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The application of interactive computer programs in the calculation of biological activity, in the acute toxicity and kinetics assessment and comparison and in the assessment of pharmaceutical product stability profiles

Arambasic, M.B., 1 Djordjevic, A., 2 Jeremic, D., 3 Adnadjevic, D., 1 Mandic, R., 1 Jatic-Slavkovic, D., 4 Ristanovic, D., 5 Kalauzi, A. 6

1 Pharmaceutical Factory, Quality Control Center, Dept. Biological Control, Belgrade-Zemun, Yugoslavia; 2 Pharmaceutical Factory, Quality Control Center, Belgrade-Zemun, Yugoslavia; 3 Pharmaceutical Factory, Institute, Dept. for Biomedicine, Belgrade-Zemun, Yugoslavia; 4 Pharmaceutical Factory, Veterinary Program, Belgrade-Zemun, Yugoslavia; 5 Medical Faculty, University Belgrade, Dept. for Biophysics, Belgrade, Yugoslavia; 6 Center for Multidisciplinary Studies, Dept. for Biophysics, Neuroscience and Biomedical, Belgrade, Yugoslavia

This paper presents the computer programs for: 1) calculating biological activity using tests: "2+2", "3+3" and "5+3" doses, "twin cross-over test" and "probit analysis" ("2+2" doses) [1,2] and 2) assessment and comparison of acute toxicity [3]. The paper also presents another application possibility of the programs for: 1) regression analysis (linear and non-linear (polynomial) regression and 2) modified one-way analysis of variance used for the comparison of linear regression [4] on the example of assessment and comparison of pharmaceutical products kinetics [5] and stability (shelf life) [6]. Keywords: computer programs, data analysis, bioassays, biological activity, toxicity, LD50, pharmacokinetics, comparison, stability, regression analysis (linear and non-linear (polynomial), modified one-way analysis of variance, probit analysis

List of references:

Bioassays
Data analysis
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