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OVERVIEW ON EMERGING CHALLENGES OF ANTIBIOTIC RESISTANCE

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ABSTRACT

Increasing the resistance of bacteria to antibiotics is a major problem. The most serious problem is the worldwide emergence of antimicrobial resistance in our common Gram-positive cuckoo pathogen. Another serious problem is that the specific gram negatively causes resistance in the basil due to the expanded spectrum. Antibiotic therapy is difficult for many infectious diseases due to this antibiotic resistance in common pathogens. In particular, the current strategies do not take into account the effects of the use of enhanced antibodies for terrestrial food animals and aquatic production, inadequate food security, and widespread environmental pollution.

Keywords*:* - Antibiotic resistance, infection, bacteria, public health, antiviral drugs,

INTRODUCTION

Antibiotic resistance occurs when the antibiotic is no longer responsive to killing the immune system. That is, germs or germs do not perish and continue to grow. This means that your body is not resistant to antibiotics. When antibiotics are needed, the benefits outweigh the risks of antibiotic resistance. Therefore, many antibiotics have used that point to the usefulness of important drugs. Looking for new ways to prevent the effects of antibodies used to treat infections caused by bacteria and fungi. Infection caused by antibiotic-resistant bacteria is difficult, sometimes impossible to treat. Antimicrobial Resistance The risk of infection on any person or the immune system is low. The world needs to change the way they use and use antibiotics. [(1)] Antibiotics have revolutionized medicine in many cases, including orthopedic surgical and implant improvement, and have changed the health and well-being of humans for the better. Before the use of antibiotics, the mortality rate of Staphylococcus aureus (*S. aureus*) bacteremia was high and most wound infections are treated by dissection; For example, in World War I, ut◦% of amputations are caused by a wound infection.[(2)]

How Antibiotic Resistance Happens? [(3)]

Antibiotic resistance occurs naturally over time, usually through genetic changes. However, the abuse and overuse of antibiotics are accelerating this problem. Most of the time, antibiotics are overused and misused in people. Examples of abuse include people being carried by viral infections like colds and flu, and when they promote growth in animals or used to prevent disease in healthy animals. Antimicrobial-resistant microbes are found in people, animals, foods, and the environment (in water, soil, and air). They spread from animal origin to food and from person to person, both people and animals.

CURRENT SITUATION:

Resistance in bacteria:

Antibiotic resistance exists in every country. Patients infected with drug-resistant infections have a higher risk of death and health care than non-infected bacterial infections.

Resistance to Klebsiella pneumonia is a common intestinal bacterium that can cause infections such as pneumonia, bloodstream infections, and newborn infections. E. Resistance to coli is a widely used drug for the treatment of urinary tract infections.

Resistance in tuberculosis:

WHO estimates that in 2014, there were approximately 480000 new cases of multidrug-resistant tuberculosis (MDR-TB), a form of tuberculosis that is resistant to the most potent anti-TB drug About a quarter of these (123 000 cases) were found and reported. MDR-TB requires treatment courses that are much longer and less effective than resistant TB. Globally, only about half of MDR-TB patients were successfully treated.

The cases of TB in 2014 T are approximately 3.3% multidrug-resistant. This is 20% higher among people who have previously treated TB.

Tuberculosis-resistant Tuberculosis (XDR-TB), a form of tuberculosis that is resistant to at least 4 anti-TB anti-drug drugs, has been identified in 105 countries. Approximately 7.7% of people have MDR-TB with XDR-TB.

Resistance in malaria:

Until July 1, countries in the Greater Mekong sub-region (Cambodia, Lao People's Democratic Republic, Myanmar) The first-line treatment of falciparum malaria (an artemisinin-based combination treatment, also known as ACT) has been resisted. , Thailand and Vietnam). In most cases, patients with an artemisinin-resistant infection are fully cured after treatment, provided they are treated with an effective partner drug, AcT. However, on the Cambodia-Thailand border, p. Falciparum has become resistant to virtually all available antimalarial drugs, making treatment more challenging and in need of closer monitoring. There is a real danger that multidrug resistance may occur soon in other parts of the subdivision. The spread of resistant strains to other parts of the world can pose a public health challenge and threaten recent gains in malaria control. Resistance in HIV:

In 1, approximately %% of people initiating antiretroviral therapy (ART) in developing countries had drug-resistant HIV. In developed countries, the corresponding figures were 5-7%. Some countries have recently reported levels of 15% or higher among those initiating

HIV treatment, and up to 40% in people resuming treatment. This requires immediate attention.

Increasing levels of resistance have significant financial implications for a second- and third-row politics, which are 3 times and 18 times more expensive than first-line drugs, respectively.(4)

Since September 3, WHO has recommended that everyone living with HIV begin antiretroviral treatment. The widespread use of ART will further increase ART resistance in all regions of the world. To maximize the long-term effectiveness of the first-ART plans and to ensure that people are taking the most effective steps, it is important to continue monitoring resistance and reduce its subsequent emergence and spread. WHO is currently developing a new "HIV Drug Resistance for Global Action Plan (2017-2021)" in consultation with countries, partners and stakeholders?

Resistance in influenza:

Antiviral drugs are important for the treatment of companion and companion influenza. Until now, virtually all influenza viruses circulating in humans were resistant to a single class of antiviral drugs - M2 inhibitors (amantadine and rimantadine). However, the frequency of resistance to the neuraminidase inhibitor oseltamivir is low (1-2%). Antiviral sensitivity is constantly monitored by the WHO Global Influenza Surveillance and Response System.

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