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MedicalDisc  
Reporter

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completion of  
a new market  
report titled

# PHARMACEUTICAL VIDEODISCS: CONVERSATIONS WITH MARKETING & PRODUCT MANAGERS

*Including*

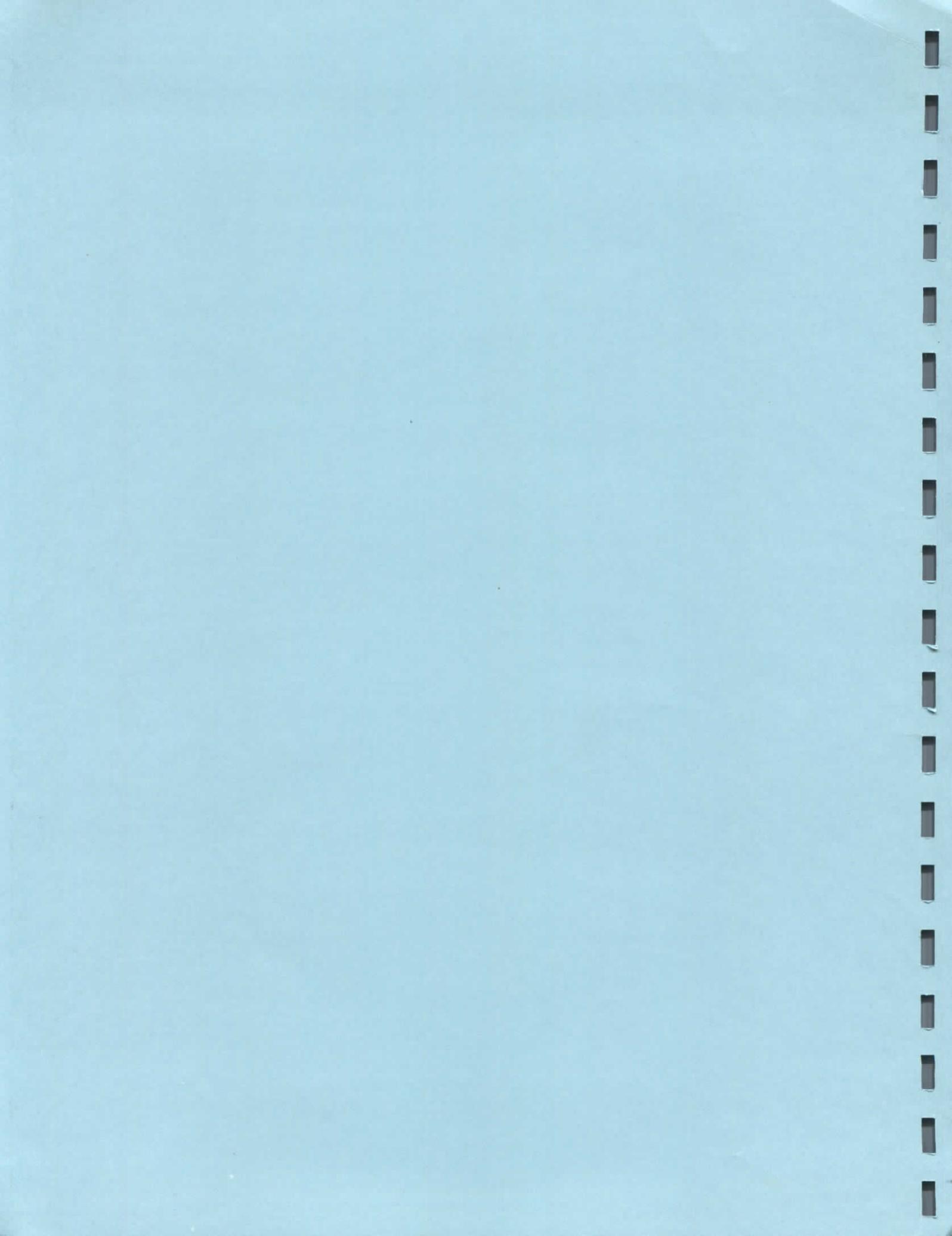
Ayerst  
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Galaxo  
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Mead Johnson  
Merck Sharp & Dohme  
Miles  
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Roerig  
Sandoz  
Stuart

- Interviews with pharmaceutical product, marketing, and exhibit managers
- Descriptions of videodisc programs for medical exhibits, continuing education, product promotion, and sales training
- Predictions for the continued use of videodisc
- Tips by managers on how suppliers can penetrate the market

**A MARKET REPORT  
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Smith Kline & French  
Syntex  
Upjohn  
Winthrop-Breon

plus! complete descriptions of more  
than 50 pharmaceutical videodiscs.



PHARMACEUTICAL VIDEODISCS:  
CONVERSATIONS WITH MARKETING & PRODUCT MANAGERS

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## PREFACE

This report is the result of conversations with marketing managers, product managers, and exhibit managers in 21 pharmaceutical companies. All but three of the companies interviewed have produced at least one videodisc. In all, more than 80 pharmaceutical videodiscs were located--nearly 50 of which are described in this report.

Whenever possible, the pharmaceutical managers were asked to comment on the success of their videodisc programs, their plans for developing additional videodiscs, and videodisc suppliers. Where the managers are quoted, I have attempted to capture only the context of their remarks, not necessarily their exact words.

With only a few exceptions, most managers were willing to talk freely about their videodisc projects. However, some product managers could not be reached, even after repeated attempts. The result is a few projects listing only a contact person without the usual detailed information.

Still, the report provides a vivid picture of the pharmaceutical industry and its use of videodisc technology for education, training, and promotion. It is the first and only report of its kind, and therefore is likely to have a small number of inaccuracies and/or omissions. I encourage you to send me any comments, suggestions, and corrections you have regarding this report. Send all correspondence to Scott Stewart, Editor, MedicalDisc Reporter, 6471 Merritt Court, Alexandria, Virginia 22312; 703/354-8155.

I would like to express my appreciation to those pharmaceutical managers and videodisc suppliers who provided me with the information that made this report possible. It's my hope that the Pharmaceutical Report will, in some measure, help the industry grow by bringing together those companies best suited for each other and thereby stimulating new and innovative products.

Scott Alan Stewart  
April 1986

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## A Brief History of Pharmaceutical Videodiscs

From the very beginning, videodisc technology struck the pharmaceutical industry as a unique and highly visible educational/marketing tool. In 1979, two companies--Roerig and Smith Kline & French--each made the decision to develop videodisc-based exhibits to be shown at medical conferences and symposia. They knew that the "high tech" aura of the videodisc, along with its ability to provide random-access video images, was sure to capture the attention of their physician-based clientele. The response to these exhibits was outstanding, initiating what has become a multi-million dollar industry.

### Roerig/Pfizer Laboratories

Roerig, a division of Pfizer Laboratories, developed their first videodisc, "Borderline Personality Disorders," in time to be shown at the 1979 American Psychiatric Convention in New Orleans. The program was produced by a division of the advertising agency BBD&O in what was surely the fastest videodisc project of its time.

According to John Pace, then General Manager of the Health Education Technologies Division, the disc was "sold, scripted, shot, post-produced, mastered, and shown in a six-week period." In order to get that kind of turn-around in those days, Mr. Pace resorted to camping out on the DiscoVision doorstep in Costa Mesa for a week. He reports it was worth the effort, however, as the exhibit played for three days to sold out audiences and received rave reviews from the convention participants. Since then Roerig has sponsored at least three other videodisc programs: "Urodynamics in Clinical Practice," "Nephrostolithotomy: The Percutaneous Route," and "Challenges in Urology," all three Level II productions.

### Smith Kline & French

Smith, Kline and French (SKF) International entered the videodisc market with the disc "Diagnostic Challenges in Gastroenterology." The program was produced by WICAT Systems, Inc. in 1979 as an exhibit for an upcoming gastroenterology congress in Hamburg Germany. At the time it was not conceived as an on-going project, but the success of the exhibit led to the evolution of a gastroenterology series.

The series consists of four videodiscs, including three patient management simulations. Each of the programs is approved for CME credit. The videodiscs in the series are level III programs which run on a Pioneer 7820 videodisc player and a WICAT computer. The series is shown on 40 videodisc systems in 12 countries overseas, but is not available in the U.S.

The programs are used in a variety of ways, depending on the needs of each SKF subsidiary. One method common in Belgium and Italy is to leave the system in teaching hospitals for weeks or months so that they can be viewed by the hospital staff or used by physicians to teach medical students. Other countries, such as Spain, the U.K., and Holland, prefer to circulate their systems among a variety of symposia, meetings, workshops, and conventions.

#### The Miles Learning Center

In 1981, Miles Pharmaceuticals became the first to invest heavily in videodisc hardware systems for distribution. They did it in the form of the Miles Learning Center--a stand-alone system consisting of a Pioneer PR-7820 videodisc player and a Sony 19" color monitor. Today, some 275 of these systems are located in major teaching hospitals across the country as the result of an educational grant from Miles.

The idea for the Miles Learning Center came from the medical advertising agency of Medicus Intercon, who also handles most of the day-to-day activities of the project. According to Miles representative William Isbell, Miles' goal in setting up the system was to establish an image for themselves in the hospital environment. They felt they could achieve this by providing hardware systems to the hospitals along with videodiscs on a wide variety of medical topics of interest to Miles. However, unlike other pharmaceutically-sponsored videodiscs, Miles decided not to include product information on the discs they distributed. (Before this decision was made, however, Miles did produce an early disc titled "Mezlin Case Studies" based on a Miles antibiotic.)

Many of the first Miles discs were simply conversions of existing film and videotape programs to videodisc, with basic interactive features added such as menus and multiple-choice quizzes with remedial branching. The first disc to be designed exclusively for Miles was an orientation to the Miles Learning System, produced by Fusion Media. Since then, the Miles library has expanded to more than 20 titles and continues to grow.

#### Merck, Sharp & Dohme International

About the same time Miles was distributing their first discs, Merck, Sharp & Dohme International (MSDI) also began using videodisc technology as a marketing tool. They commissioned Romulus Productions to produce "The Challenges of Glaucoma," a program which provided information on the diagnosis and treatment of glaucoma. MSDI was interested in using the videodisc to display information at medical conventions and professional meetings. According to Romulus President Peter Crown, the requirements for the exhibit were that it "attract the viewer's attention, appeal to the high-tech interests of the audience, and be able to hold the interest of those with even a short attention span."

The system that was developed for the disc consisted of a Pioneer PR-7820 videodisc player, Apple II+ computer, and Sony 19-inch color monitor. Because the program was to be used as an exhibit, it was installed in a display cabinet and programmed

with a "opening video loop" which cycled an introduction until someone began using the system.

MSDI has since moved to touch-screen technology with graphic overlay capability and is using Sony videodisc players. According to Mike Noar of MSDI, they have developed a total of seven interactive programs (three videodisc and four interactive graphics) for use at conventions, professional meetings, and seminars. The response to these programs has been so good that MSDI has had numerous requests for them from physicians and medical clinics. In turn, MSDI is becoming increasingly confident in the videodisc as a marketing tool and plans to continue developing programs for the next several years.

#### Winthrop-Breon Laboratories

Winthrop-Breon, a division of Sterling Drug, Inc., was the next pharmaceutical company to make a strong commitment to videodisc technology. Winthrop-Breon videodiscs made their first convention showing at the 1982 American Hospital Association meeting, where they presented both their "consult series," which is free of product promotion, and their "video clinic series," in which they teach the use of their products. The original exhibit could seat up to eight participants. However, the response to the exhibit was so good that subsequently they built a second booth to accommodate 20 stations and run four programs simultaneously.

Soon after their exhibit success, Winthrop-Breon made the decision to expand their videodisc program and take it into the field. Jack Pickering, Director of Clinical Education for Winthrop-Breon, reports that an initial investment was made in the neighborhood of \$750,000 to purchase over 100 videodisc systems. These systems were then put into the hands of Winthrop-Breon's hospital representatives who loan them for short periods to various hospital departments.

Like Miles, Winthrop-Breon is using these systems to achieve recognition and acceptance for their company. Unlike Miles, their goal includes teaching product information in addition to clinical education. Mr. Pickering explains that Winthrop-Breon feels "there is an obligation, as a supplier of pharmaceutical products, for us to teach new physicians how to use those products." Therefore, some of their programs include specific information on products that are relevant to the therapeutics discussed on the program.

The Winthrop-Breon hardware configuration consists of Panasonic color monitors, Pioneer PR-8210 videodisc players, and a custom-built Show Sound VIS-7 computer. Feeling that many of their viewers may not be familiar with a keyboard, Winthrop-Breon designed their programs to be operated with a hand-held keypad. Every time a Winthrop-Breon program is viewed, whether at a conference or in a hospital, the user's scores are stored in the computer's memory. This enables Winthrop-Breon to see how many people are using the programs and at which locations. This information is used, in part, to monitor the cost-effectiveness of the program. Currently, the hospital systems are averaging about six participants a day, a figure that Mr. Pickering feels is well worth the investment.

Winthrop-Breon feels totally committed to videodisc technology for marketing purposes, and has so far produced seven interactive programs for their system--each one approved for CME credit. Current program topics include analgesics, cardiology, gynecology and radiology, with one on anesthetics currently being produced. The long-term goal of Winthrop-Breon is to develop a continuing series in each of these therapeutic areas.

### A Profile of the Field Today

Today, a large number of pharmaceutical companies are using videodisc technology for exhibits, continuing education, and sales training. At the time this report was published, 18 different U.S. companies had been identified as having produced in excess of 80 videodisc programs. One could safely assume that the actual number of pharmaceutical companies producing videodiscs is between 20 and 25, and the total number of discs completed is closer to 100.

### Future of the Videodisc Market

More importantly, the market shows every sign of growing over the next several years. Of the 21 companies interviewed for this report, 18 had produced at least one videodisc. Of those 18, all but two expressed an interest in producing additional discs. The remaining three companies, those who had not produced a videodisc, showed a strong interest in doing so.

Interestingly enough, the two companies who were inclined to withdraw from the videodisc market were the first two companies to enter back in 1979. Representatives at both Roerig and Smith Kline & French expressed a concern over the cost-to-benefit ratio of the videodisc. One manager felt that the market was saturated with videodiscs and that the novelty of the technology has worn off. Still, he later said that "if the costs come down, I'll consider doing more."

### Keeping Up With Technology

What pharmaceutical companies are finding is that, with the increased use of videodisc for exhibits, audiences are becoming more sophisticated and now have higher expectations regarding the programs they view. The videodisc alone will no longer elicit the desired audience response, and leaders in the field are already looking to incorporate new technological advancements and innovative design strategies. "The videodisc is a wonderful technology...but you've got to have other things to go along with it," reports one manager who has been developing videodisc programs since 1981. Another experienced manager agrees, saying that "inevitably, the disc will become just one component of a larger system--just as the computer has." The "other things" they are talking about include high-resolution graphics, digitized audio, and sophisticated input devices such as voice and image recognition.

This trend is evident in the changing ratio of Level II productions to Level III productions over the last two years. In 1984, half of the pharmaceutical videodiscs produced were

Level II productions. Of the discs produced since 1985, only 30 percent were Level II, with the number dropping to only 20 percent when looking at only those produced thus far in 1986 (see Fig. 1).

APPROXIMATE NUMBER OF PHARMACEUTICAL VIDEODISCS PRODUCED BY LEVEL OF INTERACTIVITY

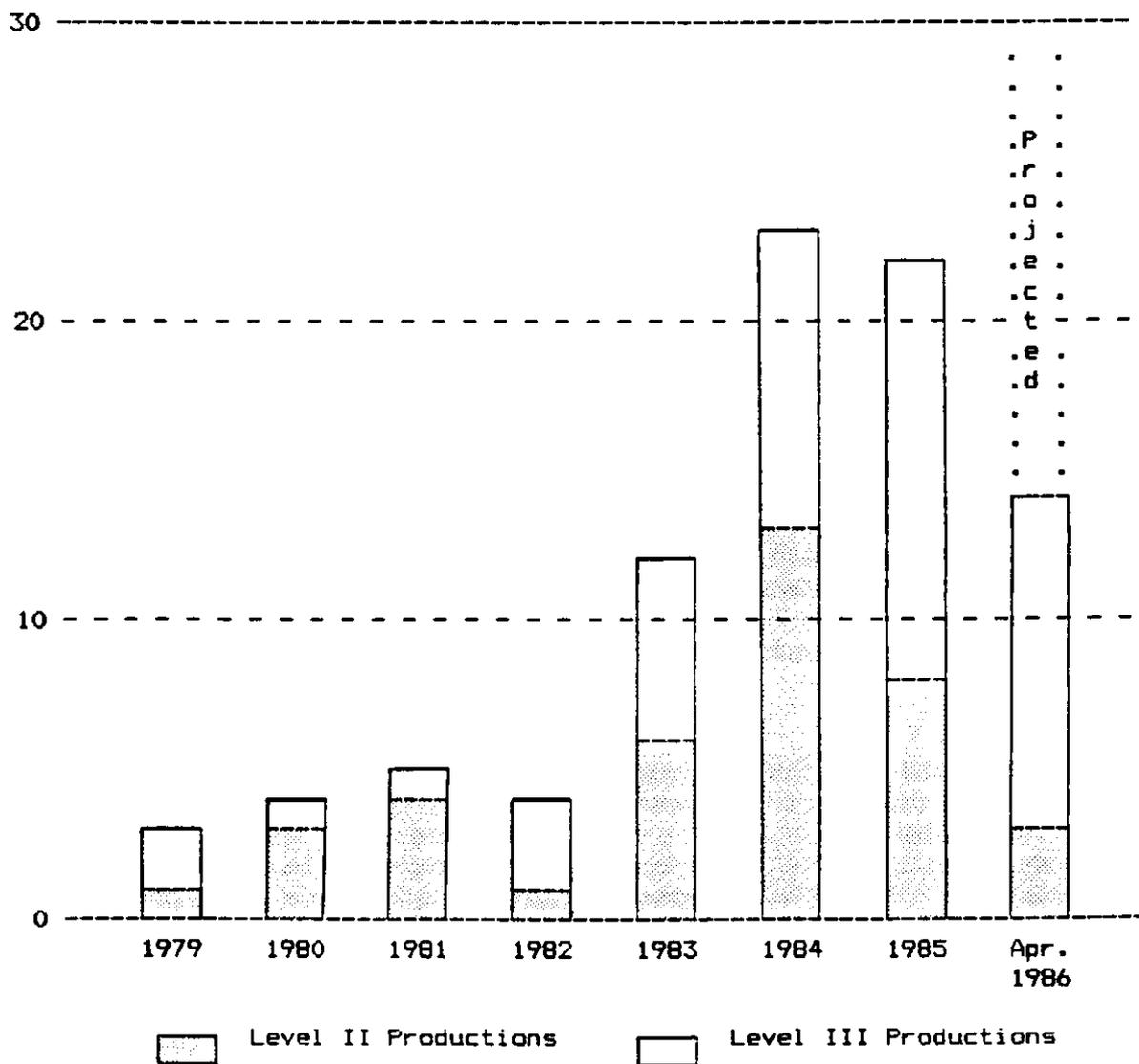


Fig. 1

## Role of the Supplier

It is likely that the number of pharmaceutical videodiscs produced each year will double--to a \$10 million market--as early as 1988. Suppliers who stand to benefit most are those who position themselves early and who have experience dealing with the pharmaceutical industry. Not surprisingly, those suppliers already entrenched in the pharmaceutical marketplace are preparing to meet the challenge of new suppliers. At this point, however, the evidence suggests that many opportunities still exist within the market for qualified vendors. Conversations with marketing and product managers provides some insight into what pharmaceutical companies are looking for in a videodisc supplier.

### Qualifications

Above all other considerations, managers expressed a concern over the supplier's knowledge of the pharmaceutical industry as a whole--and their marketing needs in particular. One manager complained that he has "guys coming in here trying to sell us things the same way they sell to the automobile industry or the meat packing industry." Perhaps the mood is best captured by the comments of one manager in particular who says:

A lot of people call and tell me that they do symposia, interactive video, all kinds of CME programs, and what have you. The way to get business here is if you learn about our products and come by with an idea that you think you can sell to a product director. If you're going to concentrate in the pharmaceutical industry, then you have a responsibility to learn something about it. If you don't know all about the industry, if you don't know the products, if you don't know the areas of therapy, then you've got to team up with people who do.

### Approach

When asked for their feeling about "cold calls" by vendors, managers replied with comments such as "you won't get to see me without a specific idea" and "my secretary screens things well enough that I don't have to worry about dealing with unprepared suppliers." Most managers feel that a vendor should "do their homework" before approaching them with a proposal. "I'm not going to tell suppliers how their services can meet my needs," says one product manager. "They should know my product line...and a good deal more." Another manager concurs, saying that many vendors approach him with what he calls a "blunderbuss approach...that interactive video can do this, this and this, but they usually need to be furnished with information about where it meshes with our particular needs."

Only one manager showed signs of compassion toward the uninformed supplier, saying "In all fairness to vendors, I don't know that they have much choice. It would not be possible, at least where I'm concerned, for them to know enough--to have enough inside information on a market strategy, disease group,

and so on--to propose something tailored to our needs."

This attitude, however, is the exception rather than the rule. As another manager points out, "You can get access to everything we do here--it's available to anyone willing to look for it." Suggestions regarding the ways in which suppliers can learn about a particular company include studying the annual report, journal advertising, promotional publications, and even talking to physicians who deal with pharmaceutical representatives. Other suggestions include tapping the audits to "see what our promotional spend levels are and how we spent it," and attending medical trade shows to see what is being done with interactive video in any particular product area.

#### Conclusion

Over the next few years, the pharmaceutical industry will continue their leadership role in producing medical videodiscs. What is now a five-to six-million-dollar-a-year industry is likely to double as early as 1988. Thus far, most of these programs have been used as medical exhibits. However, strong growth is projected for sales training programs in the coming years. In addition, with the slow but inevitable accumulation of videodisc hardware systems in the health sciences, look for an increase in the number of videodiscs developed for distribution as continuing medical education and product information programs.

Vendors looking to enter this market should have a familiarity with the pharmaceutical industry as a whole and a detailed knowledge of their client's products and marketing needs in particular. To keep pace with the viewing audience's increasing level of sophistication, vendors must also be willing to incorporate innovative instructional design strategies into programs that make use of the latest in videodisc technology.

In conclusion, the videodisc has proven itself to be a tremendously successful marketing tool that has just begun to show its potential. Pharmaceutical companies are certain to increase their use of the videodisc and related technologies for educational, promotional, and training purposes--especially as the videodisc industry beginning to solidify and establish some much-needed standards. Concurrently, prospects are good for videodisc suppliers who are qualified to meet the stringent demands of the pharmaceutical managers.

## INTERACTIVE VIDEODISCS FOR MEDICAL MARKETING

William J. Comcowich

Interactive videodisc programs have scored a number of extraordinary successes in medical marketing. At some national medical meetings, physicians have actually waited in line for a chance to use interactive medical education programs. On the average, the physicians then use the programs for over 20 minutes, with many physicians staying at the exhibits for more than an hour.

The most recent evidence has shown that interactive programs attract more viewers and hold their attention longer than their linear counterparts. The programs achieve this success by merging the strengths of video communication with the capabilities of personal computers. Video itself is a potent communications tool. At its best, video utilizes the force of emotional appeal: the ability to touch a nerve, to move people, to tell a story in visual terms, to demonstrate a product, to sell to the psychological needs of viewers.

On the other hand, the computer is a superb repository of data and can provide instant access to each piece of stored information. It can process and alter that information, it can provide feedback to the user, and it can drill and repeat (as with computer-assisted education). In short, the computer offers a depth of substantive information that is virtually impossible in film and video.

Interactive video--the combination of computer and video--therefore offers significant advantages over conventional communications:

Attracts more attention. The use of novel touchscreen technology captures the attention of even the most sophisticated adults. Controlling a video program by touching the television screen is an enticing and intriguing notion to almost everyone.

Increases viewer involvement. Studies in educational psychology indicate that active participation in learning significantly increases comprehension and retention. Well-designed interactivity also enhances viewer enjoyment, a clear benefit to the learning process.

Holds attention longer. Thoughtful use of interactivity heightens and maintains interest over longer periods of time. The result is that interactive programs can be more persuasive than traditional media.

Increases information capacity. With the combined storage capacity of a 30-minute videotape and a 320K-byte floppy disc, interactive videodiscs provide greater depth of information than conventional audiovisual media. (The still-frame storage

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William J. Comcowich is Vice President and creative director of Effective Communication Arts, Inc. of New York City. He has designed and produced more than 20 interactive videodisc programs for medical education and marketing.

capacity of one videodisc side is equivalent to 54,000 slides. That's over 600 carousel trays.)

Provides improved learning techniques. With their ability to branch, interactive videodisc programs effectively enhance learning by providing a technological simulation of patient case management, the traditional and still most powerful method of teaching and learning in medicine.

Offers individualized information delivery. Because interactive videodisc programs are a series of discrete modules and because a videodisc program holds a wealth of information, it is possible to select portions of each program to create a lecture or sales presentation that meets the learning needs of a specific individual or small group of individuals. As a result, interactive videodisc programs can deliver medical marketing and educational information with unmatched persuasiveness by involving the physician in the presentation, providing an exceptional depth of information, and organizing the information to meet the specific needs of the particular viewer.

#### Applications for Interactive Videodiscs

The uses for interactive videodiscs span the spectrum of medical education and marketing. In marketing, they can be used as conventions and meeting exhibits, in group selling situations (e.g., dinner meetings of physicians), individual selling situations (e.g., detail presentations), and at point-of-purchase (e.g., pharmacy for OTC products). As education tools, videodiscs are equally effective in group learning situations (such as grand round presentations, seminars, medical school classes, and sales training), or in individualized learning environments (such as in learning carrels in schools, hospitals and group practices and in learning kiosks for sales training).

Interactive videodisc programs have proven especially successful in medical exhibits. Pharmaceutical companies which have employed videodisc programs in convention exhibits have obtained three significant payoffs: 1) increased booth traffic, 2) increased access to prospects, and 3) more comprehensive delivery of marketing information. Between trade shows, the interactive videodisc systems can be made available to the sponsor's field force for use in hospitals. Sales representatives can arrange to set up the systems in the physician's lounge or other appropriate place for a period of two to five days so that all physicians in that medical center can use the program.

In summary, interactive videodisc technology delivers selling points effectively and persuasively; it is efficient at reaching diverse audience; it is memorable. It offers an extraordinarily powerful tool to attract attention, to inform, to demonstrate, and to sell. Its use marks the sponsor as a company in the forefront of communications technology and as a leader in its field.

ABBOTT LABORATORIES

**CONTACT:** Brice J. McCollough  
Exhibit Manager  
Abbott Laboratories  
14th & Sheridan Road  
North Chicago, Illinois 60064  
  
Telephone: 312/937-3280

**ACTIVITY:** Knows of no videodisc activity in the marketing area.

**COMMENTS:** Feels perhaps product managers have assigned their budget to other areas at this time. Also, noted that Abbott does not have a new product at the moment, which is one of the things that stimulates interest.

Mr. McCollough was one of the first to use some of the first forms of interactive 35mm film technology in the early 1970's. He is informed on videodisc technology and has a high level of interest in seeing it used at Abbott. Several companies have demonstrated videodisc technology at Abbott. One was a production firm that has done videodisc work in the pharmaceutical area and was looking to do work for Abbott. The other demonstration was provided by a company in town from which Abbott rents audiovisual equipment. Mr. McCollough reports that product managers probably are the people who would initiate videodisc development.

ALLERGAN PHARMACEUTICALS

CONTACT: Jamie Trevor  
Manager, Professional Education  
Allergan Pharmaceuticals  
2525 DuPont Drive  
Irvine, California 92715  
Telephone: 714/752-4500

ACTIVITY: No activity at this time. Allergan is just getting into videotape. Ms. Trevor has seen some videodisc demonstrations and has an interest in pursuing disc. Reports, however, that Allergan "isn't ready to get into that just yet."

COMMENTS: "We're just now developing patient education videotapes," says Ms. Trevor. "I think the use of videodisc as symposia exhibits is a distinct possibility. Our parent company Smith Kline Beckman has done some work with videodisc and we might turn to them for expertise."

"We also might be interested in distributing to hospitals, or, in the future, to doctors if they are interested in using videodisc as an educational base. We offer continuing education programs that aren't necessarily product related, but deal with therapeutic areas related to our products. Another use of videodisc would be to introduce a new product."

"At this point, we are at the stage where we are gathering as much information as possible about videodisc technology."

AYERST LABORATORIES

CONTACT: Hank Shifren  
Director, Continuing Professional Education  
Ayerst Laboratories  
685 Third Avenue  
New York, NY 10017  
  
Telephone: 212/878-6072

ACTIVITY: Recently funded two Level II videodiscs (in cardiology and endocrinology) that were distributed to hospitals and medical schools that have the Miles Learning Center (Pioneer 7820 videodisc player).

COMMENTS: Mr. Shifren reports that these videodisc projects were originally funded through the Marketing Department. Since then, Ayerst has formed a Continuing Professional Education Department to handle these activities.

