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Self-medication with Antibiotics: A Global Challenge of Our Generation

¹S. Sarahroodi and ²P. Mikaili

¹Department of Physiology and Pharmacology, School of Medicine,
Qom University of Medical Sciences, Qom, Iran

²Department of Pharmacology, School of Medicine, Urmia University of Medical Sciences,
Urmia, Iran

“We can close the book on infectious diseases” It was an important part of US surgeon-general speech in 1967 (Snell, 2003). Now after less than 50 years we can't believe the mentioned comments, and seems as a joke. What happened in only half a century and what will happen in next century? What is the reason of these unbelievable changes and what can we do for our future.

The two main reasons for this global problem are:

- Upsurge of new or newly recognized diseases such as AIDS, different Hepatitis's such as hepatitis C and D, Ebola fever and some other viral and bacterial infections
- Resurgence of many old infectious diseases such as Tuberculosis cause of increasing resistance to antimicrobial agents (Snell, 2003)

This is our great challenge in community. So, we have to find new vaccines and medications for new diseases and disorders. On the other hand we have to prevent drug resistance among antimicrobial and antiviral drugs.

Self-medication that is defined as treatment of self-diagnosed diseases and symptoms or intermittent or continued use of prescribed medication is one of the most important reasons of antimicrobial resistance (Awad *et al.*, 2005).

There are several evidences that self-therapy is a global problem (Sarahroodi, 2012) and rapidly increasing worldwide (Sawalha, 2008). There are different documents which reveal inappropriate use of medications is high in both developed and developing countries (Otoom and Sequeira, 2006; Sarahroodi *et al.*, 2010). As this kind of self-medication has harmful effects on individual as well as society (Awad *et al.*, 2005), we have to be careful about antibiotics consumption via self-medication and even by physicians prescription. Furthermore, easy and fast travelling around the world is an important cause for fast spreading of resistant bacteria (Snell, 2003).

For example a Multi Drug Resistant (MDR) TB can transfer from south Asia to middle-East, North America or

even North Pole in half a day. So, antibiotics resistance can spread around our planet in a very short time and all people of the world will be as parts of a body, as the poem of Saadi (the Persian poet of 14th century) whom told “Human beings are members of a whole ***In creation of one essence and soul, ***If one member is afflicted with pain, ***Other members uneasy will remain”.

Now the main question is: "What should we do in this situation?"

The most important duty of governments is informing people about this grate problem (Sarahroodi and Arzi, 2009; Sarahroodi *et al.*, 2010). The best way for notification of people is media such as radio, TV and internet which are mentioned by several researches as suggestions of their study and their respondents (Sarahroodi and Arzi, 2009; Sarahroodi *et al.*, 2010; Sarahroodi, 2012). Moreover, documentary films or even animations will help us to change the idea of community about antibiotics and self-medication and this view point could be changed easily among children who are our new generation.

The other strategy is continual awareness of physicians and medical staff (Wester *et al.*, 2002). They are an important part of our strategy in preventing antibiotics resistance. As we mentioned, most of self-medications are based on the knowledge of previous prescriptions (Sarahroodi and Arzi, 2009; Sarahroodi *et al.*, 2012). So a doctor should aware his/her patients that the prescribed antibiotics is only for her/his current disease and should be completely consumed (Carey and Cryan, 2003). On the other hand, physician should be careful not prescribing antibiotics for viral infections (Cadieux *et al.*, 2011). So, education of prescribers is more important than patients.

The next step is banning antibiotics use as a routine additive in animal feeds stuffs (Snell, 2003).

At last, we have to pay attention on our laws and enforcement of them for prescribing and selling antibiotics (Sarahroodi *et al.*, 2010). Selling antibiotics without prescription in some countries is our main problem, and we believe that it can be reduced or even eradicated by

appropriate legislation and proper implementation of laws. Overall, we have to educate our community and medical staff, enact appropriate laws and enforce them carefully. So, we can save our antibiotics for our next generation.

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