several insufficient manual or protocol which leads to antibiotic resistance worldwide. The number of antibiotic resistance diseases has been increased sharply.^[5] Noting can be done with previous protocol; perhaps much national and international antibiotic resistance must be revised not annually, but also monthly or even daily for each particular disease (i.e., Pneumococcal infection^[6-8] or other agents.^[9,10] Because the speed of antibiotic consumption for controlling of different infectious is fast too. Appropriate prescription of medicine by doctors and adequate consumption of that by patient and alert of antibiotic resistance by clinical laboratories must be monitored by health authorizes in order to prevent the problems of antibiotic resistance. Finally I would like to suggest creation of antibiotic resistance committee in all countries may be useful and that must be coordinate nationally and internationally by supervision of international health organization and exchange their

opinion usually in order to prevent the mortality and morbidity related the problems anyway.

Financial support and sponsorship

Nil.

Conflict of interest

There are no conflicts of interest.

Ali Mehrabi Tavana

Health Management Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran

Correspondence:

Ali Mehrabi Tavana,
Health Management Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran.
E-mail: mehrab@bmsu.ac.ir

References

1. <http://www.who.int/mediacentre/factsheets/fs194/en>. [Accessed on 2016 August 6].
2. https://en.wikipedia.org/wiki/Antimalarial_medication. [Accessed on 2016 August 6].
3. <http://www.cdc.gov/fungal/antifungal-resistance.html>. [Accessed on 2016 August 6].
4. Dever LA, Dermody TS. Mechanisms of bacterial resistance to antibiotics. Arch Intern Med 1991;151:886-95.
5. Hermsen R, Deris JB, Hwa T. On the rapidity of antibiotic resistance evolution facilitated by a concentration gradient. Proc Nat Acad Sci

- USA 2012;109:10775-80.doi:10.1073/pnas.1117716109.
6. Mehrabi Tavana A, Ataee RA. Invasive pneumococcal disease (IPD) serotype frequency in Iranian patients. *Iran Red Cres Med J* 2013;15:740-42.doi:10.5812/ircmj.4145.
 7. Tavana AM. Invasive pneumococcal disease (IPD) in Iranian patients and its serotyping distribution in order to prevent the infection with suitable vaccine. *Ann Trop Med Public Health* 2013;6:684-5.
 8. Habibian S, Mehrabi-Tavana A, Ahmadi Z, Izadi M, Jonaidi N, Darakhshanpoore J. *et al.* Serotype distribution and antibiotics susceptibility pattern of *Streptococcus pneumoniae* in Iran. *IRCMJ* 2013;15:e8053.
 9. Ataee RA, Mehrabi-Tavana A, Hosseini SMJ, Morid K, Ghorbananli Zadegan M. A method for antibiotic susceptibility testing: applicable and accurate. *Jundishapur J Microbiol* 2012;5:341-45.
 10. Sanaei DA, Abdinia B, Karimi A. Nasopharyngeal carrier rate of *Streptococcus pneumoniae* in children: serotype distribution and antimicrobial resistance. *Arch Iran Med* 2012;15:500-3.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

Access this article online	
Quick Response Code:	Website: www.atmph.org
	DOI: 10.4103/1755-6783.196759

Cite this article as: Tavana AM. What could be done in order to prevent antibiotic resistance nationally and internationally?. *Ann Trop Med Public Health* 2017;10:1094-5.

Reproduced with permission of copyright owner. Further reproduction
prohibited without permission.