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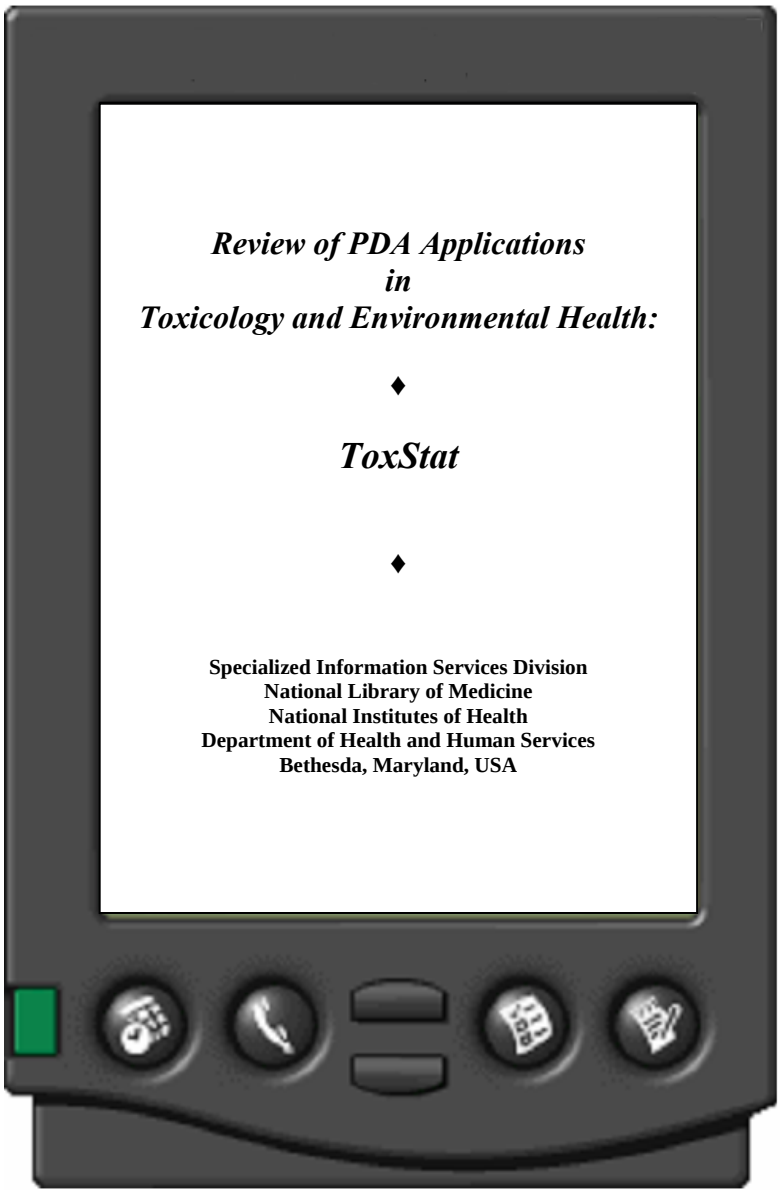

Review of PDA Applications in Toxicology and Environmental Health:

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ToxStat

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Specialized Information Services Division
National Library of Medicine
National Institutes of Health
Department of Health and Human Services
Bethesda, Maryland, USA

ToxStat

(Reviewed 04/2003)

General Information

For general comments regarding the *Review of PDA Applications in Toxicology and Environmental Health*, please see the ***Overview***. Here we review the main technical and content features of the Palm OS version of *ToxStat (1.0)* based upon a free, downloadable demo. *ToxStat*, a software product of the eResidency company, provides "to-the-point information on over eighty of the most commonly encountered toxins in the clinical environment." It includes information on mechanism of toxicity, toxic dose, clinical presentation, diagnosis, treatment, antidotes, decontamination and elimination techniques, and pearls of wisdom. It is designed to help healthcare professionals manage a variety of toxic exposures. The contents of this application were authored and compiled by physicians affiliated with the Harvard Medical School.

