

## **Home Telehealth: State of the Technology**

*Issues and concerns have upgraded since last year*

Last month's annual meeting of the American Telemedicine Association (ATA) in Denver was replete with reports of new studies showing the effectiveness of remote electronic patient monitoring. Evidence of provider and payer cost savings as well as improved patient outcomes served to settle some old questions once and for all, though new ones were quick to follow. The industry's leading concern going forward appears to be how, rather than whether, to deploy a home telehealth (HT) program.

Few of the meeting's scholarly or anecdotal discussions appeared to be aimed at convincing providers that electronic remote patient monitoring is effective. Rather, the unspoken strategy seemed to be to convince regulators, legislators and payers. Perhaps symbolic of the industry's readiness to look beyond evidence of efficacy to the next step was a question from the floor during a home telehealth-oriented workshop. The questioner put a presenter on the spot with, "How long do you predict it will be before healthcare providers who do not offer telehealth can be cited for substandard care?"

### **NEW ISSUES**

#### **HT as service**

Previous ATA meetings heard endless discussions of the absence of telehealth equipment purchase reimbursement from CMS and other payers, including opinions of whether and when that may change. This year, a more resigned attitude was in evidence. Many presenters proposed accepting the cost of telehealth equipment and starting to think of remote monitoring as a service that happens to require the acquisition of certain equipment rather than a capital expense that happens to be used to provide a service.

#### **Cost report anomaly**

For home care, there is still the issue of Medicare categorizing the equipment for cost report purposes as an administrative expenditure, equivalent to office computers, rather than treating HT as a patient-oriented clinical tool along the lines of a stethoscope or portable pulse oximetry sensor. However, a number of home care presentations mentioned optimism that that policy may soon change.

#### **HT is for everybody**

Signs of the industry's maturing approach to telehealth were evident in frequent references to the technology as "one tool among many" in a nurse's or physician's arsenal. Another sign was a new answer to the perennial question about which diagnoses are appropriate for telehealth services. Replacing complex formulae about co-morbidities in specific combinations was new advice to simply monitor everybody, or at least every patient mentally and physically capable of

operating the device. For those who are not capable, it was explained, there will soon be passive monitoring devices that will require little if any patient competence.

### **To be seen or not to be seen**

Clearly, the industry is finally realizing that the term “telemedicine” does not convey the same image to everyone. Some vendors offer home telehealth devices that replace in-person visits with virtual, video visits. Others offer computer-like screens instead of cameras; with patients viewing displays with large-type words and images customized to their diagnosis and care plan. Some have neither video nor display screens but instead speak instructions to patients. The simplest do not communicate with patients at all; patients must be trained to hold a stethoscope and fix a blood pressure cuff at specified times and nurses use the telephone when two-way communication is necessary.

Perhaps the most cogent advice of the week came from McKesson’s Karen Utterback, who participated in a panel discussion on disease management. Her recommendation is to incorporate home telehealth decisions into care planning for each patient. Instead of choosing a vendor based on whether it uses video-conference or not, choose more than one vendor or choose a vendor that offers options. Then decide, patient by patient, whether to use video or other monitoring systems.

### **Home care may have waited too long**

One last issue that surfaced during the meeting involved a set of assumptions more implied than spoken. There are 12 special interest groups (SIGs) which ATA members can join. This year, the home care SIG emerged as the largest and fastest growing of the twelve. There were constant reminders, however, that it is still only one among twelve, still dwarfed by the combined membership of the other eleven SIGs and still deserving to be treated as a healthcare industry afterthought.

The other SIGs represent the interests of hospitals, disease management organizations and large, multi-physician clinics. An attitude that appeared to be shared among them is that there is no reason to wait for local home care agencies to jump on the home telehealth bandwagon. These other provider groups are moving forward and are purchasing telehealth equipment in substantial numbers. Some are establishing their own monitoring centers, staffed 24/7 with either trained telehealth nurses or low-cost, hourly employees who have access to on-call nurses if needed. The vast majority of presentations reporting findings of fewer re-hospitalizations, reduced office visit and emergent care use and improved patient outcomes, made no mention of home health care services.

### **Politics makes strange bedfellows, even in home care**

NAHC president Val Halamandaris reported to the ATA home care SIG about his member's annual trek to Capitol Hill during last month's Policy Conference. In spite of the "left-handed compliment" nature of what he heard from various agency administrators who managed to schedule audiences with their Representatives and Senators, he did offer one new reason for hope. Apparently, several elected officials who have been steadfastly against home care budget expansion in the past listened with interest when home telehealth technology was explained to them. When they heard that it records and digitally certifies every patient encounter, virtually eliminating any new fraud opportunity as well as hampering the use of legacy fraud methods, many of these traditional opponents reportedly said, "Sure, I can get behind paying for that!"

