As I’m sitting here in the office reviewing the proposed itinerary for the VISN 22 Telemedicine Strategic Meeting, it seems like a deja vu experience. Mulling over the speakers’ suggested topics on telemedicine and e-health take me back to a time about 40 years ago when I was at the Point Mugu Naval Air Station in Southern California. I had just completed a 4-½ year hitch with the Navy and accepted my first civilian position with NASA across the runway as an electronic data technician. I had no idea at the time that I was analyzing biological data using what was then the new technology of telemetry, and that this experience would someday be revitalized. Telemetry is defined as “the science and technology of automatic measurement and transmission of data by wire, radio, or other means from remote sources, as from space vehicles, to receiving stations for recording and analysis.”¹ Well, back on the night of February 20, 1962 I was recovering and analyzing some electronically noisy data sent down from the Project Mercury Gemini space capsule Friendship 7. Some of this data turned out was of a biological origin. NASA was recording John H. Glenn Jr.’s vitals including respiration and heart rate in addition to temperatures inside and outside of the capsule. Back in those days, the only computer assistance we had at our disposal to help us determine the significance of these biological excursions was an IBM mainframe (which occupied an entire air-conditioned floor). All the data I extracted from the old 18 X 1 inch, open reel, magnetic recording tapes had to be key punched onto cards and submitted to this temperamental digital behemoth. Today, these biorhythms could be digitized and analyzed by an ordinary laptop computer. That night, John Glenn Jr.’s flight, which lasted 4 hours and 44 minutes, placed him in history as the first American to orbit the earth. That famous flight kept me busy for months afterward (Continued on page 4)
Resolution for ’02:
Participate in National Telemedicine Meeting
John Peters, MS

This year’s VHA National Telemedicine Meeting will be held on Thursday June 6th, 2002 at the Employee Education Auditorium on the Long Beach VAMC campus and will be broadcast live to all VHA facilities around the country over the VA Knowledge Network (VAKN).

The one-day, VHA-only, meeting immediately follows the American Telemedicine Association’s (ATA’s) 7th Annual Meeting and Expo, which runs Sunday June 2nd – Wednesday June 5th at the LA Convention Center (approximately 25 miles north of the Long Beach VAMC campus).

There are several ways to participate during one or both of these national meetings.

Attend the VHA National Telemedicine Meeting (in-person or via VAKN), **where you can:**

1. **Learn more about VHA Telemedicine.** Following a brief welcome from VISN 22 leadership, who host this year’s meeting, VHA Telemedicine’s Dr. Adam Darkins will provide an overview of the current state of telemedicine within VHA. Then, individual VHA Telemedicine leaders will present the ‘Best in the West’, a collection of VHA Telemedicine programs and projects operating in the Western United States.

2. **Represent your ‘Best in the West’ VHA Telemedicine program or project.** Due to the California meeting locale, this year’s morning presentations will spotlight VHA Telemedicine activity in western VISN’s 20, 21 and 22. If you work in a western VISN, please request a presentation time slot now*, so that you can inform the “rest of the VHA” about your telemedicine activity. We will coordinate with VISN leadership to accommodate as many presenters as possible; presentation time slots are limited, so submit your request as soon as possible.

3. **Check the progress of the VHA Telemedicine Working Groups.** The 11 existing Working Groups have been busy creating new products for your use over the past year, e.g. the newsletter, the Web site, credentialing and privileging policies, satisfaction surveys, and various training programs. In the afternoon, each Working Group leader will provide attendees with a status report as well as the plans for the year ahead. All attendees are encouraged to join one (or more) Working Group of particular interest. Overall, the purpose of the Working Groups is to deliver needed products and services by first identifying (oftentimes disparate) regional practices and then coalescing them into standard components of the best national program.

4. **Create and lead a new VHA Telemedicine Working Group.** Does your telemedicine project or program require something you can’t find anywhere, e.g. guidance on best practices for tele-rehabilitation? Due to the nascent aspects of telemedicine, pioneering opportunities abound. Raise your hand and volunteer, individually or as a group, to be the recognized leader who will devote some time and effort to create the products needed to guide emerging projects and practices.

