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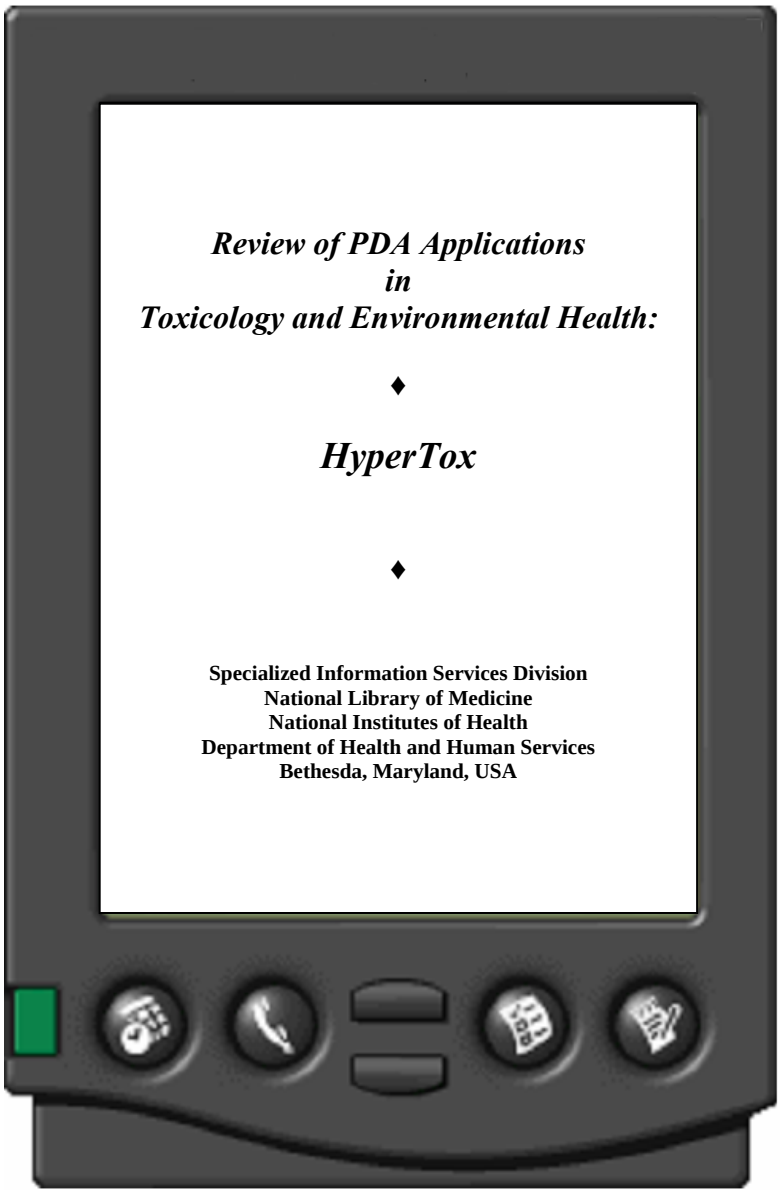

Review of PDA Applications in Toxicology and Environmental Health:

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HyperTox

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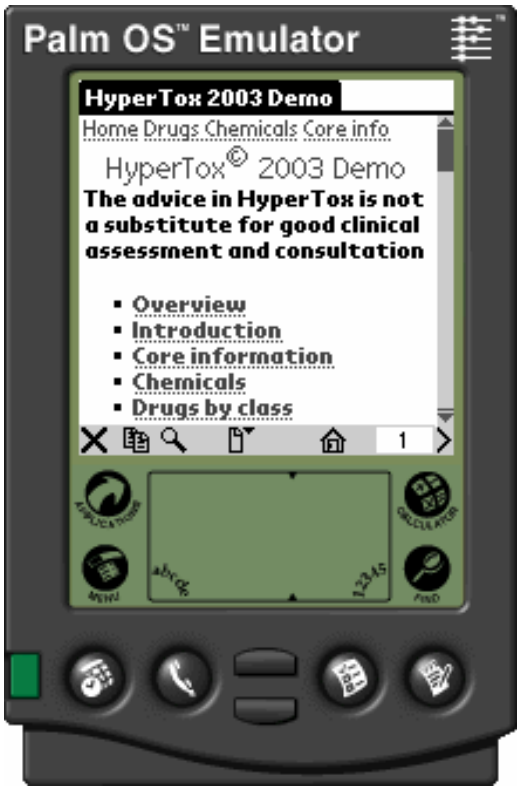
Specialized Information Services Division
National Library of Medicine
National Institutes of Health
Department of Health and Human Services
Bethesda, Maryland, USA

HyperTox

(Reviewed 01/2004)



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 *HyperTox (2003)* based upon a free, downloadable demo. The demo includes monographs on paracetamol (acetaminophen), carbamazepine, and theophylline, with some limited supporting information. The full commercial version of the application is an e-document "organized into a collection of hyperlinked monographs regarding the management of acute poisoning." *HyperTox* is "designed to provide concise practical information for the treatment of common and serious poisonings." Recommendations are based on the best evidence available, and on the editors' clinical practice when such evidence is lacking.

