

Reviews of Books and Software

Parenting Plus: Raising Children with Special Health Needs. Peggy Finston. Penguin Books, New York, 1992, 295 pp, \$9.00 (paper). ISBN 0-14-016837-0.

This winner of the 1991 book award from the President's Committee on Employment of People with Disabilities addresses the issues of raising children with special health needs from the parent's perspective. Dr Finston, trained in psychiatry at the University of Pennsylvania, blends her knowledge of medicine and perspective as a physician with her experience as a parent of a child with special health needs. The result is a balanced, thorough, and empathetic discussion of the subject. The book is well written and easy to read.

Dr Finston opens the book by briefly recounting her experience with her own child, a toddler with behavioral problems that eventually were found to be caused by food and environmental allergies. This recounting provides the reader with an understanding of Dr Finston, her family, and her reasons for writing the book. It also assures both the lay reader and the physician that the author writes from a position of knowledge and experience.

The body of *Parenting Plus* takes the reader on a life journey with families of children having special health needs. Beginning with the parental question "What did I do wrong?" Dr Finston examines the gamut of issues facing the family in this situation. The text progresses with discussions of problem identification; living with the illness; dealing with emotional reactions to the situation; enabling the child to become as independent as possible; handling relationships, both positive and negative; working with professionals; preparing for the future, including adolescence; and keeping the family in the mainstream of life.

Dr Finston has not confined herself to one specific disorder, but includes people with a variety of health needs, making the book applicable to a wide audience. She also uses the medical literature and a number of books by and about people with special health needs as source material to add breadth to her discussion. The book is well annotated and indexed.

Parenting Plus: Raising Children with Special Health Needs is a book that every family practice physician should

read and keep in the library. It provides invaluable insight into the lives of these special children that will better enable the physician to become a partner with the family in promoting their health. It is also useful for parents, particularly parents of children whose conditions are newly diagnosed, to help them grasp the impact of the medical condition on their child and their family, and to provide hope that most of these situations are manageable most of the time.

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The Contraceptive Handbook: A Guide to Safe and Effective Choices. B. Winikoff and S. Wymelenberg. Consumer Reports Books. Consumers Union, Yonkers, New York, 1992, 248 pp, \$18.95. ISBN 0-89043-430-1.

This concisely written, well-organized book is, as it states, "a detailed guide to the methods of birth control currently available in the United States" (p 3). It is intended for the intelligent, well-read, interested consumer, as well as for health care educators, nurses, and students of nursing, medicine, and health care. Employed as a reference for physicians or health care providers, the book is appropriate for physician and residency offices and hospital libraries.

There are excellent, clearly written segments in this well-arranged book, especially on nonprescription methods of contraception. There are thorough, meticulous discussions of the advantages, disadvantages, and side effects of the various forms of contraception. Included are much-needed step-by-step detailed instructions for the use, care, and storage of contraceptive appliances and methods, from condoms and spermicides to diaphragms and caps. Useful boxes throughout the text highlight issues in particular methods, danger signs, and problems. The pictures, though few, are very helpful. The sections on newer and developing methods are particularly useful. Occasionally opinions seem to replace facts, but all-in-all this is a well-written, useful book.

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Software Reviews

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US HEALTH LINK—An On-Line Information Service for Health Professionals IEI Network, Inc, One Wheaton Center, Suite 1611, Wheaton, IL 60187. \$35 monthly for 4 hours connection time (50% discount for students and residents). Site licensing available. Local access numbers allow the user to avoid long-distance phone charges.

HOW SUPPLIED: Free 15-day trial. Call 1-800-682-8770.

DOCUMENTATION: No manual; on-line help available.

HARDWARE REQUIREMENTS: Any computer, modem, and communications package that provides a standard 80-character-wide display.

MOUSE SUPPORT: None.

CUSTOMER SUPPORT: Toll-free voice line (1-800-682-8700); on-line help available.

US Health Link, which began operation in February 1992, is an electronic information service for health professionals. Created by executives of the now defunct AMA/NET, it has been designed for easy use even by those who have no experience with on-line services. US Health Link provides literature, communication, and interactive services, which are listed on menus that users can select by number or name.

Examples of medical literature and news include EMPIRES, MEDLINE, and Comtex Medical News Service. EMPIRES (Excerpta Medica Physicians Information and Retrieval Service), a selection of 320 medical journals from 1989 to the present, is updated weekly. US Health Link's implementation of MEDLINE covers 1300 journals from 1987 to the present and is updated monthly. Both EMPIRES and MEDLINE have "easy" and "advanced" search options. The full text of citations can be ordered for shipment for an additional fee.

The Comtex News Service provides summaries of domestic and international news wires. Users can select from categories of medical news (eg, AIDS, cancer, and surgery), and of scientific research, computers, environmental issues, legislation, and legal issues.

Two of the latest additions to US Health Link are CME Data Base and CINAHL. CME Data Base contains infor-

mation on over 4000 CME courses offered in the United States and internationally. Linkages are being established to permit on-line registration and ordering of course material. CINAHL is a literature database referencing 1400 publications, video tapes, and other health education materials of specific interest to nurses and physician assistants. Patient material is also available.

