

Key words: pharmacy, organization and management of pharmacies, the improvement of local market, from local to global.

FORMULATION AND RESEARCH OF THE SOLID DISPERSION SYSTEMS OF SPIRONOLACTONE

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Introduction: Starting from the fact that spironolactone is practically insoluble in water, its formulation orodispersible is important to enhance dissolution rapid absorption from the oral cavity.

Aim: To increase the solubility of spironolactone was evaluated its association with different solubilized to form solid dispersion systems.

Material and method: *Preparation of solid dispersion systems:* Solid dispersion was obtained using the combined method: solvent evaporation and melting. Spironolactone and polyvinylpyrrolidone is dissolved in ethyl alcohol 96%. The resulting solution is left to complete evaporation of ethanol. Polyethylene glycol 4000 melts at a temperature of + 60° C, the mixture plus spironolactone and polyvinylpyrrolidone. Stir continuously until completely cooled. Parallel to prepare and physical mixture of spironolactone, polyvinylpyrrolidone and polyethylene glycol.

Thermo-gravimetric analysis: Substances studied, physical mixture and solid dispersion were subjected to thermo-gravimetric analysis derivatographic O1500D model MOM (Hungary). Samples were heated to a temperature of 1020° C, the heating rate of 10° C/min. He sought modification of the caloric content of substances and mixtures, recorded temperature variation, in the mass during heat treatment.

Results: The dispersed solid is characterized the 3 effects of decomposition in the temperature range 45 to 471° C, the mass loss of 86.96%. At a temperature of about 60° C the degradation of the system is associated with an endothermic effect, characteristic of a melting process which confirms that the system presents a phase change. There follows a series of endothermic and exothermic effects. Total mass loss is 97.91%.

Conclusions: The results confirm the formation of a solid dispersed system of spironolactone with polyvinylpyrrolidone and Polyethylene glycol 4000.

Key words: Spironolactone, polyvinylpyrrolidone, polyethylene glycol, solid dispersion system, thermo-gravimetric analysis.

PEDAGOGICAL AND PSYCHOLOGICAL FEATURES OF PHARMACISTS DIGITAL SYSTEMS GENERATION TRAINING

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Introduction: The vast majority of modern students were born from 1984 to 1994 during the so-called breakthrough of informational and communicational technologies development.

This fact largely determines the change in the outlook of the modern young generation, its reorientation in the digital technology.

Increasingly in the literature used the specialized terms that describe today's young adults as Net Generation (Tapscott, 1997), Digital Natives (Prensky, 2001), Generation Y (McCrindle, 2006) and others that express the modern students reliance on the informational and communicational devices such as PCs, mobile phones, digital music players, video games and other tools of the digital age.

According to the results of research scientists discovered about twenty psychological futures which characterize network generation: technological thinking, search engine mobility inductive learning, multifunction, emotional openness etc. Most of which positively influence the process of achieving theoretical knowledge and practical skills.

Methods: Concept-comparative, structure-systemic analysis; questioning; statistics.

Results: In order to optimize the process of pharmacists training among the representatives of digital system generation, there is a necessity of existing educational forms modernization, taking to attention psychological characteristics of modern students, including:

- increasing the volume of work performed with the usage of digital technology in the class-works and homework;
- explanation of the working strategy for the usage of on-line information retrieval systems, critical thinking and test results obtained in preparing for classes;
- teaching methods diversification of acquiring knowledge through group discussions, shared creativity, brainstorming, trainings and peer review of work performed;
- representation of kinesthetic perception of educational material;
- sustainable feedback between teacher and students during classroom activities and independent work of students using modern online technologies.

Conclusions: Thus, in dynamic development of the global pharmaceutical science, the crucial optimization is being performed in the field of pharmacists professional training in view of existing psychological characteristics of digital system generation in order to enhance cognitive activity, creative initiatives and public engagement, education of highly qualified and competitive professionals capable of introspection and critical comprehension of professional work performed.

Key words: pharmacists training, digital system generation, educational forms modernization.

DETERMINATION OF CALCIUM IN CITRUS JUICE USING ATOMIC ABSORPTION SPECTROSCOPY METHOD

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Introduction: Atomic Absorption Spectroscopy is a modern instrumental method that gives us the possibility to determine the chemical elements, in special, in a polycomponent sample. This technique involves aspirating an aqueous sample into a flame where the analyte is atomized. An isolated atom absorbs light at very specific wavelengths that are unique for each element. The amount of light absorbed by the analyte depends upon the concentration of analyte (Beer's law). By measuring the amount of light absorbed by the flame, it is possible to determine the concentration of analyte in the sample. Also, a series