Bids were taken on these projects at the time they were funded. Mr. Schifren would hesitate to hire a production company that has no experience in the medical area (working with medical topics and personnel). He suggests those lacking this experience hire a professional consultant to work with.

Ayerst (cont.)

CONTACT: Barbara Borowitz  
Vice President and Exec. Producer  
Daniel J. Edelman, Inc.  
1775 Broadway  
New York, NY 10019  
  
Telephone: 212/757-9100

ACTIVITY: Edelman produced an interactive museum exhibit for Ayerst called The Ayerst Heart Study Center. The exhibit has been touring museums across the country since its completion in early 1984.

COMMENTS: The Edelman firm specializes in creating programs to serve their clients immediate needs. Sometimes the need concerns a new product or service. In 1983, an Ayerst's product, INDERAL, was in its last year of patent safety. INDERAL is the most widely prescribed drug in the U.S., and the second largest in dollar sales. It is used for a wide variety of medical conditions, including arrhythmias, angina, hypertension, and migraine headache. Ayerst wanted to create a program that would draw attention to the heart, specifically the importance of good exercise, good diet, and good medical treatment when it's necessary. So they developed the idea of an interactive museum exhibit that would travel throughout the country to teach people about the various aspects of heart care. Exhibit has been very successful.

TITLE: AYERST HEART STUDY CENTER (1984)

SPONSOR:

Ayerst Laboratories  
685 Third Avenue  
New York, NY 10017

212/878-5900

PRODUCER:

Daniel J. Edelman, Inc.  
1775 Broadway  
New York, NY 10019

Barbara Borowitz  
212/757-9100

AUDIENCE: General Public.

GOAL/

OBJECTIVES: Designed to serve as a traveling museum exhibit which promotes information about heart disease and treatment, including drug therapy.

DESCRIPTION: The disc is part of a larger, interactive museum exhibit. The program is runs in a linear fashion, with the user selecting chapters to view from the main menu. The seven chapters include: 1) Recognizing and Denying Symptoms of Heart Disease; 2) Stress on the Job; 3) Development of Heart Medication and Treatment; 4) Guidelines for Taking Medications; 5) Post-Heart Attack Exercise; 6) Is There Sex After a Heart Attack?; and 7) A glossary of Heart-Related Terms.

SYSTEM

HARDWARE: Discs: 3M.  
Disc Player: Pioneer

AVAILABILITY: Query Edelman, Inc.

BURROUGHS WELLCOME CO.

CONTACT: Paul Dreyer  
Burroughs Wellcome Co.  
3030 Cornwallis Road  
Research Triangle Park, NC 27709  
  
Telephone: 919/248-3000

ACTIVITY: Burroughs Wellcome has produced at least one Level III videodisc program on the diagnosis and management of herpes infections. It is used as a medical exhibit.

COMMENTS: The MedicalDisc Reporter was unable to reach Mr. Dreyer for his comments regarding this project. [See next page for a description of the videodisc program.]

TITLE: HERPES INFECTIONS: DIAGNOSIS AND MANAGEMENT, PART I & II  
(1985)

SPONSOR:

Burroughs Wellcome Co.  
3030 Cornwallis Road  
Research Triangle Park, NC 27709

Paul Dreyer  
919/248-3000

PRODUCER:

Effective Communication Arts  
221 West 57th Street  
New York, NY 10019

William Comcowich  
212/333-5656

AUDIENCE: Physicians, nurses, and counselors who treat Herpes patients.

GOAL/

OBJECTIVES: Designed for use at medical conventions. To provide physicians with current methods for diagnosis, treatment, and counseling of patients with genital herpes.

DESCRIPTION: Controversial aspects and effectiveness of current therapies are discussed. Interactive segments utilizing photos and case studies test physicians on diagnosis and effective treatment of herpes infections. A segment on counseling improves physician skills in educations and understanding of the disease. A computer program tallies physician responses to hypothetical case studies in an opinion survey which provides the sponsoring company with up-to-date information on knowledge and understanding of herpes diagnosis and treatment.

SYSTEM

HARDWARE:

Discs: 3M.  
Disc Player: 2 Sony LDP-1000A players.  
Monitor: Sony color FVM 1270 G (12").  
Computer: Sony SMC-70  
Interface: ECA videodisc multiplexer (proprietary).  
Other: Elographics touchscreen.

SYSTEM

SOFTWARE:

Sony SMC-70 CP/M (proprietary) and Sony VX/ Assembly (proprietary).

AVAILABILITY: Query Sponsor.

COOK-WAITT LABORATORIES

CONTACT: Mrs. Elenor Kelley  
Mgr. Professional Services  
Cook-Waitt Laboratories  
90 Park Avenue  
New York, New York 10016  
  
Telephone: 212/907-2712

ACTIVITY: Cook-Waitt sponsored an interactive videodisc program titled "Periodontal Perspective on Synthetic Bone Implants" in 1984. The program was used as an exhibit until 1985 when Cook-Waitt discontinued their sales force in favor of telemarketing.

COMMENTS: Mrs. Kelley reports that the program seemed to be successful, but she feels that at the time it was brought in, Dentistry was not ready for the technology. "It did attract an awful lot of attention at the booth. We always had quite a few doctors there and they really thought it was worthwhile." Cook-Waitt will not be doing any more videodiscs, and they have turned their equipment over to their sister company, Winthrop-Breon.

GALAXO, INC.

CONTACT: Dan Keeney  
Sales Training Manager  
Galaxo, Inc.  
Five Moore Drive P.O. Box 13438  
Research Triangle Park, NC 27709  
  
Telephone: 919/248-2313

ACTIVITY: Galaxo is producing a Level III interactive videodisc program to train their sales force. Design and production is being done by Learning Resources Network in Durham, North Carolina.

COMMENTS: The MedicalDisc Reporter was unable to reach Mr. Keeney for his comments on the project.

ELI LILLY & COMPANY

CONTACT: Don Stanley  
Exhibit Manager  
Eli Lilly & Company  
Lilly Corporate Center  
Indianapolis, Indiana 46285  
  
Telephone: 317/261-2000

ACTIVITY: Lilly has produced two videodisc games, Medical Trivia and Pharmaceutical Trivia. Both are used as exhibits.

COMMENTS: Medical Trivia was conceived during 1984 when one of the product managers began putting together medical trivia cards for the Trivial Pursuit game. Eventually, it was developed as an interactive exhibit that is non-product oriented and can be adapted to different medical specialties. In 1986, a pharmacy version was completed.

[On success of program] "The programs have been a terrific draw for the booths," reports Mr. Stanley. "At the pharmacy meeting it was probably one of the most successful exhibit--we had lines six or eight deep waiting to play the game."

[On future discs] Lilly probably won't be doing any more trivia games. There is a strong possibility, though, that the other product managers will pick up on the technology for the exhibits. Mr. Stanley makes the point that, in his opinion, an effective exhibit is determined more by the program design than the nature of the technology.

TITLE: MEDICAL TRIVIA (1985)

SPONSOR:

Eli Lilly & Company  
Lilly Corporate Center  
Indianapolis, IN 46285

Don Stanley, Exhibits Mgr.  
317/261-2000

PRODUCER:

Ball Communications  
11001 North Fulton Avenue  
Evansville, IN 60611

Donna Leader  
812/428-2300

AUDIENCE: Physicians.

GOAL/

OBJECTIVES: Designed as an exhibit to be used at medical conferences and symposia.

DESCRIPTION: Installed in a four-station exhibit, the program runs on an endless loop, asking people to come in and play Medical Trivia. When a user touches the keypad, a game show announcer comes on the screen and explains how to play the game. The objective of the user is to answer questions from six categories and become a Medical Trivia Genius. The categories include Great Names in Medicine, Pharmacology, Speciality Medicine, Diagnosis, Great Discoveries in Medicine, and Medical Curiosities.

After each interaction, the user is presented with a computer-generated question picked randomly from over 600 questions stored on a Corvis hard disk (100 per category). The videodisc provides feedback, such as "You did great, let's go on!" or "Boy, that was a hard one, but you got it right!" Correctly answering four questions in each category earns the user a Medical Trivia Genius button and some other prize.

SYSTEM

HARDWARE: Disc Player: Pioneer  
Computer: Apple IIe  
Other: Corvis Hard Disk, Multiterm Keypad.

AVAILABILITY: Used by Lilly as exhibit.

TITLE: PHARMACY TRIVIA (1986)

SPONSOR:

Eli Lilly & Company  
Lilly Corporate Center  
Indianapolis, IN 46285

Don Stanley, Exhibits Mgr.  
317/261-2000

PRODUCER:

Ball Communications  
11001 North Fulton Avenue  
Evansville, IN 47710

Donna Leader  
812/428-2300

AUDIENCE: Pharmacists

GOAL/

OBJECTIVES: Designed as an exhibit to be used at conferences and symposia.

DESCRIPTION: Installed in a four-station exhibit, the program runs on an endless loop, asking people to come in and play Pharmacy Trivia. When a user touches the keypad, a game show announcer comes on the screen and explains how to play the game. The objective of the user is to answer questions from six categories and become a Pharmacy Trivia Genius. The categories include ?

After each interaction, the user is presented with a computer-generated question picked randomly from over 600 questions stored on a Corvis hard disk (100 per category). The videodisc provides feedback, such as "You did great, let's go on!" or "Boy, that was a hard one, but you got it right!" Correctly answering four questions in each category earns the user a Pharmacy Trivia Genius button and some other prize.

SYSTEM

HARDWARE: Disc Player: Pioneer  
Computer: Apple IIe  
Other: Corvis Hard Disk, Multiterm Keypad.

AVAILABILITY: Used by Lilly as exhibit.

McNEIL PHARMACEUTICAL

CONTACT: Edwin Steel  
Exec. Dir. Marketing Communications  
Spring House, Pennsylvania 19477

Telephone: 215/628-5055

ACTIVITY: McNeil has produced at least three videodiscs:  
"Diagnostic Treatment Decisions in Acute and Chronic  
Psychotic Disorders," "Case Studies in Diagnosis and  
Treatment of Psychiatric and Geriatric Disorders," and  
"Calcium Antagonists." The first two have been  
distributed to hospitals and medical schools that have  
the Miles Learning System (Pioneer 7820 videodisc  
player).

COMMENTS: "We try to offer something at our exhibits that has an  
educational quality to it and that ties in some way  
with our product," says Mr. Steel. "We want to do  
something at our booth that engages the physician. We  
feel that allowing the physician to sit down for 15  
minutes and have a learning experience about a field of  
therapy for which we have a product is a good way of  
doing that."

[Will you continue using videodisc?] "I can't tell  
you. It's driven by need, not by the medium. We  
haven't dedicated ourselves to interactive videodisc  
programs. The need has to be there. We look for the  
best medium to meet our needs."

"If there were ever any standardization of equipment,  
it would be attractive to market directly to hospitals  
and physicians. There are topics, particularly in the  
area of psychiatry and the use of our antipsychotic  
product HALDOL, where the interactive medium is a  
valuable way of communicating treatment ideas and  
concepts. But the medium we use depends on who we're  
trying to reach and what kind of information we're  
trying to present to them."

[What's your response to "cold calls" from producers?]  
"A lot of people call and tell me that they do  
symposia, interactive video, all kinds of CME programs,  
and what have you. The way to get business here is if  
you learn about our products and come by with an idea  
that you think you can sell to a product director. If

you're going to concentrate in the pharmaceutical industry, then you have a responsibility to learn something about it. If you don't know all about the industry, if you don't know the products, if you don't know the areas of therapy, then you've got to team up with people who do."

"If we have a calcium channel blocker that we're working on and some inventive group say's 'Hey, we've got a heckava idea here that will enable you to convey information about calcium channel blockers in general and specifically your product,' then in most cases they will be seen, and in some cases they will make a sale."

[Who should producers approach with an idea?] They can approach me or the product managers. There are projects that are generated among the product directors where somebody knew to call them with an idea and was able to develop something. Other times somebody will call me with an idea and, if I think it has merit and they've done their homework, I may suggest that they talk to a particular product director. I will very often get calls from people who don't have any kind of a handle. The point I will emphasize is that it's not up to me to invent that handle for them or to give up a lot of time telling them about our products and our business."

McNeil Pharmaceutical (Cont.)

CONTACT: Ed Thompson  
Product Director  
McNeil Pharmaceutical  
Spring House, Pennsylvania 19477  
  
Telephone: 215/628-5696

ACTIVITY: Responsible for the two psychiatric videodisc produced by McNeil, "Diagnostic and Treatment Decisions in Acute and Chronic Psychotic Disorders" and "Case Studies in Diagnosis and Treatment of Psychiatric and Geriatric Disorders."

COMMENTS: Mr. Thompson sells an antipsychotic drug and his market is split two ways: schizophrenia and senile dementia. Both discs cover both topics. All of the work on the discs was subcontracted out by Mr. Thompson. The discs are used as exhibits and are distributed by sales representatives to hospitals and schools that have the Miles Learning Center.

[Do you plan to do more discs?] "Sure. I don't have one planned now and I'm not actively working on one, but sure, absolutely. What I would like to have done is Level III, but I just couldn't afford it. It wasn't worth the extra cost, which is about double what I paid for our Level II programs."

[What is your response to "cold calls" from producers?] "You won't get to see me without a specific idea. You should do your homework, understand what my needs are and come in and make a presentation based on those needs. I'm not going to sit and tell you how you should do things. You should know my product line, but you should also know a good deal more than that. You can get access to everything we do here--it's available to anyone willing to look for it. Find a doctor who has a McNeil rep and call on him. Take a look at our journal advertising, tap the audits, see what our promotional spend levels are and how we spent it. In other words, do your homework."

TITLE: CALCIUM ANTAGONISTS (1985)

SPONSOR:

McNeil Pharmaceutical  
Spring House, PA 19477

Edwin Steel  
215/628-5055

PRODUCER:

GWF Associates  
22 South Holmdel Road  
Holmdel, NJ 07733

George Feehan  
201/946-9790

AUDIENCE: Physicians attending medical conventions.

GOAL/

OBJECTIVES: Developed as an interactive exhibit that helps the viewer organize an appropriate schema for the clinical use of various calcium antagonists in the treatment of angina.

DESCRIPTION:

This Level II program begins by reviewing the pathophysiology of angina, then presenting three patients for the viewer to evaluate: 1) a 54-year-old male experiencing chest discomfort during vigorous activity; 2) a 47 year-old female complaining of severe discomfort in her chest and left arm in the mornings; and 3) a 64-year-old male who is experiencing increasing episodes of chest pain at rest.

The viewer is asked to make treatment decisions regarding each patient, and received feedback regarding their choice. The program also provides information on the comparative similarities and differences between two pharmacodynamic types of calcium antagonists. Other information includes the pharmacodynamic effects of calcium antagonists, calcium antagonists in the treatment of hypertension, and antiarrhythmic activity of calcium antagonists.

SYSTEM

HARDWARE: Disc Player: Pioneer 7820.

SOFTWARE

SYSTEM: Pioneer Level II data dumps.

AVAILABILITY: Query sponsor.

MEAD JOHNSON & COMPANY

CONTACT: Dave Bahari  
Manager, Sales Training  
Mead Johnson & Company  
2400 Pennsylvania  
Evansville, Indiana 47721  
  
Telephone: 812/429-5294

ACTIVITY: Sales training produced one videodisc in 1983 that is still in use today.

COMMENTS: Mead Johnson produced a sales training videodisc program based on a national session for a product introduction held in 1983. It is the first and only videodisc, although they have produced a number of videotape programs.

[Do you have plans for future discs?] "We don't have anything budgeted for 1986," says Mr. Bahari, "but there is a possibility in 1987 that we may develop another program of that nature."

[How do you react to "cold calls" by vendors?] "We have vendors contacting us all the time. Usually my secretary screens things well enough that I don't have to worry about dealing with unprepared suppliers. If we have a specific need, we have a number of suppliers we work with, and we would probably start with them. I do keep a file on companies that send us brochures, and when they look interesting, we'll set up an interview and talk with them."

Mead Johnson (cont.)

CONTACT: Product Manager (name withheld by request)  
Mead Johnson & Company  
2400 Pennsylvania  
Evansville, Indiana 47721

ACTIVITY: Mead Johnson has produced an interactive videodisc exhibit called "Diet Quest." It is designed to make the viewer more aware of the nutritional content of various meals.

COMMENTS: The product manager reports that the program is drawing a lot of people to the exhibit booth. He expects that Mead Johnson will continue to use videodisc for future exhibits.

[How do you feel about "cold calls" by vendors?] "I'll tell you, if this report is going to generate a bunch of mail--I don't need any more of that. These things tend to generate responses which pack up to the ceiling and which never get read. People are calling you saying 'I'm so-and-so and can you see me.' It just increases the work load. I get more people approaching me with more services than I need."

[Do you decide what you want to do and then go looking for a supplier?] "Generally, yes. We have a firm located right here in Evansville, and of course they get a lot of the business from Mead Johnson--it just makes sense. I'd probably decide what I wanted to do and then I'd find out how much they'd charge to do it. If I couldn't afford it I'd look someplace else"

[Then, you have a strong loyalty to your supplier?] "I think that's true in any business once you've worked with people and they've done a good job--as long as they don't try to take advantage of you."

[Joe Huntingford, Exhibits Manager at Mead Johnson, indicated that there are no other videodisc exhibits at this time. Mr. Huntingford reports that "Diet Quest" has received a good response at exhibits where it has been shown. He expects to see additional videodisc work in the future, but of a more educational nature than "Diet Quest," which was produced as in a game format.]

TITLE: DIET QUEST (1985)

SPONSOR:

Mead Johnson Laboratories  
2400 Pennsylvania  
Evansville, IN 47721

PRODUCER:

Ball Communications  
11001 North Fulton Avenue  
Evansville, IN 47701

Donna Leader  
812/428-2300

AUDIENCE:

Physicians attending medical conventions.

GOAL/  
OBJECTIVES:

To provide an interactive exhibit that provides information regarding the nutritional content of certain meals.

DESCRIPTION:

The user is invited to select three meals (breakfast, lunch, and dinner) at their choice of three different restaurants. The menu in each restaurant is presented by video segments of a waitress or waiter. After each meal choice, a computer printout summarizes the nutritional value of the selection including calories, protein, saturated and unsaturated fat, carbohydrates, cholesterol, and sodium.

SYSTEM

HARDWARE:

Computer: Apple

SOFTWARE

SYSTEM:

AVAILABILITY: Query sponsor.

MERCK SHARP & DOHME INTERNATIONAL

CONTACT: Mike Noar  
Director, Creative Services  
Merck Sharp & Dohme International  
PO Box 2000  
Rahway, New Jersey 07065  
  
Telephone: 201/574-6893

ACTIVITY: MSDI's first videodisc project, "The Challenges of Glaucoma," was produced in 1981. Since then, they have developed six interactive programs--some videodisc, some graphics only--for a Level III, touch-screen system. Used primarily at medical meetings, seminars, and symposia.

COMMENTS: Mr. Noar reports that MSDI will be doing more productions over the next three years. He is well informed on the technology, and is open to new ideas and innovative applications. "The videodisc is a wonderful technology," says Mr. Noar, "especially with the new digital technology, like the compact disc. But you've got to have other things to go along with it. The computer is still exciting, but only because of all the ancillary things that come along with it."

Two areas of particular interest to Mr. Noar are voice print and image recognition. He suggests that vendors keep an eye on the most recent advances in the technology and find a way to incorporate them into the interactive programs.

TITLE: THE CHALLENGES OF GLAUCOMA (1981)

SPONSOR:

Merck Sharp & Dohme International  
126 East Lincoln Avenue  
Building 33-38  
Rahway, NJ 07065

Mike Noar/Bob Clough  
201/574-6893

PRODUCER:

Romulus Productions, Inc.  
100 Green Street  
New York, NY 10012

Peter Crown  
212/226-6226

AUDIENCE: Ophthalmologists, at medical congresses and conventions.

GOAL/

OBJECTIVES: To provide ophthalmologist with new information presented in an interesting format, allowing a self-quiz on content.

DESCRIPTION: The disc has 27 minutes of video and 45 minutes of audio using the Romulus "double density" technique. Visuals include existing medical slides and films, and newly created computer animation and scanning electron microscope animation. Topics include disc evaluation, slit-lamp gonioscopy, a therapeutic challenge, and computer animations of the anterior chamber of the human eye. Indexes are on video and the disc is controlled by an out-board computer.

SYSTEM

HARDWARE: Disc: DiscoVision Associates.  
Disc Player: DVA PR-7820 Model II.  
Computer: Apple II+ with single disc drive.  
Monitor: Sony PVM-1900.  
Interface: Allen Communications VMI Controller.

SYSTEM

SOFTWARE: APPLE DOS 3.3

AVAILABILITY: Query sponsor

TITLE: NOROXIN(TM) INTERVID(R) (1983)

SPONSOR:

Merck Sharp & Dohme International  
126 East Lincoln Avenue  
Building 33-38  
Rahway, NJ 07065

Mike Noar/Bob Clough  
201/574-6895

PRODUCER:

A.J. Shalleck Productions  
15 E. 40th St.- Suite 805  
New York, NY 10016

Alan Shalleck  
212/679-6688

AUDIENCE: Urologists, Internists, General Practitioners.

GOAL/

OBJECTIVES: To provide international physicians with information on urinary tract infection and diagnosis and management in an interesting, interactive format with user friendly access.

DESCRIPTION: The NOROXIN INTERVID is an interactive videodisc program consisting of eight 1-1/2 to four minute programs on UTI and NOROXIN (Norfloxacin, MSD). The programs include: Pathogenesis of UTI; Epidemiology of UTI; General Resistance; Microbiology of UTI; Current Therapy; Norfloxacin: Spectrum; Efficacy; and Tolerance.

These programs are used by touching a light pen to the desired part of the menu on the video screen. The soundtrack of the program is available in English (British), Spanish, Italian, German, and Arabic. Each videodisc contains two languages. Language selection is made by using the lightpen.

SYSTEM

HARDWARE: Disc: 3M.  
Disc Player: Sony LDP-1000.  
Computer: Sony SMC-70.  
Monitor: Sony KX-1901.  
Other: SMC-70 Light Pen/controller.

SYSTEM

SOFTWARE: Sony

AVAILABILITY: Query sponsor

TITLE: GASTRO-TOUCH (R): PERSPECTIVES IN CLINICAL GASTROENTEROLOGY  
(1984)

SPONSOR:

Merck Sharp & Dohme International  
126 East Lincoln Avenue  
Building 33-38  
Rahway, NJ 07065

Mike Noar/Bob Clough  
201/574-6895

PRODUCER:

St. Clair Videotex Design  
40 St. Clair Avenue West  
Suite 800  
Toronto, ONT M4V 1M6  
CANADA

Doug Peter  
416/961-8707

AUDIENCE: Gastroenterologists, Medical Specialists.

GOAL/

OBJECTIVES: To provide these international physicians with high level information relative to diagnosis and management of disease in their area of speciality in a new and exciting user friendly interactive format.

DESCRIPTION: PERSPECTIVES IN CLINICAL GASTROENTEROLOGY is an advanced interactive touch-screen program. Using a combination of high-tech computer generated videotex graphics and laser videodisc images, information and advances in gastroenterology are accessible at the touch of the television screen.

For example, there are five diagnostic challenges in which physicians are presented with symptoms and a choice of diagnostic tests. After receiving the results of the tests they have selected, physicians can make a diagnosis by touching the appropriate place on the video screen.

Additionally, the program offers six gastrointestinal diagnostic imaging procedures, five examples of the relationship between GI clinical problems and other systems and brief discussions of two advances in gastroenterology.

SYSTEM

HARDWARE:

Disc: 3M.  
Disc Player: Hitachi VIP-9500.  
Computer: IBM-XT.  
Monitor: Electrohome 19" Triad RGB.  
Interface: Cablesare Videoconditioner/switcher, Sony VDX-1000 Videotex decoder  
Other: Elographic touch screen.

SYSTEM

SOFTWARE:

IBM DOS 2.0.

AVAILABILITY: Query sponsor

## MILES PHARMACEUTICALS

**CONTACT:** William Isbell  
Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, Connecticut 06516  
  
Telephone: 203/934-9221

**ACTIVITY:** Miles has distributed nearly 275 Pioneer PR 7820 videodisc players to hospitals and has developed more than 20 videodisc programs that have been distributed to these Learning Centers. In recent years, the programs are being developed as Level III productions (to be used as exhibits), with a Level II version being pressed for distribution by Miles sales representatives.

**HISTORY:** In 1980, Miles approached the advertising agency Medicus Intercon for help establishing a strong, positive image among the U.S. hospital audience. The need for an image-building campaign was based on their plans, over the next several years, to introduce a series of new drugs to those hospitals.

Beginning July 1981, Miles donated 210 laser videodisc players to targeted hospitals with 500 or more beds. Seven discs, mostly based on existing video material, were produced quickly and distributed to the Learning Centers. Then, in September 1981, the introduction of Mezlin and Azlin turned the emphasis of Miles and their representatives away from the Centers and to the promotion of these drugs.

Later, a renewed emphasis was given to the videodisc, but this time as an exhibit tool. Production has been completed on a nine-part series on nosocomial infections. These discs are developed as Level III programs, with Level II versions being distributed to the Learning Centers. Today, few of the systems are getting regular use today, due to poor access--many systems were locked in closets of medical libraries, hardware problems with the 7820, lack of enough useful software to provide continuous use. Never-the-less, as least two other pharmaceutical companies, Ayerst and Upjohn, have distributed Level II videodiscs to the Learning Centers.

**COMMENTS:** The MedicalDisc Reporter was unable to reach Mr. Isbell for his comments concerning Miles' activities.

TITLE: THE MILES LEARNING CENTER ORIENTATION AND OPERATING  
INSTRUCTION DISC (1981)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Fusion Media  
8 West 95th Street  
New York, NY 10025

Jeffrey J. Silverstein  
212/864-4100

AUDIENCE: Hospital Medical Personnel.

GOAL/  
OBJECTIVES:

Miles Learning Center series is designed to establish a presence in the marketplace with an image-building campaign by presenting topics of interest to hospital practice.

DESCRIPTION:

Intended to help viewer understand how to operate the player and appreciate how videodiscs are applicable to the hospital environment. Has a menu which includes an introduction to videodisc technology, an explanation of videodisc manufacturing, a section on operating instructions with practice sessions using medical applications, a videodisc problem diagnosis module, and a series of hospital applications of the videodisc. Narrated by veteran broadcast journalist Jim Hartz.

SYSTEM

HARDWARE: Disc Player: DVA PR-7820.  
Monitor: Sony color.

AVAILABILITY: Query sponsor.

TITLE: APPENDECTOMY (1981)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Fusion Media  
8 West 95th Street  
New York, NY 10025

Jeffrey J. Silverstein  
212/864-4100

AUDIENCE: Hospital Medical Personnel.

GOAL/  
OBJECTIVES:

Miles Learning Center series is designed to establish a presence in the marketplace with an image-building campaign by presenting topics of interest to hospital practice.

DESCRIPTION: This program shows an appendectomy being performed in detailed closeup. There are no "data dumps" on the disc; key incidents are indexed in the disc packaging and doctors view them by using the search or scan functions. Slow motion and freeze frame are extremely useful for the study of the unique suturing technique demonstrated.

SYSTEM

HARDWARE: Disc Player: DVA PR-7820.  
Monitor: Sony color.

AVAILABILITY: Quiry sponsor.

TITLE: ILEOCOLIC RESECTION (1981)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Fusion Media  
8 West 95th Street  
New York, NY 10025

Jeffrey J. Silverstein  
212/864-4100

AUDIENCE: Hospital Medical Personnel.

GOAL/

OBJECTIVES: Miles Learning Center series is designed to establish a presence in the marketplace with an image-building campaign by presenting topics of interest to hospital practice.

DESCRIPTION: This disc shows a surgical procedure of a intestinal operation, with interactive quiz material added in post production using electronic graphics. The viewer may play delicate surgical segments in slow motion or freeze frame. By using the keypad, viewers can also move to various segments of the video presentation or can take the quiz at any time. If the doctor answers correctly the test continues. If the choice is incorrect, the program branches to the appropriate incident in the surgery, and the narration indicated the correct answer.

SYSTEM

HARDWARE:

Disc Player: DVA PR-7820.  
Monitor: Sony color.

AVAILABILITY: Query sponsor.

TITLE: MEZLIN CASE STUDIES (1982)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Fusion Media  
8 West 95th Street  
New York, NY 10025

Jeffrey J. Silverstein  
212/864-4100

AUDIENCE: Hospital Medical Personnel.

GOAL/

OBJECTIVES: The Miles Learning Center series is designed to establish a presence in the marketplace with an image-building campaign by presenting topics of interest to hospital practice.

DESCRIPTION: A two-sided disc promoting Mezlin, a broad spectrum penicillin product which Miles Pharmaceutical was introducing. The disc contains seven cases in which antibiotics are considered appropriate therapy. Within the context of the cases, the appropriateness of Mezlin is indicated. The program stops at selected points in the diagnosis to recommend the next step. A narrating physician then gives his recommendation and the case proceeds. The cases are indexed at the beginning of disc play so that any desired case may be selected.

SYSTEM

HARDWARE: Disc Player: DVA PR-7820.  
Monitor: Sony color.