Communication products currently available include Clipping Service, electronic mail, FaxLink, and bulletin boards.

The Clipping Service is a product that monitors literature citations and news items as they are added to the system from EMPIRES, MEDLINE, and the News Service. Users can designate one or more key words or phrases to define what types of items should be "clipped" for their folder. The basic monthly fee includes one clipping folder; additional folders can be purchased. Subscription to the FaxAlert option, for \$10 per month (includes a second clipping folder), provides weekly alerts to new clipping folder, electronic mail, and selected bulletin board postings.

Currently, electronic mail (e-mail) can only be sent to other US Health Link subscribers. A "gateway" to the InterNet, a global network of users at academic and other institutions, is planned. In the meantime, FaxLink allows users to send e-mail messages to fax locations for \$1 per page per location. Electronic bulletin boards provide a forum for public "posting" of messages and inquiries that can be read by all users. Boards are subdivided by topic, such as Family Practice. At the present, the boards are relatively inactive because of the small number of current users (about 6000 as of January 1993).

Interactive products currently available include DXplain, MEDICOM, Coagulation Advisor, Hepatitis Advisor, and Patient Simulation Modules.

DXplain in the outline form is found exclusively on US Health Link. It is a database of history, examination, and laboratory findings for more than 2000 disease entities. Users enter a set of findings, DXplain then lists diagnostic possibilities in ranked order, separated into common, rare, and very rare conditions. DXplain can also be used in a "question mode" in which it prompts the user for relevant additional information, and a "disease reference mode" in which further information about diagnostic possibilities is retrieved.

MEDICOM is a drug interaction package that provides interactions for a list of medications. Clinically insignificant interactions can be excluded, and a profile can be saved for future reference.

US Health Link is collaborating with a group at Yale University to make expert systems available. The first two, Coagulation Advisor and Hepatitis Advisor, are now on-line. The programs from Yale function as "interactive papers," retrieving expert comments about specific conditions within a topic area (selection based on user-provided criteria).

Patient simulation modules, developed by the Massachusetts General Hospital, currently cover six areas, including hypertension, hyperlipidemia, cardiac arrhythmias, and critical care. In each area, users can select from multiple cases (eg, 17 for hypertension). Users receive immediate feedback about their diagnostic and therapeutic choices. US Health Link has applied to grant CME credit to participants.

For this review, I used the service regularly during July 1992. I also sought and received feedback from several other physician users. I experienced no difficulty in connecting to the service or in selecting products using the menu structure. The most popular current products were literature searches and the clipping folder.

I found the "easy" EMPIRES and MEDLINE searches helpful to identify articles that could answer clinical questions that arise in daily practice. Users who have more complicated searching needs could learn to use the "advanced search" options in US Health Link, or could get their own account with the National Library of Medicine (NLM) and use GRATEFUL MED software from the NLM to do their searching (software available for approximately \$30; call 1-800-638-8480 for information).

A clipping folder is useful for those with special interests; I found it very helpful to stay abreast of new items that relate to my area of research.

With more subscribers, the e-mail and bulletin boards will become more useful. The bulletin boards have the potential to foster lively debate and information sharing.

The interactive services offer the greatest potential for further development. It is to be hoped that the current offerings are only the first of many such interactive products that can directly assist the decision-making process for indi-

vidual patients. Practice guidelines can be made available in a similar fashion. US Health Link should also explore ties with specialty societies such as the American Academy of Family Physicians in order to make specialty-specific products available to its membership.

In summary, telecommunication services may become one of the most powerful information resources for physicians. The creators of US Health Link have developed a service that is easy to use at a reasonable cost. The currently available products should be especially helpful for physicians who have limited access to medical libraries and consultants.

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S-O-A-P DRUG INTERACTION PROGRAM WITH DRUG SIDE EFFECTS AND AUTOMATIC PRESCRIPTION WRITING (1991). Patient Medical Records, Inc, 901 Tahoka Rd, Brownfield, TX 79316. \$159.50; updates \$39.50 (two per year). HOW SUPPLIED: 720K (3.5 in.) or 360K (5.25 in.) diskettes.

DOCUMENTATION: 76-page, 3-ring, loose-leaf notebook plus tutorial diskettes.

HARDWARE REQUIREMENTS: Minimum IBM PC or compatible, one 720K or two 360K floppy drives or about 1MB hard disk space for program plus 0.5K per patient.

MOUSE SUPPORT: No.

CUSTOMER SUPPORT: 1-800-285-7627.

DEMONSTRATION DISKS: Yes, free.

TRIAL ARRANGEMENTS: 30-day trial for \$25, credited toward purchase.

