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Introduction. According of American Psychiatric Association, mental health is defined by the simultaneous success in work, love and the ability to resolve with maturity and flexibility the conflict between instinct, consciousness, close persons and reality. There is no universal definition. However, neuropsychiatric disorders are the third cause of disability in Europe and represent 15.2%, after cardiovascular disease 26.6% and malignant neoplasms (cancers) 15.4%. The most common mental illnesses are anxiety, depression and dementia. It is estimated that by 2020 depression will become the second leading cause of disability worldwide, after cardiovascular diseases.

Aim of the study. In this study we have proposed as the objective the recipe of the medical scientific literature of the contemporary therapy of depressive states.

Materials and methods. The bibliographic and informative sources published in recent years, published both internationally and in the Republic of Moldova, have been used as study materials.

Results. Scientific dates demonstrate that treatment of depressive states includes several groups of preparations: selective serotonin reuptake inhibitors (SSRIs), noradrenaline and dopamine reuptake inhibitors (IRND), selective serotonin reuptake enhancers (SSRIs), noradrenergic and serotonergic antidepressants, serotonin and noradrenaline reuptake inhibitors (IRSN), monoamine oxidase inhibitors (MAOIs), tranquilizing benzodiazepines and non-benzodiazepine. Of the classes of organic substances with MAO inhibitors are involved and derivatives of 2-indolinone and 2,3-indolinedione. In this context, a new autohtone compound of the isatine group is investigated, with pronounced antidepressant and sedative-tranquilizing activity—1'-(2-oxo-propyl)-spiro[[1,3]dioxolane-2',3'-indolin]-2'-one with the common name "DIOXOINDOLINONE" synthesized in the Organic Synthesis and Biopharmaceutical Laboratory of the Institute of Chemistry.

Conclusions. Although there are already a large number of antidepressant drugs in the pharmaceutical market, the development of new structures remains in the topicality.

Key words: anxiety, depression, MAO

375. EVALUATION OF METHODS FOR DETERMINING THE OTOTOXICITY OF DRUG SUBSTANCES

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Introduction. There are several options for monitoring ototoxic changes. Many ototoxicity monitoring protocols are based on the ototoxic profile of platinum in chemotherapy (eg cisplatin) and aminoglycoside antibiotics (Gentamycin, Tobramycin, Kanamycin, Streptomycin, etc.) because they are widely used and have a relatively high incidence in the ototoxic events. However, other ototoxins such as difluoromethylnitrite, loop diuretics and salicylates can cause a wide variety of other audiometric configurations. Therefore, for a drug with a poorly defined ototoxic or ototoxic profile, It is very important to monitor the ototoxicity of the drugs whether or not they cause hearing loss and cause changes that have met the criteria for adverse effects.

Aim of the study. Systematization of data about the methods and techniques for determining the ototoxicity of the drug by advanced bibliographic study.

Materials and methods. 167 abstracts and scientific articles from the Cochrane Electronic Library and the MEDLINE database.

Results. The bibliographic study highlighted three basic primary approaches in the monitoring of drug ototoxicity (87% of sources): conventional audiometry, high frequency audiometry and ototacoustic emissions. Another technique (present in about 13% of the investigated materials), such as the auditory brain response, can be used for a particular patient, but it is not a standard monitoring technique, although it can also be a criteria for detecting changes in auditory system.

Conclusions. A variety of methods exist for monitoring ototoxicity of drug substances in the local therapy of auricular pathologies. Some are designed either for the early detection of ototoxicity and some in a simple evaluation for obtaining additional information about ototoxic changes and its site of lesion.

Key words: ototoxicity, monitoring, methods, drug substances

376. THE EVALUATION OF SOME TECHNIQUES OF THERMAL ANALYSIS AT THE PREFORMULATION STAGE OF COMBINED DRUGS

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Introduction. Thermal analysis includes several analysis techniques, which measure an analytical signal of the sample at a certain temperature. The analysis is based on thermogravimetric curves. The instrument used in thermal analysis consists of a microbalance surrounded by a electrically heated furnace equipped with a thermocouple to monitor the temperature.

Aim of the study. is to assess the use of thermo-gravimetric and differential scanning calorimetry methods at the preformulation stage of combined drugs.

Materials and methods. Electronic databases: Medline, Cochrane, Embase and Springer. Also, the search was conducted by using printed, pharmaceutical and chemical journals. It was analyzed 150 bibliographic sources.

Results. In most of the researches (45%), thermogravimetric analysis was used in order to determine the decomposition temperature of the individual active substances and also from the mixtures of active substances with excipients or with other active substances. Also, most frequently (53.3%), thermogravimetric analysis has been combined with other techniques such as: differential scanning calorimetry. Less researches (1.7%) applied thermogravimetric method to determine water content and volatile substances.

Conclusions. Thermogravimetry and differential scanning calorimetry are physico-chemical methods which are widely used for compatibility research of active substances and excipients at the preformulation stage of drugs.

Key words: thermogravimetry, preformulation, combined drugs

377. APPLICATION OF IR SPECTROSCOPY FOR EVALUATION OF COMPATIBILITY OF DRUG SUBSTANCES WITH EXCIPIENTS

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