Intended Users

- Emergency Room Staff
- Intensive Care Unit Staff
- Poison Center Staff

Authorship/Data Source

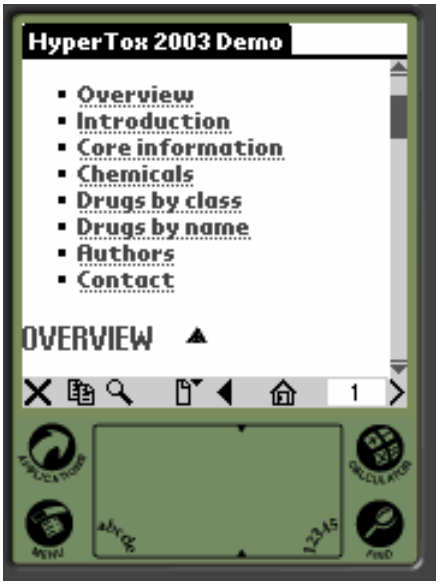
HyperTox is produced by Meditox Pty Ltd and is largely edited and authored by Drs. Andrew Dawson, Nicholas Buckley, and Ian Whyte. All three authors have extensive experience in clinical toxicology and have contributed to toxicology textbooks, have published in peer-reviewed journals, and act as consultants to a number of Australian poison information centers.

Contents

This e-document is based on a review of available medical evidence and on the editors' clinical experiences. It addresses the assessment and treatment of acute poisonings and is suitable for medical emergency departments, intensive care units, and poison centers. It covers the following two groups of toxicologically relevant drugs and chemicals:

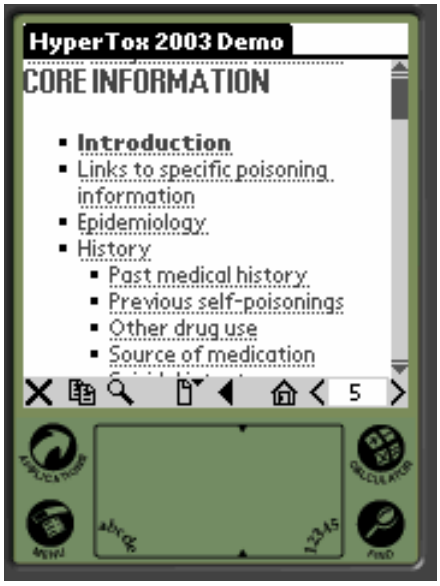
- ACE Inhibitors
- Analgesics
- Antiarrhythmics
- Anticholinergics
- Anticoagulants
- Anticonvulsants
- Antidepressants
- Antihistamines
- Antimalarials
- Benzodiazepines
- Beta Blockers
- Calcium Channel Blockers
- Cardiac Glycosides
- Clonidine
- Colchicine
- Disulfiram
- Drugs of Abuse
- Ergot Alkaloids
- Hypoglycemics
- Iron
- Lithium
- Neuroleptics
- Psychiatric Drugs
- Serotonin
- Theophylline

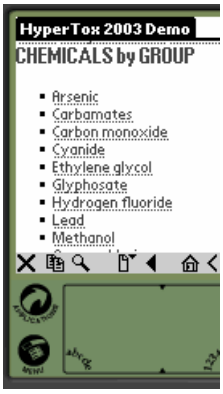
- Arsenic
- Carbamates
- Carbon Monoxide
- Cyanide
- Ethylene Glycol
- Glyphosate
- Hydrogen Fluoride
- Lead
- Organochlorines
- Organophosphates
- Paraquat

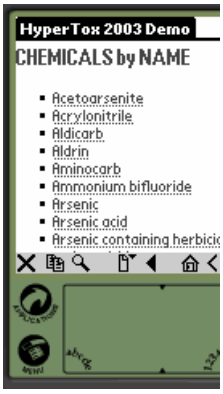


◄ *The opening screen shows the e-document's main sections – Overview, Introduction, Core Information, Chemicals, Drugs by Class, Drugs by Name, Authors, and Contact – and provides links to them. The Core, Chemicals, and Drugs information is also accessible via links at the very top of the opening screen (not shown here).*

