

Scientific adviser: Tatiana Chiru, PhD, Associate professor, Department of Pharmacognosy and pharmaceutical botany

*Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova

**Introduction.** Hippophae rhamnoides L., the common sea buckthorn, deciduous shrubs in the family Elaeagnaceae. The plant is being used in different parts of the world for its nutritional and medicinal properties.

**Aim of the study.** The present study focused on the antioxidant activity determination and total phenolic content of leaves (fresh/dried) and fruits (fresh/dried) of Hippophae rhamnoides L.

**Materials and methods.** In vitro antioxidant activity of extracts was assayed by DPPH, ABTS, and Iron chelating activity (ferrozine) tests. Total total phenolic content was determined by using the Folin-Ciocalteu assay.

**Results.** In all assays, the leaves of H. rhamnoides L. showed higher value of antioxidant activity (fresh: DPPH – IC<sub>50</sub>=28.88 µg/ml; ABTS – 28.79 µM TE/g dried weight; Iron chelating activity – 33.40 %; dried: DPPH – IC<sub>50</sub>=25.67µg/ml; ABTS – 29.04 µM TE/g dried weight; Iron chelating activity – 53.06 %) than fruit extracts (fresh: DPPH – IC<sub>50</sub>=357.97 µg/ml; ABTS – 16.44 µM TE/g dried weight; Iron chelating activity – none; dried: DPPH – IC<sub>50</sub>=689.52 µg/ml; ABTS – 9.03 µM TE/g dried weight; Iron chelating activity – none). The total phenolic contents in the examined leaves and fruits of H. rhamnoides extracts were 2.91 (died) – 4.57 (fresh) and 0.54 (fresh) – 2.30 (dried) mg GAE/g, respectively.

**Conclusions.** H. rhamnoides leaf extracts have shown considerable antioxidant properties. The consumption of this may play a role in preventing several human diseases, which involve the free radicals, such as cancer, cardiovascular disease, and premature aging. Thus, further investigations on the in vivo antioxidant activity and other antioxidant mechanisms are warranted.

**Key words:** Hippophae rhamnoides L., antioxidant activity, phenols

## DEPARTMENT OF PHARMACOLOGY AND CLINICAL PHARMACY.

### 366. COMPLICATIONS OF ANABOLIC STEROIDS UTILISATION

Authors: **Karaar Al Baai, Karrar Saad**

Scientific adviser: Scutari Corina, PhD, Associate prof., Department of Pharmacology and Clinical Pharmacy

*Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova

**Introduction.** The anabolic steroids are most controversial drugs in the world. It works as heroin and amphetamine. Young people turning to use steroids as away to improve or change their body shape and nowadays a lot of people likely to use more steroids to bulk up so the number of people that require the steroids has been increased in the last few years, because these kind of drugs are incredibly effective. Steroids can push the physiologic limits of the muscle making it bigger faster and stronger that it could get naturally but abuse of steroids comes with several undesirable effects and health problems including liver, heart and skin infections as well as physiological disturbances such as depression and dependence.

**Aim of the study.** To study the most important complications of anabolic utilization.

**Materials and methods.** I analyzed the bibliographic review and documents about steroid utilization last 5 years ago.

**Results.** Anabolic steroids are powerful hormone. Steroids increase muscle growth and recovery, strength and leanness. Many serious side effects and health risks are involved with using steroids. Early symptoms are cystic acne, increase in body weight, headache, dizziness, cramping

and premature hair loss, health risks involving the cardiovascular system include cholesterol modification, heart disease, high blood pressure, septic chock and even death. Effects to the reproductive system include genital atrophy, genital swelling, sexual dysfunction, impotence, fetal damage, sterility and menstrual irregularities. The liver and kidney are under constant attack by steroids. Effects to the liver include cancer, pelosis hepatitis and effects on the kidney that include kidney stones, kidney diseases. Taking steroids can also affect the skin producing acne, rashes, and red spots on the body, increase body hair and baldness and increase facial hair in the women. The steroids can also affect the users psychologically: they can become depressed, aggressive and very hostile. Steroids often cause shrinking of testicles, breast growth, and a higher risk of prostate cancer.

**Conclusions.** Steroids are serious drugs that produce a lot of complications. The discontinuing use often leads to withdrawal and depression, which creates a lack of physical drive or social interaction among users.

**Key words:** anabolic steroids, complications

## DEPARTMENT OF SOCIAL PHARMACY *VASILE PROCOPISIN*

### 367. OPPORTUNITIES TO IMPLEMENT GOOD PHARMACY PRACTICE IN THE REPUBLIC OF MOLDOVA

Author: **Ala Vataman**

Scientific adviser: Aduji Stela, PhD, Associate professor, department of Social Pharmacy *Vasile Procopisin*

*Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova

**Introduction.** Based on the recommendations of the Good Practice Pharmacy Standards as well as the requirements of the national regulatory documents, a list of requirements for the premises of the Community pharmacies has been developed, which includes 12 indicators: the access routes, the name and working regime, the scale for disabled, railing, showcase, illumination, waiting area for visitors, the pharmacist individual contact area with the visitors, the pharmacist's workplace, the glass partition. Based on this list, was elaborated the Community Pharmacy Observation Sheet. The study has enabled recommendations to be made on improving the fitting out of the community pharmacies in the Republic of Moldova. Hence, in the service room must be provided: fair access for all visitors; waiting area with seats where visitors can wait until they are served; the consultation area, allowing the patient and the pharmacist to talk without being heard by other visitors and to provide wheelchair access; the health promotion area where is various information; all areas must be aesthetically pleased and must be effective in the pursuit of pharmacists' activities. In the pharmacy there must be, if necessary, direction indicators to facilitate the "finding" of the searched areas.

**Aim of the study.** The aim of study is evaluation of current situation concerning professional services provided by community pharmacies, as well as their implementation, to assure the advanced level of pharmaceutical services provision to the population.

**Materials and methods.** The survey data was collected using structured questionnaires and the official statistical data of the Agency of Medicines, the Ministry of Health and the Department of Statistics. Two questionnaires were developed to collect information, using the opinion polls of the pharmacists. These tools were developed on the basis of the pilot qualitative study through target groups, which allowed identification of the fundamental aspects of a study problem.

**Results.** On the basis of the results obtained during the study, the recommendations for a quality of services and the measures necessary for their implementation in practice have been developed.

**Conclusions.** It was found that the role of the pharmacist in contemporary society has evolved significantly over the last 4-5 decades; its functions have expanded considerably in the field of