Intended Users

- Emergency Medical Staff
- Clinical Staff

Authorship/Data Source

ToxStat is produced by the eResidency company. The information contained in this application on toxic substances most commonly encountered in clinical settings was authored and compiled by physicians affiliated with the Harvard Medical School.

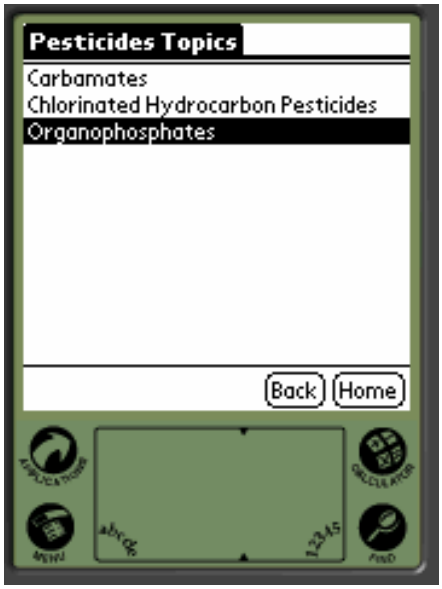
Contents

ToxStat is intended for healthcare professionals managing toxic exposure patients and poison victims. It contains information on mechanism of toxicity, toxic dose, clinical presentation, diagnosis, treatment, antidotes, decontamination and elimination techniques, and pearls of wisdom. The information is organized "By Toxin" and "By Category", the

two main sections of the database, as illustrated by the two screen shots that follow. While the former section includes a list of individual toxins and toxin classes, the latter section comprises a list of larger groupings of toxic substances (e.g., Heavy Metals, Pesticides), which is further organized into sublists of individual toxic substances and substance classes.

◄ ***The screen shot to the left shows a portion of the scrollable and clickable list of toxins as it appears in the "By Toxin" section of the database. Individual toxins, as well as classes of toxins, are listed in alphabetical order.***

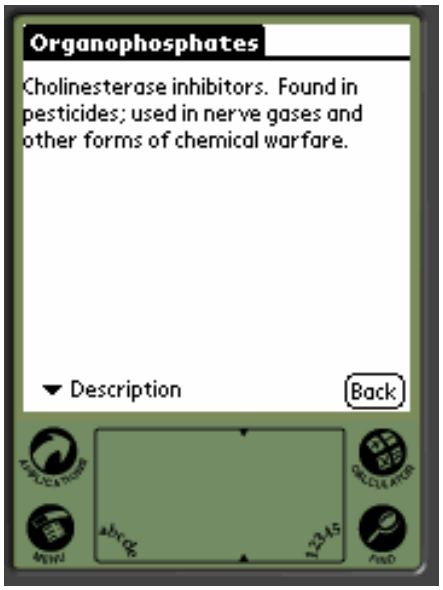
► ***The screen shot to the right displays the clickable list of toxic substance groupings as it appears in the "By Category" section of the database. These larger categories of toxic substances are also listed in alphabetical order.***

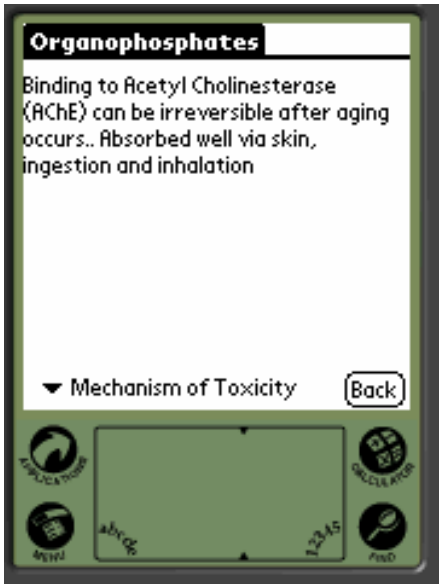


◄ ***The screen shot to the left shows, as an example, the sublist of toxic substances included under the Pesticides grouping: Carbamates, Chlorinated Hydrocarbons, and Organophosphates.***