5. **Focus in during break out sessions.** During the second part of the afternoon session, local attendees will split up to attend a break out session devoted to their particular area of interest. Meeting planners are currently identifying which topics would produce the most effective sessions, and your suggestions are welcome*. Following the break out sessions, local participants will reconvene and summarize various session activities for all (local/distant) participants.

6. **View/Share highlights from ATA.** One afternoon break out session has been created especially for broadcast to distant attendees who were not able to participate in the ATA Meeting and Expo. The session will be devoted to ATA Meeting highlights including VHA

*(Continued on page 3)
presentations at ATA and ATA Expo product review. If you attend ATA 2002 in LA, please consider volunteering* to present during this session for the benefit of colleagues unable to travel.

7. **Meet VHA Telemedicine Colleagues.** VHA Telemedicine brings together individuals with backgrounds that include clinical, IT, administrative, HR, medical media, engineering and others. The annual meeting provides one of the best ways to meet your VHA colleagues and learn how they make their programs work, day in and day out, to improve the quality of health care for our nation’s veterans.

**Attend the ATA Meeting, where you can represent VHA by:**

1. **Showcasing your program in the VHA Telemedicine exhibition space.** Individual VHA Telemedicine programs are invited to reserve their place in the VHA Telemedicine exhibition space at ATA. Individual programs may be represented in the exhibit space in one or two ways: OPTION 1. Live in-person exhibition, where you represent your program as an exhibitor/demonstrator who is responsible for the work and expense of transporting/installing/returning of exhibit equipment and materials. Additional costs for power or telecommunication services into the exhibit space will be the responsibility of the individual program requiring the service. OPTION 2. Poster exhibition, where you represent your program with an illustrative poster for hanging in the exhibition space. Last year committed representatives, from various programs, used the forum at ATA to educate attendees about VHA Telemedicine activity. We will attempt to accommodate as many exhibitors as our allotted space permits, but since the area is limited, please submit* your exhibit proposal soon.

2. **Presenting/Learning during panel sessions.** Each fall ATA selects the best out of hundreds of submitted abstracts describing telemedicine projects from around the world. The ATA invites project leaders to participate in the panel presentations that run Monday through Wednesday during their annual meeting. Last year ATA selected several VHA Telemedicine leaders to participate as speakers. Be sure to check the ATA Program guide for VHA speakers participating in panel sessions this year. Show support for your colleagues by attending as many VHA sessions as your time and interest permit.

3. **Presenting/Learning during poster sessions.** Last year eight VHA Telemedicine programs submitted poster presentations depicting their projects or services, one project’s poster was cited with a special award. The posters are presented on Monday afternoon during the annual meeting. This is another opportunity to get some detailed information about who is doing what in telemedicine within VHA, at your affiliated academic center, at your nearby DoD facility as well as the world-at-large.

4. **Meeting Telemedicine Colleagues.** ATA touts their annual meeting as ‘the world’s largest scientific meeting and exposition focusing exclusively on telemedicine’ and it is a good place to not only educate the telemedicine community about VHA activity, but it is also an educational opportunity for VHA employees to learn about the people creating and sustaining telemedicine projects around the world.

*To learn more about how to participate in this year’s annual meeting and related deadlines, please contact John Peters at the VHA Telemedicine Strategic Healthcare Group VA Central Office at John.Peters@hq.med.va.gov or 202.273.8508
The Road I Traveled: A Progress Report on VISN 22’s Telemedicine Initiative

(Continued from page 1)

was drafting a survey to assess what the staff perceived to be the telemedicine needs of VISN 22. This was a 19-item form with a 5-point Likert scale for six of the questions. Approximately 400 solicitations were emailed to clinical, administrative and technical staff throughout VISN 22 including the West Los Angeles, Sepulveda, Long Beach, Loma Linda, Las Vegas and San Diego facilities in April of last year. Surprisingly, we received only 22 responses; most of these came from San Diego. The respondents were enthusiastic concerning telemedicine’s potential health care benefits for the VISN but felt that they required additional information on this technology. Most of our respondents were only familiar with videoconferencing.

