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**ABSTRACTS  
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**APPLICATION OF MICRO-COLUMN HPLC  
IN THERAPEUTIC DRUG MONITORING**

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The introduction of therapeutic drug monitoring into routine practice of clinical analysis demands the maximal reduction of the single analysis cost. It can be achieved by the unification of sample preparation and chromatographic separation methods, and so by lessening of the column size. Such methods were built by the authors.

The method of the fast preparation of the blood serum sample allows us to extract most of lipids and proteins. Lipids are extracted by hexane, proteins are besieged by addition of 0.6 M lithium perchlorate in acetonitrile solution in ratio 1:1.

The unified method of the chromatographic analysis is consist in chromatography of a sample on the chromatograph "Milichrom A-02" ("EcoNova Ltd., Novosibirsk, Russia) on a column Ø2x75 mm with a phase C18 in the gradient elution regime from 0.2M LiClO<sub>4</sub> to acetonitrile with the simultaneous multi-wave UV-detection.

The applicability of the unified method for sample preparation in routine clinical practice for determination in blood serum a line of antiepileptic and cytostatic preparations (ethosuximide, primidone, phenobarbital, lamotrigine, carbamazepine, phenytoin, clonazepam, methotrexate) is shown. More than 500 determination were executed during the last 3 years, so their results were used for the correction of preparation doses.

The applicability of the unified chromatographic method for determination of the main substance and micro-admixture is shown by the example of more than 100 determination of single- and multi-component drugs.