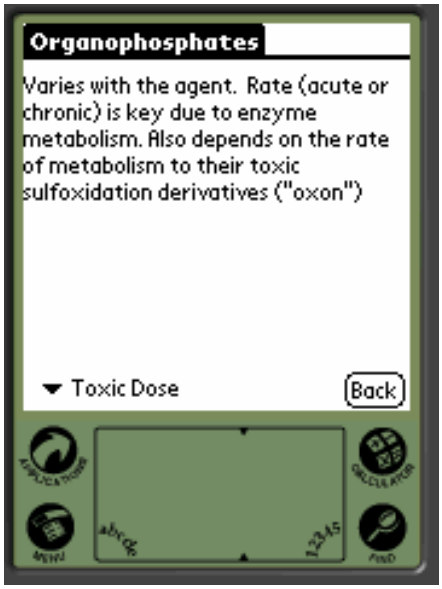
► ***The screen shot to the right and those that follow illustrate the information the database typically provides for each individual toxic substance or substance class.***

Using the Organophosphates entry as an example, the first of nine information items (Description) is displayed to the right. The other eight items are shown below.



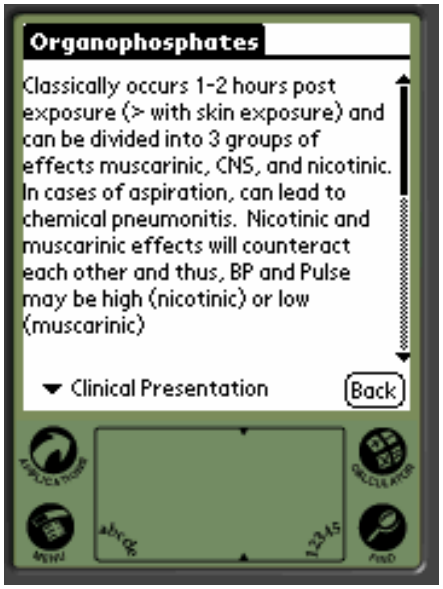


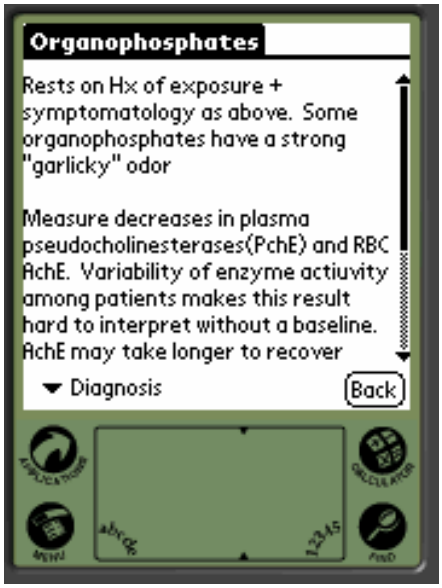
◄ ***Mechanism of Toxicity***



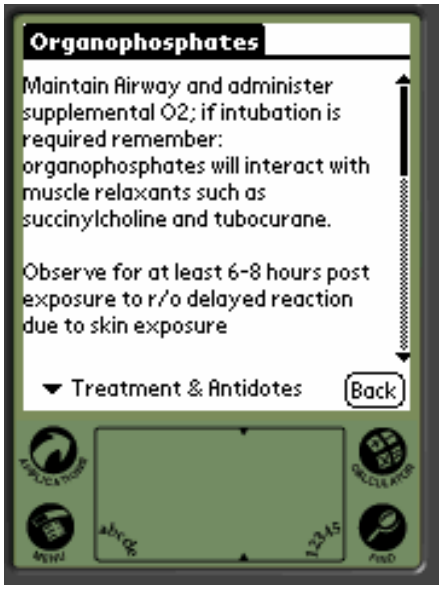
◄ ***Toxic Dose***

Clinical Presentation ►



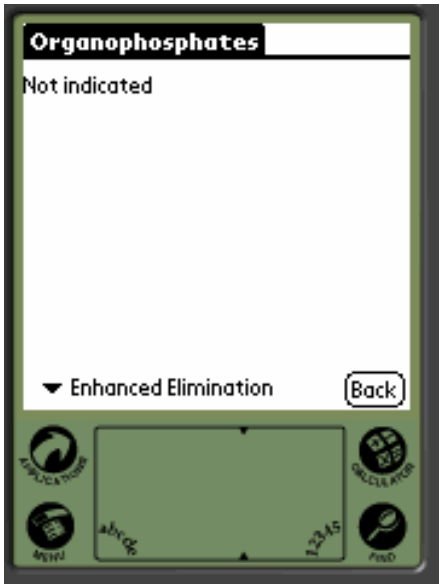


◄ ***Diagnosis***

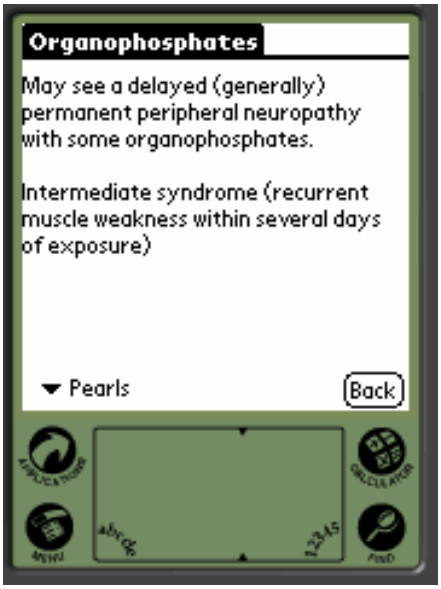


◄ ***Treatment & Antidotes***