Our spirits were lifted in June of last year at the ATA 2001 Meeting in Ft. Lauderdale Florida where we had the opportunity to meet Dr. Adam Darkins, the Acting Chief Consultant of Telemedicine for the Department of Veterans Affairs. I was able to speak with representatives and telemedicine coordinators from other VISNs concerning their experiences in setting up a telemedicine program. It was especially heartening to hear about the trials and tribulations of those that have struggled against incredible technological, economic and political odds—and succeeded. I was given some very astute advice concerning winning clinical and administrative support as well as organizing and implementing a telemedicine initiative from the folks at VISN 8. I gained an appreciation for how much planning should go into the structure and organization of a self-sustaining program.

Additional help came when I had the opportunity to attend the UC Davis Medical Center’s telemedicine training last October. I have nothing but good comments to make concerning the structure and content of this course. I felt a lot more comfortable with the organizational, clinical and technical operation of a telemedicine program after having completed this class. I would certainly recommend this class for telemedicine administrator/directors and coordinators regardless of their level of experience. This would be comparable to driver’s training for telemedicine.

Dr. Kleinman started organizing a VISN 22 Telemedicine Strategic Meeting when we returned from the ATA meeting. This was no simple task, as he had to rally the assistance at the VISN level of several key individuals. Dr. Darkins accepted responsibility with helping make the meeting a success and will be one of the presenters on February 13. Len also submitted a Telemedicine Action Plan for GLA.

By the time this newsletter goes to print, the Telemedicine Strategic Meeting will have taken place and I should have a better idea of where telemedicine stands in VISN 22 and GLA. I think with all of Dr. Kleinman’s worthy efforts and the assistance and support we are receiving from talented individuals such as Drs. Darkins, Goldschmidt, and Mary Skinner—to mention just a few—that we will eventually succeed in establishing a telemedicine program.

Kent M. Perryman, Ph.D.
Physiologist and Medical Media Production Specialist
Sepulveda VA Medical Center

Adjunct Associate Research Psychologist
Department of Psychiatry and Biobehavioral Medicine
UCLA School of Medicine

World-Class Cancer Center Features
Telemedicine Components

Claudia Zink, MHR

The use of telemedicine in cancer treatment helped VA Puget Sound Healthcare Center (Seattle/Tacoma Washington) earn the prestigious recognition of "Comprehensive Cancer Center/Teaching Hospital Cancer Program" in 2001. The VHA designation requires rigorous performance standards and evaluation and reflects Puget Sound’s strong ties with the University of Washington and Fred Hutchinson Cancer Research Center in Seattle.

Kevin Billingsley, MD, surgical oncologist and director of the center has shared some information about the center and its winning program: "Cancer is a devastating diagnosis which requires multiple and complex services. The center here at Puget Sound serves VA Medical centers in the Northern Alliance of VISN 20 at Anchorage, Boise, Spokane and Walla Walla. By way of teleconferences, patient cases can be presented to a multidisciplinary team of physicians at one session; the idea to do as much work up front as possible at the veteran’s home facility. Services are coordinated so that diagnostic test results such as CT scans, MRIs, etc. can be sent forward, minimizing patient time at spent waiting for appointments in Seattle. An added benefit is that now patients may be able to be treated entirely at their home facility with the assurance of knowing that their cases have been presented to a multidisciplinary treatment team."

The majority of patients participating in this program have been able to be treated at their home facilities rather than travel to Seattle. Dr. Billingsley stated, "At the one-year point, eighty-five patients have been evaluated through the telemedicine tumor board. [Of these,] fifty-three patients (62%) were treated at their home facility following tumor board evaluation. Thirty-two (38%) were referred to the regional cancer center at the Puget Sound VA Health Care System in Seattle for treatment."

"There is an educational component to the Cancer Center as well," according to David Schwartz, MD, radiation oncologist and assistant director of the center. "We have been hosting a monthly oncology conference via teleconference since May of 2000. This conference is available to staff and patients at any of the Northern Alliance facilities. Topics span a wide range of oncology issues. Past topics have included prostate seed brachytherapy, the role of chemo prevention in breast cancer and palliative care." Continuing medical education (CME) credits and Tempo credits have been arranged for staff attending.

