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SOFTWARE SURVEY SECTION

Editor's Note: The following Software Descriptions have been submitted by our readers in response to our call for an open exchange of information on software programs. They are offered without review or comment to provide a rapidly published, easily accessible avenue of communication. Other readers with relevant software packages are invited to complete and submit a Software Description Form (found at the end of this section).

Software package BP-021-S88 — PHARMKIN - A Pharmacokinetics Demonstration

Contributor: Richard R. Neubig, M.D., Ph.D., University of Michigan Medical School, Medical Sciences Building I, Room M6410, Ann Arbor, MI 48109-0626

Brief description: PHARMKIN develops users' practical knowledge of therapeutics by graphically illustrating principles of pharmacokinetics. The program allows users to visualize the effects of different dosage regimens on plasma concentration for the following commonly used drugs: aminophylline, digoxin, gentamicin, phenytoin, aspirin, digitoxin, and lithium. After the user makes a selection from the drug menu, a chart is displayed which provides the drug's therapeutic and toxic plasma levels. The program then prompts for entering the loading dose, the maintenance dosage, and the time between doses. Using these parameters, a graph is created with the line that indicates drug plasma concentration drawn slowly so that the user may interrupt and enter new parameters at any time. The user can also vary the graphing speed and patient characteristics such as weight, sex, age, and renal function. Other drugs can be added to PHARMKIN (for a program total of 20) by entering the appropriate pharmacokinetic parameters. Additional program features are screens designed for projection in a classroom setting and graph printing for future reference. Cost is $200 per departmental site license. Sample documentation/ output available free upon request from UMS.

Note: Although PHARMKIN simulations are designed to be as realistic as possible, the program should not be used to make therapeutic decisions for individual patients.

Potential users: Students/instructors/practitioners in medicine, pharmacy and nursing.
Fields of interest: Pharmacology and toxicology.

§ This application program in the area of pharmacokinetics has been developed for IBM PC and compatibles in BASIC to run under DOS 2.0 or higher. It is available on 5-1/4", dual-sided, double-density floppy diskette. Required memory is 128K.
§ Distributed by University of Michigan Software.
§ The minimum hardware configuration required is dual 360K disk drives or hard disk with graphics card. User training is required. There is extensive external documentation. Source code not available.
§ The package is fully operational. The contributor would welcome collaboration. It has been in use at 3 sites for approximately 3 years.

JOURNAL NAME BIOCHEMICAL PHARMACOLOGY

P E R G A M O N P R E S S
SOFTWARE DESCRIPTION FORM

Title of software program: _____

_____

Type of program: [ ] Application [ ] Utility [ ] Other_____

Category: _____ (ie. Psychological assessment, statistics, thermodynamics, etc.)

Developed for (name of computer/s): _____

in (language/s):_____

to run under (operating system): _____

available on: [ ] Floppy disk/diskette. Specify:

Size _____ Density _____ [ ] Single-sided [ ] Dual-sided

[ ] Magnetic tape. Specify:

Size _____ Density _____ Character set _____

Hardware required: _____

Memory required: _____ User training required: [ ] Yes [ ] No

Documentation: [ ] None [ ] Minimal [ ] Self-documenting
[ ]Extensive external documentation

Source code available: [ ] Yes [ ] No

Stage of development: [ ] Design complete [ ] Coding complete
[ ] Fully operational [ ] Collaboration welcomed

Is program in use? [ ] Yes How long? _____ How many sites? _____
[ ] No

Is the contributor available for user inquiries: [ ] Yes [ ] No

Distributed by: _____

Cost of program: _____

Demonstration disk available? [ ] Yes Cost: _____
[ ] No

(continued)

RETURN COMPLETED FORM TO:

Dr. David Stagg
Department of Pharmacology
Yale University School of Medicine
333 Cedar Street - P.O. Box 3333
New Haven, CT 06510

IV Software Survey Section

Description of what software does [maximum: 200 words]:

Potential users: _____

Field/s of interest: _____

# # # # # # #

Name of contributor: _____

Institution: _____

Address: _____

_____

Telephone number:_____

# # # # # # #

Reference No. [Assigned by Journal Editor] _____

- -

[The information below is not for publication.]

Would you like to have your program:

Reviewed? [ ] Yes [ ] No [ ] Not at this time

Marketed and distributed? [ ] Yes [ ] No [ ] Not at this time