S-O-A-P Drug Interaction Program with Drug Side Effects and Automatic Prescription Writing (hereafter SOAP), a stand-alone component of *S-O-A-P Medical Records*, determines drug-drug and drug-disease interactions and drug side effects, and allows printing of prescriptions and patient summary information. These are tasks that lend themselves to computerization, especially if a physician has patients on multiple medications. Single entry of drug information to generate chart documentation, prescriptions, and interaction alerts is manifestly logical. The addition of other clinical information allows the physician to check for drug-disease interaction and to create pa-

tient summaries. The major intended user of SOAP is the clinician.

SOAP installs easily on a hard disk; it may also be run from floppy drives totaling 720K capacity. On my 80286/12 lap-top, SOAP loaded in 7 seconds (from hard disk) and, in general, ran efficiently once loaded. Documentation is satisfactory.

The focuses of this review, the drug interactions and prescription writing features, may be viewed as two interconnected modules. SOAP's interactions module, unlike most drug interactions programs, is designed around the patient profile. In addition to 20 drugs per patient, SOAP allows entry of identifying data (eg, name, chart number, date of birth, sex), major habits influencing prescribing (eg, smoking, caffeine), drug allergies (up to 4 per patient), diagnoses (up to 10), and even health maintenance data. These data allow not only drug-drug interactions, but also drug-disease interactions (eg, β blocker-asthma) and allergy alerts. To each diagnosis or drug entry, SOAP allows "attaching" 18 characters of optional text, sufficient to abbreviate prescription information (eg, "400mg tid #60 rf0"). Unfortunately, only the drug name (eg, "ibuprofen") is transmitted to the prescription writer.

The one-screen patient information summary allows SOAP to function as an electronic counterpart to the paper-chart cover sheet of problem-oriented records. In addition to problem, medication, and allergy lists, the electronic summary provides four comment lines, on which health maintenance information, reminders, or any other text may be stored. The advantages of the electronic version include its automatic tagging of drug-drug and drug-disease interactions, automatic calculation of age (assuming birth date is entered), and its modifiability. Based on a user-modifiable health maintenance protocol, users may also search each patient's data for health maintenance compliance. Both drug and diagnosis lists are alphabetized rather than prioritized, both on screen and in printouts. Although the user-entered data are transfer-

able to other programs via screen capture utilities, the program itself provides no mechanism for this. (Transportability is an issue if a user wishes to change to another program.)

SOAP's performance compared superbly with three previously reviewed drug interactions programs (see *Fox GN. Drug interactions software programs. J Fam Pract 1991;33:278-80*). It concurred on all 17 interaction pairs for which there was consensus among the other programs. SOAP failed to flag the digoxin-propranolol interaction flagged by two of the three other programs.

When the prescription writer is accessed, all of the patient's drugs are listed; the physician selects which to print as prescriptions. Each prescription is then previewed on the screen. For some drugs, there is a preexisting default prescription (quantity, number of refills, instructions) and chart documentation (the 18-character entry described earlier). For other drugs, the information, when it is first entered, may be saved as the default. The default prescriptions are easily modified immediately prior to printing, with or without altering the stored default. SOAP will print prescriptions with no active patient (patient name is left blank, age prints as "-1.00"), but will not preprint prescriptions with blank quantity or refill lines.

The prescription writing function worked logically and smoothly on a dot matrix and a laser jet printer; a dedicated prescription printer may be used. A nice feature (where legal) is the option to print multiple drugs on one prescription (under one header and above one signature line). Physicians may form multiple prescription pad designs ("templates"), a useful feature if multiple physicians are using the software. Each pad may be personalized with the name of the practice, physician, DEA number, pharmacy instructions (labeling instructions, brand only), and so on, via headers and footers.

The idea behind this program, combining prescription writing, drug interactions, and chart documentation, is ter-

rific. However, the screen menus are so awkward and unwieldy (some extending margin-to-margin, top-to-bottom) that I suspect they would frustrate many physicians. Although keystrokes for most entries have been minimized, the optional drug and diagnosis notes are not visible on the main data screen; users must wade through the menus to access them. Also, to include the comment lines and prescription/diagnosis notes in the printed patient summary, the diagnosis and drug lists must appear twice in the printout. This should be formatted more cleanly, especially because the program is designed to complement paper records. Other potentially useful features, such as batch printing of patient summaries and drug-meal ("Can the drug be taken with meals?") data, are not incorporated.

Users desiring a "pure" drug interactions program will find this program inefficient. For those who would find allergy alerts and drug-diagnosis interactions helpful additions, and find cumbersome menus little bother, buy SOAP. Viewed solely as a prescription writer, it facilitates rewriting of prescriptions; however, prescriptions cannot be preprinted before an encounter if quantity to be dispensed and number of refills are unknown. SOAP's strength is the logical combination of these features. The provision for printed chart summaries is an added bonus and a logical step toward computerized records. If it possessed a cleaner, more logically designed user interface and output, I would strongly recommend SOAP to everyone who experiences frustration when writing/rewriting prescriptions for patients on a dozen medications, or who wishes to experiment with an inexpensive electronic mini-record. As it stands now, I believe most physicians would become frustrated with the menus after a while.

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