COMPARATIVE ANALYSIS OF STANDARDIZATION OF DIETARY SUPPLEMENTS AND MEDICINES CONTAINING VITAMINS BY CHEMICAL COMPOSITION

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Introduction. One of the group of the products possessed the leadership position in the actual pharmaceutical and parapharmaceutical market is the vitamin medicines and dietary supplements.

Aim. To systematize information about assortment of monocomponent and combined dietary supplements and medicines containing fat-soluble vitamins and vitamins of B-group, their qualitative and quantitative composition, and control parameters of the presence and content of active ingredients.

Results and discussion. Monitoring of the data of the State list of drugs of Ukraine shows that more than 100 medicines containing fat-soluble vitamins (D, E, F, K) and vitamins of B-group (B_1, B_2, B_5, B_6, B_9, B_{12}) are registered in Ukraine. The medicines are represented mainly by combined products. Dragee, tablets and capsules are dominated among dosage forms for *per os* application. Content of the analysed vitamins is approximately at the same level for all selected combined medicines – it is varied within ±20% from the median.

Information from the State list of food products of special dietary application, functional food products and dietary supplements, and also Internet-sources shows that the number of vitamin dietary supplements exceeds the number of respective medicines in 2 – 3 times. Selected products are represented mainly by combined supplements. Dosage forms for *per os* application (dragee, tablets and capsules) are also the main group. The single doses of vitamins in such products are very different; they are varied within 10% – 300% from the median, and in all cases are less than for respective real drugs – in 1.5 times and more (till 20 times).

Conclusions. Vitamins are the natural compounds and usually should be ingested with food in common amounts. In a number of cases vitamins may be taken as medicines, but their chemical state in the medicine composition differs from their natural state; therefore, they should be standardized by chemical parameters – identification should be carried out, impurity content and also content of active ingredient should be checked.

The requirements to the parameters of chemical standardization of real drugs and dietary supplements containing vitamins should be normalized and harmonized within the general approaches.