AVAILABILITY: Query sponsor.

TITLE: BACTEREMIA (1983)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

William Comcowich  
212/333-5656

AUDIENCE:

Infection Control Officer and other hospital medical personnel.

GOAL/

OBJECTIVES:

To teach that 1) aseptic techniques is the most effective method in preventing bacteremia and other nosocomial infections, and 2) investigating outbreaks requires a new perspective involving analysis of patterns rather than involvement in details of individual cases.

DESCRIPTION:

This videodisc is the first in a 9-part series on nosocomial infections. It explores the possible sources of bacteremia, methods of identifying the precipitating factors, as well as preventive measures that reduce the risk of infection. Developed under the editorial direction of Richard E. Dixon, M.D.

SYSTEM

HARDWARE:

Disc: Pioneer.  
Disc Player: DVA PR-7820.  
Monitor: Sony color.

SYSTEM

SOFTWARE:

4 digital dumps.

AVAILABILITY:

Query sponsor.

TITLE: SURGICAL WOUND INFECTIONS: ASSESSMENT OF RISK (1983)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

William Comcowich  
212/333-5656

AUDIENCE:

Surgeons, operating room, and infection control  
personnel.

GOAL/  
OBJECTIVES:

Designed to increase awareness of the risks of  
infection during surgery.

DESCRIPTION:

The second in a 9-part series on Nosocomial  
Infections, this videodisc provides practical methods  
of identifying patients at high risk of infection and  
presents several corrective actions that can be taken  
before surgery. The program includes two  
assessment-of-risk case studies, a brief review of  
the principles of antimicrobial prophylaxis, a  
demonstration of an immune response skin-testing  
technique, and appropriate scrubbing, gowning, and  
gloving techniques.

SYSTEM  
HARDWARE:

Disc: Pioneer.  
Disc Player: Pioneer 7820/LD-V6000.  
Monitor: Amdek color 13".  
Computer: Apple IIe  
Other: Elographics touchscreen.

SYSTEM  
SOFTWARE:

Level II: 4 digital dumps  
Level III: (Touchscreen) Apple IIe control software  
(proprietary).

AVAILABILITY:

Query sponsor.

TITLE: SURGICAL WOUND INFECTIONS: DATA COLLECTION AND FEEDBACK (1983)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

William Comcowich  
212/333-5656

AUDIENCE: Infection control personnel and surgeons.

GOAL/

OBJECTIVES: Teaches the value of surveillance and data collection  
in order to prevent outbreaks of surgical infections.

DESCRIPTION: The third in a 9-part series on Nosocomial  
Infections, this videodisc offers timesaving methods  
for collecting surgical data and information on  
practical procedures for establishing an effective  
surveillance system. The program also includes two  
case studies that call on the viewer to uncover the  
source of the surgical infections. The importance of  
data feedback to surgeons and the effect of  
antimicrobial prophylaxis on infection control are  
also discussed.

SYSTEM

HARDWARE: Disc: Pioneer.  
Disc Player: DVA PR-7820.  
Monitor: Sony color.

SYSTEM

SOFTWARE: 6 digital dumps

AVAILABILITY: Query sponsor.

TITLE: BASIC METHODS TO INVESTIGATE EPIDEMICS (1983)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

William Comcowich  
212/333-5656

AUDIENCE:

Infectious disease specialists and infection control personnel. Can also be used for classroom instruction in medical schools.

GOAL/

OBJECTIVES:

Designed to teach young epidemiologists the basic techniques of investigating and solving epidemics of hospital-acquired infections.

DESCRIPTION:

The fourth in a 9-part series on Nosocomial Infections, the format is that of a complex "detective story" in which the viewer must solve an epidemic involving ten cases of bacteremia. In the process, the viewer learns techniques such as data collection, development of line listings, and data analysis.

SYSTEM

HARDWARE:

Disc: Pioneer.  
Disc Player: DVA PR-7820.  
Monitor: Sony color.

SYSTEM

SOFTWARE:

12 digital dumps.

AVAILABILITY:

Query sponsor.

TITLE: URINARY TRACT INFECTIONS: PREVENTION AND CONTROL (1983)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

William Comcowich  
212/333-5656

AUDIENCE:

Infection control personnel. The demonstration on catheterization technique is aimed at nurses, interns/residents, and students.

GOAL/

OBJECTIVES:

Designed to increase awareness among physicians of the complications which can arise from urinary tract infections and to improve infection control practices throughout the hospital.

DESCRIPTION:

The fifth in a 9-part series on Nosocomial Infections, the program utilizes many different types of interaction. The major messages include: 1) the rate of nosocomial urinary tract infections can be reduced with careful attention to aseptic technique, 2) to prevent, control and investigate outbreaks, choose the most cost-effective approach which solves the problem, and 3) every hospital should have protocols to identify, prevent and control spread of multi-resistant organisms.

SYSTEM

HARDWARE:

Disc: Pioneer.  
Disc Player: Pioneer 7820 or LD-V6000.  
Monitor: Amdek color 13".  
Computer: Apple IIe.  
Other: Elographics touchscreen.

SYSTEM

SOFTWARE:

Level II: 9 digital dumps.  
Level III: Apple IIe control software (proprietary).

AVAILABILITY:

Quiry sponsor.

TITLE: PREVENTION/MANAGING INFECTION IN THE IMMUNOSUPPRESSED  
Patient (1984)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

PRODUCER:

Bill Isbell  
203/934-9221

AUDIENCE: Hospital Medical Personnel.

GOAL/  
OBJECTIVES:

The Miles Learning Center series is designed to establish a presence in the marketplace with an image-building campaign by presenting topics of interest to hospital practice.

DESCRIPTION:

Developed at the University of Maryland School of Medicine Cancer Center with Stephen C. Schimpff, M.D. and Kathryn A. Newman, R.N., M.S. This videodisc contains a practical, clinically-oriented, "how-to" program on the prevention, diagnosis, and treatment of infection in immunosuppressed patients. Discussion includes mechanisms of immunosuppression, special risks, sources, and routes of infection, early diagnosis, presumptive therapy, principles in drug selection, and methods of preventing infection.

SYSTEM

HARDWARE:

Disc Player: DVA PR-7820.  
Monitor: Sony color.

AVAILABILITY: Query sponsor.

TITLE: EMERGENCY APPENDECTOMY FOR ACUTE APPENDICITIS (1983)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

PRODUCER:

Bill Isbell  
203/934-9221

AUDIENCE: Hospital Medical Personnel.

GOAL/

OBJECTIVES: The Miles Learning Center series is designed to establish a presence in the marketplace with an image-building campaign by presenting topics of interest to hospital practice.

DESCRIPTION: Produced with Darry Shandling, M.D. and the Hospital for Sick Children, Toronto. This videodisc depicts an emergency appendectomy that was performed on a 7-year-old girl with acute appendicitis. The viewer may watch the program at his/her own pace using the functions of the videodisc player. The program has been segmented into surgical steps, each of which is referenced in a handbook.

SYSTEM

HARDWARE: Disc Player: DVA PR-7820.  
Monitor: Sony color.

AVAILABILITY: Quiry sponsor.

TITLE: CALCIUM CHANNEL BLOCKERS (1984)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

William Comcowich  
212/333-5656

AUDIENCE: Physicians and cardiologists.

GOAL/

OBJECTIVES: To provide cardiologists with in-depth information on the clinical pharmacology, hemodynamic effects, approved indications, potential uses, contraindications, and adverse reactions of a new class of agents used to treat angina and other cardiovascular disease.

DESCRIPTION: The program content includes didactic sections on the role of calcium in the heart, hemodynamic effects of cardiovascular agents, and potential uses of calcium channel blockers. In addition, four patient case simulations challenge the skills of cardiologists in managing complicated cases of heart disease. There is a self-assessment of hemodynamic effects and a quiz on general knowledge of calcium channel blockers. The disc also contains an interactive index.

SYSTEM

HARDWARE: Disc: Pioneer  
Disc Player: Pioneer 7820 or LD-V6000  
Monitor: Amdek color 13".  
Computer: Apple IIe.  
Other: Elographics touchscreen.

SYSTEM

SOFTWARE: Level II: 22 digital dumps.  
Level III: Apple IIe pascal (proprietary).

AVAILABILITY: Query sponsor.

**TITLE: ADVANCED EPIDEMOLOGIC TECHNIQUES: SAMPLING AND CONTROL GROUP  
SELECTION (1984)**

**SPONSOR:**

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

**PRODUCER:**

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

William Comcowich  
212/333-5656

**AUDIENCE:** Infectious disease specialists and infectious disease control personnel.

**GOAL/**

**OBJECTIVES:** To instruct specialist in sophisticated techniques of epidemic investigation.

**DESCRIPTION:** Part of the series on nosocomial infections, this disc includes a complex case study which challenges the viewer to solve an outbreak of gastroenteritis. Once solved, the problem reappears and must be solved again. Four clinical case studies are presented in which the participant must make the proper diagnosis and treat the patient through a series of complications. The program also includes a set of problems that the viewer must solve concerning selection of control groups.

**SYSTEM**

**HARDWARE:** Disc: Pioneer  
Disc Player: Pioneer 7820 or LD-V6000  
Monitor: Amdek color 13".  
Computer: Apple IIe.  
Other: Elographics touchscreen.

**SYSTEM**

**SOFTWARE:** Level II: 15 digital dumps.  
Level III: Apple IIe pascal (proprietary).

**AVAILABILITY:** Query sponsor.

TITLE: ASEPTIC TECHNIQUES (1985)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

Jean-Pierre Isbouts  
212/333-5656

AUDIENCE: Operating room nurses, surgical technicians and other hospital personnel.

GOAL/

OBJECTIVES: Designed as a teaching tool for in-service nursing education and training programs for hospital personnel.

DESCRIPTION: Instructional material covers many areas where aseptic techniques are absolutely crucial, including cannula insertion, collection of IV specimens, insertion of urinary catheters, and scrubbing, gowning, and gloving. Correct procedures are shown and reinforced with interactive testing segments.

SYSTEM

HARDWARE: Disc: 3M.  
Disc Player: Pioneer 7820 or LD-V6000.  
Monitor: Amdek color 13".  
Computer: Apple IIe.  
Other: Elographics touchscreen.

SYSTEM

SOFTWARE: Level II: 8 digital dumps.  
Level III: Apple IIe pascal (proprietary).

AVAILABILITY: Query sponsor.

TITLE: QUINOLONES: THE LATEST ADVANCE IN ANTIBIOTIC THERAPY (1985)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

William Comcowich  
212/333-5656

AUDIENCE:

Infectious disease specialists, internists, surgeons,  
gynecologists, and family practitioners.

GOAL/

OBJECTIVES:

To inform physicians of the characteristics,  
benefits, and clinical indications of a new class of  
antibiotics.

DESCRIPTION:

Takes the physician through an evolutionary  
discussion of infectious disease therapies and the  
need for more effective antibiotics. Generalist and  
specialist pathways through the program cover  
relevant material such as microbiology,  
pharmacokinetics, mechanism of action and treatment  
and offer the opportunity to access data in various  
ways. A self-assessment section questions physicians  
on recommended antibiotic therapy. The computerized  
bibliography allows viewers to access source material  
and request a hard copy of clinical papers.

SYSTEM

HARDWARE:

Disc: 3M.  
Disc Player: Pioneer LD-V6000.  
Monitor: Amdek color 13".  
Computer: Apple IIe.  
Other: Elographics touchscreen.

SYSTEM

SOFTWARE:

Apple IIe pascal (proprietary).

AVAILABILITY:

Query sponsor.

TITLE: CLINICAL MANAGEMENT OF HOSPITAL-ASSOCIATED INFECTIONS (1985)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

Jean-pierre Isbouts  
212/333-5656

AUDIENCE: Practicing physicians and medical students.

GOAL/  
OBJECTIVES:

To improve the skills of physicians and medical students in diagnosing and managing the special problems of hospital-associated infections.

DESCRIPTION:

Another disc in the Nosocomial Infections Series. Presents a series of extraordinarily difficult case studies in infectious disease. The viewer is confronted with biphasic infections, recurring infections, problems of multi-resistant organisms, and infection control problems. The cases include: a patient with AIDS; and auto accident victim who develops a liver abscess, a college student with meningitis, and an immunosuppressed patient with hepatitis.

SYSTEM

HARDWARE:

Disc: 3M.  
Disc Player: Pioneer 7820 or LD-V6000.  
Monitor: Amdek color 13".  
Computer: Apple IIe.  
Other: Elographics touchscreen.

SYSTEM

SOFTWARE:

Level II: 16 Digital Dumps.  
Level III: Apple IIe pascal (proprietary).

AVAILABILITY: Query sponsor.

TITLE: RESPIRATORY TRACT INFECTIONS (1986)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

Jean-pierre Isbouts  
212/333-5656

AUDIENCE:

Hospital medical personnel, Infection Control  
Officer.

GOAL/  
OBJECTIVES:

To emphasize risk factor identification in preventing  
respiratory tract infections.

DESCRIPTION:

This disc is also part of the Nosocomial Infection  
Series. Patient simulations are presented and the  
viewer must identify the risk factors. The disc  
includes eleven full-simulation patient case-studies,  
including and IV heroin abuser at risk for acquiring  
nosocomial pneumonia, a woman with critical aortic  
stenosis and congestive heart failure at risk for  
contracting influenza, and a patient with  
Legionnaires disease.

SYSTEM

HARDWARE:

Disc: 3M.  
Disc Player: Pioneer 7820 or LD-V6000.  
Monitor: Amdek color 13".  
Computer: Apple IIe.  
Other: Elographics touchscreen.

SYSTEM

SOFTWARE:

Level II: 12 Digital Dumps.  
Level III: Apple IIe pascal (proprietary).

AVAILABILITY:

Query sponsor.

TITLE: ATLAS OF INFECTIOUS DISEASES (1986)

SPONSOR:

Miles Pharmaceuticals  
400 Morgan Lane  
West Haven, CT 06516

Bill Isbell  
203/934-9221

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

Jean-pierre Isbouts  
212/333-5656

AUDIENCE:

Physicians, medical lecturers, medical students.

GOAL/  
OBJECTIVES:

To provide an electronic data base of photographs of pathology associated with infectious diseases.

DESCRIPTION:

This disc is the last in the series on nosocomial infections. It provides an extensive collection of distinct color photographs depicting the characteristic physical, microscopic, radiologic, and histologic features of infections. The entire collection is cross-referenced and indexed on the videodisc so that viewers can organize and study the photographs according to their individual needs. The video text explains the important points and distinctive characteristics contained in each photograph. A section entitled "Commonly Confused Disease" provides the challenge of diagnosing very similar dermatological presentations.

SYSTEM

HARDWARE:

Disc: 3M.  
Disc Player: Pioneer 7820 or LD-V6000.  
Monitor: Amdek color 13".  
Computer: Apple IIe.  
Other: Elographics touchscreen.

SYSTEM

SOFTWARE:

Level I: 17 Chapters encoded.  
Level II: 16 Digital Dumps (Pioneer).

AVAILABILITY:

Quiry sponsor.

PFIZER INTERNATIONAL INC.

CONTACT: Glen Berry  
Manager, Training & Development  
Pfizer International (Pharmaceutical Division)  
219 East 42nd Street  
New York, New York 10017

Telephone: 212/573-7448

ACTIVITY: Pfizer has developed a training system called Simulation System Trainer (SST). Consisting of a videodisc player, videotape recorder, camera, monitor, a patented controller (Performax, Inc. Westport Ct.), and IBM XT, the SST allows a sales representative to interact with an on-screen "physician" in a simulated sales call. Through a patented system, the SST produces a videotape of this interaction. The tape is then used for review and critique by the trainer or supervisor. The first series for the SST system, "General Selling Skills," will consist of five videodiscs covering eight different topics.

COMMENTS: Mr. Berry reports that Pfizer trains about 6000 sales representatives, 500 first line sales supervisors, and 52 national sales managers around the world. The SST system allows Pfizer to standardize their training program, especially in the basic selling skills.

In researching the need for such a system, Pfizer sent out a videotaped demonstration of the program, a proposed curriculum, and a questionnaire to each of its markets. All respondents agreed that SST would improve and standardized training worldwide and that it was superior to any existing training system. "We're very pleased with the response we've had," says Mr. Berry. "It's very very positive."

"Using this system means our trainers won't have to spend as much time teaching the basic skills. They can devote themselves to higher level skills and do coaching as it relates to the end product (the videotape produced by the SST). The trainees can practice the program as long as they want. They can record and re-record over and over again until they feel like they have their best effort--all without any embarrassment or criticism. We feel it cuts down on trial and error skill development that normally takes place in the field."

ROCHE LABORATORIES

CONTACT: Bob Bulmer  
Sales Department  
Roche Laboratories  
340 Kingsland Street  
Nutley, New Jersey 07110  
  
Telephone: 201/235-2258

ACTIVITY: Roche has produced at least two videodisc patient simulations which use an interactive manikin. "Peter" and "Morton" are both used to instruct physicians in methods for arriving at a sound diagnosis and treatment regime based on a specific case study.

COMMENTS: The MedicalDisc Reporter was unable to reach Mr. Bulmer for his comments regarding the videodisc programs. [See the following pages for full descriptions of the programs.]

TITLE: DIAGNOSIS: AN ANIMATED EDUCATION EXERCISE - CASE 2 - PETER  
(1984)

SPONSOR:

Roche Laboratories  
340 Kingsland Street  
Nutley, NJ 07110

Bob Bulmer  
201/235-2258

PRODUCER:

Reactive Systems, Inc.  
40 North Van Brunt Street  
Englewood, NJ 07631

Donald Stark  
201/568-0446

AUDIENCE:

Physicians, especially IM, FP, GP, and infectious disease specialists.

GOAL/

OBJECTIVES:

To instruct physicians in methods for arriving at a sound diagnosis based on a specific case study and using an interactive mannequin to simulate a physical exam.

DESCRIPTION:

The patient history is gathered by "interviewing" the patient on video. After gathering enough preliminary data, the physician can perform a physical on a lifelike manikin, funduscopying the retinae for pathology, palpating the abdomen, taking blood pressure, listening for heart and lung sounds, feeling for swollen glands, and examining the skin for abnormalities. The manikin is also programmed to talk. Diagnostic studies (ECG, X-ray, spiograms, Echos, etc.) and lab findings reveal themselves as stills, motion sequences, and computer animation. When the physician finds an abnormality or presumes a diagnosis, (s)he types it in using the Apple keyboard. The video part of the program closes with a well known physician/moderator commenting on the users specific diagnostic choice. At the end of the program, the user receives a printout tracking her/his path through the program.

SYSTEM

HARDWARE:

Disc Player: Pioneer LD-V1000.  
Computer: Apple IIe with expanded memory.  
Interface: Allen card  
Other: Printer, proprietary interactive manikin.

SYSTEM

SOFTWARE:

Main program is BASIC, calling Allen routines and other assemble language program that control the manikin electronics.

AVAILABILITY:

On exhibit at select medical conventions throughout the year.

TITLE: DIAGNOSIS: AN ANIMATED EDUCATION EXERCISE - CASE 3 - MORTON  
(1985)

SPONSOR:

Roche Laboratories  
340 Kingsland Street  
Nutley, NJ 07110

Bob Bulmer  
201/235-2258

PRODUCER:

Reactive Systems, Inc.  
40 North Van Brunt Street  
Englewood, NJ 07631

Donald Stark  
201/568-0446

AUDIENCE: Physicians, especially IM, FP, GP, and cardiologists.

GOAL/

OBJECTIVES: To instruct physicians in methods for arriving at a sound diagnosis and treatment regimen based on a specific case study and using an interactive mannequin to simulate a physical exam.

DESCRIPTION: The patient history is gathered by "interviewing" the patient on video. The user has the option to "Probe" deeper into a line of questioning or "Continue" on to the next question. The physical exam portion of the program is performed on a life-like manikin. The user may check the retinae using an ophthalmoscope, palpate the liver for such abnormalities as hepatomegaly and hepatojugular reflux, take pulse and view or palpate extended neck veins, take blood pressure, and listen to heart and lung sounds.

Throughout the program, users have the opportunity to make diagnoses, see lab test results, view a variety of diagnostic studies, and institute treatment regimens. If course of therapy is appropriate, the "patient's" symptoms improve. To simulate actual clinical experience, users are asked to type in their findings using natural language rather than selecting from a multiple-choice menu. At the end of the program, the user receives a printout tracking her/his unique path through the program.

SYSTEM

HARDWARE:

Disc Player: Pioneer LD-V1000.  
Computer: Apple IIe with expanded memory.  
Interface: Allen card  
Other: Printer, proprietary interactive manikin.

SYSTEM

SOFTWARE:

Main program is BASIC, calling Allen routines and other assemble language program that control the manikin electronics.

AVAILABILITY: On exhibit at select medical conventions.

ROERIG

CONTACT: Spencer Falk  
Product Manager  
Roerig  
235 East 42nd Street  
16th Floor  
New York, NY 10017  
  
Telephone: 212/573-3392

ACTIVITY: Roerig has produced at least five videodisc since 1979, each being used as an exhibit.

HISTORY: Roerig developed their first videodisc, "Borderline Personality Disorders," in time to be shown at the 1979 American Psychiatric Convention. The program was produced by a division of the agency BBD&O. The exhibit played for three days to standing-room-only audiences and received rave reviews from the convention participants.

Since then, Roerig has sponsored at least four other videodisc programs. The first, "Urodynamics in Clinical Practice," is a Level II disc shown at conventions, symposia, and hospitals. "Nephrostolithotomy: The Percutaneous Route" explores the removal of stones with laser surgery, "Challengers in Urology" presents the user with three clinical case studies, and "Beta Lactamase Inhibition" presents the mechanism of bacterial resistance to antibiotics.

COMMENTS: Mr. Falk has been happy with the response of the Roerig programs, but does not expect to do more because of the expense. He is looking to move to computer-assisted materials that would be less expensive to produce and distribute.

TITLE: URODYNAMICS IN CLINICAL PRACTICE (1984)

SPONSOR:

Roerig  
Division of Pfizer  
Pharmaceuticals, Inc.  
235 East 42nd Street  
New York, NY 10017

Karen Dawes  
212/573-2391

PRODUCER:

The Glyn Group  
258 West Fourth Street  
New York, NY 10014

212/255-5156

AUDIENCE: Physicians, especially Urologists.

GOAL/

OBJECTIVES: To introduce urologist to the theory and practice of urodynamics.

DESCRIPTION: A patient is introduced and worked up using choices (stored on a videodisc menu) that represent traditional urological methods. A diagnosis and treatment are chosen (and remembered by the program). Then the basic principles of urodynamics are reviewed, and the outcome of the treatment is revealed. At this point, the viewer can "treat" the patient using the procedures just learned.

All information chosen goes into a clinical record that can be reviewed at any time. After a satisfactory outcome, the viewer learns about some more specialized procedures and views their application to the patient just diagnosed as well as other cases. The program is accredited for one-hour of Category One CME credit.

SYSTEM

HARDWARE: Disc: Pioneer Video.  
Disc Player: Pioneer PR 7820-3.  
Monitor: Any standard color monitor.

SYSTEM

SOFTWARE: A three-program dump was developed using a proprietary PASCAL-based assembler.

AVAILABILITY: Quiry sponsor.

TITLE: NEPHROSTOLITHOTOMY: THE PERCUTANEOUS ROUTE (1984)

SPONSOR:

PRODUCER:

Roerig  
Division of Pfizer  
Pharmaceuticals, Inc.  
235 East 42nd Street  
New York, NY 10017

Karen Dawes  
212/573-2391

AUDIENCE: Physicians, especially Urologists.

GOAL/

OBJECTIVES: To introduce Urologists to the percutaneous removal of stones.

DESCRIPTION: Developed by Robert I. Kahn, MD, Assistant Professor of Urology at the University of California San Francisco School of Medicine. Explains the removal of renal and ureteral calculi by percutaneous nephrostomy--a laser surgical technique. Topics include: Patient Selection, Localizing the Collecting System, Percutaneous Entry, Placement of Nephrostomy Tube, Anesthetizing Nephrostomy Tract, Tract Dilatation, Stone Removal, Instrumentation, and Postoperative Care.

Viewers are entitled to one CME credit in Category 1 for Educational Materials as part of the Extended Programs in Medical Education of the University of California, San Francisco School of Medicine.

SYSTEM

HARDWARE: Disc: Pioneer Video.  
Disc Player: PR 7820-3.  
Monitor: Any standard color monitor.

AVAILABILITY: Query sponsor.

TITLE: CHALLENGES IN UROLOGY

SPONSOR:

PRODUCER:

Roerig  
Division of Pfizer Pharmaceuticals  
235 East 42nd Street  
New York, NY 10017

Spencer Falk  
212/573-3392

AUDIENCE: Physicians, especially Urologists.

GOAL/

OBJECTIVES: To instruct physicians in the diagnosis, evaluation, and management of urologic disorders in the geriatric patient.

DESCRIPTION: This program contains three case studies in which pertinent facts and therapeutic options are given. The user is asked to make diagnostic and therapeutic selections throughout each case study. Following each option, the "expert's choice" is presented as well as the rationale for its selection. CME credit is available. The three case studies are as follows:

CASE 1: A 66-year-old male with weakness of urinary stream, hesitancy, nocturia x 3 of six-months' duration progressing to dysuria, daytime frequency every hour, and marked urinary urgency over previous two weeks.

CASE 2: A 27-year-old man with a C6-7 level quadriplegia, with a history of urine leakage between intermittent catheterization, three febrile urinary tract infections, and daily autonomic dysreflexia.

CASE 3: A 63-year-old woman with urinary incontinence associated with frequency and marked urgency of six-months' duration.

SYSTEM  
HARDWARE:

PROGRAMING  
LANGUAGE:

AVAILABILITY: Query sponsor.

TITLE: BETA LACTAMASE INHIBITION (1986)

SPONSOR:

Roerig  
Division of Pfizer Pharmaceuticals  
235 East 42nd Street  
New York, NY 10017

Pat Kelly  
212/573-3327

PRODUCER:

Romulus Productions, Inc.  
100 Green Street  
New York, NY 10012

Peter Crown  
212/226-6226

AUDIENCE: Physicians, especially GP and IM.

GOAL/

OBJECTIVES: To present the mechanism of bacterial resistance to antibiotics through the enzyme beta lactamase and to present new research on overcoming resistance with "suicide inhibitors."

DESCRIPTION: This program presents the latest scientific thinking on new methods of overcoming bacteria's resistance to beta lactamase antibiotics. Computer animation and video animation illustrate activities of cell receptors, enzymes and antibiotics. Illustrates the application of computer molecular modeling, X-ray crystallography, and other advanced technologies being brought to bear on the problem.

The program contains nearly seven minutes of high production video with four different kinds of computer animations and four different kinds of special effects. The program plays in a linear fashion, with a program dump to cycle the program or to allow it to begin with user input.

SYSTEM

HARDWARE: Disc: 3M.  
Disc Player: Pioneer LDV 6000 or PR 7820 or any player for linear play.

PROGRAMING

LANGUAGE: One program dump.

AVAILABILITY: Used as an exhibit by Roerig.

SANDOZ PHARMACEUTICALS

CONTACT: Robert Fisher  
Manager, Marketing Communications  
Sandoz Pharmaceuticals  
Route #10  
East Hanover, New Jersey 07936  
  
Telephone: 201/386-7500

ACTIVITY: Sandoz has produced at least four videodiscs, all used as exhibits. Subjects include Alzheimer's disease, deep pain thrombosis and pulmonary embolism (for product EMBOLIX), and Parkinson's disease.

COMMENTS: The decision to use videodisc is made by the Business Managers, the equivalent of product managers. The decision is sometimes made in concert with the marketing department, which handles the media aspects, and with the advertising agencies, which may recommend the use of interactive programs as exhibits.

Have been using disc for about two years, and was using interactive videotape before that. A linear version of the EMBOLIX disc was recently transferred to videotape for distribution, although the exact method of distribution is undecided.

[Regarding "cold calls"] "They usually get funneled to me," says Mr. Fisher. "In my experience, people are not coming in with proposals, they're coming in with a blunderbuss approach that interactive can do this, this, and this, and they usually need to be furnished with the information about where it meshes with our particular needs. In all fairness to venders, I don't know that they have much choice. It would not be possible in the pharmaceutical industry, at least where I'm concerned, for them to know enough--to have enough inside information on a market strategy, disease group and so on--to propose something tailored to our needs. I think those sorts of proposals come from intermediate groups like the advertising agencies, who then subcontract the work."

None of the Sandoz discs were done through an agency. The venders were brought in to talk to product managers as specific needs arose.

TITLE: OPTIMAL CARE OF THE ALZHEIMER'S PATIENT (1985)

SPONSOR:

Sandoz Pharmaceuticals  
Route 10  
East Hanover, NJ 07936

Dave Bolton  
201/386-8114

PRODUCER:

Videograf  
144 West 27th Street  
New York, NY 10021

Michael Frenchman  
212/242-7871

AUDIENCE: Physicians and other health care personnel.

GOAL/

OBJECTIVES: As an exhibit at medical symposia and trade shows.

