

342. PHARMACISTS AND THE “VACCINATION SCEPTICS”

Ana Orleoglo

Nicolae Testemitanu State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction: Vaccination skeptics is nowadays one of the most discussed issues within medical institutions and it's becoming a hot topic in the society. This paper will provide information and analysis on general opinions of population and pharmacists toward vaccination in Moldova. WHO defines vaccines as biological preparation that improves immunity to a particular disease. For healthcare specialists it seems as a quite simple process intended to produce immunity to a specific disease by stimulating the production of antibodies. It's considered one of public health's greatest achievements and one of the most cost effective procedures when it comes to preventing certain diseases.

Materials and methods: All provided data is taken primarily from the research made within Republic of Moldova which involves pharmacists as health care professionals and people of different age groups, from different social and professional backgrounds. Surveys are performed online or paper-based and filled anonymously. The results of analysis will be compared with the same data from other countries; will be discussed aspects of a pharmacist's influence on vaccination and monitor the possible scenarios of pharmacists advocating immunizations and promoting disease prevention among population.

Discussion results: There are several laws in Moldova that provide necessary information about the importance of vaccines. Several articles of legislation, imply that Moldova promotes compulsory child vaccination. Vaccines, vaccinations, and immunizations tend to be a controversial topic all over the world. While in developing countries people are introduced to it with great enthusiasm in hope to raise healthy generations, people in developed countries gravitate towards having a negative attitude. Recently, it became a huge movement, which is influenced by a growing number of media factors such as websites, fan-groups, discussion forums, videos, books and even documentaries which carry non-vaccine propaganda. Nowadays the society has access to overwhelming amount of information, tends to claim that vaccines are causing debilitating illness. For example vaccination risks, adverse vaccination events which can lead to development of other diseases such as autism or autoimmune diseases which are not officially recognized as vaccine reactions and recorded by doctors. There are opinions that the lowering rate of diseases in developed countries can be a result of water supply, sanitation and increased incomes, not vaccination. From ethical point of view compulsory vaccination is a denial of human rights and governments should not require vaccinations as there is no choice left for people who want to refuse vaccination. The last widely mentioned aspect is religion. People who support vaccination have a list of arguments which is close to that stated by doctors. The most important ones are: reduction of deaths from infectious diseases, lack of proven facts that link adverse reactions to diseases like autism, most of their claims affirm that these are coincidental. From ethical point of view, vaccines are seen as a collective good because the more people are immune to certain microorganisms and viruses the less chances those stand for spreading and lastly they claim that government takes decisions by consulting with specialists in the medical field. Conclusion: Vaccine practices are well-accepted by doctors, public health specialists and pharmacists. It seems at first sight that physicians are the key characters in providing information and reaching out to their patients when it comes to vaccines. The fact that vaccine

administration is prohibited by pharmacists does not mean that they are less important in the vaccination process. Key words: pharmacist, vaccination, adverse events, opinion, population.

343. EXPERIMENTAL DETERMINATION OF THE LOGP USING THE SPECTROPHOTOMETRIC METHOD

Natalia Savin, Oxana Vislough, Andrei Uncu

Scientific adviser: Uncu Livia, PhD, Associate Professor, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction: In order to estimate the bioavailability of drugs and their formulations together with the water solubility parameter, it is important to know the ability of a substance to pass through the cell membranes (lipid bilayer). For an approximate estimate of this capacity, it is used the term "lipophilicity", which represents the correlation between the dissolving of substance in water and n-octanol, considered to be a solvent with a polarity close to the phospholipid structure of the cell membrane [1,2]. The purpose of this study was to determine experimentally the lipophilicity of a molecule of a new compound, derivative of oxathiodiazole with antimycobacterial properties, using the spectrophotometric method.

Materials and methods: Spectrophotometer UV-VIS Agilent 8453, n-octanol, purified water, laboratory chemical dishes in accordance with requirements of Ph. Eur.

Results and discussion: It was prepared the solution of the analyte in n-octanol with an estimated concentration so that the absorbance of the solution to be in the range 1,5-1,8. The solution was analyzed at the wavelength between 220-400 nm, fixing the analytical maximum at 300 nm. It was recorded the absorbance of octane solution: 0,99915. Subsequently, it was recorded the absorbance of the solution after adding an equal amount of water and stirring at the ultrasonic bath (1,01500). It was calculated the lipophilicity, which was expressed by the value logP, working at a pH of the aqueous phase in which the substance has the unionized state (1,799).

Conclusion: The analyzed compound has an acceptable lipophilic level according to Lipinski's rules (less than 5), this value being confirmed by theoretical calculations and also by determinations of Thin-Layer Chromatography (TLC) method.

Keywords: lipophilicity, spectrophotometry, oxathiodiazole.