For more information, contact Dr. Kevin Billingsley or Dr. David Schwartz at (206) 764-2255.

Note: A manuscript on the Cancer Center telemedicine project at VA Puget Sound Health Care System has been accepted for publication in the Telemedicine Journal. Look for it in an upcoming edition.
Health Education Expanding Due to Success: The San Francisco and Miami VA Story

Carol Ceresa, MHSL, RD, San Francisco VAMC
Angela Barrera, RD, LD/N, CDE, Miami VAMC

Both the Miami VA Medical Center and the San Francisco VA Medical Center (SFVAMC) have been successfully using telemedicine technology to provide patient diabetes and nutrition education in VA Community Based Outpatient Clinics (CBOC).

The San Francisco VA has been using telemedicine technology for comprehensive diabetes education since October 2000 linking their main campus and the Ukiah Clinic utilizing a Polycom videoconferencing system. Prior to this, patients with diabetes from Ukiah had to travel up to three hours to the SFVAMC for comprehensive diabetes education. The providers are a nurse Certified Diabetes Educator (CDE) Educator and/or a Registered Dietitian (RD). Appropriate (newly diagnosed or those with elevated hemoglobin A1c values) patients are currently scheduled on a monthly basis. Education materials are sent to the community clinics and provided to the patients/families prior to the scheduled group appointments. Patients may also be asked to send in food intake and exercise records for clinical review and computerized diet analysis prior to the scheduled teleconferencing appointment. The CBOC staff handles all the screening and scheduling of the clinic encounters. Due to the convenience to patients of many hours of travel saved, patient satisfaction has been high and feedback about these new services has been unanimously positive. Encouraged by the success of the diabetes education efforts, the SFVAMC has now added teleconferencing sessions for lipid and weight management for veterans at the Ukiah clinic; services soon will be extended to include a second CBOC in Eureka California.

Since January 2001, the diabetes specialty dietitian at the Miami VA has been providing both group (5-15 patients) and individual nutrition/diabetes counseling via video teleconferencing at the Key West Satellite Clinic. They have found that the telemedicine technology (a V-Tel videoconferencing system) works effectively for these educational forums because, although it is remote two-way communication, it still offers the opportunity for interaction between provider and patient through question/answer and demonstration. So far, patient evaluations of this education method have been exceptional for all the classes held. The Miami VA has also realized cost savings and customer satisfaction benefits by decreasing travel time and improving convenient and timely access to specialized nutrition services. These educational services via V-Tel have been so successful that the Miami staff are anticipating expanding the program to include other preventive health education groups such as weight management, smoking cessation and psychological counseling.

These two programs have found the use of videoconferencing technology for the provision of diabetes education and medical nutrition therapy to enhance clinical staff efficiency, save labor costs at the CBOC and improve accessibility to services for veterans close to their homes. Providing these services also has ensured consistent standards of care throughout the VISN and provided a means to better meet preventive health strategic initiatives and performance standards. Access to these educational interventions may also help improve clinical outcomes and help contain healthcare costs through cost avoidance.

San Francisco POC: Carol Ceresa, MHSL, RD at carol.ceresa@med.va.gov

Miami POC is: Angela Barrera, RD, LD/N, CDE at angela.barrera@med.va.gov
The Role of Telemedicine in Emergency Management
Adam W. Darkins, MD

(Continued from page 1)

bioterrorist attacks. The use of telemedicine in such situations has been sporadic and the question of how it fits into a wider emergency response that is based on conventional care delivery systems needs to be answered. The recent tragic events of September 11th 2001 (9/11) have focused many people’s attention on this issue for the first time, however consideration of this role for telemedicine preceded 9/11 by several years. This article proposes three conceptual major advantages for including telemedicine in the regular armamentarium used for emergency management.