DESCRIPTION: The disc is divided into five parts:

Common Clinical Problems provides a list of common problems physicians encounter when dealing with an Alzheimer's victim. Each problem is paired with proven potential solutions. A quiz is presented at the end of the section. Alzheimer's Disease Background, Theories & Trends presents a series of computer-generated graphics. The Neglected Care-Giver contains footage shot during interviews with professionals at support group meetings with actual victims. Evaluation and Treatment contains numerous sub-branches. In one branch, a real patient describes his problem and the viewer chooses a diagnostic procedure and provides prescriptions. A physician then evaluates the user's decisions. Optimal Care shares concluding remarks with the user.

SYSTEM

HARDWARE: Disc Player: Pioneer V-4000  
Computer: Apple II and IIe  
Interface: Allen Communications

PROGRAMING

LANGUAGE:

AVAILABILITY: Query sponsor.

SCHERING LABORATORIES

CONTACT: Stan Mosiello  
Director, Sales Training Department  
Schering Laboratories  
200 Galloping Hill Road  
Kenilworth, NJ 07033  
  
Telephone: 201/558-4000

ACTIVITY: None at the moment.

COMMENTS: Mr. Mosiello reports that he is familiar with videodisc and is actively looking into the possibility of using the technology for sales training. Not ready to make a commitment. Maybe in two years. Would prefer vendors to contact him by mail.

SMITH KLINE & FRENCH LABORATORIES (USA)

CONTACT: Len Aulenbach  
1900 Market Street  
PO Box 7929 1500 Spring Garden Street  
Philadelphia, Pennsylvania 19101  
  
Telephone: 215/751-5269

ACTIVITY: SK&F was among the first to produce videodisc programs in 1979 with the series "Diagnostic Challenges in Gastroenterology." Produced a total of 12 videodiscs to date.

COMMENTS: Has produced two programs in gastroenterology, eight in infectious diseases, and two on rheumatology, for a total of 12 videodisc programs. No plans to do more "unless someone comes up with a way for me to distribute these discs other than at medical conventions. Or if the costs come down, I'll consider doing more."

"I'll tell you what we are doing a number of," says Mr. Aulenbach, "and that's straight computer programs with graphics. As far as adding appeal to an exhibit at a trade show, for the bucks you really can't beat it now that there are some systems out there that give you good graphics capabilities." [One of the programs Mr Aulenbach is referring to is "The Ridaura Information Center," an interactive touch-screen program that was designed to introduce SK&F's new product, RIDAURA. Physicians obtain a wide variety of product information by touching a series of color graphic screens.]

SK&F conducted a survey of hospitals, medical schools, and teaching institutions to find out what kind of hardware is out there and found a large variety of systems. Also did a survey at medical conventions and found people couldn't remember programs they saw or whose they saw. Mr. Aulenbach feels the market is saturated with the technology. That, coupled with the expense, is why they are discontinuing their videodisc development.

TITLE: THE HIDDEN LANGUAGE OF ARTHRITIS (1983)

SPONSOR:

Smith Kline & French Laboratories  
1900 Market Street  
P.O. Box 7929 1500 Spring Garden St.  
Philadelphia, PA 19101

Len Aulenbach  
215/751-5269

PRODUCER:

Medicus Intercon with  
Fusion Media, Inc.  
8 W. 95th Street  
New York, NY 10025

Craig A. Mengel  
212/864-4100

AUDIENCE: Specialists and doctors at major medical conferences.

GOAL/

OBJECTIVES: To train physicians in the essentials of diagnosing  
rheumatoid arthritis and osteoarthritis.

DESCRIPTION: Physicians can select either of two patient simulations  
to view from the main menu. At critical points in the  
history taking and physical examination procedures,  
viewers are allowed to select appropriate diagnoses,  
question patients further, and order medical tests.  
The self-paced program allows review and text still  
frames to be interspersed with video of doctor-patient  
interview sequences. Nationally-known rheumatologist  
Dr. William Arnold is host.

SYSTEM

HARDWARE:

Disc: Pioneer, aluminum backed, CAV  
Disc Player: Pioneer LDV1000  
Computer: Custom EPROM box, emulating Level II  
interactivity.  
Monitor: Sony  
Interface: Custom keypad, reinforced for convention  
use.  
Other: Headphones, adjustable volume control.

PROGRAMING

LANGUAGE: Machine code.

AVAILABILITY: For use at major medical symposia only.

SMITH KLINE & FRENCH (International)

CONTACT: (Ms.) Dale Stockbower, C-11  
Smith Kline & French International  
PO Box 7929, 1500 Spring Garden Street  
Philadelphia, Pennsylvania 19101  
  
215/751-7455

ACTIVITY: Developed first disc for gastroenterology series in 1979. Has completed at least four videodiscs in the series. Programs are used overseas on 40 systems in 12 countries. Systems are used as exhibits and are loaned to hospitals and medical schools.

HISTORY: SK&FI's first videodisc, "Diagnostic Challenges in Gastroenterology," was developed by WICAT Systems as an exhibit for a gastroenterology congress in Hamburg, Germany. The success of the exhibit led to the evolution of an series of four videodiscs, each of which is approved for CME credit. The programs are used in a variety of ways, depending on the needs of each SK&FI subsidiary. One method common in Belgium and Italy is to leave the system in teaching hospitals for weeks or months at a time so the programs can be viewed by the hospital staff. Other countries, such as Spain, the United Kingdom, and the Netherlands, prefer to circulate their systems among a variety of symposia, meetings, workshops, and conventions.

COMMENTS: Ms. Stockbower does not expect SK&F to be doing any more videodisc development. Some of their problems were hardware-related in that they originally went with a system built around non-standard equipment (WICAT). SK&F looked into converting to another system, but found it would cost too much for hardware and reprogramming. SK&F does not have the budget they once had. In 1987, the US division will be moving into the same building with the overseas division, so there may be a possibility of combining resources for some future projects.

In summary, Ms. Stockbower states, "We're moving away from medical education, dollars are tough to come by, and we're going more towards direct promotion. Disc had a big slam, we got in on it early, but hardware-wise we're out on a limb. It costs too much to change over, so we don't expect to be doing any discs in the foreseeable future."

TITLE: DIAGNOSTIC CHALLENGES-MARY WETHERTON (1981)

SPONSOR:

Smith Kline & French Lab Ltd.  
Welwyn Garden City  
Hertfordshire AL7 1EY, ENGLAND

Barry Gammon

PRODUCER:

Fusion Media, Inc.  
8 W. 95th Street  
New York, NY 10025

Jeffrey Silverstein  
212/864-4100

AUDIENCE: General Practitioners.

GOAL/

OBJECTIVES: Provide an educational and informative experience by allowing physicians an active role in diagnostic referral and prescription processes involved in gastro-intestinal problems.

DESCRIPTION: This program is a patient management simulation of a woman who is suffering from indigestion and arthritis. The doctor watching can ask the patient questions, carry out a physical exam, order further tests, and prescribe treatment for the patient condition. These are reviewed with the doctor in light of costs, time delays, and acceptability to the patient.

SYSTEM

HARDWARE: Disc: Pioneer, CAV, Level II.  
Disc Player: Pioneer PR 7820.  
Monitor: Any

PROGRAMING

LANGUAGE: Pioneer Level II Code.

AVAILABILITY: On a temporary loan basis from SKF, U.K.

STUART PHARMACEUTICALS

CONTACT: Karen Miller  
Convention Coordinator  
Stuart Pharmaceuticals  
3411 Silverside Road  
Shipley Building, First Floor  
Wilmington, Delaware 19897  
  
Telephone: 302/575-3000

ACTIVITY: Stuart has produced at least five videodiscs, including the series "The Challenge of Serious Infection," designed to be used at major medical symposia and scientific meetings. They are working on a companion series, "The Challenge of Antibiotic Therapy," which will be unveiled at the May 1986 meeting of the American College of Obstetrics and Gynecology in Washington, D.C. In addition to the videodisc programs, Stuart also is producing CME accredited videotape and workbook versions of the programs that will be distributed by their sales representatives beginning June 1986.

COMMENTS: Ms. Miller expects Stuart to do more in the series. Stuart has purchased the hardware for delivery (Sony SMC-70's) and feels they are committed to use them for the next three years. Product manager for series is Ron Gentile.

TITLE: THE CHALLENGE OF SERIOUS INFECTION (1985)

SPONSOR:

Stuart Pharmaceuticals  
Division of ICI Americas Inc.  
Wilmington, DE 19897

Karen Miller, Convention Coord.  
302/575-3000

PRODUCER:

IntraMed with  
Lancit Media and  
Fusion Media, Inc.  
8 West 95th Street  
New York, NY 10025

Craig A. Mengel  
212/864-4100

AUDIENCE: Physicians and Pharmacists

GOAL/  
OBJECTIVES:

The "Stuart Zone" exhibit was designed to educate physicians in the proper prevention and management of serious hospital infection through a patient case study technique.

DESCRIPTION:

This Level III interactive program has three patient simulations: OB/GYN, Trauma, and Medical Cases. The video was recorded in an on-location documentary style and presented by an on-screen doctor who is nationally recognized in that area of specialization. Computer text and graphic overlays challenge the user with diagnostic and treatment questions. Features include:

- 1) A main menu from which the user can choose different case studies;
- 2) Patient charts on each case study to allow users to review the clinical record at each major decision-making point;
- 3) The capacity to generate custom, viewer-selected printouts of reading lists and case summary points;
- 4) A global return to the main menu to permit users to move onto another case;
- 5) Full isolating headphones with viewer-selected audio levels to afford privacy in the congress setting;
- 6) Both touch-screen and keyboard input.

SYSTEM

HARDWARE:

Disc: 3M, CAV.  
Disc Player: Sony LDP 1000A.  
Computer: Sony SMC-70.  
Monitor: Sony PVM 1271Q.  
Interface: Internal.  
Other: 3 Cache discs, RGB Superimposer and Touchscreen.

PROGRAMING

LANGUAGE:

Compiled Basic.

AVAILABILITY: For use by Stuart at major medical symposia. Videotape versions of the program are available to hospitals and medical schools. CME credits by Cornell University.

TITLE: THE CHALLENGE OF SERIOUS INFECTION IN MEDICINE (1986)

SPONSOR:

Stuart Pharmaceuticals  
Division of ICI Americas Inc.  
Wilmington, DE 19897

PRODUCER:

IntraMed with  
Lancit Media and  
Fusion Media, Inc.  
8 West 95th Street  
New York, NY 10025

Karen Miller, Convention Coord.  
302/575-3000

Craig A. Mengel  
212/864-4100

AUDIENCE: Physicians and Infectious Disease Specialists.

GOAL/

OBJECTIVES: The "Stuart Zone" exhibit was designed to educate physicians in the proper prevention and management of serious hospital infection through a patient case study technique.

DESCRIPTION: This Level III interactive program has two patient simulations: biliary tract infection and fetid foot. The video was recorded in an on-location documentary style and presented by an on-screen doctor who is nationally recognized in that area of specialization. Computer text and graphic overlays challenge the user with diagnostic and treatment questions. Features include:

- 1) A main menu from which the user can choose different case studies;
- 2) Patient charts on each case study to allow users to review the clinical record at each major decision-making point;
- 3) The capacity to generate custom, viewer-selected printouts of reading lists and case summary points;
- 4) A global return to the main menu to permit users to move onto another case;
- 5) Full isolating headphones with viewer-selected audio levels to afford privacy in the congress setting;
- 6) Both touch-screen and keyboard input.

SYSTEM

HARDWARE: Disc: 3M, CAV.  
Disc Player: Sony LDP 1000A.  
Computer: Sony SMC-70.  
Monitor: Sony PVM 1271Q.  
Interface: Internal.  
Other: 3 Cache discs, RGB Superimposer and Touchscreen.

PROGRAMING

LANGUAGE: Compiled Basic.

AVAILABILITY: For use by Stuart at major medical symposia. Videotape versions of the program are available to hospitals and medical schools. CME credits by Cornell University.

TITLE: THE CHALLENGE OF SERIOUS INFECTION IN OB/GYN (1986)

SPONSOR:

Stuart Pharmaceuticals  
Division of ICI Americas Inc.  
Wilmington, DE 19897

Karen Miller, Convention Coord.  
302/575-3000

PRODUCER:

IntraMed with  
Lancit Media and  
Fusion Media, Inc.  
8 West 95th Street  
New York, NY 10025

Craig A. Mengel  
212/864-4100

AUDIENCE: Physicians and OB/GYN specialists.

GOAL/

OBJECTIVES: Designed to educate and inform gynecologists and obstetricians in proper treatment of serious infection related to hysterectomy and caesarean section.

DESCRIPTION: This Level III interactive program has two patient simulations: Abdominal hysterectomy and emergency C-section. The video was recorded in an on-location documentary style and presented by an on-screen doctor who is nationally recognized in that area of specialization. Computer text and graphic overlays challenge the user with diagnostic and treatment questions. Features include:

- 1) A main menu from which the user can choose different case studies;
- 2) Patient charts on each case study to allow users to review the clinical record at each major decision-making point;
- 3) The capacity to generate custom, viewer-selected printouts of reading lists and case summary points;
- 4) A global return to the main menu to permit users to move onto another case;
- 5) Full isolating headphones with viewer-selected audio levels to afford privacy in the congress setting;
- 6) Both touch-screen and keyboard input.

SYSTEM

HARDWARE: Disc: 3M, CAV.  
Disc Player: Sony LDP 1000A.  
Computer: Sony SMC-70.  
Monitor: Sony PVM 1271Q.  
Interface: Internal.  
Other: 3 Cache discs, RGB Superimposer, Touchscreen.

PROGRAMING

LANGUAGE: Compiled Basic.

AVAILABILITY: For use by Stuart at major medical symposia. Videotape versions of the program are available to hospitals and medical schools. CME credits by Cornell University.

TITLE: THE CHALLENGE OF ANTIBIOTIC SELECTION IN SURGERY (1985)

SPONSOR:

Stuart Pharmaceuticals  
Division of ICI Americas Inc.  
Wilmington, DE 19897

Karen Miller, Convention Coord.  
302/575-3000

PRODUCER:

Infomed with  
Lancit Media and  
Fusion Media, Inc.  
8 West 95th Street  
New York, NY 10025

Craig A. Mengel  
212/864-4100

AUDIENCE: Physicians and Pharmacists.

GOAL/

OBJECTIVES: The "Stuart Zone" exhibit was designed to educate physicians in the proper prevention and management of serious hospital infection through a patient case study technique.

DESCRIPTION: This Level III interactive program has two patient simulations: Emergency trauma surgery and surgical prophylaxis in abdominal surgery. The video was recorded in an on-location documentary style, presented by an on-screen doctor who is nationally recognized in the area of specialization. Computer text and graphic overlays challenge the user with diagnostic and treatment questions. Input is through touchscreen and keyboard. Two features of the program are 1) a dynamic patient chart which permits the physician to call up relevant information at any point in the case and 2) customized printouts of reading lists, summary points, and reference guides.

SYSTEM

HARDWARE: Disc: 3M, CAV.  
Disc Player: Sony LDP 1000A.  
Computer: Sony SMC-70  
Monitor: Sony PVM 1271Q.  
Interface: Internal.  
Other: 3 Cache discs, RGB Superimposer, Touchscreen.

PROGRAMMING

LANGUAGE: Compiled Basic.

AVAILABILITY: For use by Stuart at major medical symposia. Videotape versions with workbooks are available to hospitals and medical schools.

TITLE: THE CHALLENGE OF ANTIBIOTIC SELECTION IN GRAM-NEG SEPSIS  
(1985)

SPONSOR:

Stuart Pharmaceuticals  
Division of ICI Americas Inc.  
Wilmington, DE 19897

Inc.

Karen Miller, Convention Coord.  
302/575-3000

PRODUCER:

Infomed with  
Lancit Media and  
Fusion Media,

8 West 95th Street  
New York, NY 10025

Craig A. Mengel  
212/864-4100

AUDIENCE: Physicians and Pharmacists.

GOAL/  
OBJECTIVES:

This program details and compares the pharmacokinetics, costs, and dosages required for a range of antibiotics used in the treatment of serious infection.

DESCRIPTION:

The viewer selects topics of interest from the main menu, which include antimicrobial strategy, pharmacokinetic strategy, and the issue of cost. Three patient simulation exercises are presented which compare and contrast cost and administration factors for various antibiotic regimens. The viewer can select further pharmacokinetic information on any of the available antibiotic choices from the Drug Information Specialist. Custom printouts of references, main points, and algorithms are included at the end of the program.

SYSTEM

HARDWARE:

Disc: 3M, CAV.  
Disc Player: Sony LDP 1000A.  
Computer: Sony SMC-70  
Monitor: Sony PVM 1271Q.  
Interface: Internal.  
Other: 3 Cache discs, RGB Superimposer, Touchscreen.

PROGRAMING

LANGUAGE:

Compiled Basic.

AVAILABILITY: For use by Stuart at major medical symposia. Videotape versions with workbooks are available to hospitals and medical schools.

SYNTEX LABORATORIES, INC.

CONTACT: Diane Feldman  
Product Director  
Syntex Laboratories, Inc.  
3401 Hillview Avenue  
Palo Alto, California 94304  
  
Telephone: 415/855-5870

ACTIVITY: Recently completed their first interactive videodisc, "Prostaglandins and the Gastrointestinal Tract." Used with great success as exhibit at gastroenterology meetings.

COMMENTS: "We're very pleased with what the videodisc has provided us in terms of a new and intriguing way to introduce a new area of medicine to some specialists," reports Ms. Feldman. "The audience likes the program and enjoys the ease of use we get with a touch-screen verses a keypad. We certainly will be looking at the disc for future exhibits."

[Is cost a barrier to doing more?] "It certainly is something that makes you stop and think before you go ahead and just do another one. You want to make sure that what you will be doing will be innovative and novel enough to justify that kind of added expense. I think other product managers are interested in the technology--the cost is what's causing them to stop and think. Now that we have the hardware, there won't be that kind of expense on a product by product basis. So now each of the product managers must take a look at the cost of a disc itself."

[What are some of the other considerations?] "You have to look to see if the content makes sense. Some areas of medicine lend themselves to innovative teaching, and the videodisc has a tremendous appeal there. Other areas just don't lend themselves to that kind of format. The disc has the greatest utility with new products, particularly if those products are using new mechanisms of action. That doesn't mean it isn't a useful tool for online products. But I think when you've got a product that's been on the market for three to five years, you may very well have taught them, through other media, much of what you want them to know. At that point the videodisc may become more of a service program than an educational vehicle about the product."

[How do you react to cold calls by producers?] "We've had a couple of people come to us, once they've seen we have a videodisc, and say, 'Well, we can do videodisc, too.' So far, I've asked them to show me what they had. I'm interested in learning all I can about what's being done in this area, and I'd like to see any creative ideas that people might have. Frankly, I have a bias toward working with someone who's done videodisc development in the pharmaceutical field before."

"You should always come to the client with a specific idea designed to meet some need. It always makes a better impression and catches my ear a lot faster. However, in this area, I would admit, that since we're new at it, we're on a lower part of the learning curve as compared to those pharmaceutical companies who have been doing videodiscs for a long time. We're probably more open just to finding out who's doing them. But I would imagine that I'll get tired of that fairly quickly."

[What's a good way to approach a product manager?] "Once you know the products and to what areas of medicine they relate, it would be useful to have some sort of perspective on what others have already done in that area. I would suggest that anyone who wants to propose a program to a client should be able to say, 'I know so-and-so's done this, and so-and-so's done that, but no one's done this.'"

TITLE: PROSTAGLANDINS AND THE GASTROINTESTINAL TRACT (1985)

SPONSOR:

Syntex Laboratories  
3401 Hillview Avenue  
Palo Alto, CA 94303

Diane Feldman  
415/855-5050

PRODUCER:

Effective Communication  
Arts, Inc.  
221 West 57th Street  
New York, NY 10019

William Comcowich  
212/333-5656

AUDIENCE: Gastroenterologists, internists and family practitioners.

GOAL/

OBJECTIVES: To introduce physicians to prostaglandins as a new form of treatment for duodenal ulcers and other gastrointestinal disorders.

DESCRIPTION: On-camera physician hosts discuss currently available anti-ulcer drugs and therapies and compare their effectiveness to prostaglandins. Broadcast quality graphics illustrate test results and computer-generated graphics enhance explanations and descriptions. Interactive segments compare ulcer therapies and test the viewer on information offered in the program.

SYSTEM

HARDWARE: Disc: 3M.  
Disc Player: Pioneer LD-V6000.  
Computer: Mindset.  
Monitor: Zenith ZVM-135.  
Other: Elographics touchscreen.

PROGRAMING

LANGUAGE: Level II: 8 digital dumps.  
Level III: Mindset "C" language (proprietary).

AVAILABILITY: Query sponsor.

THE UPJOHN COMPANY

CONTACT: Paul Duensing  
Exhibit Manager  
The Upjohn Company  
7000 Portage Road  
Kalamazoo, Michigan 49001  
  
Telephone: 616/323-5478

ACTIVITY: Upjohn has produced at least four Level II videodiscs which are used as exhibits and were distributed to hospitals and medical schools that have the Miles Learning Center (Pioneer 7820 videodisc player). A Level III program is being produced and will be used as an exhibit only.

COMMENTS: The two Level II programs being used are "The Brain and Anxiety" and "Hypnotic Selection: A Censuses Update." Each is at least a second generation videodisc, the originals being done in 1983 and called "Parameters of Anxiety and Depression" and Pharmacokinetics of Sleep." Each disc was developed and distributed by Business Group IV, which deals with central nervous system products. The Level III production being developed deals with the locus ceruleus of the brain.

[On future of disc technology] "Yes, I think it will be used over the next two to three years," says Mr. Duensing, "but it's going to grow in its level of sophistication and its going to be remarkably more easy to use--more user friendly. I think you're going to see more and more touch screen, and probably there will be a few more gimmicks, bells and whistles and things like that."

"One thing we're looking for is an intermediate form, something between laserdisc photography and low resolution graphics, so the price of a laserdisc production will come down a little bit but you would still have better quality than with ordinary computer graphics. Voice recognition is something we looked at, but that is so ticklish right now. We may also be looking for some interactive live camera stuff, where the participant sees his own picture being projected on the screen. Inevitably, the disc will become just one component of a larger system, just as the computer has."

Duensing --UpJohn (cont.)

[On suppliers] "A lot of the suppliers come in with a pre-cast idea. They want to sell a product, then move on and sell another one. But one of the things that has struck me is that a lot of them aren't open to asking a lot of open-ended questions. They don't solicit ideas from their customers. Sometimes a customer, like myself, comes up with an idea and the guy's not at all receptive to doing it, although his equipment could handle it perfectly well. I think there's room for a creative sales type who is prepared to say, 'How can we change or modify or expand this to set it apart from the crowd and have it do everything you want it to do?'"

Videodisc projects at Upjohn have not been up for bid. When they find a couple of suppliers who have consistently done a good job, they tend to go with them again. Mr. Duensing reports a fair amount of supplier loyalty in the field.

[How do suppliers get your attention?] "First, they should know a fair amount about our field. We've got guys coming in here trying to sell us things the same way they sell the automobile industry or the meat packing industry. In my case, they should have been to a few medical shows and have seen what goes on out there--the exhibits and the electronic technology in them. Then, the rep has got to be able to have some grasp of the problem area and some way of helping the client visualize how the technology can be adapted to his specific area."

TITLE: HYPNOTIC SELECTION: A CONSENSUS UPDATE (1984)

SPONSOR:

The Upjohn Company  
7000 Portage Road  
Kalamazoo, MI 49001

Paul Duensing, Exhib. Mgr.  
616-323-5478

PRODUCER:

GWF Associates  
22 South Holmdel Road  
Holmdel, NJ 07733

George Feehan  
201/946-9790

AUDIENCE: Physicians.

GOAL/

OBJECTIVES: This program is designed as a self-assessment review for physicians who encounter patients complaining of insomnia.

DESCRIPTION: The program was developed in consultation with Thomas Roth, Ph.D., Director of Sleep Disorders and Research Center of the Henry Ford Hospital in Detroit, Michigan, and William C. Dement, M.D., Ph.D., Director, Stanford University Medical Center Sleep Disorders and Sleep Research Program at Stanford, California.

This Level II program 1) reviews the major concepts presented in the NIH Consensus Development Conference on "Drugs and Insomnia, 2) informs physicians about insomnia and its treatment as a 24-hour concern, 3) reviews the pharmacokinetic differences among the benzodiazepine hypnotics, and 4) relates the pharmacological properties of a hypnotic agent to its chemical effects.

SYSTEM

HARDWARE: Disc: 3M.  
Disc Player: Pioneer 7820.

SYSTEM

SOFTWARE: Pioneer Level II data dumps.

AVAILABILITY: Originally distributed by Upjohn to schools and hospitals with the Miles Learning Center.

TITLE: THE BRAIN AND ANXIETY (1984)

SPONSOR:

The Upjohn Company  
7000 Portage Road  
Kalamazoo, MI 49001

Paul Duensing, Exhib. Mgr.  
616-323-5478

PRODUCER:

GWF Associates  
22 South Holmdel Road  
Holmdel, NJ 07733

George Feehan  
201/946-9790

AUDIENCE: Physicians.

GOAL/  
OBJECTIVES:

To familiarize physicians with recent progress made  
in neuroscience research.

DESCRIPTION:

The program was developed in consultation with Steven  
Paul, M.D., Chief, Clinical Neurosciences Branch  
Intramural Research Program at the National Institute  
of Mental Health in Bethesda, Maryland.

This Level II program 1) reviews the current  
understanding of neuroreceptor physiology, 2)  
describes the function of the benzodiazepine/GABA  
receptor complex, and 3) relates neuroreceptor  
activity to its possible role in the amelioration and  
pathogenesis of anxiety.

SYSTEM

HARDWARE:

Disc: 3M.  
Disc Player: Pioneer 7820.

SYSTEM

SOFTWARE:

Pioneer Level II data dumps.

AVAILABILITY:

Originally distributed by UpJohn to schools and  
hospitals with the Miles Learning Center.

WARNER LAMBERT INTERNATIONAL

CONTACT: Jack Bauer  
Director, Pharmaceutical Products Management  
Warner Lambert International  
201 Tabor Road  
Morris Plains, New Jersey 07950  
Telephone: 201/540-2546

Walter Johnson  
Director, Marketing Services  
Telephone: 201/540-3604

Linda Dupont  
Sales Training  
Telephone: 201/540-3899

ACTIVITY: None at the moment.

COMMENTS: All three said the same thing--that they are not using videodisc and won't be soon, but are looking at it for possible use sometime in the future. Expressly stated that is is too early to be talking to anyone about developing videodiscs for them. Probable that all three are working together to research videodisc development.

## WINTHROP-BREON LABORATORIES

**CONTACT:** Paul Drake  
Project Manager, Clinical Education  
Winthrop-Breon Laboratories  
90 Park Avenue  
New York, NY 10016

**ACTIVITY:** Winthrop-Breon has produced a series of seven videodisc programs that play on a delivery system developed by Winthrop-Breon. Topics include analgesics, anesthetics, cardiology, gynecology, and radiology. All are approved for CME credit. Sales representatives take the systems into hospitals and leave them for short periods of time. Programs are also used as exhibits. They are in the process of completing two new videodisc programs.

**HISTORY:** Of the many pharmaceutical companies using videodisc technology, Winthrop-Breon has made one of the largest commitments towards a hardware system. According to Jack Pickering, Director of Clinical Education, Winthrop-Breon made an initial investment of more than \$750,000 to purchase more than 100 videodisc hardware systems. These systems were placed in the hands of their hospital representatives, who, in turn, loan them for short periods to various hospital departments.

Winthrop-Breon hopes to use the systems to achieve recognition and acceptance for their company in these hospitals. Unlike many pharmaceutical companies, Winthrop-Breon includes product information on their videodiscs. Mr. Pickering explains that Winthrop-Breon feel "there is an obligation, as a supplier of pharmaceutical products, for us to teach new physicians how to use those products." Therefore, some of their programs include specific information on products that are relevant to the therapeutics discussed in the program.

The Winthrop-Breon hardware configuration consists of Panasonic color monitors, Pioneer PR-8210 videodisc players, and a custom-built Show Sound VIS-7 computer. Feeling that many of their viewers may not be familiar with a keyboard, Winthrop-Breon designed their programs to be operated with a hand-held keypad.

Winthrop-Breon (cont.)

The Winthrop-Breon series made their first convention showing at the 1982 American Hospital Association meeting. At the time, the exhibit could seat up to eight participants. The response to the exhibit was so good that they subsequently have built a second booth that can accommodate 20 stations and run four programs simultaneously.

Every time a program is viewed, whether at a conference or in a hospital, the user's scores are stored in the computer's memory. This enables Winthrop-Breon to see how many people are using the programs and at which locations. This information is used, in part, to monitor the cost-effectiveness of the program.

COMMENTS:

Mr. Drake is impressed with the ability of these programs to get attention. Have had equal success both as exhibits and in hospitals, Winthrop-Breon recorded over 70,000 users in 1985. Mr. Drake feels strongly that the programs are well worth the investment.