Decontamination ►



◄ ***Enhanced Elimination***

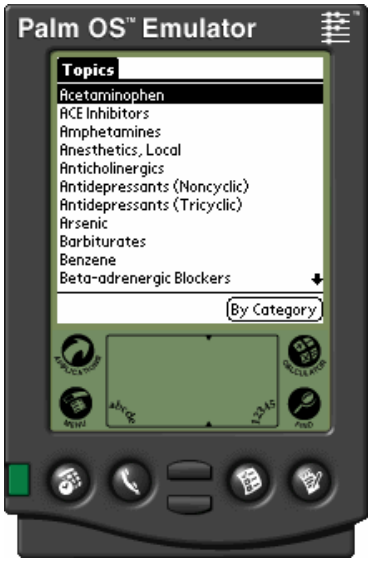


◄ ***Pearls (of wisdom)***

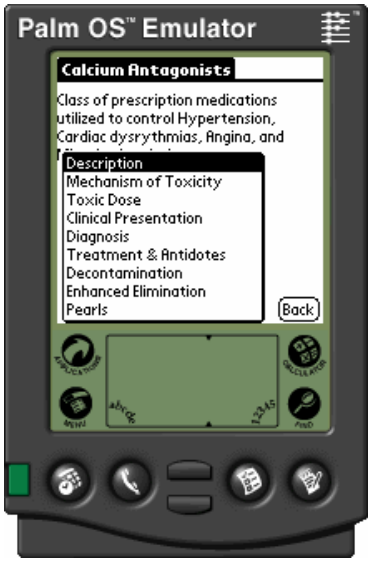
Navigation

This is an application that functions in an offline mode and does not require any degree of mobile connectivity.

By tapping on the By Toxin or By Category button in the lower right-hand corner of the screen, the user can switch between the two lists of toxic substances (see screen shots below). Tapping on an item in either list provides the user with additional information on that item. Furthermore, tapping on the downward arrow (⬇), as shown in the right screen shot below, allows the user to scroll through the list.

