

Myths and Facts of COVID-19 Vaccines



Vaccine is the most important weapon to protect ourselves against COVID-19 and it is now well-established fact that as vaccines lose its effectiveness after few months, drug regulatory authorities are approving booster dose administration. Still, there are several discussions going on about myths of COVID vaccines that whether it can harm our health and immune system or not. Many people still believe that these vaccines are not well tested and they should not administer it for their protection against this disease. One of the myths right now is COVID-19 vaccine can affect women's fertility. But the fact is the COVID-19 vaccine will not affect fertility. The truth is that the COVID-19 vaccine encourages the body to create copies of the spike protein found on the coronavirus's surface. This "teaches" the body's immune system to fight the virus that has that specific spike protein on it. Confusion arose when a false report surfaced on social media, saying that the spike protein on this coronavirus was the same as another spike protein called syncytin-1 that is involved in the growth and attachment of the placenta during pregnancy. The false report said that getting the COVID-19 vaccine would cause a woman's body to fight this different spike protein and affect her fertility. The two spike proteins are completely different and distinct, and getting the COVID-19 vaccine will not affect the fertility of women

who are seeking to become pregnant, including through in vitro fertilization methods. During the Pfizer vaccine tests, 23 women volunteers involved in the study became pregnant, and the only one who suffered a pregnancy loss had not received the actual vaccine, but a placebo. Getting COVID-19, on the other hand, can have potentially serious impact on pregnancy and the mother's health. Another myth continues to go on that if one person 've already had COVID-19, he doesn't need a vaccine. On the other hand, evidence continues to indicate that getting a COVID-19 vaccine is the best protection against getting COVID-19, whether you have already had COVID-19 or not. A study published in August 2021 indicates that if one had COVID-19 before and are not vaccinated, his risk of getting reinfected is more than two times higher than for those who were infected and got vaccinated. Some people also believe that getting the COVID-19 vaccine means we can stop wearing my mask and taking coronavirus precautions. The CDC continues to monitor the spread of COVID-19 and makes recommendations for wearing face masks, both for those who are fully vaccinated as well as those who are not fully vaccinated. The CDC also recommends that masks and physical distancing are required when going to the doctor's office, hospitals or long-term care facilities, offices. Therefore, to stop these rumors accurate data and information is needed. Accurate vaccine information is critical and can help stop common myths and rumors. Otherwise, it can be difficult to know which sources of information you can trust.

References:

Covid-19 vaccines: Myth versus fact. Johns Hopkins Medicine. (n.d.). Retrieved April 9, 2022, from <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/covid-19-vaccines-myth-versus-fact>

Written by: Mehrin Haque Tanisha (TA)

Prescribing Antibiotics: Current Scenario in Bangladesh

Antibiotic resistance (ABR) is a worldwide problem and Bangladesh is a major contributor to this owing to its poor healthcare standards, along with the misuse and overuse of antibiotics. A recent study, carried out jointly by the Directorate General of Drug Administration (DGDA) and the WHO, shows that antibiotics consumption in Bangladesh has increased by 30.81 percent in the last two years. The DGDA and the WHO used data from the pharmaceutical companies, and the study report was

released on November 27 last year. A study highlighted that the highest prescribed antibiotic groups were cephalosporins (31.78 %), macrolides (27.33 %), quinolones (16.33 %), penicillins (7.11 %), and metronidazoles (6.78 %) respectively. Two or more antibiotics were prescribed in 25.44 % of prescriptions. A total of 66.89 % prescriptions had complete information on dosage form, 57 % had complete direction for antibiotics use and 64.22 % patients completed full course



of antibiotics. Although 83 % prescriptions have no clinical test for using antibiotics, even though the percentages of patients' disease recovery were 61.78 % and incompliance were 38.22 %. From this research, it is observed that physicians prescribed antibiotics rationally in some cases but needs to ensure in all cases of prescription. Because irrational use leads to the spread of bacterial resistance to antibiotics and related health problems, our findings have important implications for public education and the enforcement of regulations regarding the prescription of antibiotics in Bangladesh. Furthermore, several studies confirm that antibiotic self-medication is also a relatively frequent problem in Bangladesh. In Bangladesh, the prevalence of self-medication is thought to be high, usually attributed to the fact that most drugs can be obtained from the pharmacies without prescription. As a result, minor illnesses are treated with antimicrobials which have a potential to harm the individual as well as the society at large. Studies on

pattern of antibiotic self-medication and its associated factors should be of interest to public health practitioners due to the dangers posed to the individual and society at large, more so in a country where the literacy level and regulation of drug use are on opposite ends of the spectrum. In Bangladesh, there is limited research on household decision-making and healthcare seeking in relation to antibiotic use and consumption for humans and livestock. Knowledge is similarly lacking on factors influencing the supply and demand for antibiotics among qualified and unqualified healthcare providers. Therefore, to understand how to reduce antibiotic use, greater knowledge is needed about the complexities of access in countries with loose regulation or enforcement.

Source:

Biswas, M., Roy, D. N., Tajmim, A., Rajib, S. S., Hossain, M., Farzana, F., & Yasmen, N. (2014). Prescription antibiotics for outpatients in Bangladesh: A cross-sectional health survey conducted in three cities. *Annals of Clinical Microbiology and Antimicrobials*, 13(1). <https://doi.org/10.1186/1476-0711-13-15>

Written by: Mehrin Haque Tanisha (TA)

Newly Approved FDA Drugs

When it comes to the development of new drugs and therapeutic biological products, FDA's Center for Drug Evaluation and Research (CDER) provides clarity to drug

and comprehensive assessment. To do so, CDER relies on its understanding of the science used to create new products, testing and manufacturing procedures, and the diseases and conditions that new products are designed to treat.

1. **NephroScan** (technetium Tc 99m succimer) Injection Kit

Treatment for: Diagnosis and investigation.

NephroScan (kit for the preparation of technetium Tc 99m succimer injection) is a radioactive diagnostic agent indicated for use as an aid in the scintigraphic evaluation of renal parenchymal disorders.



developers on the necessary study design elements and other data needed in the drug application to support a full

2. Carvykti (ciltacabtagene autoleucel) Suspension for Intravenous Infusion

Company: Janssen Pharmaceutical Companies
Treatment for: Multiple Myeloma.

Carvykti (ciltacabtagene autoleucel) is a BCMA-directed CAR-T immunotherapy for the treatment of patients with relapsed or refractory multiple myeloma.

3. Norliqva (amlodipine besylate) Oral Solution

Company: CMP Pharma, Inc.

Treatment for: High Blood Pressure, Coronary Artery Disease, Angina.

Norliqva (amlodipine besylate) is an oral solution formulation of the approved calcium channel blocker amlodipine for the treatment of hypertension and angina in patients with coronary artery disease.

4. Vonjo (pacritinib) Capsules

Company: CTI BioPharma Corp.
Treatment for: Myelofibrosis

Vonjo (pacritinib) is a JAK2/FLT3 multikinase inhibitor for the treatment of myelofibrosis patients with severe thrombocytopenia.

5. Releuko (filgrastim-ayow) Injection

Company: Kashiv BioSciences, LLC
Treatment for: Neutropenia Associated with Chemotherapy, Neutropenia.

Releuko (filgrastim-ayow) is a recombinant human granulocyte colony-stimulating factor biosimilar to Neupogen indicated for the treatment of neutropenia associated with chemotherapy and related conditions.

Written by: Nahid Nausheen (TA)