TITLE: WINTHROP-BREON CONSULT SERIES ON HEART FAILURE (1984)

SPONSOR:

Winthrop-Breon Laboratories  
90 Park Avenue  
New York, NY 10016

Paul J. Drake  
212/907-2720

PRODUCER:

Consultants in Medical  
Education, Inc.  
450 Plandome Road  
Manhasset, New York 11030

Victor Keyloun, M.D.  
516/627-0240

AUDIENCE: Physicians.

GOAL/

OBJECTIVES: To reach physicians and achieve recognition for the Winthrop-Breon by teaching basic therapeutics and specific product information in therapeutic areas of major interest to the company.

DESCRIPTION: Approximately 57 minutes of video with 45 chapters (Individual scenes). Two prominent cardiologists address the treatment of heart failure in two different types of patients and a third well-known researcher discusses objective measurements of oxygen consumption in patients with heart failure. Participants are allowed to select any one or all of the three programs and is presented with a question and answer session in each case allowing them to compare their knowledge with that of the experts.

Participant input is made by pressing a single number on a keypad (similar to that used on a telephone) in response to a question of direction posed by the computer. After seeing the physicians response to their selected answer choice, the participant may elect to see the responses to the alternate choices for each question posed.

SYSTEM

HARDWARE: Disc Player: Pioneer 8210.  
Computer: Show Sound VIS-7.  
Monitor: Panasonic CT-110 MA color.

SYSTEM

SOFTWARE: Assembly language with specific operating system written for this hardware system.

AVAILABILITY: 100 hardware/software packages are available on loan from Winthrop-Breon to hospitals and medical centers.

TITLE: ENDOMETRIOSIS AND FIBROCYSTIC BREAST DISEASE (1984)

SPONSOR:

Winthrop-Breon Laboratories  
90 Park Avenue  
New York, NY 10016

Paul J. Drake  
212/907-2720

PRODUCER:

Consultants in Medical  
Education, Inc.  
450 Plandome Road  
Manhasset, New York 11030

Victor Keyloun, M.D.  
516/627-0240

AUDIENCE: Physicians.

GOAL/

OBJECTIVES: To reach physicians and achieve recognition for the Winthrop-Breon by teaching basic therapeutics and specific product information in therapeutic areas of major interest to the company.

DESCRIPTION: Approximately 54 minutes of video with 48 chapters (individual scenes). The first program on this disc involves the etiology, prevalence, pathophysiology, diagnosis and treatment of endometriosis, a disease process affecting women of all ages, and the second explores the symptom complex known as fibrocystic breast disease. Two well-known Professors of Obstetrics and Gynecology and a Professor of Surgery respond to the participants answers to multiple choice questions.

Participant input is made by pressing a single number on a keypad (similar to that used on a telephone) in response to a question of direction posed by the computer.

SYSTEM

HARDWARE: Disc Player: Pioneer 8210.  
Computer: Show Sound VIS-7.  
Monitor: Panasonic CT-110 MA color.

SYSTEM

SOFTWARE: Assembly language with specific operating system written for this hardware system.

AVAILABILITY: 100 hardware/software packages are available on loan from Winthrop-Breon to hospitals and medical centers.

TITLE: CRITICAL CARE MANAGEMENT OF THE FAILING HEART (1984)

SPONSOR:

Winthrop-Breon Laboratories  
90 Park Avenue  
New York, NY 10016

PRODUCER:

Consultants in Medical  
Education, Inc.  
450 Plandome Road  
Manhasset, New York 11030

Paul J. Drake  
212/907-2720

Victor Keyloun, M.D.  
516/627-0240

AUDIENCE: Physicians.

GOAL/

OBJECTIVES: To reach physicians and achieve recognition for the Winthrop-Breon by teaching basic therapeutics and specific product information in therapeutic areas of major interest to the company.

DESCRIPTION: Approximately 34 minutes of video with 77 chapters (individual scenes). The participant specifies the treatment of a patient in heart failure and acute pulmonary edema and sees the results of his/her selections in terms of the progression or regression of the patient's condition. The participant is assessed the time it normally takes to perform the selected procedure and are penalized time for inappropriate selections and a "score" is displayed upon completing the program.

Participant input is made by pressing a single number on a keypad (similar to that used on a telephone) in response to a question of direction posed by the computer. A "HELP" key is provided for those individuals who may not know the correct answer.

SYSTEM

HARDWARE: Disc Player: Pioneer 8210.  
Computer: Show Sound VIS-7.  
Monitor: Panasonic CT-110 MA color.

SYSTEM

SOFTWARE: Assembly language with specific operating system written for this hardware system.

AVAILABILITY: 100 hardware/software packages are available on loan from Winthrop-Breon to hospitals and medical centers.

TITLE: PAIN CONTROL: MANAGEMENT CHALLENGES (1984)

SPONSOR:

Winthrop-Breon Laboratories  
90 Park Avenue  
New York, NY 10016

Paul J. Drake  
212/907-2720

PRODUCER:

Consultants in Medical  
Education, Inc.  
450 Plandome Road  
Manhasset, New York 11030

Victor Keyloun, M.D.  
516/627-0240

AUDIENCE: Physicians.

GOAL/  
OBJECTIVES:

To reach physicians and achieve recognition for the Winthrop-Breon by teaching basic therapeutics and specific product information in therapeutic areas of major interest to the company.

DESCRIPTION:

Approximately 38 minutes of video with 50 chapters (individual scenes). The program consists of a presentation on the pharmacology of pain and the mechanisms of actions of various analgesics. It also contains case studies of five patients requiring different types of analgesics for the control of pain. The participant is given the option of selecting the presentation or any or all of the case studies.

Participant input is made by pressing a single number on a keypad (similar to that used on a telephone) in response to a question of direction posed by the computer.

SYSTEM  
HARDWARE:

Disc Player: Pioneer 8210.  
Computer: Show Sound VIS-7.  
Monitor: Panasonic CT-110 MA color.

SYSTEM  
SOFTWARE:

Assembly language with specific operating system written for this hardware system.

AVAILABILITY:

100 hardware/software packages are available on loan from Winthrop-Breon to hospitals and medical centers.

TITLE: A MANAGEMENT STRATEGY FOR AIRFLOW OBSTRUCTION (1984)

SPONSOR:

Winthrop-Breon Laboratories  
90 Park Avenue  
New York, NY 10016

Paul J. Drake  
212/907-2720

PRODUCER:

Reactive Systems  
40 N. Brunt Street  
Englewood, NJ 07631

Alex Ehrlich  
201/568-0446

AUDIENCE:

Physicians, especially Allergists, Pulmonologists, IM  
GP, FP.

GOAL/

OBJECTIVES:

To reach physicians and achieve recognition for the  
Winthrop-Breon by teaching basic therapeutics and  
specific product information in therapeutic areas of  
major interest to the company.

DESCRIPTION:

Presents patient-management simulations with feedback  
from a well known Pulmonologist. Includes scenes  
shot away from "studio" location to heighten interest  
and dramatic effect. Stills used to convey clinical  
data, including specially designed spiograms.  
Computer-generated graphics used to illustrate  
mechanics of breathing, pathophysiology and mechanism  
of action of various bronchodilators.

SYSTEM

HARDWARE:

Disc Player: Pioneer 8210.  
Computer: Show Sound VIS-7.  
Monitor: Panasonic CT-110 MA color.

SYSTEM

SOFTWARE:

Assembly language with specific operating system  
written for this hardware system.

AVAILABILITY:

100 hardware/software packages are available on loan  
from Winthrop-Breon to hospitals and medical centers.

TITLE: UNDERSTANDING CONTRAST MEDIA: THE PROMISE OF NONIONIC AGENTS  
(1984)

SPONSOR:

Winthrop-Breon Laboratories  
90 Park Avenue  
New York, NY 10016

Paul J. Drake  
212/907-2720

PRODUCER:

KPR Infor/Media Corp.  
605 Third Avenue  
New York, NY 10158

Barbara Saldinger  
212/878-3700

In collaboration with:  
Don Lane Pictures, Inc.  
Fusion Media, Inc.  
Show Sound, Inc.

AUDIENCE: Physicians.

GOAL/  
OBJECTIVES:

To reach physicians and achieve recognition for the Winthrop-Breon by teaching basic therapeutics and specific product information in therapeutic areas of major interest to the company.

DESCRIPTION:

Presents overview of contrast media with emphasis on nonionic agents. Viewer input via custom keypad, attract sequence at start of program. Program includes computer text screens, videodisc still frames and motion sequences, mono audio on tracks one and two. Content comprised entirely of original material, created for videodisc. Shot as film or slides and transferred to tape. Search accomplished via frame number, with picture stops also used for program control.

SYSTEM  
HARDWARE:

Disc Player: Pioneer 8210.  
Computer: Show Sound VIS-7.  
Monitor: Panasonic CT-110 MA color.

SYSTEM  
SOFTWARE:

Assembly language with specific operating system written for this hardware system.

AVAILABILITY:

100 hardware/software packages are available on loan from Winthrop-Breon to hospitals and medical centers.



BREAKDOWN OF KNOWN PHARMACEUTICAL VIDEODISCS BY USE AND LEVEL

Company	Total Discs	Level II	Level III	Exhibit	Distribution	Training
Ayerst	3					
1		X		X	X	
2		X		X	X	
3		X		X		
Burroughs-Wellcome	1					
1			X	X		
Cook-Waite	1					
1				X		
Galaxo, Inc.	1					
1			X			X
Eli Lilly	2					
1			X	X		
2			X	X		
McNeil	5					
1		X		X		
2		X		X		
3		X		X	X	
4		X		X	X	
5			X	X		
Mead Johnson	2					
1			X			X
2			X	X		
Merck Sharp & Dohme	4					
1			X	X		
2			X	X		
3			X	X		
4				X		
Miles	22					
1		X		X	X	
2		X		X	X	
3		X		X	X	
4		X		X	X	
5		X		X	X	
6		X		X	X	
7		X		X	X	
8		X	X	X	X	
9		X	X	X	X	
10		X		X	X	
11		X		X	X	
12		X	X	X	X	
13		X	X	X	X	
14		X	X	X	X	
15		X	X	X	X	
16		X	X	X	X	X
17		X	X	X	X	X
18		X	X	X	X	X
19		X		X	X	X
20		X		X	X	X
21		X		X	X	X
22		X		X	X	X
Pfizer	3					
1			X			X
2			X			X
3			X			X

Continued next page

BREAKDOWN OF KNOWN PHARMACEUTICAL VIDEODISCS (CONTINUED)

Company	Total Discs	Level II	Level III	Exhibit	Distribution	Training
Roche	2					
1			X	X		
2			X	X		
Roerig	5					
1		X			X	
2		X			X	
3		X			X	
4		X			X	
5		X			X	
Sandoz	4					
1			X		X	
2			X		X	
3			X		X	
4			X		X	
Smith Kline & French	16					
1			X		X	
2			X		X	
3			X		X	
4			X		X	
5			X		X	
6			X		X	
7			X		X	
8			X		X	
9			X		X	
10			X		X	
11			X		X	
12			X		X	
13			X		X	
14			X		X	
15			X		X	
16			X		X	
Stuart	5					
1			X		X	
2			X		X	
3			X		X	
4			X		X	
5			X		X	
Syntex	1					
1			X		X	
Upjohn	4					
1		X			X	
2		X			X	
3		X			X	X
4		X			X	X
Winthrop-Breon	7					
1			X		X	
2			X		X	
3			X		X	
4			X		X	
5			X		X	
6			X		X	
7			X		X	
TOTALS	88	37	57	83	27	5

## PHARMACEUTICAL COMPANY PROFILES

### Abbott Laboratories

Abbott Laboratories  
14th & Sheridan Road  
North Chicago, Illinois 60064  
Telephone: 312/937-6100

**DESCRIPTION:** Abbott Laboratories is a manufacturer and marketer of pharmaceutical, agricultural, chemical, consumer, health care, and veterinary products. Worldwide group sales in FY 1982 were \$2.6 billion, 50 per cent of which was professional pharmaceutical and nutritional products.

Abbott Consumer Products is a subsidiary of Abbott, which produced eight products in 1984, the principals being SELSUN BLUE (scalp preparation), TRONOLANE (antihemorrhoidal), MURINE (ophthalmological), MURINE EAR DROPS (otological), and MURINE 2 (ophthalmological).

Abbott Pharmaceutical Products is a subsidiary of Abbott, who, in 1984, produced 94 products, the principals being TRANXENE (tranquilizer), F.E.S. (systemic antibiotic), ENDURON (diuretic), DEPAKENE (antiepileptic), and K-LOR (mineral supplement).

**SELECTED PERSONNEL:** Director of Marketing: Larry Wine; Marketing Development Mgr.: William Spencer; Group Product Directors: Steve Rauscher and Stanley Beck; Product Managers: John Kelley, Edward Rady, Gwen Jader, Judith Weddle, William Cooney, and Charles AuBuchon; Exhibit Manager: Brice McCollough.

### Allergan Pharmaceuticals

2525 DuPont Drive  
Irvine, California 92713  
Telephone: 714/752-4500

**DESCRIPTION:** Allergan is a manufacturer and distributor of contact lens care, dermatological and ophthalmic products. It is a subsidiary of Smith Kline Beckman. In 1984 Allergan had 44 products, the principals being SOFLENS, ALLERGAN SOFT LENS, PROPINE, BLEPHAMIDE, and FML-LIQUIFILM (all ophthalmological).

**SELECTED PERSONNEL:** VP Domestic Marketing: A. Thomas Bender; Mgr., Professional Educ.: Jamie Trevor; Group Product Directors: Steve Mitchell (Rx/OTC); Jim Fuller (Lenscare); Product Managers: Richard Gross (C. Lens), Cindy Bornemann (C. Lens), Terry Johnson (New Prod.), Gerry McKenzie (Rx/OTC), Grace Borrman (Rx/OTC), Steve Carlson (Rx/OTC), Kevin McLean (C. Lens), and Diana Solar (New Rx/OTC); Creative Director: Willette Friday.

Ayerst Laboratories

Div. of American Home Products Corp.  
685 Third Avenue  
New York, New York 10017  
Telephone: 212/878-5900

DESCRIPTION: Ayerst is a manufacturer and distributor of pharmaceutical products and a division of American Home Products. In 1984 Ayerst produced 50 products, the principals being INDERAL (beta-blocker), PREMARIN (sex hormone), INDERIDE (beta-blocker), ATROMID-S (cholesterol reducer), and RIOPAN (antacid).

ANNUAL REPORT: [The following is excerpted from the 1984 Annual Report for American Home Products Corporation, which includes Ayerst Laboratories, Ayerst International, Inc., Ives Laboratories, Whitehall Laboratories, Whitehall International, Inc., Wyeth Laboratories, and Wyeth International, Ltd.]

R&D resources were expanded with two new facilities and one expanded facility. AHP is concentrating their research efforts on cardiovascular disease, arthritis, and osteoporosis. Further, they are researching new drugs for senility, cancer, diabetes, and bronchitis. They have a total of 21 New Drug Applications and 26 Investigational New Drug applications filed with the FDA for either new compounds or new indications for existing drugs.

SELECTED PERSONNEL: Dir Marketing, New Products: John Schmitt; Group Product Director-Cardiovascular: Sidney Auerbach; Group Product Director-Ethical Prod. Group: Joan Keith; Group Product Director-Consumer Prod. Group: Carl Buonviri; Dir, Cont. & Prof. Educ.: Hank Shifren; Mgr. Conventions & Exhib.: Ralph Ranghelli.

Burroughs Wellcome Co.

3030 Cornwallis Road  
Research Triangle Park, North Carolina 27709  
Telephone: 919/248-3000

SELECTED PERSONNEL: VP Marketing: Peter Reckert; VP Product Marketing: J.D. Reiff; Dir. of New Products: Dr. Warren Stern; Media Manager: Stanley Powell; Convention Manager: Jerry McGrady; Sales Training Manager: Alex Credle.

Cook-Waite Labs., Inc.

Division of Sterling Drug, Inc.  
90 Park Avenue  
New York, NY 10016  
Telephone: 212/907-2717

SELECTED PERSONNEL: President: Larry Falls; Vice President: Dr. Ken Dean; Mgr. Professional Services: Elenor Kelley.

Galaxo, Inc.

Five Moore Drive P.O. Box 13438  
Research Triangle Park, North Carolina 27709  
Telephone: 919/248-2100

**DESCRIPTION:** Glaxo is a manufacturer and marketer of pharmaceutical products and a subsidiary of Glaxo, UK. In 1984 Galaxo had 40 products, the principals being VENTOLIN (antiasthmatic), BECONASE (nasal decongestant), BECLOVENT (antiasthmatic), VICON C (vitamin), and TRINSICON (hematinic).

**SELECTED PERSONNEL:** Dir. Marketing Admin.: Robert Roeker; Associate Product Mgrs.: Ben Holly, Brenda Hoover, Andy Hunt, and Steven Peterson; Mgr. Career Development: Gary Cantrell; Sales Training Mgr.: Dan Keeney; Conventions Coordinator: Dee Lameler.

Eli Lilly & Company

Lilly Corporate Center  
Indianapolis, Indiana 46285  
Telephone: 317/261-2000

**DESCRIPTION:** Lilly is a manufacturer of pharmaceutical, agricultural, cosmetic and human health care products. Worldwide group sales in 1982 were \$3 billion, of which pharmaceutical contributed 52%.

**SELECTED PERSONNEL:** Exhibits manager: Don Stanley.

McNeil Pharmaceutical

Johnson & Johnson Affilate Co.  
Spring House, Pennsylvania 19477  
Telephone: 215/628-5000

**DESCRIPTION:** McNeil is a manufacturer and distributor of pharmaceutical products and a division of Johnson & Johnson. In 1984, McNeil produced 18 products, the principals being TYLENOL WITH CODEINE (narcotic analgesic), ZOMAX (non-narcotic analgesic), HALDOL (neuroleptic), TOLECTIN DS (systemic antirheumatic), and PARAFON (muscle relaxant).

**ANNUAL REPORT:** [The following is excerpted for the 1984 Annual Report for Johnson & Johnson, which includes McNeil Pharmaceutical, McNeil Conduer Products Company, Ortho Pharmaceutical, and Janssen Pharmaceutica.]

Pharmaceuticals make up 21 percent of J&J's total sales and is the largest contributor to operating profit, with a 10% increase in 1984. J&J is the eighth largest pharmaceutical company in the world. Their pharmaceutical companies invest more than 14% of sales in research and development. Several important new compounds await regulatory approval in the US and other countries.

**SELECTED PERSONNEL:** Exec. Dir. Marketing Comm.: Edwin Steel; Product Directors: Claudie Williams, James Moreland, Stephen Zollo, Edwin Thompson, and Thomas Bishop; New Product Directors: Anthony Blanchard and Baron Ginnetti; Dir. Sales Training and Development: Joseph Gallagher.

Mead Johnson & Company

Subs. of Bristol-Myers Company--New York  
2400 Pennsylvania  
Evansville, Indiana 47721  
Telephone: 812-426-6000

**DESCRIPTION:** Mead Johnson is a manufacturer and distributor of pharmaceutical and adult and infant nutritional products and vitamins, and is a division of Bristol-Myers. In 1984 they had 29 products, the principals being K-LYTE (mineral supplement), DURICEF (systemic antibiotic), VASODILAN (peripheral vasodilator), CYTOXAN (cardiac glycoside), and DESYREL (antidepressant).

**SELECTED PERSONNEL:** VP Marketing & Sales Service: Frederick Brubaker; Mgr. Sales Training: Dave Bahari.

Merck Sharp & Dohme International

Div. of Merck & Company, Inc.  
P.O. Box 2000  
Rahway, New Jersey 07065  
Telephone: 201/574-4000

**DESCRIPTION:** MSDI is the international marketing arm of Merck Sharp & Dohme, a division of Merck & Co. MSD is a manufacturer and marketer of pharmaceutical and biological products. In 1984, MSD had 73 products, the principals being ALDOMET (hypotensive), CLINORIL (systemic antirheumatic), INDOCIN (systemic antirheumatic), ALDORIL (hypotensive), and TIMOPTIC (ophthalmological).

**ANNUAL REPORT:** [The following was abstracted from the Merck & Co. 1984 Annual Report.]

In 1984, sales rose 10 percent to over \$3.5 billion. Important contributors to overall sales gains included MEFOXIN, an injectable antibiotic; TIMOPTIC, eye drops prescribed for glaucoma; DOLOBID, a non-narcotic analgesic; and NOROXIN, an oral antibacterial for urinary tract infections that was introduced abroad last year.

Enalapril, an oral once-a-day drug for all degrees of high blood pressure and for congestive heart failure, was recently introduced in England, France, and West Germany and has been approved by scientific regulatory authorities in ten other countries abroad. Introduction in the US, under the trademark VASOTEC, is expected this year. A new antibiotic, PRIMAXIN, has proved effective against a broader range of disease-causing bacteria than any other antibiotic known to medical research. Approval and marketing abroad and in the U.S. are expected in 1985.

**SELECTED PERSONNEL:** Exec. Dir. Marketing Operations: Jay Folkes; Dir. Creative Services: Mike Noar.

Miles Pharmaceuticals

Div. of Miles Laboratories, Inc.  
400 Morgan Lane  
West Haven, Connecticut 06516  
Telephone: 203/934-9221

DESCRIPTION: Miles Pharmaceuticals is a manufacturer and marketer of pharmaceutical products, and is a division of Miles, which is owned by Bayer in Germany. In 1984, Miles produced 36 products, the principals being DOMEBORO (antipruritic), TRIDESILON (topical steroid), MYCELEX-G (gynecological anti-infective), MYCELEX (antifungal), and STRESSGARD (vitamin).

SELECTED PERSONNEL: Dir., Product Management: C. Douglas Weeb; VP, Marketing: Michael Coffee.

Pfizer Laboratories

235 East 42nd Street  
New York, New York 10017  
Telephone: 212/573-2323

DESCRIPTION: Pfizer Laboratories is a manufacturer and distributor of pharmaceutical products. In 1984, Pfizer Laboratories had 19 products, the principals being DIABINESE (antidiabetic), FELDENE (systemic antirheumatic), MINIPRESS (hypotensive), PROCARDIA (myocardial therapy), and VIBRAMYCIN (systemic antibiotic).

SELECTED PERSONNEL: Dir. Marketing Services: W. Boyd Surran; Mgr. Marketing Services & Sales Promotion: B.J. Bradbury; Group Product Managers: Stan Benson and Dean Maglaris; Director of Training & Development: Robert J. Lanting. PHIZER INTERNATIONAL PERSONNEL: Dir. of Sales Development & Training: Ralph Kauffman; Mgrs. Training & Development: Glen Berry and John Albright.

Roche Laboratories

Div. of Hoffmann-LaRoche Inc.  
340 Kingsland Street  
Nutley, New Jersey 07110  
Telephone: 201/235-5000

DESCRIPTION: Roche is a manufacturer and distributor of pharmaceutical products and a subsidiary of Hoffmann-LaRoche, Switzerland. In 1984 they had 59 products, the principals being VALIUM (tranquilizer), DALMANE DS (hypnotic), LIBRAX (antispasmodic), and LIMBITROL (psycholeptic/psychoanaleptic).

SELECTED PERSONNEL: Dir. Promotion: Myron Holubiak; Product Group Promotion Mgr.: Gerald Manishin; Product Directors: Barry Gipstein, Mary Johnson, Cliff Kalb, and Edward Thwalte; Assoc. Dir. Creative Services: Jerry Eisman.

Roerig

Division of Pfizer Pharmaceuticals  
235 East 42nd Street  
New York, New York 10017  
Telephone: 212/573-2323

**DESCRIPTION:** Roerig is a manufacturer and marketer of pharmaceutical products. In 1984, Roerig has 16 products, the principals being SINEQUAN (antidepressant), ATARAX (tranquilizer), ANTIVERT (antinauseant), NAVANE (neuroleptic), and GEOCILLIN (systemic antibiotic).

**SELECTED PERSONNEL:** Mgr. New Product Dev: Lyn Wiesinger; Product Managers: Roger Berenhausen, Richard Fulmer, Thomas Lytle, Barbara Sudovar, Franklin Carter, Karen Dawes, Nancy Intrator, and Maureen Kelly.

Sandoz Pharmaceuticals

Division of Sandoz, Inc.  
Route 10  
East Hannover, New Jersey 07936  
Telephone: 201/386-7500

**DESCRIPTION:** Sandoz is a manufacturer and distributor of pharmaceutical products. In 1984, Sandoz had 30 products, the principals being MELLARIL (neuroleptic), PARLODEL (sex hormone), RESTORIL (hypnotic), BELLERGAL-S (hypnotic), and TAVIST 1 (antihistamine).

**SELECTED PERSONNEL:** Dir. Marketing Services & Comm: Anthony Sellner; Group Business Directors: William Connelly, Martin Eisman, and Dean Work; Business Managers: M. George, Joseph Twist, Gary Bazalo, Dave Bolton, John Maddox, Frank Shea, Frank Cirrillo, Eva Kurij, and Dean Sives; Mgr. Sales Training: J.B. Flora.

Schering Laboratories

Div. of Schering-Plough Corporation  
Gallopig Hill Road  
Kenilworth, New Jersey 07033  
Telephone: 201/558-4000

**DESCRIPTION:** Schering is a manufacturer and marketer of pharmaceutical products and a division of Schering-Plough Corporation. In 1984, they had 81 products, the principals being VALISONE (topical steroid), DRIXORAL (nasal decongestant), CHLOR-TRIMETON (antihistamine), AFRIN (nasal decongestant), and PROVENTIL (antiasthmatic).

**ANNUAL REPORT:** [The following is abstracted from the Schering-Plough 1984 Annual Report.]

Schering-Plough pharmaceutical research efforts are balanced between nearer-term products using chemical molecular synthesis and longer-term projects based on the newer fields of recombinant DNA technology and immunology. Efforts are targeted to inflammatory and allergic disorders, and infectious and cardiovascular disease.

Schering (cont.)

Health-registration applications were filed for two alpha-2 interferon indications (common cold and a cancer, malignant melanoma) in the US and overseas. S-P expects to file in 1985 for treatment of venereal warts and hairy cell leukemia. Gamma interferon is entering clinical trials. Marketing approval was received in Canada, Chile, Denmark, Portugal, and West Germany for EULEXIN, an oral treatment for prostatic cancer. Other products approaching market include quazepam, a nighttime therapy for treating insomnia; SCH 29851, a nonsedating antihistamine; SCH 34343, a beta lactam antibiotic; and a new antihypertensive agent that appears to be a natural follow-on to NORMODYNE.

SELECTED PERSONNEL: VP, Marketing: Jean-Pierre Garnier; Dir., Marketing Services: Wayne Anderson; Dir., Professional Services: Evelyn Albu; Group Product Directors: Deward Heimers, Josh Weinstein, and Bette Schultz; Senior Product Managers: John Richert and Robert Cruce; Product Manager: Eileen McCorry; Product Promo Mgr.: Jerrold Fishlin.

Smith Kline & French Laboratories

Division of SmithKline Beckman Corporation  
P.O. Box 7929 1500 Spring Garden Street  
Philadelphia, Pennsylvania 19101  
Telephone: 215/751-4000

SELECTED PERSONNEL: VP Marketing Communications: C.P. Lowman; Group Product Directors: James Johnson and James Geddes; Sr. Product Managers: Frederick Foard, James Pfau, J. Walsh, and R. Baker.

Stuart Pharmaceuticals

Div. of ICI Americas, Inc.  
Wilmington, Delaware 19897  
Telephone: 302/575-3000

DESCRIPTION: Stuart is a manufacturer and marketer of pharmaceutical products and a subsidiary of ICI Americas, Inc. In 1984, Stuart produced 40 products, the principals being TENORMIN (beta-blocker), NOLVADEX (cytostatic), MYLANTA (antacid), MYLANTA II (antacid), and SOBITRATE (myocardial therapy).

ANNUAL REPORT: [The following was excerpted from the ICI 1984 Annual Report.]

Worldwide sales of pharmaceutical products in 1984 were 26 per cent higher than in 1983 and profits improved by 25 per cent. A recent \$30 million expansion of the company's Pharmaceutical Research and Administration Center has more than doubled its capacity for synthesizing and testing new drug compounds. Stuart ranks in the top third of US pharmaceutical companies. Potential new products in clinical trial include CORWIN for heart failure, ZOLADEX for prostate cancer, and DIPRIVAN, a new intravenous anaesthetic. Product licence applications have been submitted for APATEF, an injectable antibiotic. Present research emphasis on

Stuart (cont.)

products for treatment of cancer, complications of diabetes, heart and circulatory disorders, infection, and nervous disorders. New therapy for asthma, arthritis, and other potentially disabling conditions are being researched.

SELECTED PERSONNEL: Dir., Marketing: Robert Spencer; Group Product Managers: John Barber, and Donald Ward; Product Managers: Jack Duncan, Ronald Gentile, Thomas Lyons, John Shaughnessy, and Gene Zaiser; Asst. Product Mgrs.: Douglas Burcin, Trisha Conti, Lynne Dowling, Karen Gamm, and Christopher Iacono; New Product Manger: Harold White; New Products Planner: Bruce Mather; Mgr., Sales Training: Richard Greenhill.

