

Letter to Editor

OBSTRUCTION IN THE DISCOVERY OF NEW ANTIBIOTIC DRUGS:

Farjad Afzal*, Asma Afzal**, Sidra Manzoor***

*Lecturer in physical therapy, Sargodha Medical College, UOS, Sargodha.

**Institute of Allied Health Science, Children Hospital, Lahore.

***Lecturer in Physical therapy Lyallpur campus, UOS, Faisalabad.

ABSTRACT:

After discovery of antibiotic in 1928, there are 100 of compounds, but after 1987 no new class had been discovered. Infectious diseases are third leading cause of deaths in US and second leading cause in whole world. Obstruction in the discovery of new drugs is multifactorial; one factor is that bringing new drug into market requires 800 million US dollars and 10 years, pharmaceuticals companies have to bear a large cost on research and adverse effects. Another factor that was identified is that current focus is on drugs that are used for chronic diseases. Drugs for chronic diseases are used for longer periods of time as compare to antibiotics that are used for five to fourteen days. Health professionals, community, patients, researchers, media, industry and government should come forward to remove all possible barriers in the discovery of new drugs.

KEYTERMS: antibiotic discovery, antibiotic resistance, new antibiotic, Teixobactin.

INTRODUCTION:

After discovery of antibiotic in 1928, there are 100 of compounds, but after 1987 no new class had been discovered. Infectious diseases are third leading cause of deaths in US and second leading cause in whole world¹. Antibiotics resistance problem is now spreading world widely, bacteria is developing resistance against the common antibiotics.

TEIXOBACTIN A NEW ANTIBIOTIC:

After 1987 there is stop discovery of antibiotics compounds, however Teixobactin is considered first new antibiotic in previous 30 years². A team from Northeastern University in Boston, Massachusetts discovered a new compound named Teixobactin, which is a highly effective drug in common bacterial infection². Although this is a great achievement in the history of antibiotics discovery, but still there is alarming situation that the discovery of new antibiotic is too slow to compete resistive ability of bacteria. Antibiotic resistance is serious treats due to over use, self medications and irrational use of antibiotics³.

OBSTRUCTION IN THE DISCOVERY OF NEW DRUGS:

Obstruction in the discovery of new drugs is multifactorial; one factor is that bringing new drug into market requires 800 million US dollars and 10 years, pharmaceuticals companies have to bear a large cost on research and adverse effects⁴. Another factor that was identified is that current focus is on drugs that are used for chronic diseases. Drugs for chronic diseases are used for longer periods of time as compare to antibiotics that are used for five to fourteen days⁴. Scientific barrier in the discovery of new drug is that current process is complicated, expensive and time consuming⁵. Another barrier that mention by Spellberg that there is more investment on antibiotics with poor return⁵.

CONCLUSION:

In the control of bacterial resistance, there should be preventive measures in the

Corresponding Author:
Dr. Farjad Afzal, Lecturer in physical therapy,
Sargodha Medical College, UOS, Sargodha.

prescribing and irrational use of drugs. Health professional can play vital role in this snerio. Health professionals, community, patients, researchers, media, industry and government should come forward to remove all possible barriers in the discovery of new drugs.

REFERENCES:

1. Organization WH. The world health report 2002: reducing risks, promoting healthy life: World Health Organization; 2002.
2. Piddock LJ. Teixobactin, the first of a new class of antibiotics discovered by iChip technology? *Journal of Antimicrobial Chemotherapy.* 2015;70(10):2679-80.
3. Abdulraheem I, Adegboye A, Fatiregun A. Self-medication with Antibiotics: Empirical Evidence from a Nigerian Rural Population. *BRITISH JOURNAL OF PHARMACEUTICAL RESEARCH.* 2016;11(5).
4. Conly JM, Johnston BL. Where are all the new antibiotics? The new antibiotic paradox. *The Canadian Journal of Infectious Diseases & Medical Microbiology.* 2005;16(3):159-60.
5. Spellberg B. New antibiotic development: barriers and opportunities in 2012. *APUA Corporate Sponsors.* 2012:8.

Submitted for publication: 23-01-2017
 Accepted for publication: 20-02-2017

SR #	AUTHOR NAME	CONTRIBUTION
1	Farjad Afzal	Identifying Problem Critical Thinking Main Author
2	Asma Afzal	-Expert opinions -Drafting and reports writing -Abstract arrangement -Co-author
3	Sidra Manzoor	-Literature Search -Referencing -Proof reading -Co-author

RECOMMENDED PRAYERS CANNOT ATTAIN THE PLEASURES OF ALLAH FOR YOU WHEN OBLIGATORY PRAYERS ARE LEFT UNATTENDED.

Hazrat Ali (Karmulha Wajhay)