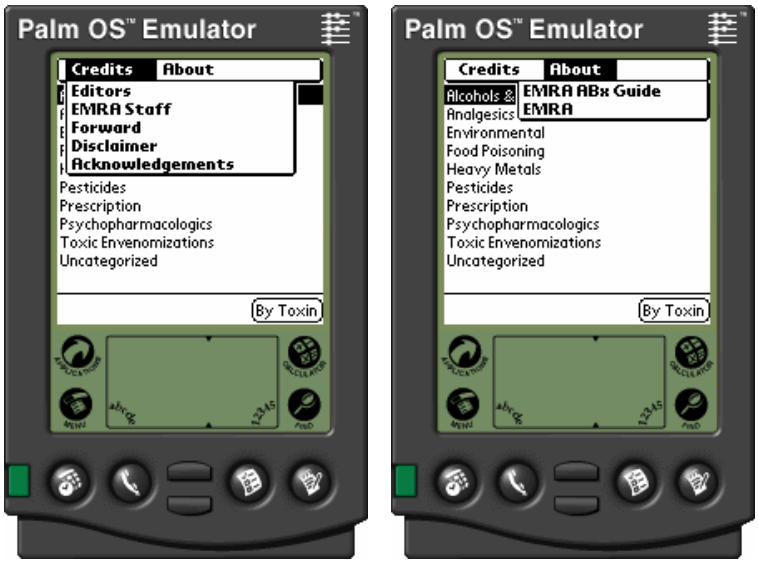


Once the first information screen (e.g., Description) for an item (e.g., Calcium Antagonists) is displayed (left screen shot below), tapping on the triangle (▼) in the lower left-hand corner allows the user to select another information screen (e.g., Toxic Dose) from a pop-up menu (right screen shot below).



Tapping on the Back button in the lower right-hand corner of the screen will take the user back to the previous screen, while tapping on the Home button will take the user back to the main screen (see screen shot below).

Tapping on the label in the top left corner of the screen displays two options: Credits and About. The Credits menu contains the following informational items: Editors, EMRA (Emergency Medicine Residents' Association) Staff, Forward (probably Foreword), Disclaimer, and Acknowledgements. The About menu contains two items: EMRA's ABx Guide (a guide to antibiotic selection) and EMRA. (See screen shots below)



Requirements

- Palm OS 1.0
- 200 KB of RAM

Application Type/Price

- Shareware
- $29.99

Availability

ToxStat is available from its producer (eResidency) and from commercial PDA software distributors.

Useful Web Links

For information about the eResidency company, go to www.eresidency.net.

Review of PDA Applications in Toxicology and Environmental Health

Overview

Handheld computer devices known as Personal Digital Assistants (PDAs) are increasingly being used in the fields of toxicology and environmental health. Moreover, software applications covering specialized subject matter in these fields are increasingly being made available to PDA users.

In an effort to provide information on the main technical and content features of selected applications, the National Library of Medicine's Division of Specialized Information Services (SIS) has undertaken an ongoing review of them. Typically, individual reports in the review series are based on free, downloadable demos.

Each report typically covers the following topics: General Information, Intended Users, Authorship/Data Source, Contents, Navigation, Requirements, Application Type/Price, Availability, Useful Web Links, and Updates.

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Note: The *Review of PDA Applications in Toxicology and Environmental Health* is not intended to be all comprehensive, but rather a review of selected applications. SIS staff welcomes any comments on completed reviews or suggestions for additional reviews of applications not currently included, as long as they fall within the scope of toxicology and environmental health. You may contact us via email at tehip@teh.nlm.nih.gov with any comments, questions, or suggestions.

It is not the intention of SIS staff to recommend, or not recommend, any particular PDA device(s) or software application(s), but rather to provide an objective and descriptive review of the main technical and content features of selected applications based on their downloadable demo versions.

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