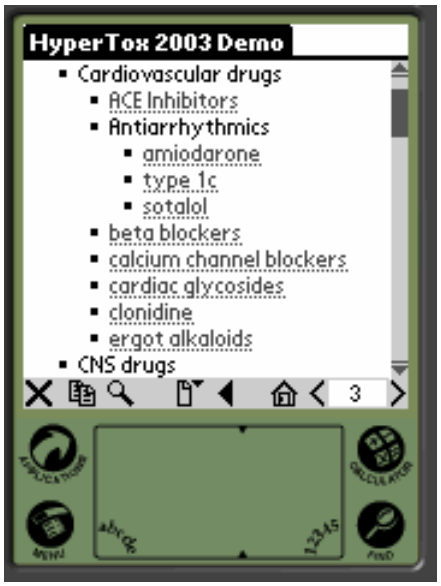
► *The Core Information section provides general information of relevance to poisonings and is subdivided into the following main topics:*
**Links to specific poisoning information*
**Epidemiology*
**History*
**Physical examination*
**Investigations*
**Information regarding toxicity*
**Differential diagnosis*
**Management of treatment-refusing patients*
**Treatment*





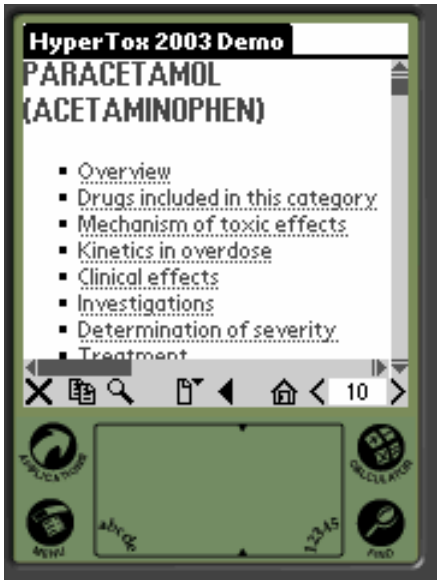


◄ *The Chemicals section displays chemicals in two separate groupings in a vertical column (here shown side by side) – first by chemical group and then by chemical name. Individual chemical groups and chemical names are linked to their respective subsections and records within the document.*



◄ *The screen shot to the left shows a portion of the Drugs by Class section. Each individual drug class entry is linked to its respective subsection within the document.*

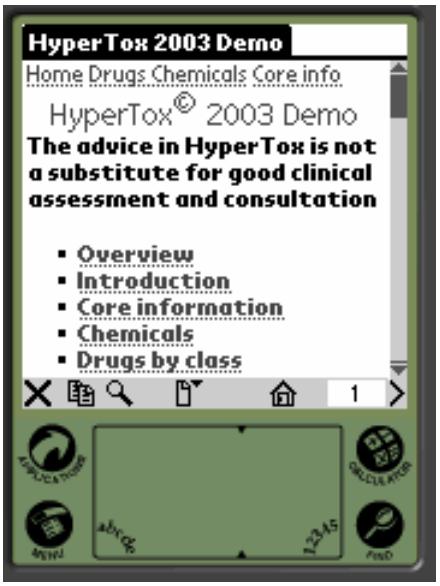
► *The screen shot to the right shows a portion of the Drugs by Name section. Each specific drug name is linked to its respective record within the document.*



◄ *The screen shot to the left displays the Paracetamol (Acetaminophen) monograph section as an example of the type of information provided for each drug and chemical entry. The topics covered here are: Overview; Drugs included in this category; Mechanism of toxic effects; Kinetics in overdose; Clinical effects; Investigations; Determinations of severity; Treatment; Late complications, prognosis – follow-up; References – further reading. Please note that the topic categories may vary for different drug and chemical entries.*

Navigation

This is an application that functions in an offline mode and does not require any degree of mobile connectivity. The *iSilo*™ reader is required to view the *HyperTox* e-document. For detailed information on the *iSilo*™ reader and its functionality and features, please visit the *iSilo*™ website at www.isilo.com.



◄ This e-document is organized into lists, monographs, tables, and links. A horizontal menu (top of screen) and a vertical menu (bottom half of screen) provide access to different document sections via hyperlinks. The iSilo™ reader provides a vertical scroll bar on the right screen margin; a horizontal scroll bar (not shown) is available on selected pages. At the bottom of the screen the user may exit the application by tapping ✕; may copy text by tapping; may search the document by tapping; may access bookmarks by tapping; may return to the main page by tapping; and may go from page to page by tapping on 1 (angular bracket).

(Please note that the application reviewed here uses version 4.01 of the *iSilo*™ reader. Employing other versions of the *iSilo*™ reader will likely result in different screen displays and navigational features.)

Requirements

- Palm OS 3.0
- 800 KB of RAM
- *iSilo*™ reader 4.0

Application Type/Price

- Shareware
- $19.95-24.95 – *HyperTox* (includes free updates for 1 year)
- $19.99 – *iSilo*™ reader (single-user license)

Availability

HyperTox is available from HyperTox.com and from commercial PDA software distributors. The *iSilo*™ reader is available from iSilo.com.

Useful Web Links

For further information on *HyperTox*, go to www.hypertox.com. For further information regarding *iSilo*™, visit www.isilo.com.

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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