Syntex Laboratories, Inc.

3401 Hillview Avenue  
Palo Alto, California 94304  
Telephone: 415/855-5050

DESCRIPTION: Syntex is a manufacturer and distributor of pharmaceuticals, animal nutritional, beauty care, ophthalmic and veterinary products, dental instruments and equipment, and diagnostic assay systems. Worldwide group sales in 1983 were \$870 million, of which human-use pharmaceuticals contributed 66 per cent. In 1984, Syntex produced 29 products, the principals being NAPROSYN (systemic antirheumatic), NORINYL 1/50 (oral contraceptive), LIDEX (topical steroid), ANAPROX (systemic antirheumatic), and NORINYL 1/35 (oral contraceptive).

SELECTED PERSONNEL: Sr. VP, Marketing: Robert Morriss; Dir., Product Management: Roland Nelson; Product Director: David Conklin; Sr. Product Managers: Diane Feldman, Donald Price, and Jane Sweet; Product Managers: Lewis Chapman, Mike Napier, Tom Carey, and Patrizia Allegra; Dir., Training/Ed: Allen Boyette.

The Upjohn Company

7000 Portage Road  
Kalamazoo, Michigan 49001  
Telephone: 616/323-4000

DESCRIPTION: Upjohn is a manufacturer and distributor of pharmaceutical, agricultural, and chemical products and medical services. Worldwide group sales in 1982 were \$1.8 billion, of which human health care contributed 66%. In 1984, Upjohn had 117 products, the principals being MOTRIN (systemic antirheumatic), TOLINASE (antidiabetic), ORINASE (antidiabetic), CORTAID (topical steroid), and MEDROL (systemic corticosteroid).

SELECTED PERSONNEL: VP Pharmaceutical Marketing: William O'Connell; Dir. Marketing Planning: Nabil Habra; Exhibit Manager: Paul Duensing.

Warner Lambert International

201 Tabor Road  
Morris Plains, New Jersey 07950  
Telephone: 201/540-2000

DESCRIPTION: Warner Lambert International is a division of Warner Lambert, a producer and marketer of health care and consumer products. Worldwide group sales in 1982 were \$3.2 billion, of which ethical health care product contributed 40 per cent and nonprescription health care products, 25 percent. In 1984, earnings increased 12 percent, the highest ever achieved in the history of the company.

Winthrop-Breon Laboratories

Div. of Sterling Drug, Inc.  
90 Park Avenue  
New York, New York 10016  
Telephone: 212/907-2000

DESCRIPTION: Winthrop-Breon is a manufacturer of pharmaceutical products and a division of Sterling Drug, Inc. In 1984, Winthrop-Breon produced 54 products, the principals being TALWIN (non-narcotic analgesic), DANOCRINE (sex hormone), NEO-SYNEPHRINE (nasal decongestant), DEMEROL (narcotic analgesic), and PHISODERM (antiacne). Sterling's pharmaceutical research activities are concentrated in cardiovascular products, bronchopulmonary products, medicines for use in endocrinology, antiinfectives, radiodiagnostics, analgesics, and drugs for the treatment of central nervous system disorders. New products in various stages of clinical trials and approval, including INCOR (cardiovascular), MILRINONE (cardiovascular), TORNALATE (bronchopulmonary), and MODRASTANE (endocrinology).

SELECTED PERSONNEL: Vice President, Marketing: Robert DeLuccia; Mgr., New Products: John D'Angelo; Group Product Directors: Joseph Scodari, Thomas Giordano, and Robert Savage; Product Managers: Daniel Peters, Alan Binaghi, Jack Talley, Maryann McKenzie, and David Segar; Dir., Clinical Education: Jack Pickering.



## BIBLIOGRAPHY

1. "The Ayerst Heart Study Center," a promotional package distributed by Edelman Public Relation, New York, NY.
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# Medical Disc

## R E P O R T E R

Vol 3, No. 3

Covering Videodisc Applications in the Health Sciences

May/June 1987



Nine Sony VIEW systems located inside Winthrop's roving MERV (Inset)

### Winthrop Takes Videodisc on the Road with MERV

Industry trade shows present golden opportunities to show off new products, generate sales and educate potential customers. However, planning for the event, travelling to the site, setting up and tearing down a booth--and repeating the process many times a year--can consume so much time, energy, and marketing dollars that many large exhibitors have begun to look for cost effective alternatives.

Winthrop Pharmaceuticals, which uses trade shows to educate healthcare professionals on the safe and effective use of its products, has found one solution to this problem. Late last year Winthrop made the decision to custom-design a large vehicle called MERV (Medical Education Resource Vehicle). From the outside MERV looks like a recreational vehicle. However, once inside the 30 foot van, attendees have access to nine Sony VIEW systems on which they can test their treatment skills with seven interactive medical programs.

#### MERV Works

At trade shows, MERV gives visitors temporary relief from the hectic floor traffic and Winthrop the opportunity to focus a potential customer's undivided attention on the company's pharmaceutical product line. To use the interactive systems, a MERV visitor first dons headphones and uses a simple keypad to call up the initial screen. A menu offers access to a variety of interactive

(Continued Page 7)

### Washington Conference Set for Oct. 18-21

The **Washington Videodisc Conference** is scheduled to take place October 18-21, 1987 at the Loews L'Enfant Plaza Hotel in Washington, D.C. The conference, sponsored by the MDR, is expected to bring together 250 people to examine the use of videodisc, optical disc, CD-ROM and related technology in the healthcare industry.

Featured at the conference will be **Gallery '87**, sponsored by the

Washington, D.C. chapter of the **IICS** (see p. 4). The theme of the conference is "Bringing the Technology to the Marketplace" and will emphasize hardware compatibility, marketing issues, new technology, and "real world" videodisc, optical disc, and CD-ROM applications. Mark your calendar today. Additional details regarding the conference program will be mailed during June 1987 by Stewart Publishing, Inc.

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## Washington Videodisc Symposium Brings Disc Minds Together

The Washington Videodisc Symposium was held May 13-15 at Loews L'Enfant Plaza Hotel in Washington D.C. Nearly 100 participants from six countries benefited from the meeting of videodisc minds. In addition to the informative presentations, attendees were treated to visits to the **National Library of Medicine's National Demonstration Center**, the **Smithsonian's National Demonstration**

**Laboratory for Interactive Technologies**, and the **Library of Congress Optical Disc Project**.

Perhaps the most gratifying aspect of the symposium was the opportunity to meet and share ideas with others working in the healthcare field. Another meeting is planned for October 18-21 at the **Washington Videodisc Conference**, which will be a larger event featuring three days of

presentations, demonstrations, and commercial exhibits.

Audiotape recordings of symposium presentations are available from the *MedicalDisc Reporter* for \$20 per set or \$30 for both sets. To order, complete and return the order form below to Stewart Publishing, Inc., 6471 Merritt Court, Alexandria VA 22312; 703/354-8155.

### Tape Set 1

#### The Videodisc Marketplace

Rockley L. Miller, Editor/Publisher, *The Videodisc Monitor* provides an overview of the interactive videodisc industry with a focus on the breadth of current applications and trends in the market and technology.

#### CPR Training/Certification

Danny Cassidy, M.D., Vice Chairman of Actronics, Inc. describes the American Heart Association's CPR/ACLS Learning System used to teach psychomotor skills such as cardiopulmonary resuscitation (CPR) and dysrhythmia pattern recognition.

#### Medical Archival and Retrieval System

William Pomerance, President, Advanced Healthcare Systems, Inc. discusses the role of write-once-read-many (WORM) optical disc technology for medical record keeping.

#### Health Promotion

George Pfeiffer, Vice President, Center for Corporate Health Promotion examines the role of videodisc technology in corporate health promotion by introducing the Taking Care Center, designed to be an adjunct to worksite health promotion programs.

#### CD-ROM Databases

Larry Kowalski, National Marketing Manager, Micromedex, Inc. describes the use of CD-ROM for the storage and retrieval of large medical data bases.

### Tape Set 2

#### An Introduction to CD-I

Kathy Fletcher Allred, Manager Instructional Design, Hughes Systems, Inc. provides an overview of the CD-I technology and capabilities, examined the uses for which CD-I programs are being developed, and compared CD-I with CD-ROM and the newly announced compact disc-video (CD-V) compact video disc (CVD), and digital videodisc interactive (DVI) formats. (45 Minutes.)

#### Authoring Systems, Hardware Components & Compatibility Issues

John B. Hayes, President, Professional Training Systems examines interactive videodisc delivery systems, authoring environments, and compatibility issues. This technical discussion covers compatibility problems with various hardware components. Toward the end of the presentation, Mr. Hayes offers his opinion of the three major hardware systems available to those considering a purchase. Authoring overview covered major points in most popular authoring systems and trends toward new machine-independent authoring. (90 Minutes.)

### ORDER FORM

Please send me my copy of the Washington Videodisc Symposium Audiotape Proceedings. Enclosed is my check or purchase order for the following:

- Tape Set #1 @ \$20  
 Tape Set #2 @ \$20  
 Both Tape Sets @ \$30

Name \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone \_\_\_\_\_

## Winthrop

(Continued from front page)

programs which have been developed and reviewed by medical experts and tested and challenged by resident and attending physicians. The four subject areas covered include cardiology, radiology, general medicine, and obstetrics/gynecology.

Users are then shown medical simulations and are asked to treat the patients with diagnostic and therapeutic options. The patient's response to these decisions is displayed throughout the program. Programs average 10 to 15 minutes

in length, but can take as long as 45 minutes to complete depending on the experience and knowledge of the user.

"This [variability] is one of the most attractive features of interactive video because it personalizes the instruction process and paces it to the knowledge and experience of the user," explains **Jack Pickering**, Winthrop's Director of Educational Services.

In addition, the training aspect of the programs is further heightened because users can choose to have their performance graded against other users as well as that of medical

authorities. The results then can be printed out on MERV's laser printer.

MERV has proven a worthwhile addition to Winthrop's education and marketing programs. "MERV is self-contained and always ready to educate doctors and medical personnel—whether at a hospital or a trade show," Mr. Pickering assessed. "There are no shipping or set-up costs and no need to rent equipment. It's a very cost-effective addition to our trade show program." For more information, contact **Jack T. Pickering**, Director of Educational Services, Winthrop Pharmaceuticals, 90 Park Avenue, New York, NY 10016.

## MERV

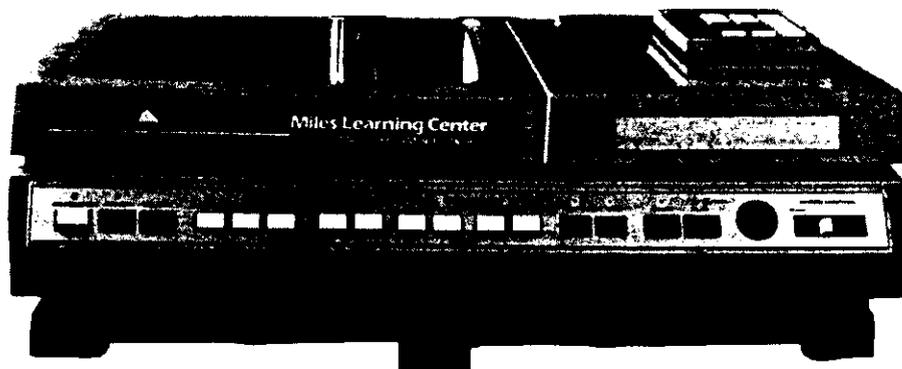
# Medical Disc

## R E P O R T E R

Vol. 2, No. 1

Covering Videodisc Applications in the Health Sciences

Jan./Feb. 1986



The obsolete 7820. Some think it should be used as a boat anchor.

### The Story of the Miles Learning System

In 1980, **Miles Pharmaceuticals** approached the advertising agency **Medicus Intercon International, Inc.** to help establish a strong, positive image for Miles Pharmaceuticals among the U.S. hospital audience. The need for an image-building campaign was based on their plans, over the next several years, to introduce a series of new drugs to hospitals in the United States. In response to that request, Medicus called attention to the widespread development of self-learning centers in hospitals and suggested establishing Miles Learning Centers (MLC) in key teaching hospitals in the U.S.

#### Phase I

Beginning July 1, 1981, Miles donated 210 laser videodisc players to key, targeted hospitals with 500 or more beds. In order to rationalize the value of this donation, the emphasis during Phase I was to provide as many videodiscs as reasonably possible, and as quickly as possible.

Seven videodiscs, mostly based on existing video material, were produced and quickly distributed into the MLC hospitals. Then, according to Cathy Emmans of Medicus, the introduction of the antibiotic Mezlin in September 1981, and the subsequent introduction of Azlin, turned the emphasis of Miles and their representatives away from the Miles Learning Centers, and to the promotion of these drugs.

#### Phase II

Today, however, following the successful introduction of these two phar-

*(continued on page 3)*

### University of Washington Releases New Disc

The University of Washington Health Sciences Center for Educational Resources has developed a new medical reference videodisc titled *Laboratory Medicine Video Library: Atlas of Hematology*. The one-sided disc contains over 6000 stills and scans recorded directly through the microscope and forms a comprehensive library of hematologic findings which can be used for education, testing, and reference.

Included are numerous examples of normal platelet, red and white cells, and marrow morphology; developmental stages in the bone marrow; red cell pathology from disturbances in hemoglobin synthesis to abnormalities in

red cell destruction; white cell pathology from inflammatory changes to leukemia; storage diseases; peripheralization of lymphomas; megakaryocyte and platelet pathology; and marrow and peripheral blood involvement by non-hematologic processes such as parasitic infections, tumors and granuloma. The accompanying catalog also will be made available on microcomputers. All material is SNOMED encoded to facilitate access.

The disc may be used on any optical reflective disc player, and sells for \$265. For more information, contact John Bolles, HSCER, SB-56, University of Washington, Seattle, WA 98195, 206/545-1170.

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## AMC Producing European Pharmaceutical Videodiscs

Advanced Medical Communications (AMC) in London has been busy producing interactive videodisc programs for a number of European pharmaceutical companies. AMC is part of **Lavey/Wolff/Swift (LWS) Ltd**, a medical advertising agency, the UK subsidiary of LWS, Inc. in New York who are part of the larger **BBDO** advertising organization. For six years, AMC has been involved in electronic communications as an adjunct to traditional medical advertising.

The following is a summary of the programs developed by AMC:

**Cardiovascular Training** was designed as a sales training tool for **Gold Cross Pharmaceuticals**. The program, which tests representatives on previously acquired medical knowledge in the cardiovascular area, is recorded in PAL format and plays on a BBC microcomputer.

**Night Call** is a patient simulation designed to familiarize the user with the management of a heart attack. The program places the user in the role of a general practitioner attending a patient suffering a heart attack at home. The consequences of all management decisions are simulated and the effects of these actions are reflected in appropriate changes in various parameters, including blood pressure and heart rate. Input is through free text entries, rather than the more common fixed menu options. *Night Call* was the recent recipient of a Phillips Silver Award for Education and Training Productions.

**Calcium Antagonist Programme** was produced for **Lorex** of France to be used as an exhibit. Based on existing film material, the program provides information on angina and the role of calcium antagonists in treating this disorder. A crossword competition is incorporated into the program.

**...And The BP's Up a Bit Too** is a case-study which considers the problems facing a general practitioner when choosing drug treatment for a

middle-aged patient with borderline hypertension. This Level II NTSC disc was produced for **Smith Kline & French Laboratories Ltd**.

**Suddenly Into Failure...was** also produced for Smith Kline & French to be shown to hospital physicians. The program presents a case study approach to the choice of maintenance diuretic therapy for an elderly patient admitted to hospital with cardiac failure. Also a Level II NTSC program.

**Heartbeat** is a medical education program dealing with cardiac auscultation and produced for **Stuart Pharmaceutical (UK)**. The program enables the user to become familiar with the most common heart sounds and murmurs and their location.

**Heartbeat Case Studies** was produced as an extension of the original *Heartbeat*. A series of case studies and a quiz section has been designed to reinforce the user's newly acquired knowledge of auscultation by relating it to a clinical situation.

For more information on these programs or AMC's production services, contact Mrs. C.A. Ayton, Account Manger Interactive Projects, Advanced Medical Communications, 8 Baker Street, London, W1M 1DA UK; 01/935-0221.

## New Interactive Learning Center for Videodisc Training

Perhaps a new concept in the delivery of videodisc training, the **Interactive Learning Center (ILC)** has been opened in Little Rock, Arkansas providing computerized training and testing to hospitals and other organizations. The Center offers an alternative to those who do not want to make the investment in their own videodisc programs and hardware.

The Center offers the chance to train on more than 200 interactive courses covering the following topics: Computer Literacy, Work Processing,

Spread Sheets, Continuing Medical Education, Programming, Management, Health and Safety, Personal Development, Science, Math, and Electronics. Learners are charged on an hourly basis for the programs they use. The health-related programs include four by **Intelligent Images** (Emergency Medicine programs) and six in the Health and Safety series offered by **Health Edutech**.

The Center draws customers from two main sources. The biggest base will come from hospitals and other companies contracting to send employees to the Center for computer training or for the courses required to meet OSHA standards. The other source will be individuals who will come in on a walk-in basis to acquire professional skills or to explore some courses. Some groups even contract for temporary Learning Centers to be set up at their institution just long enough to ensure all their employees have the opportunity to use the interactive systems.

The Center is the brainchild of **Elizabeth Stark**, who came upon the idea while searching for a better way to train employees of her family business, Standard Computer and Leasing. The Center represents an investment of nearly a million dollars in hardware, software, and office space for the center to be housed. There are plans to franchise the Centers. For more information, contact Sharon Stark, Interactive Learning Center, P.O. Box 5628, Little Rock, AR 72215; 501/227-9521.

\* \* \*

**Stokes Slide Services**, in cooperation with the *MedicalDisc Reporter*, will be sponsoring a special Shared Disc Program for medical slide collections. The program will allow health science schools and faculty to place their slide collection on videodisc for as low as 50 cents per slide—including a copy of the videodisc. *This represents a 60 percent savings over typical prices for slide transfers.* Details will be announced in the next issue of MDR. For more information, contact the Editor at 703/354-8155.

## Story of Miles Learning System (continued from page 1)

maceutical products, renewed emphasis is being given to the Learning Center program as a means of enhancing Miles' image in the hospital as well as providing salesforce access to opinion leaders in the MLC hospitals.

Planning and production of Phase II MLC videodiscs started in 1982 with a nine-part series on Nosocomial Infections. This series was designed to be of interest to all hospital staff members who deal with medical or surgical infections.

All programs in development have the

capability to be used by Level II or Level III systems. At present, the keypad videodisc programs (Level II) are used in the MLC hospitals, while the touchscreen computer equipment (Level III) is used at major medical conventions.

The Nosocomial series is being developed by **Effective Communications Arts, Inc.** (47 West 57th Street, New York, NY 10019, 212/688-6225.)

For information regarding the availability of the Miles Learning System and the Nosocomial videodisc series, contact **William Isbell, Miles Pharmaceuticals, 400 Morgan Lane, West Haven, CT 06516, 203/934-9221.**

## Medicus Intercon

Medicus Intercon International, Inc. is the world's largest health care advertising agency and a partner agency of D'Arcy Masium Benton & Bowles, Inc. Its mission is to market health care products to professional and lay audiences through advertising, promotion, and educational programs. Medicus has 200 clients representing 101 of the world's largest multinational health care manufacturers. **William G. Castagnoli, President-North American, 909 Third Avenue, New York, NY 10022, 212/826-0760.**

## The Miles System Today

The Miles Learning Center has become something of an enigma in the world of medical videodisc. Approximately 280 Pioneer 7820s and nearly 18 videodisc programs have been donated to hospitals and medical schools by Miles Pharmaceuticals since 1981. Now, five years later, a surprisingly small number of these systems is being used with any regularity.

The reasons for this are not fully understood. However, after talking with a dozen users, a few common themes have appeared. Some are presented here, along with possible solutions:

**Problem:** The early Pioneer 7820's (Model I) would drop out of their programming sequence whenever the keypad was used during a motion sequence. This means whenever a viewer got impatient and started punching buttons, either out of curiosity or in an attempt to fast forward, the program would drop out of its programmed sequence and only play linearly. To those unfamiliar with this unique feature, it would appear as if the program or machine was not working properly. Needless to say, this was the source of much frustration. Later, the 7820 Model III was released by Pioneer which corrected this problem.

**Solution:** Model I players can be upgraded to Model III player by replacing two EPROMS, or chips, inside the player. This can be done easily by a qualified service representative. It would be timely and cost effective to have your player checked for needed servicing at the same time. You can get the name of your local authorized service representative by calling the Pioneer Service number at 800/872-4159. For more information call the Pioneer Industrial Sales Division at 213/420-5700.

**Problem:** Many videodisc players available today are Level III, that is, they require a computer to drive the videodisc player. Even worse, not all Level III programs use the same computer. The 7820 will only play Level II interactive programs.

**Solution:** It is possible to interface the 7820 with most micro computers. This requires the addition of an interface device that allows the computer to talk to the videodisc player. An interface designed specifically for the model computer and player being matched is needed. The following companies provide interfaces for the Pioneer 7820:

Allen Communications has the VMI interface, which permits the 7820 to work with the Apple II computers. Cost is \$395. Contact Steven Allen, 140 Lakeside Plaza, 522 Wiley Post Way, Salt Lake City, UT 84116, 801/537-7800.

Visual Database Systems sells the Pioneer SIA Serial Interface Adapter which allows the 7820 to be interfaced to the IBM-PC's RS-232 port. Approximately \$300. Contact John Blakney, 614 Bean Creak Road, Scotts Valley, CA 95066, 408/438-8396.

**Problem:** There is still a very limited number of videodisc programs available. Among those distributed by Miles, only the Hematology disc (now out of print) is getting regular and continuing use.

**Solution:** At least two other pharmaceutical companies have distributed videodisc programs for the Miles Learning System. Upjohn has produced and distributed *Brain & Anxiety* and *Hypnotic Selection: A Consensus Update*, but has only a few copies of each left. Contact Roger Wright, Projects Manager, Upjohn Company, 7000 Portage Road, Kalamazoo, MI 49001, 616/323-4000.

Ayerst also has produced two videodiscs for the Miles System, one each in cardiology and endocrinology. Contact Hank Shifren, Director of Continuing Professional Education, Ayerst Laboratories, 685 Third Avenue, New York, NY 10017, 212/878-6072. Please remember that the Upjohn and Ayerst discs are intended for distribution to healthcare institutions only, and that arrangements regarding the discs be made by a sales representative.

Another disc which has been produced and may still be available for the 7820 is the *Video Picture List*, a collection of historical prints and photographs from the National Library of Medicine. Contact Dr. John Parascandola, Chief, History of Medicine Division, NLM, 8600 Rockville Pike, Bethesda, MD 20209, 301/496-5405.

Also produced at the Library of Medicine was the *Basic Medical Pathology* videodisc. Although it is a Level III production, the Library has supplied instructions on interfacing the 7820 with an Apple II computer. Contact Dr. James W. Woods, Lister Hill National Center for Biomedical Communications, NLM, Bethesda, MD 20209, 301/496-6280.

Finally, there is an increasing number of videodiscs which can be purchased from educational and commercial sources. These programs, too numerous to mention here, are listed in the *Medical Disc Directory*.

## Merck Sharp & Dohme International

This article is the fifth in an ongoing series of reports on pharmaceutical companies developing educational/promotional videodisc programs.

Merck Sharp & Dohme International's (MSDI) interest in videodisc technology began in 1980 after being introduced to the DiscoVision system by Peter Crown of Romulus Productions. Some months later MSDI approached Romulus with the idea of an information display for physicians that would be used at medical conventions and professional meetings.

The result was MSDI's first videodisc production, *The Challenges of Glaucoma*, providing ophthalmologists with information concerning the diagnosis and treatment of glaucoma. Areas covered on the disc included optic disc evaluation, slit-lamp gonioscopy, a therapeutic challenge, and computer animations of the anterior chamber of the eye.

The program was among the first to use features that are commonplace today. Both audio tracks were used to provide 45 minutes of audio accompaniment

for the 27 minutes of video. Special features at the time included an "opening video loop" which cycled an introduction until a user made an input to start the program, and a therapeutic challenge in which the physician recommends therapy.

### GASTRO-TOUCH

Since then, MSDI has combined a number of technologies—computer, videotext, videodisc, and touch-screen—to create a system called GASTRO-TOUCH. The system is designed to present continuing education programs in gastroenterology. These programs touch upon new medical technologies and present a series of diagnostic challenges and alternative treatments for physicians.

Programs for the GASTRO-TOUCH system are a mix of videodisc and computer graphics. *Perspectives in Clinical Gastroenterology* uses both computer generated videotext graphics and videodisc images to present five diagnostic challenges, six gastrointestinal diagnostic imaging procedures, five examples of the

relationship between GI clinical problems and brief discussions of two advances in gastroenterology. Other programs playing on the same system, such as *HEPTO-TOUCH: An Update on Viral Hepatitis*, and *NOROXIN INTER-TOUCH: World-wide Experiences* uses only videotext images to present in-depth information on Hepatitis and a country by country data comparison of the MSDI product NOROXIN.

Mike Noar, a strong advocate of videodisc and related technology at MSDI, feels they will be continuing their development of these types of programs over the next several years. He is especially interested in working with some of the new technology being developed that can be used as videodisc peripherals, such as digitizing techniques and voice recognition. To date, MSDI has completed eight interactive programs and is in the process of developing two more. *For more information, contact Mike Noar or Bob Clough, Merck Sharp & Dohme International, 126 East Lincoln Avenue, Building 33-38, Rahway, NJ 07065; 201/574-6893.*

## Bulletin Board

The Videodisc Monitor reports that the **U.S. Naval Health Sciences Education and Training Command** issued an RFP on February 18 for 50 to 200 videodisc learning carrels.

Each carrel must include an IBM PC-compatible computer with 256K RAM and graphics adaptor, videodisc player which can run programs written for the Pioneer LD-V1000 without modification, 12-inch color monitor, light pen, audio amplification unit, headphones, carrel console, and MD-DOS-like operating system. Options include memory upgrade, 20-megabyte hard disk, printer, interface ports, foreign power adapter, and a clock/calendar.

The systems will be used to expand the Navy's Computer-Assisted Medical Instruction System (CAMIS), which has already placed 50 carrels at a number of schools that train hospital corpsmen and dental technicians (See *MDR* Sept./Oct. 1985). Bids are due by March 18. *For more information, contact Phil Strub, US Naval Medical Command, HSETC, Bethesda, MD 20814; 301/295-5593.*

**Jefferson Medical College** regularly sponsors seminars of interest to those working with interactive technology in the health sciences. On March 19, **James Heckman, PhD**, Assistant Professor of Physiology at **Temple University School of Medicine**, demonstrated computer animation techniques that can be applied in lecture or individualized instruction formats. The images are created by using a video image digitizer that allows TV, videotape, or videodisc images to be stored on magnetic media such as floppy discs. Dr. Heckman has used these techniques to create animations of the heart showing the activity of the valves and chambers of the course of electrical polarization and depolarization in the heart tissue.

Another seminar, presented February 25, featured **Dr. Barbara Andrew**, Vice President of the **National Board of Medical Examiners**, describing the computer-based patient simulation which is scheduled for use in Part III of the National Board exams beginning 1988 (See *MDR* May/June 1985). The Board's simulation employs video images as well

as video text and will be administered by appointment at specially equipped testing stations.

*For more information on these and other seminars, contact F. Scott Beadenkopf, Research in Medical Education and Health Care, Jefferson Medical College, Philadelphia, PA 19107; 215/928-8907.*

**Mirror Systems** in Cambridge, Massachusetts is looking to hire experienced videodisc designers. *For more information, contact Cindy Steinberg, 2067 Massachusetts Avenue, Cambridge, MA 02140; 617/661-0777.*

### CORRECTION

An incorrect address was listed in the last issue of the *MDR*. The correct address for **Effective Communication Arts, Inc.** is 212 West 57th Street, New York, NY 10019; 212/333-5656.

# Medical Disc

## R E P O R T E R

Vol. 1, No. 4

Covering Videodisc Applications in the Health Sciences

Summer 1985



A physician examines the eyes of the life-like mannequin.

### Historical Prints and Photographs Videodisc Project

The National Library of Medicine has produced an experimental videodisc containing selected images from the Library's extensive historical prints and photographs collection. This pilot project is designed: (1) to evaluate the potential of laser disc technology for improving access to still picture collections, (2) to assist in determining whether the benefits of videodisc technology justify the costs involved, and, (3) to provide valuable information to help guide future ventures in this area. The disc, a project of cooperative effort by the Library's History of Medicine Division and its Lister Hill National Center for Biomedical Communications, is being distributed to a limited number of libraries and other institutions for evaluation.

Over 1,000 images from the approximately 70,000 prints and photographs in the Library's collection are contained on the videodisc. Four groups of pictures are represented: (1) portraits of 16 noted individuals in the history of medicine, such as Claude Bernard, Sigmund Freud, William Harvey, Paracelsus, and Vesalius; (2) pictures from two subject categories—history of surgery and history of psychiatry; (3) the illustrations from three important books, Vesalius' *De Humani Corporis Fabrica*, Scultetus' *Armamentarium Chirurgicum*, and Fabre's *Nemesis medicale illustree* (with illustrations by Daumier); and (4) illustrations related to medicine and public health published in Harper's Weekly between 1855 and 1900.