The first potential advantage to including telemedicine in this armamentarium is making the standard emergency response more flexible and more appropriately tailored to the unique situation. No two large-scale emergencies are ever the same; consequently those involved in the advance planning of emergency response services attempt to deal with the maximum possible range of contingencies. As an actual emergency situation unfolds, the appropriateness of the response in meeting the ensuing victims needs becomes apparent. In an ideal situation this response exactly matches the victims needs. If not, a mismatch occurs, and either insufficient resources are available, or too many resources are utilized. If the level of resources is insufficient, there is a risk of unavoidable deaths and injuries as a result. If resources are too plentiful, this may create unnecessary congestion at the emergency site as well as escalate the costs of dealing with the incident. Telemedicine offers a way that an emergency response may be titrated more accurately to the needs of the victims and help avoid potential time-delays associated with transport. If, for example, more burn victims than would reasonably be anticipated arrive at a triage center then additional plastic surgical advice could be virtually transported to the scene using telemedicine. Similar scenarios can be generated for a wide range of other specialty consultations.

The second potential advantage of using telemedicine is in helping protect healthcare staff from unnecessary and avoidable risks. An example of this would be in assisting in the management of an unfolding terrorist threat from biological/chemical agents. In the early stage of such an event it may be unclear whether a biological/chemical agent is responsible, and if so what agent it is? Preventing the unnecessary exposure of healthcare workers (who are in relatively limited supply), by making their services available remotely, avoids them becoming additional victims of the incident and makes eminent sense. Not only could front-line staff be protected in this way, in addition, a world expert from a distant center might be urgently contacted and virtually transported to the site of the incident to help make initial management decisions and identify the source of the threat more rapidly.

The third potential advantage to involving telemedicine in emergency care is in dealing with the walking wounded. Not surprisingly, the general public tends to focus on the dramas of a large-scale emergency and conjures-up images of bodies and horrific injuries. In most such situations, for every one person seriously wounded there are dozens of additional walking wounded. These walking wounded are people who may be shaken, disoriented and stressed by what they have experienced and/or witnessed. However, there is a great danger in being complacent with this group. Any one of these people may be at imminent risk of a later serious deterioration in their condition and may need urgent diagnosis and attention (e.g. it is not uncommon for people to suffer coincidental myocardial infarctions and strokes after large-scale emergencies). Triaging these people appropriately is a resource-intensive endeavor for emergency management teams. Telemedicine is a way of remotely assisting with this complex triage process by bringing in additional off-site resources. The walking wounded can be reviewed remotely to determine triage categories and recommendations for monitoring and follow-up.

The Veterans Health Administration (VHA) has considerable telemedicine resources that could be made available to support the VHA, if needed, in meeting its fourth mission-that of supporting the military in times of national crisis. If there were an earthquake on the West Coast, a bio-terrorism incident in the Rocky Mountains, a tornado in the Mid-West or a hurricane on the East Coast that became a presidentially-declared federal disaster, should telemedicine form a component of the VHA’s associated response? The VHA’s Telemedicine Strategic Healthcare Group (SHG) and the Emergency Management SHG (EMSHG) in VHA are addressing this question and have reviewed the potential roles that telemedicine might play (as discussed above) to supplement the traditional emergency management response. This issue of the VHA role has been explored at various national emergency response meetings during the past 2 years. On January 22nd, 2001 the Telemedicine Task Force was formed as part of the

(Continued on page 11)
Telemedicine Policy Watch
John Peters, MS

On December 27th, 2001 President Bush signed into law HR 3323 (the Administrative Simplification Compliance Act), which is now Public Law 107-105. VHA personnel may be confused or curious about what effect this new law may have on their facility’s compliance with the Health Insurance Portability and Accountability Act (HIPAA), particularly since the Compliance Act describes a possible partial extension of the October 16th, 2002 deadline for compliance with HIPAA.

VHA Telemedicine asked for clarification and interpretation of these latest changes from VHA Privacy Act Officer Stephania Putt. Here is Stephania’s response:

The delay afforded to health care organizations as a result of the Administrative Simplification Compliance Act (Compliance Act) is not a "one year delay" of HIPAA, as many headlines have declared.