The disc is accompanied by a book providing instructions for use, catalog records for each of the images, and a subject index. The pictures have been catalogued according to standards set

(continued on page 6)

### Mannequin/Videodisc Provides New Patient Simulation

Reactive Systems, Inc., of Englewood, New Jersey, has announced the completion of the latest in a series of Level III videodisc programs used in conjunction with electronic mannequins. Designed for Roche Laboratories and produced by Reactive Systems, the new program will debut at the annual American Academy of Family Physicians convention this October.

Like the other electronic mannequin programs, this one is designed to provide physicians with actual hands-on clinical simulation. The videodisc lets participants obtain the patient's history and review results of laboratory and diagnostic tests.

Physicians may then conduct a physical examination on the mannequin, checking for signs and symptoms of disease such as organ enlargements, edema, abnormal heart and lung sounds, etc.

This videodisc program provides both a diagnostic challenge and an exercise in the proper management of the patient. Repeat physical examinations will provide feedback to treatment choices. For example, the selection of an inappropriate medication might result in a heart arrhythmia detectable with a stethoscope. *Alex Ehrlich, Reactive Systems, Inc., 40 North Van Brunt Street, Englewood, NJ 07631, 201/569-0446.*

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## Applications

### Lamaze: The Nurse's Role

The **University of Iowa** has completed an interactive videodisc designed to teach nurses and nursing students the principles of the Lamaze method of childbirth. The disc was produced as a joint project of the College of Nursing and the Weeg Computing Center under a special projects grant titled "The Use of Microcomputers in Continuing Nursing Education."

The five major sections of the program include Lamaze Overview, Labor Overview, Lamaze Techniques, Applying Lamaze Techniques, and Labor Variations. Each of the sections begins with a preview and objectives, followed by the presentation, test questions, and a summary. The questions are dispersed throughout the presentation, and the learner has access to a computer-based glossary and bibliography.

Users can select one of three paths: Section, Element, or Customized. Working through the program by Section results in completing all elements of the chapter in order, i.e., preview, objectives, presentation with test questions, summary, and feedback about performance on test questions.

Using the Element path, the user can elect to access elements across sections, e.g., previews or objectives for all five major sections. With the Customized path, users can select sections and then specific objectives within the section for a customized approach to the content. The key feature of this disc is learner control.

The program plays on an IBM PC computer and Sony videodisc player, using an Allen UVC interface. *For more information, contact Barbara Thomas, Ph.D., Professor, College of Nursing, 354 NB, University of Iowa, Iowa City, IA 52242; 319/355-5805.*

### Disc Used for Psychological Research

*The following was abstracted from an article which appeared in the August 1985 issue of Educational & Industrial Television.*

The Psychology Department at **Syracuse University** has developed an interactive videodisc system designed to assist in psychological research involving

the reaction speed to stimuli. Among the abilities being studied is the mental rotation of abstract, two-dimensional figures being compared to determine whether or not they are mirror images of each other.

Previously, this research was conducted using paper and pencil measures or slides. The videodisc system consists of an Apple II computer, Pioneer PR-8210 videodisc player, two monitors, and a custom-made response panel with eight large, touch-sensitive keys.

The videodisc displays the visual stimuli, e.g., geometrical shapes at different rotations, as single still-frames. The subjects use the response panel to make their choices, move to the next frame, and review answers. The experimenter, who usually sits to the side and away from the subject, controls the session via the computer.

The system is compact enough to be transported in cases for field work. This allows the system to be taken into community centers or other gathering places that are more comfortable for participants than a laboratory. *For more information, contact Iseli K. Krauss, EdD, Assistant Professor of Psychology, Syracuse University, Syracuse, NY 13210.*

## Electronic Manikin for Clinical Simulation

He's about 50 years old, has graying hair, a steady pulse, and he's helping physicians learn to care for patients. Morton is not a doctor or a teacher, but a lifelike electronic manikin that is exhibited at medical association meetings.

Developed and designed by **Reactive Systems, Inc.**, of Englewood, New Jersey for **Roche Laboratories**, Morton made his debut at the American Academy of Family Physicians Show in October 1985. Morton is the latest computer controlled manikin in the series of Level III videodisc programs designed to provide physicians with actual hands-on clinical simulations.

The system lets participants obtain the patient's history and review results of laboratory and diagnostic tests through a videodisc program. Physicians then may conduct a physical examination on Morton, looking for signs and symptoms of disease such as organ enlargements, retinal changes, and abnormal heart and lung

sounds. The physician then uses the videodisc program again for a final diagnosis.

Continuing education credits are available to physicians who successfully

complete the exercise. *For further information, contact Alex Ehrlich, Reactive Systems, Inc., 40 North Van Brunt Street, Englewood, NJ 07631; 201/568-0446.*



"Morton" the manikin, created by Roche Laboratories as a medical exhibit.

## Roerig/Pfizer Laboratories

This article is the second in an ongoing series of reports on pharmaceutical companies developing promotional videodisc programs.

### Roerig

Roerig, a division of Pfizer Laboratories, developed their first videodisc, *Borderline Personality Disorders*, in time to be shown at the 1979 American Psychiatric Convention in New Orleans, Louisiana. The program was produced by a division of the advertising agency BBD&O in what was surely one of the fastest videodisc projects of its time.

According to **John Pace**, then General Manager of the Health Education Technologies division at BBD&O, the disc was "sold, scripted, shot, post-produced, mastered, and shown in a six-week period." In order to get that kind of turnaround in those days, Mr. Pace resorted to camping out on the doorstep of DiscoVision in Costa Mesa, California for a week. He reports it was worth the effort, however, as the exhibit played for three days to sold out audiences and received rave reviews from the convention participants.

### Urodynamics in Clinical Practice

Since then Roerig has sponsored two other videodisc programs. The first,

*Urodynamics in Clinical Practice*, introduces urologists to the theory and practice of urodynamics and was produced by the Glyn Group (258 West Fourth Street, New York, NY 10014). Intended to be shown at conventions, symposia, and hospitals, this Level II disc plays on a Pioneer-7820 videodisc player and is approved for continuing medical education (CME) credit.

In it the learner is presented a patient that is "worked up" from a menu that represents traditional urological methods. After a diagnosis and treatment are selected, the basic principles of urodynamics are reviewed, and the outcome of the treatment is revealed. The learner may then treat the patient using the procedures just learned.

### Percutaneous Stone Removal

*Nephrostolithotomy: The Percutaneous Route* explores the removal of stones with



Pfizer disc distributed in Germany.

laser surgery, and is approved for CME credit. It was developed by **Robert I. Kahn, MD**, Assistant Professor of Urology at the University of California San Francisco School of Medicine. The program explains the removal of renal and ureteral calculi by percutaneous nephrostomy—a laser surgical technique. Topics include Patient Selection, Localizing the Collecting System, Percutaneous Entry, Placement of Nephrostomy Tube, Anesthetizing Nephrostomy Tract, Tract Dilation, Stone Removal, Instrumentation, and Postoperative Care.

In addition to these projects, material from the Pfizer film *Bronchitis and Bronchiectasis-Differentiation for Therapy* was the basis for a videodisc produced by the American Medical Association called *Diagnosis and Management of a Pulmonary Problem*. The AMA disc was programed for two levels of audience—one level to help patients understand their condition, and second level to train physicians in the use of bronchoscopy to diagnose and treat pulmonary disease.

The Roerig videodiscs may be viewed by appointment only with a Roerig representative. Those interested may contact **Karen Dawes, Product Manager, Roerig, Division of Pfizer Pharmaceuticals, Inc., 235 East 42nd Street, New York, NY 10017.**

## United Kingdom

### Nutritional Videodisc Developed in U.K.

The August 15 issue of *Videodisc and Optical Disc Update* (11 Ferry Lane West, Westport, CT 06880, 203/226-6967) reported the development of an interactive videodisc program for the public titled *Eat Right Eat Well*.

The program, developed for the Food Division of the British Co-operative Whole Society, is placed in Co-op Superstores throughout Great Britain and tests the customer's knowledge of health and diet. The quiz takes about four minutes to complete, after which the computer prints out a personal one-day menu based on

the responses. The system generates questions regarding the viewer's sex, age, weight, activity level, and eating pattern, and can come up with over 15,000 possible menu combinations.

The system is housed in a free-standing kiosk which contains a Philips LV VP 831 videodisc player, BBC microcomputer, "Cheyne Scribbler" touchscreen, and an Epson 40-column printer. The program and display cabinet were designed by Convergent Communications, Ltd. in London.

For further information, contact Con-

vergent Communications, Ltd., 26 Eccleston Square, Victoria, London, SW1V 1NS. Telephone, 01/828-5855.

**Ms. Signe Hoffos**, London Correspondent for the *Videodisc Monitor*, has left her position as Information Officer for EPIC and now is pursuing a career as an independent consultant. EPIC produced the patient simulation *Mary Wetherton* for Smith, Kline & French Pharmaceuticals. Ms. Hoffos may be reached at 27 Dean Road, London NW2 5AB.

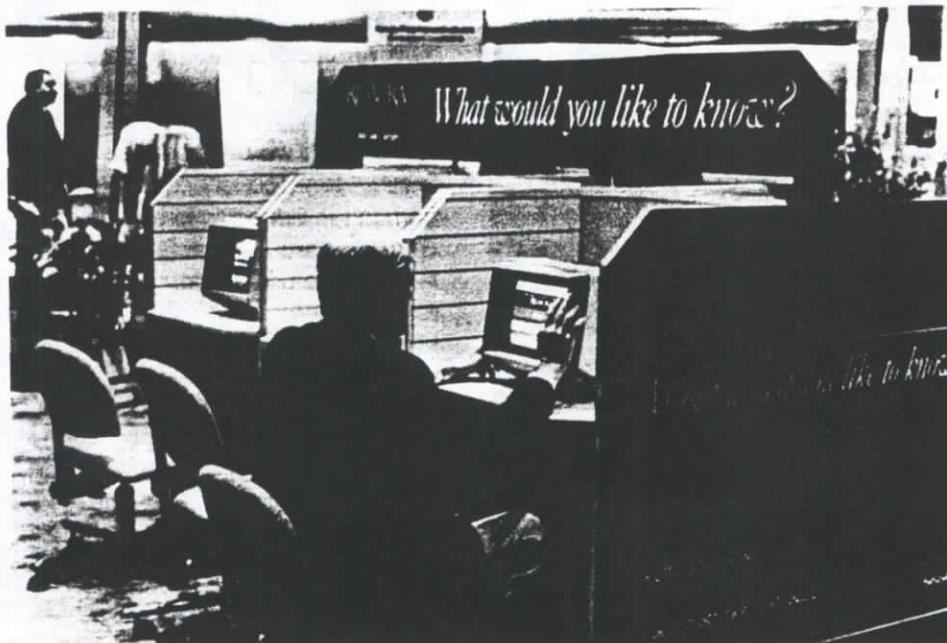
# Medical Disc

## R E P O R T E R

Vol. 1, No. 5

Covering Videodisc Applications in the Health Sciences

Sept./Oct. 1985



Smith, Kline & French Pharmaceutical's new interactive touchscreen exhibit.

### SK&F's Interactive Graphics Exhibit

Baker Videoactive of Philadelphia has recently completed "The Ridaura Information Center," an interactive touchscreen program for Smith, Kline and French Laboratories. The program, which premiered last June at the American Rheumatology Conference in Anaheim, was designed to introduce SK&F's new product "Ridaura." Physicians obtain a wide variety of product information by touching a series of distinctive color graphic screens.

"For this application," reports **Diane**

**Abramson** of Baker Videoactive, "the interactive graphics are an effective and inexpensive alternative to videodisc." The program was designed and produced for Digital Techniques, Inc.'s TOUCHCOM II interactive video system. Six TOUCHCOM units are used in the SK&F exhibit, which will be appearing at medical conferences nationwide during the next two years. *For additional information, contact Diane Abramson, Baker Videoactive, 1501 Walnut Street, Philadelphia, PA 19102, 215/988-0434.*

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### Intelligent Images, National Library of Medicine Share Nebraska Award

When the Nebraska Videodisc Awards are presented October 2, representatives from Intelligent Images, Inc. (III) and the National Library of Medicine (NLM) will be there to share the honor of receiving the award for the Best Educational Application. Intelligent Images, which first released its award-winning simulation *Victor Mercedes* in February 1984, is in the process of producing an entire series of videodisc-based patient simulations—at the incredible rate of two each month.

The NLM winner, *The Case of Frank Hall* premiered this spring at the ADCIS conference in Philadelphia and is the result of two years of careful work at the Lister Hill National Center for Biomedical Communications, the research and development arm of NLM.

III's *Victor Mercedes* presents a patient who is brought into the emergency room of DxTER Memorial Hospital with a shotgun wound to the abdomen. The learner must "treat" the patient by selecting from a number of diagnostic and therapeutic procedures. The patient gets better or worse, depending on the treatment decisions made by the learner. At the end of the simulation the learner may view a discussion of the case as well as review a cost-of-care analysis.

The NLM simulation, *Frank Hall*, involves a 46-year-old man who comes into the emergency room complaining of weakness and abdominal pain following an episode of vomiting blood two days earlier. The student manages the patient

(continued on page 6)

## Smith, Kline & French International

*This article represents the first in a series of reports on pharmaceutical companies which are developing videodisc instruction.*

### SK&F

Smith, Kline and French (SK&F) International was the first pharmaceutical company to develop an interactive videodisc with their series *Diagnostic Challenges in Gastroenterology*. The first program in the series was produced by WICAT Systems, Inc. in 1979 as an exhibit for a gastroenterology congress in Hamburg, Germany. At the time it was not conceived as an ongoing project, but the success of the exhibit has led to the evolution of an entire series.

The series currently consists of eight videodisc sides, including three patient management simulation. Each of the programs is approved for CME credit, and plays on a system made up of a Pioneer 7820 player and a computer manufactured by WICAT. The series is shown on forty systems in twelve countries overseas, but is not available in the U.S.

The programs are used in a variety of ways, depending on the needs of each SK&F subsidiary. One method common in Belgium and Italy is to leave the system in teaching hospitals for weeks or months at a time so that they can be viewed by the hospital staff or used by physicians

to teach medical students. Other countries, such as Spain, the United Kingdom, and the Netherlands, prefer to circulate their systems among a variety of symposia, meetings, workshops, and conventions.

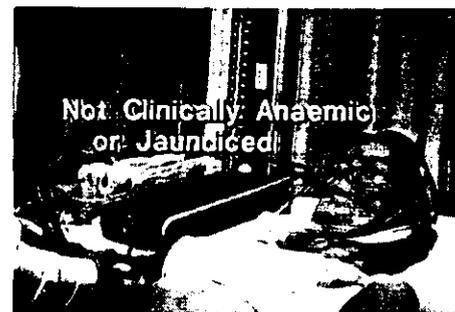
### "Mary Wetherton"

A few years ago, the SK&F United Kingdom subsidiary decided that a stand-alone system would suit their needs better than the larger computer-operated one, and subsequently produced a Level II videodisc called *Diagnostic Challenges: Mary Wetherton*. Produced by EPIC for SKF, the videodisc features a case simulation of a 55 year-old part-time domestic cleaner, Mary Wetherton, who visits her physician because she has had to take days off from work due to indigestion and worsening arthritis.

The viewer is led through the diagnos-

#### SELECT PRELIMINARY DIAGNOSIS

1. Oesophageal Reflux Disease
2. Chronic Pancreatitis
3. Duodenal Ulcer
4. Gastric Ulcer
5. Gastric Cancer
6. Gall Bladder Disease
7. Liver Disease
8. Bowel Disease



Scenes from "Mary Wetherton" showing physical examination and possible diagnoses.

Actronics, Inc., the Pittsburgh-based firm which markets the interactive videodisc Learning System course in CPR, has announced the development of ACT II, "an innovative training unit which provides practice, testing, certification and recertification in CPR." The portable computer-based unit consists of an electronic manikin (adult or infant), TV monitor, microcomputer, light pen and/or keypad. ACT II is available in English and Spanish versions for \$9,955. 810 River Avenue, Pittsburgh, PA 15212, 412/231-6200.

*Memoires Optiques*, billed as the only professional European journal devoted to the videodisc and digital optical disk, is available in an English language version for 1500 French Francs. 97, rue Mme

Mme Mole, 56000 Vannes, France, Telephone (97) 63.77.30.

**Dr. Leo Leveridge**, videodisc pioneer who recently left American Medical Association, is still active in the field and is now working from his new home in Bandon, Oregon. Dr. Leveridge will be presenting at a few national meetings this year in addition to giving demonstrations to "visitors at my new home—any time I am not away providing consultation to those contemplating interactive audiovisual programs or who have already decided to produce new materials for this rapidly developing field and would like help in getting started." Dr. Leveridge may be contacted at 681 Seaview Court, Bandon, OR 97411.

Pioneer Video, Inc. is now publishing a free industrial newsletter called *DiscTopics*. The publishing office is the Industrial Sales Division, 5150 E. Pacific Coast Highway, Suite 300, Long Beach, California 90804. Contributions may be sent to the Editor, 200 West Grand Avenue, Montvale, NJ 07645, 201/573-1122.

Companies that wish to publish employment opportunities in the field of health-related videodisc design and production are encouraged to send the information to the Editor, MedicalDisc Reporter, 6471 Merritt Court, Alexandria, VA 22313.

## Bulletin Board

## Winthrop-Breon Laboratories

This article is the third in an ongoing series of reports on pharmaceutical companies developing educational/promotional videodisc programs.

Of the 15 to 20 pharmaceutical companies that are using videodisc technology to assist their sales force, Winthrop-Breon Laboratories has made one of the largest commitments regarding hardware systems. According to **Jack Pickering**, Director of Clinical Education, Winthrop-Breon made an initial investment of more than \$750,000 to purchase more than 100 videodisc hardware systems. These systems were placed in the hands of their hospital representatives in turn, loan them for short periods to various hospital departments. The only other company to make such a large hardware investment is Miles Pharmaceuticals who donated more than 270 videodisc players to various schools and hospitals.

Like Miles, Winthrop-Breon hopes to use the systems to achieve recognition and acceptance for their company. Unlike Miles, their goal includes teaching product information in addition to clinical education. Mr. Pickering explains that Winthrop-Breon feels "there is an obligation, as a supplier of pharmaceutical products, for us to teach new physicians how to use those products." Therefore, some of their programs include specific information on products that are relevant to the therapeutics discussed in the program.

### The System Design

The Winthrop-Breon hardware configuration consists of Panasonic color monitors, Pioneer PR-8210 videodisc players, and a custom-built Show Sound VIS-7 computer. Feeling that many of their viewers may not be familiar with a keyboard, Winthrop-Breon designed their programs to be operated with a hand-held keypad.

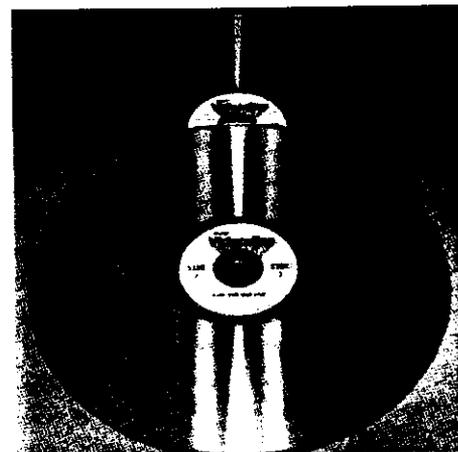
Winthrop-Breon videodiscs made their first convention showing at the 1982 American Hospital Association meeting, where they presented their *consult series*, which is free of product promotion, and their *video clinic series*, in which they teach the use of their products. At the time, the exhibit could seat up to eight participants. The response to the exhibit was so good that they subsequently have built a second booth that can accommodate 20 stations and run four programs simultaneously.

### A Cost-Effective Venture

Every time a Winthrop-Breon program is viewed, whether at a conference or in a hospital, the user's scores are stored in the computer's memory. This enables Winthrop-Breon to see how many people are using the programs and at which locations. This information is used, in part, to monitor the cost-effectiveness of the program. Winthrop-Breon estimates that they will have between 60-70,000 users this year alone, a figure that Mr. Pickering feels makes the investment well worthwhile.

Winthrop-Breon feels totally committed to videodisc technology for marketing purposes, and so far has produced seven interactive programs for their system—each one approved for CME credit. Program topics include analgesics, anesthetics, cardiology, gynecology, and radiology. They are working on two additional programs, with the long-term goal of developing a continuing series in each of these therapeutic areas.

The videodisc programs are not available to the general public, but those interested in having a Winthrop-Breon representative demonstrate the system may contact *Mr. Jack Pickering, Director, Clinical Education, Winthrop-Breon Laboratories, 90 Park Avenue, New York, NY 10016, 212/907-2000.*



## Bulletin Board

Apologies to **Dorothy Fishman, EdD, RN**, for omitting her name in the June report on the First Annual Nursing Interactive Video Conference. Dr. Fishman was a featured speaker at the conference, presenting "Use of CAIVI in Nursing Continuing Education: Implemented Ideas." She is now working as a Special Project Administrator for the Educational Services Division of the **American Journal of Nursing**, 555 West 57th Street, New York, NY 10019, 212/582-8820.

The Second Annual Conference on Interactive Video in Nursing, Medicine, and Allied Health Sciences, which was to be held on April 23-25 in Galveston, Texas, will now be held during the third week in November 1986. For more information, contact *Gary Hales, Ph.D., 11225 Forked Bough, Houston, TX 77042, 713/784-8326 or 409/761-3040.*

**Dragon Medical and Scientific Communications, Inc.**, a marketing organization specializing in the design

and production of medical programs and events, has formed a new division called *Dragon Expert Systems*. Expert Systems will specialize in the use of interactive technologies as educational and marketing tools. Heading the DES group will be **John R. Darsee, M.D.**, Director, and **Nina Romanoff**, Associate Producer. For more information, contact *Dr. Darsee, 235 Park Avenue South, New York, NY 10003, 212/777-1330.*

## Simulated System Training at Pfizer International

Glen Berry, Manager, Training & Development  
Pfizer International

*This presentation was made at the Healthcare Conference held October 9-11, 1986 in Boston, Massachusetts.*

The real crux of the presentation that I have for you here this morning is revolving around the complex world of sales. I hope to briefly walk you through a potential problem that we face at Pfizer International, number one, and number two, what opportunities we saw resulting from that problematic situation and then once we saw some opportunities, what kind of solutions did we find and in fact take action on, and, of course, the reason we were invited here to present this is because part of the solution is laserdisc technology.

Very briefly, who are we, what's are situation, where do we come from, I work in a department called Sales Development and Training for a company called Pfizer International, that's a pharmaceutical company. Sales Development and Training Department has a charge of training about 6,000 sales representatives, 500 firstline sales managers in 52 different countries speaking about 13 different languages, so, as you can well imagine, there's a few challenges in trying to train a population like that especially when no one that we trained at all is inside the United States so when I say that the discussion here is about the complex world of selling, you can believe me now, I hope.

Little more background, if I can ask you to pretend that you are a physician just for a few moments. If you were a physician, my way of describing the competitive situation that exists today in a graphic way would be this. The competition is increasing. The number of representatives calling on each individual physician, particularly if they are of importance from a sales point of view or a probability point of view, is very much like this, and our challenge is to differentiate our representative from all of the rest of the competition. Also from a corporate point of view, there's a lot of companies out there, and there are certain types of products or certain types of opportunities to sell products, which are very crowded. Chronic types of medications are popular with pharmaceutical companies because, of course, once you get a patient on, they're on for their whole life.

This happens to represent one country's, it happened to be West Germany, the nonsteroid, antiinflammatory drug in that particular country. Now what they are is antiinflammatories or antirheumatic. People who have arthritis of one type or another. Now our product happens to be [Felmine], this is not a selling pitch for [Felmine], but you can see in a crowded marketplace like this, it's difficult if you're a physician to differentiate various [?]. Same thing [?], everybody's sending out journal advertisements, hands, elbows, hips, wrists, very difficult to differentiate. So the point I'm trying to make is that overcommunication is a fact of medical life and it's not only that way in the U.S., it's that way also throughout the world and so from a psychological point of view,

we've got to pretty well focus or screen what type of information we accept and take the time to consider. For example, recently we did some research that was revolving around how long physicians look at journal advertisements, and basically, we've got 3.5 seconds to get their interest, after that, they turn the page unless you've really gotten their interest, when they see something that suits a specific need that they have, so there's not much opportunity there except to raise awareness.

If I take the situation I've just described to you and then refer you to a study that was done by McGraw-Hill back in 1981, parts of it are a little outdated, but the point I want to make is still not outdated, some of these companies were pharmaceutical companies but the point is it was a very large study, 789 companies participated in this, and what they looked at was time spent in an average sales life, I should say average sales persons day, doing various activities. What I want to draw your attention to is this figure right here, time spent face-to-face selling. Now, in the pharmaceutical industry, we have a very short period of time to sell. Other types of industrial sales get more time so this is optimistic for us but let's be optimistic, let say, for example you get eight hours a day. That's being very optimistic, I think you'll agree, but if we can take that and we figure 25 percent, it doesn't take a mathematical wizard to realize that we've got 2 hours a day optimum to have an impact and to get specification\ for our products. So, we have come a long way but there truly are some concerns and there are also some opportunities in terms of what will that representative of the future look like and how will that representative differentiate themselves from the rest of the field out there, so a little bit of research and then into the solution.

Back in 1978, we're proud of some research that we did because it's been duplicated several times by other training organizations, i.e., Xerox, or now Learning International, and [?], but we were the first that thought of that, in 1978 we monitored 30,000 sales calls, we training firstline sales supervisors to assess what they were looking at so that they could do that in a uniform way, monitor 30,000 sales calls and we came up with some fairly interesting results. For example, when the call failed, in other words, if there was a precall objective and the representative did not reach that precall objective, that was considered call failure, when the call failed, 62 percent of the time it was due to skill deficiency, and skills can be trained, so now we are getting into the opportunity aspect. Just for your information, the critical skills were said to be these [visual used] and the relationship between successful sales and using these skills well and conversely unsuccessful sales calls, not using these skills well was very, very, very high. So, how do we reach 6,000 sales representatives through the coaching and management of 500 firstline sales supervisors in 52 countries speaking 13 languages and get them to do that. There's your challenge.

What do we know about our reps. With good reps, they get more time with positions, they have improved quality of communications, they're better and understanding people's needs, and they are better at satisfying people's needs, that's what differentiates our good reps and allows us to differentiate ourselves. A piece of

this, one way to reach 52 different countries and try to upgrade and systematize the types of training we are making available to our countries is through laserdisc type of technology. Two years ago, we had a machine that looked like the one picture here. It was kind of a dinosaur. In it's day, it was what we believed to be [?] technology, nowadays we have something quite different so it has evolved just in the last few years.

When we set out to do this, we set out to accomplish a few goals. Number one, what do they mean our training program is outdated, we went all through it didn't we? We felt that we had to keep up with the times and I show this cartoon to you only to make the point that we want to be perceived as a company to be at the cutting edge of technology and we want to truly offer that kind of service to our representatives in the way of health to help them be as good as they possibly could be. So we wanted something really new, really had bells and whistles, really got their attention. Next cartoon, wouldn't you know it, I finally get some people to train and they won't quit. All too often training is [punishment] and especially when you are dealing in some cases with Third World types of countries, technology is a scary thing. You have to deal with it even in this country, but you can imagine, you know, I lived for two years in Nairobi, Kenya, and I can tell you, you put a computer in front of somebody in Nairobi, Kenya, and they freeze, they absolutely freeze, so now we're saying, o.k., great, we're going to wheel in this machine that's going to teach you people-skills, so they became petrified, of course. So, this is only to illustrate that we've got to overcome some serious problems here if we're going to truly roll out in an international way this machine.

We sent out a videotape which allowed our people to visualize how the machine would work. We sent out some composed software that could be developed to put on the machine, and we sent out a questionnaire and said what do you think about this. We sent these to all our countries, even those that didn't have sales organizations, we sent them out anyway, 142 countries got this. We got a pretty good response, about 65 percent responded and these are what they told us were the advantages of the simulation system trainer for them, so this is obviously a consensus. So this was our customers giving us feedback on trying to develop a core program here which we would then, in a sense, [get them to publish more and in a sense salivate].

First thing they saw is a pioneering interactive video experience, and they were excited about that, and there was not one who responded who said that they were not interested in having the thing. They may have had objections to it or found difficulties or let's say obstacles that had to be overcome enabling them to accept it, but they all wanted to find a way so that they could have it and use it. Second, this was a very important one for us because in many of our countries the person who does the sales development and training is not a person who has total responsibility to train. Often times it's a pharmaceutical business or pharmaceutical division management person who wears two hats, it may be a sales manager who wears two hats, so it was seen as a way to free up someone who has other main responsibilities from some of the more

basic kinds of training issues allowing them to accomplish more in less time and more efficiently.

It also allows us to meet one of our Pfizer International New York point of view corporate objectives and that was to have some kind of consistency to try to ensure to the best of our ability that we had at least those three skills executed very, very smoothly, very well. And also, the components of the machine can be used as any of the components of the machine would be used outside of the system, I mean, you could use an IBM PC for all sorts of things, you can use a video for all sorts of things, etc., and they saw this as a way to budget and get, in a bells and whistles sort of a way, to budget and get lots of equipment that they had been wanting for a long time, so that was a hook. Also, they believed it would accelerate basic training and development and I should say that this machine is now just beginning to roll out in countries so this is what they thought the advantages would be. What we hope to do in the future, now, is, of course, to confirm some of these things, I mean, how accelerated is the development of training. How does this system affect, for example, retention of information of material, lots of the things you've been hearing about this week, these are the things we want to confirm that are true advantages for us in the future. It also uniquely allows the learner to utilize the knowledge that they have gained from the machine but utilizes skills that the knowledge implies. In other words, one thing to understand that there are three kinds of probing questions, a closed probe, and a choice probe and an open probe. It's another thing to be able to execute in a smooth sort of a natural way those skills. Many people have difficulty transferring the knowledge into usable skills that come off in a natural, effective way. So, the problem that we had in developing the technology was that how are we going to get skill practice to take the place of people, live bodies who are training people in an interactive. It was quite a challenge as you can imagine, but we think we had an answer.

A little bit about the design of the process, now we're really getting into what it is and I'm going to show you what it is. The first thing we do, or the first thing any person sees, it may be in a different language than English, it may be lips on video, but the first thing they see is a narration that talks about some skills and talks about some of the what's in it for me if I learn it. It makes reference to some of the research, etc., etc., so you've got generalized narration. Then, I just picked one of the skills, for example, asking probing questions here. There's an introduction to probing questions, what's the skill, what's the purpose, what's in it for me when I utilize the skill, and there are some examples, some models, if you will, of good skill usage on video, or videodisc now. Then once you're done is from the first time you are challenged. What you do is you see skill usage, some that's good and some that's not so good and some that's downright poor but you see skill usage and you are asked to identify it. For example, someone says, well, doctor, if you had a crystal ball and you could improve a particular product, what kinds of things would you do to improve them? O.K., I would have to say open probe and the machine would tell me that's great.

But then we move to the next step, and it's always in increasing difficulty, it's kind of like learning golf in reverse. If I want to teach you golf using this sort of an approach, I'd put you right next to the hole, 6 inches from the hole. You did it and you'd say, what do you want me to do this for, it's too easy, fine, good, you hit the ball in, success. Now let's move back, now let's move back, until I got you to 400 yards, as opposed to putting you on 400 yards and, you know, practice makes permanent not necessarily perfect, so you're standing on 400 yards and you're practicing slicing all day, you're probably going to be pretty good at slicing, so what we're doing here is making it very, very simple and increasing the difficulty. So now what I'm asked to do is watch a video situation that is a representative presenting to a doctor and suddenly the video stops and you have some choices to make and the choices are a,b,c type thing, what do I want the rep to say next. You made your selection, the rep actually verbalizes those words and upon completion of that, there are consequences.

Now, if you've made the right selection, the call moves forward, if you've made the wrong selection, sometimes it doesn't move forward and if you continually make the wrong selection, it can get downright nasty. We want it to be relevant, we want it to be realistic, like real life, doctors do things like, well, I'm really busy, I've got a whole waiting room of patients out there, I'm sorry, you'll have to come back another time, when they are displeased and that's the kind of thing you see, we'll show you room for that later. So what you're doing is you're creating a skill model, the representative is seeing the skill model, at that point in time we're going to begin to do the rather unique part of this system, we're getting into the skill practice aspect of it. Now the skill practice first is conceptually explained, and second, you have what is called a limited initial attempt so you have seen this phone call before made by a representative on video. Now what's happened is we're stopping the tape at a point where the doctor, for example, challenges the representative and we are then videotaping the representative who responds and then the doctor responds to the representative in a generic sort of a way, you'll see what I mean in a few minutes.

So, we're asking the representative now to verbalize the usage of those skills and what they will then do is come back and self critique themselves so they'll play the video back, they'll see the doctor challenging them just as they did when they actually responded but then they will see them on the system themselves responding to the doctor and they critique themselves as if they were a firstline sales supervisor. Again, some very specific kinds of criteria [instudias]. Then there's more practice and we move to the point where there is a full sales call made on the part of the representative and then what takes place is the videotape is taken out of the machine and that representative comes to the sales manager or sales trainer or whoever's responsible in that particular country for their continued development, presents the videotape and then there's some coaching that takes place as a result of that. That's where you get human interaction, you know, high tech, high touch, that's where the high touch comes in. So, we had a lot of problems about our company, but let's say there

were some very definite concerns about how much it would cost to develop a machine that could teach knowledge and skills that could be delivered to all these countries and this was our answer basically because no one came up with a better solution. That was our slogan, our theme, [?]. So what I'd like to do is take any questions that you might have at this point in time and then I have a little video model that I'd like to show you.

Q: (inaudible) A: That's a good question. Like many corporations, we have not-invented-here syndromes, and domestic part of the corporation is doing something similar but they're not utilizing this particular technology. (He then continues with explanation and video demonstration.)

You might have detected a little bit of sell in that. That's because what we had done, is we had done our market research. We found what we believed our markets, by markets I mean the countries that we deal with, in terms of what they wanted and then this was positioned directly to now launch this project. We don't tell anyone what to do and we try to provide things as you do to satisfy the needs of your customers, they're ours, so this was the launch video and there was some questionnaire's, etc., etc., associated with that with lead us to some additional challenges, which lead us into an evolution of the machine you saw here. Which gets me into the actual live demonstration portion. You will note that there's only one monitor here. We cut it down because what our customers told us was that they wanted this thing to be a little more portable so that they could move it around to different parts of the country and train people locally so we tried to streamline it, one monitor. We've now upgraded to an IBM XT. The camera, of course, still does exist and the camera does feed into the live recording, at this point a videotape machine. We have upgraded the stock video like the physician you saw in the film a moment ago onto laserdisc, of course, access time, etc., etc., lots of reason for that. Now the controller board is in the cabinet so the only thing we actually sell to our customers is the cabinet itself. They can purchase these other materials or equivalent types of components in their own countries so because the controller board in here is a patented thing from Performax, Inc., in Westport, Connecticut. Another difference from what you've seen on videos is that you don't use all the keys on the keyboard anymore. END OF TRANSCRIPT DUE TO AUDIO PROBLEMS WITH TAPE.

Videodisc Use at Winthrop Pharmaceutical  
Jack Pickering, Director, Educational Services

*Presented at the Washington Videodisc Conference, October 18-21,  
1987, Washington, D.C.*

Scott asked me to come down and talk a little bit about what Winthrop Pharmaceuticals has done with this, what I've heard called this morning, expensive technology. I don't necessarily think of it as an expensive technology other than the fact that it is a very expensive and effective technology, and I think when you marry the two together and look at the effectiveness of it than the expense becomes certainly proportionate to the return that you can receive from this technology. So this presentation is really about the unique role that we have placed on interactive video in supporting our marketing efforts.

A little bit about myself, only so that you know who we are, Winthrop Pharmaceuticals and where we come from. We are part of Sterling Drug. Sterling is approaching \$2 billion annually in sales. We are an international company. We deal with a range of healthcare products as well as household products. You probably know us because of Bayer aspirin. You may also know us because of D-Con rat poisoning, which may not seem quite appropriate but nevertheless, within the Sterling group is the pharmaceutical group. The pharmaceutical group is where Winthrop Pharmaceuticals is placed. We are primarily concerned with those kinds of things that deal with extending life, if you will. And what we have done, any of you that know Sterling recognize the Sterling [alk?]. That's the old Egyptian/Greek symbol that says eternal life.

What we have done in the educational services department is that we have taken that symbol which truly represents what it is our department is all about and that is, indeed, like true knowledge. If we can improve the overall education of the recipients of our programs and we definitely feel that a better understanding of the disease process and the treatment of that disease process, we can indeed then prolong life, which all of you know now is into the seventh decade of life. So with that, that's our educational services motto, if you will.

Now, where does Winthrop or "the industry" place as far as responsibility in using this type of technology. Many think that industry's only interest is to sell more. Well, yes, we are there to sell more but that's not really our critical objective. Our mission, and we take it very, very seriously at Sterling Drug is to teach the safe and effective use of our products and then to provide additional educational support. In other words, we use industry funds to help support the overall educational endeavor.

Now, if we do that appropriately, obviously it's going to have to do with those kinds of products where we have a vested interest, but indeed if we can teach how to use those products right, we feel that we'll probably capitalize the greatest part of the market share that we can hope to obtain. So, as you can see, that's really a very, very serious motivating factor for our use and commitment to dollars to the educational process.

What kinds of activities do we get involved with? Well, I don't want you to walk away from here this afternoon thinking that the only thing we invest in is interactive video, because as you can see from this slide, we have a full range of activities that we put serious amount of financial commitment to and they start off with symposia publications, speakers programs, all the way down, audio teleconferencing, video teleconferencing, video productions, and yes, of course, not least and certainly not because it's up there last, is interactive video. So this afternoon what I want to do is concentrate just a little bit on interactive video, how we use it, why do we use it and do we feel that it's cost effective.

As I said earlier, there are really three major areas that we have a vested interest, really two that I'm going to identify very clearly for you and that's the cardiovascular marketplace of which we have a longstanding history of developing products for treating congestive heart failure as well as other forms of heart disease, and secondly, in the radiographic area, we were one of the original producers of contrast agents that are used to visualize various parts of the body. Fortunately for us, both of these areas are very, very highly content-driven areas that utilize interactive video, I think, to a tremendous fit. The fit is absolutely perfect when you are talking about treating a patient with severe heart failure or if you're talking about imaging various parts of that heart with contrast agents. So those two fit extremely well and that gives you a little glimpse as to why Winthrop Pharmaceuticals is using interactive video.

The other areas that we are interested in are programs that deal with pain, programs that deal with the diagnosis and management of endometriosis, a female disorder, fibrocystic breast disease, we've also done programs dealing with anesthetics and also bronchial-therapeutic agents as well.

When we set about to develop the whole interactive video program, I think it's fair to share with you what was it that management wanted in return for this kind of investment and, simply stated, we really wanted to, number one, teach the safe and effective use of our products to all members of the healthcare team--not just the physician, or the pharmacist or the nurse, the radiology technician to all members of the health team that would, indeed, have some application or use of our products.

Secondly, we wanted to improve the access of our representatives. And all that means is that we felt that we could develop an educational program that was objective, that was well-built, if you will, that indeed that opens up the door for our representatives, and after all, we are in a business of providing a return to the stockholder.

Third, of course, we wanted to enhance our representative image. We wanted to enhance our image as a company because of a genuine effort and commitment to educational type activities. So those are the three objectives that we really established for our interactive video program going out. This happened about 1982 or 1983 when we first got started in this area.

And that's really our first effort. What you see there is a completely non-commercial educational booth that appeared at the American Heart Association Meeting in 1982. What we were doing

here, we were using strictly interactive video in it's very basic sense. We have VHS videotape players and we were using a computer to start and stop them and that was about the extent of our interactive video, but we were so impressed with the physician acceptance of this type of a medium that we decided to go one step further and see if we could take this out to the hospital or to the marketplace and see if, indeed, people will use this kind of a medium.

And that was our very first trial effort and believe me, when we sold this to the company president he said, "How portable?" and I said, "Well, it only takes two men to lift it." That's it sitting on the floor there. We have a monitor mounted in that case. There was a computer down below that and then there's the disk machine right behind the Winthrop sign over there. That was how portable it was. One of the representatives that came into the home office that we were going to demonstrate this for was going to take it with him. Well, we had to end up shipping it to the first hospital for a test. We ended up, though, sending this around to four different areas and we tested it in about six different institutions and what we got back was the fact that, indeed, this medium is effective and people would use it providing the content was good, and I think that's really the key.

Where'd we go from there, we went to this system. In 1983 we went ahead and we developed 65 of these units, it's a color monitor as you can see up there on the top, a little 10 inch monitor, that box in the middle is what we called our black box, it's a metal box, it held a computer, a CPU unit we had someone build for us, we had the boards rack mounted because we felt it had to be able to withstand bouncing around not only in the back of a car but also in a hospital and then down below you can barely see is a Pioneer 8210 laserdisc player.

They were all controlled and there's one switch, you just switch it on and it would operate by itself. We used a simple keypad which is to the left of the monitor because we didn't feel at that time that physicians would use a full keyboard so we made it just as simple as possible. The equipment, if you are really interested in the actual pieces themselves, it's a Panasonic monitor, a Pioneer disc player and what we called our own Showsound Company that built this thing for a CPU, our VIS-7, there really weren't 6 and there hasn't been an 8 yet so I don't know where that came from.

The programs themselves, the software. Well, we used a LOR, I think somebody told me that's Laser Optic Reflective, as you can see, I'm not technically minded, all I know is what I want and I think if you can find the right people, they can deliver for you. It's a CAV-CLV laserdisc, we've done programs in both formats because of the amount of room that we needed. The computer itself is driven by a 5-1/4-inch floppy disk drive. And that's essentially our first endeavor.

Now, from those 65 we expanded, we now have over 110 in the field, when I talk about field, these are our medical center representatives who take this equipment in, set it up in the hospital, leave it. They come back, they check it, see if it's being used, they can do that because this computer was programmed

so that we could find out just how many people had taken the programs while it's been sitting there. If it works, it stays, if it isn't working, we take it out. That's just as complicated as it is.

Three or four times a year, we call in all the floppy disks from the set of different programs that we have, dump the information, compile it and then we record out to management by machine the number of participants. Participants by not only one-on-one, in groups, how many were in the groups, how many locations, and we can actually come down to a per participant per day. That's the key, the key as far as management is concerned as far as cost effectiveness.

There's is the 100-plus units, we also now have 20 units up in our Canadian affiliate, we also have units now in Puerto Rico, Mexico City, the Phillipines, Columbia, Germany and England, so I say that only because we're fortunate with a company that has bought into this technology very deeply and they are very committed to expanding this whole use of interactive video.

In the convention area, we use it in the trade show, as you saw in that first movie, we also, that's the 8 carol booth, we have a 10 to 20 carol booth, and I'll show you a picture of that in a minute, that we use at major medical meeting, and then, of course, we have our newest member of the sales force and that's MERV. Some of you may have seen or heard about MERV, MERV is our Medical Education Resource Vehicle, and I'll spend a little bit more time talking about MERV in just a minute. There's our point station booth, those are all multi-term computers so that we can really run four different programs utilizing each in that center [inaudible] for computers, one's a backup so we have a very efficient functioning booth. All that equipment is rented, by the way, and someone else takes care of it for us.

As you can see we get very good play from it. Here are just some more physicians taking some of the programs. We tried to build the booths so there is a degree of privacy. I think it's important that somebody taking an interactive video be able to take it by themselves and not with a whole crowd watching behind them, so we tried to give them a little bit of privacy and that's why we feel keypads are really a way in which we tend to develop our programs.

Now, what programs are available? Unfortunately, I had set down out of New York on Friday a program brochure for you which lists every one of our programs, we also talk about the title, the audience and a description of the programs. If you would like one of these, I would be more than happy to send it to you if you just put you card or name up on the table here.

We started off with *Endometriosis and Fibrocystic Breast Disease*. That we just a strictly a linear video program. Run along as some video, stop, ask a few questions, and then once they inputted their answers, we played back a little bit of video. That was fine and it got us off the ground.

Our next step was really into the area where we found a great acceptance for our programs and that's *Critical Care Management of the Failing Heart*. Here we actually began to create a real live simulation very much like you've seen out in the hall where a physician is called upon to manage this patient in acute heart

failure. That program was broken up into several different chapters and each chapter was broken up into a diagnostic option section and then a therapeutic, and once you pick all the diagnostic options you wanted from case history all the way through to chest X-ray, blood values, blood gas values, etc., then when you were through with all that information you went down and then you picked the appropriate therapeutic area. Once you picked that you moved into second chapter so you went back and forth in that general direction until you finally went totally through the program.

I think probably the most interesting thing about that program was that we started to keep track of physicians' time so we showed them how long it took them to stabilize the patient. At the end of this program, we played that for them and we also played how well they had done in relation to previous participants so then it became kind of a challenge and a game in a sort to go back and see if they couldn't improve their time to manage the patient. We then moved on into cardiovascular area and developed a program called *Understanding Contrast Medium: The Role and Promise of Nonionic Agents*, that's a new therapeutic area that's just recently been marketed. In this program we had to identify levels of knowledge so throughout this program we have questions that involve and challenge the participants knowledge of contrast agents. It may be their knowledge of adverse reactions or some other, and depending upon how they answered that, then we would route them through a remedial loop if you will and give them the foundation for answering that question so that if you knew the answers you could go through at a high level and a much higher level than those that didn't. That program still at this day is getting a tremendous amount of usage.

Then we moved on, we did *Management Strategy for Airway Obstruction, Pain Control*, of which we have five different patient case histories, these are patients with acute and chronic pain and the physician is asked then to, number one, from the case history prescribe the right analgesic and the right amount to manage that pain.

Then we moved on to our second program in the cardiovascular area, *Strategic Challenges for the Management of Heart Failure*. I think what's unique about this program is that here we then began to start evaluating the physicians participant the same way they're evaluated for the medical board examination. In other words, at the end of the program, and this is again a very highly reactive simulation-type situation. The patient is brought by ambulance to the emergency room in acute heart failure and you've got to stabilize that patient, transfer the patient to the ICU, once the patient's in the ICU, then they can do a whole range of tests from [thallium] scans [arteriography] to try to determine the cause of the heart failure.

Once the cause has been determined, then the next thing is the physician is asked, do you want to go on and treat that cause or discharge the patient and we'll tell them what the morbidity figures are if they discharge at that point. They really need to go on and do a surgical consult on which they find they have got severe blockage and then in this program we actually show the angiograms and we show the contrast agent being injected in a

running, live-time if you will, sequence, and then you can stop and you can see various vessels and it becomes pretty evident which vessels are blocked in that and then you go ahead, the patient then has a [revascularization] procedure done, decompensates again coming out of the procedures and then the physician is asked to stabilize the patient again.

Now we know from our experience that a lot of nurses take these programs so what we've tried to do and we've done in these programs is that while we give the patients hemodynamic values running throughout the program we also ask if the participant would like to see normals. If they do, we put the normals up along side the present values so you can look at them and see what's out of whack. Now, if you don't quite understand really the significance of the Ph of the blood, the participant has a chance to get an interpretation of whether it's any one of the values, the radiograph or the thalium scans, EKG's, you name it, whatever the case may be. So that we've broadened the appeal of our program into those areas that have an equal interest in the kind of programming that we've done.

Then we moved on to another radiology program and I think probably the most unique thing about this program is that when you walk in you sit down and you are actually invited into the hospital, you walk in, you're greeted, and we ask the participant if they would like to take a tour of the hospital and when they take the tour of a hospital what we do is we actually will take them around all of the areas in the hospital that they can utilize while they are working in the hospital. It's kind of a menu if you will but it's not really a menu-driven type program.

You can go to the library, you can pull resource material on contrast agents, how do you use these agents, where is the support documentation, you can go to the consultants room, talk to a physician about a particular case, you can also go into the lounge if you want and take a 10 minute break or then you can get ready and go to the X-ray department and, indeed, start to work. Now, once you get to the x-ray department it asks you which radiologic suite would you like to go to work in because we have a general radiology room that has three cases, we have an angiographic area to do cardiovascular radiographic procedures and then we also have a neural room and in each one of those rooms are three cases and you can pick you case and if you get anywhere in that case and you need more information, you can go back to the library or you can go to the consultant and say, well, gee, the consultant will say the thing you really need to worry about in this patient is that it had a prior history of reactions to contrast agents so maybe you ought to do this and this.

So what I've tried to draw for you is as we have grown with this program we've tried to grow with the complexity of the software itself and, believe me, I think all of you will agree, we are just barely scratching the surface on what we can do with the technology that is available in the hardware.

Now, that brings us up to MERV. Medical Education Resource Vehicle. I want to correct one misunderstanding and it's printed in the program, Scott, it's not a recreational vehicle. I'd get fired if I said recreational vehicle, it's a resource vehicle, it's

called in there Medical Education Recreational Vehicle, so the boss is always asking me what I'm doing to this damn thing anyway so . . . We use it at conventions and we use it in the field.

And, what is it? There it is, it's a 30 foot Airstream vehicle that we literally built and designed from the wheels up. It's 30 feet because we had to have it fit into 30 feet of convention space. We build a big booth around it. We drive it right on the floor at major medical meetings, physicians use it for a range of different types of activities, the meeting is over, we drive it out and then we loan it to medical institutions. That's what it would look like if it was sitting next to one of the medical institutions if some of you people that are here that are from schools, it has it's own self-contained power generation or we can hook up to the hospital's power with 150 feet of cable. It has two-zone heating/air conditioning, stereo totally equipped throughout. Now you know why the boss wants to know what I'm doing with this thing!

It's really a mini conference center and we have tried to build everything into this vehicle that is state-of-the-art because we wanted to convey the image that, indeed, we are on the forefront of technology in using AV. So we have interactive video units, nine different carols, there's total AV speaker support, literature search retrieval, we are working with the Cambridge people to try to hook in their CD-ROM player that you see out there so that we can do customized literature searches for physicians. It's an audio teleconferencing capabilities as well as we can also then play off-the-shelf computer-assisted instruction.

This is what it looks like inside. We are using the Sony View system, that's complete with touchscreen, headsets up above, we use the keypad and there's nine different carols, if you will. We have a HP laserjet printer so we can print off the programs or we can do the customized literature searches we can print out for them as well. We can also print invitational thank you letters, what have you.

In the back wall is a whole electronic communication wall, in other words, what you see there is a Sony 25-inch cubic monitor where we can actually play the interactive video program up into the monitor and then use it as a lecture support area. If you move those two white doors over, you'll see there's rear screen projection so you can use it as a presentation just like this. We have also included standup podium, we have 8mm, VHS, 3/4-inch videotape players back there behind the black, we have sound throughout stereo as well as we have TV tuner so we can turn in a lifetime station or channel for a program. That's MERV.

For a company to invest this kind of money, believe me, money comes as hard around our corporation as I'm sure it must around some of your hospitals, you may not believe that, but believe me, it does. We have to show return on investment and it's very clearly we have to show and prove to management, and how to we do it? We do it in four different ways. First of all, we capture participant data. From the very first program until now we know exactly how many participants have taken our programs. We know on an annual basis, we know by unit, and we know then quarterly throughout the year. We retrieve that data, we analyze it, we compare it and then we come up with a cost per participant.

I think any of you that are out there beginning to figure out how do they cost-justify this kind of commitment, I think that's really what you have to do, you have to begin to look at participant cost. Now, when we look at participant cost, we look at it in terms of what would it cost for us to put a sales representative in front of that participant and then we measure what kind of an impact would our salesman have versus the interactive video. Obviously, an interactive video will never be able to replace a salesperson, but it does do some things that a salesperson can't always do. He can't always get 20 to 45 minutes of good instruction with that particular participant so, therefore, we can see that we get an enhanced productivity, in other words, if you place these things out there, and they're designed as stand-alone units.

We don't use this as a trap to trap physicians so the salesman can sell them, we place them out there so that, indeed, they are out there working in addition to a representative, and, of course, the enhanced learning games I think there isn't any question that, indeed, we get a better, fuller, more complete message across with the use of interactive video. Companies like IBM have done a tremendous job in proving some of that. I don't know if you are familiar with the study "Interactive Videodisc for Management Training Classroom Environment" by Judith Vadis, program manager. I think this very definitely proves that, indeed, the interactive video medium is extremely effective. So, what you do is you've got number one, the participant cost, you have the enhanced productivity, and then you've got you're enhanced learning games which really roll up to the proposal as to why we really ought to be investing more in the use of this technology.

Where are we going in the future? Well, I think you can see we've made a substantial commitment at this point and that commitment is growing, it's growing to the extent that we are going to be expanding units and applications in programming, we have two programs in progress right now that I think are going to be by and far much better than what we have done even in the past, we are experiencing with kiosk-type educational programming as well as other kinds of things.

Our existing programs still have a use. As new students come up they still want to take these programs. Their content is good, the content is sound medical procedures and they can still be used. Future programs I touched on, and, of course, there's really two issues it comes down to is hardware and courseware. We think we have solved the hardware. We built the hardware, we loan it to any institution that wants to use our programs, and that's MERV included. And the courseware we are developing to our standard. Now, our standard is changing and it looks like we're probably going to be heading more towards MS DOS type programming that will give us the capabilities to extend not only our programming but other programming through vehicles such as MERV.

So, there it is. You can either say a sun setting or rising. To me, the IV program and utilization in Winthrop Pharmaceuticals is just beginning to dawn. We have a lot of exciting ideas that we want to execute with this medium and look forward to working with many of you that have identified the need. Many of you that are the

producers that can produce the programs for us, and I think what we bring to the party, if you will, is providing our needs and objectives are met, we bring the wherewithal. I would like to leave you with just one message and that's that I think we need to talk and anytime you have programming ideas or suggestions, feel free to give us a call, to find us, and we would love to explore joint activities with you. Thank you.

Q: You said that you have over 100 in the field, can you give us some idea of what the cost is per unit? A: We're looking at somewhere in excess of 3/4 of million dollars to date. Now, if that's 100, that's \$7,500, that's about what we paid, \$7,000 to \$8,000 is what we initially paid for our units.

Q: Could you share your cost per participant contact costs A: I have to be a little bit careful, because I'm getting into some proprietary information. I can tell you though that it's less than ten percent of a representative call, and as far as we're concerned for what we're getting back for that amount, that is a tremendous return.

Q: To do one of your video courses, can you give an estimate of the production costs for the videodisc and the computer software, not per participant that takes it but . . .? A: Well, we're spending in the same range that I think most all of you are familiar with, we're spending anywhere from \$120,000 to \$140,000 a program. I think that's a fairly accepted number and that's about what we're paying, too.

Q: For the videodisc and the computer software together? A: Yes. That's producing the disc and the floppy and send it out to our reps exclusive of any promotional material that we might use or educational backup material, print material and so on.

Q: If you take that course all the way through, is that a half hour course or 40 min course? A: They range anywhere from 20 to 40 or 50 minutes of participation involvement. It kind of depends on how much time.

Q: In your involving process of data, do you log if a participant simply signs on, looks at the course and says, well, gosh, after five minutes I think I want to take this other course. Do you log that, too? A: Well, we log that but at the end of our programs we have five basic questions that we ask for the participant to evaluate the program and we know how many logged on and how many actually finished. Some people get up and don't do the questions for us, so we take that into consideration when we really figure how many participants are going all the way through the program.

Q: (Inaudible-something about American Pharmaceutical Manufacturers Association talking about commitment to going directly to the \_\_\_\_\_). Have you done anything to take this education directly to patients or are you strictly concentrating upon the staff. ? A: I'm glad you brought that up because I did have a note in my notes to talk about really what I thought were some future areas that we could go and I think there's one area that's got a tremendous amount of potential that we're going to begin to look at and that's in patient education. I heard it referred to again this morning, and I think it would be a tremendously valuable tool if a physician could sit down with a patient and just use a, it doesn't have to be

laser or videodisc type program, it could be just a computer whatever you call the CBT or the IAC or whatever they are, I don't know for sure what they are but, just a tool type of a thing that could then be used to assess cardiovascular risk factors or whatever, so I think that's an extremely good potential for this medium.

Q: I'm sure you wrestle sometimes with trying to decide whether to take this unit of instruction just as computer instruction versus the computer and the videodisc, do you have some of your instruction as computer alone? A: No, right now all of ours is video, but we're beginning to look at even expanding the video program into portions if the physicians if they would want, and you know the new residents now are all computer literate and most all have computers, there might be some element of that program, for instance, one of our programs we have an actual dosing sequence so if the physician needs to learn how to dose the product, and this requires a [bolis] and then you have to use a concentration and then you've got to infuse it, you need a certain volume of [dilutant] along with the drug, that could be on a floppy, we could say here, boom, you can take this with you. Now, I think in the future using graphic overlay, you can do a lot of things where you can begin to enhance even the video programs.

Q: Would you envision how much savings you have if you felt the course could be computer only versus videodisc. A: I really hesitate to comment on because it's part of what I'm selling management on right now.

Q: You referenced an article, could you repeat the information on that? A: I think this is compliments of Mr. Moore there, I really appreciate that sent this over to me from IBM, the title is "Interactive Videodisc for Management Training in a Classroom Environment." There isn't a publication on here. (inaudible comment from audience) It was by Judith E. Vadis and it's really talking about one-on-many, one-on-few, and one-on-one use of interactive video and I think there isn't any question that using this data that it looks like an extremely well-designed study that not only is there a tremendous potential for one-on-one, which we all know, but the untapped potential that I haven't really heard anybody talking about is the use of interactive video in a lecture-support or speaker-support program. It has to have a fantastic potential for a chief resident to be able to use a case simulation and then talk about, how are we going to manage this patient, boom. I think that's a real future potential but I'm using up a little too much time, I believe.