Rather, the Compliance Act provides a mechanism for covered entities to apply for an extension of the HIPAA compliance date to October 16, 2003, for only the Electronic Transaction and Code Sets standards rule.

The primary condition of the extension is the submission of a compliance plan by October 16, 2002, which requires entities to be ready to test transactions by April 2003.

The decision to request an extension would lie with the offices required to implement electronic transactions (i.e., Fee and Office of Revenue). At this time I have not heard whether or not these offices plan to apply for an extension. The delay process does not affect privacy.

If you would like any VHA expert advice on this or any other policy affecting VHA Telemedicine, please feel free to contact the Telemedicine SHG’s John Peters at John.Peters@hq.med.va.gov
Announcing 2 Big Telemedicine Events:

2002 VHA National Telemedicine
FREE Thursday June 6th
VAMC Long Beach, CA & VAKN

2002 American Telemedicine Association’s 7th Annual Meeting
Reduced Fee for VHA
Sun-Wed June 2-5th
Los Angeles Convention Center

For Mtg Details & Registration Information
Veta.Brooks1@hq.med.va.gov (202)273-8513
Daily, I find opportunities to increase the technical knowledge of those who work in an ever-increasing technical environment. This opportunity can be exciting, but frustrating. I recently had an experience that made me smile, and I still chuckle every time I think of it.

I was installing 21 inch digital monitors that would provide enhanced ability to view digital X-rays in clinical areas. I was explaining the wonderful new technology to the clinician as I removed the new monitor from its box. The clinician was listening intently without uttering a word. However, when I began to unhook the old monitor from the computer, the clinician became quite alarmed. I was firmly told I could not disconnect and remove the old monitor.

At first the clinician was reluctant to share the reasons for his concern, but eventually said, “You can’t take that monitor because I have my kids’ pictures on there and I just had new screensavers added.” I stifled my chuckle, and was eventually able to explain where the treasures were actually stored. I believe I had a smile on my face for the remainder of the day.

Mary Skinner RN, MSN  Telemedicine Coordinator VAPAHCS
The Role of Telemedicine in Emergency Management
Adam W. Darkins, MD

(Continued from page 7)

EMSHG Technical Advisory Committee (see www.va.gov/emshg) to advise EMSHG and ultimately VHA on the appropriate role for telemedicine in the VA response to a presidentially-declared national emergency.

The Telemedicine SHG has worked with groups outside VHA, including the Office for the Advancement of Telehealth, the American Telemedicine Association and East Carolina University, to review ways in which telemedicine may be used to mount an emergency response and the logistics of how this response might be deployed. Crucial issues that arise include the availability of telecommunications bandwidth, privacy and confidentiality of patient data, cataloguing and contacting available resources and promoting the continuity of patient care. The Telemedicine Task Force of the EMSHG TAC is proposing to produce a white paper that thoroughly discusses the relevant issues and makes appropriate recommendations drawn from the current scientific evidence and considering the state-of-the art of the required technological infrastructure. The intent for developing a white paper to help VHA in formulating a strategic position on what role, if any, telemedicine should play in VHA’s wider emergency management strategy. This forthcoming document is not intended to be abstract and theoretical and will therefore suggest practical ways that telemedicine technologies may be formally tested. The thoughts and suggestions of people throughout VHA who have experience in emergency management and/or telemedicine are especially welcome and will be gratefully received by the Telemedicine Task Force for consideration of incorporating into the final white paper. Please feel free to send any thoughts and suggestions on this topic to me.

Adam Darkins at adam.darkins@med.va.gov.

The Telemedicine News staff thanks you for your support!

The mission of this newsletter is: “to serve as a conduit to share information, strengthen resources, and promote community for telemedicine within the VHA and with the goal to provide the best quality of care to our patients despite the barriers that distance may impose.”

Michelle Hill, MSN—Editor/Writer
Mary Skinner, MSN—Publisher/Writer
Adam W. Darkins, MD—Acting Chief Consultant/Writer
Claudia Zink, MHR—Writer
John Peters, MS—Writer

TELEMEDICINE, WHERE HEALTHCARE PROFESSIONALS AND PATIENTS CONNECT