### **FOLLOWING LEADERS**

While many ATA presenters apologized for the limited scope and duration of their studies – most reported on small, pilot projects that show good results but have been in place for less than a year – two stood out because of their sample size and study length.

One was a recent self-assessment by the healthcare arm of the federal Department of Veterans Affairs. The Veterans Health Administration (VHA) offers telehealth services at 21 Veterans Integrated Service Networks (VISN), a program that began in early 1999. Dr. Faith Hopp, Ph.D. presented results of a recent staff satisfaction survey at the Indiana VISN, which has served over 850 patients since implementing its remote monitoring program two years ago. Hopp believes administrator, clinician and referring provider feedback may offer useful insights to civilian providers.

A second report with significant participation and duration came from Strategic Healthcare Programs, LLC (SHP). The Santa Barbara, California benchmarking services company reported on an analysis it conducted comparing monitored patients with a control group served by agencies that do not use home telehealth monitors. The study was conducted over a 27-month period and included 478 home health agencies in 41 states. SHP reported that the study was based on analysis of "millions" of OASIS assessments already stored in its databases from its benchmarking customers.

### **Surprising user reactions**

The VHA's phone-based staff survey established a base line this year and will be repeated in one year for comparison. It included both open-ended and closed-ended questions designed to elicit staff opinions of telehealth across several domains including:

- Technical Issues
- Advantages to staff
- Advantages to patients
- Training/support
- Communication/rapport
- Clinical applicability, and
- Perceived outcomes

Acknowledging the assumption that “home telehealth has the potential to profoundly influence the way in which health care staff members deliver clinical services,” VHA’s Dr. Hopp warned that that potential may be challenged by staff acceptance or non-acceptance. “Initial results indicate that all three stakeholder groups (administrators, clinicians and referring providers) perceived potential for telehealth at the VA,” Dr. Hopp began. “However, there were also group differences in perceptions and priorities.”

She explained that administrators often focus on their budgetary responsibility to make sure telehealth resources are adequately prioritized vis á vis other facility needs. Referring providers were enthusiastic about time saved by reducing the number of patient clinic visits. On the other hand, they were frustrated with organizational problems leading to delays and challenges. Hopp found that nurses were the most enthusiastic about long-term impact on patient outcomes but noted that telehealth’s learning curve was underestimated and detrimental to implementation.

“Data from this study indicate the importance of recognizing the wide variability in perceptions among key internal stakeholders,” Hopp concluded. “Input and support from these groups are needed to address potential barriers to implementation and ensure successful program development.”

#### Some good comments

Administrators were cautious and budget-oriented, Hopp said. Their concerns revolved around program viability depending on adequate resource allocation and fiscal realities such as federal hiring freezes and budget deficits. Primary care providers, on the other hand, expressed more enthusiasm, speaking appreciatively of newfound ability to detect early evidence of patient condition changes and to take action before hospitalization became necessary. Physicians were also pleased to note that remote monitoring seemed to inspire patients to pay more attention to their own care.

Home care nurses offered the most positive comments, particularly when expressing their hope that more patients will be monitored in the future, especially patients with multiple conditions. Some emphasized the educational role some monitoring devices can play, teaching patients about their condition and any appropriate lifestyle and dietary changes it may have made necessary.

### Some bad

No researcher expects, or wants, 100% positive responses and Hopp was not disappointed in this regard. Physician dismay centered on being kept informed. They requested better information about which patients are given monitors and which are not, what happens to a patient after referral to the home telehealth program and about the devices themselves. Physicians want to know enough about telehealth equipment so they can explain it to patients themselves.

Nurse complaints were slightly different. Many said they were not adequately prepared for home telehealth equipment's learning curve. Some worried that productivity would be decreased rather than enhanced at first. Others thought success would never come if they were not properly trained from the beginning. The strongest assertions, however, had to do with inappropriate referrals. One typical commenter complained, "I don't think that the people who are doing referrals are familiar enough with the equipment and what it can and cannot do in order to make the appropriate referrals."

Hopp concluded her revealing presentation with comments from all three respondent categories about outcomes tracking. Administrators, referring providers and nurses want to know aggregate statistics about re-hospitalizations, ER and intensive care usage and condition improvement. They want to know how costs and patient improvement are affected in contrast with non-monitored patient groups.

### **Sizable study confirms smaller ones**

As noted, one of the universal cries at the ATA meeting was from lobbyists who reported that CMS and other payers say they will not be convinced to pick up part or all of the tab for home telehealth equipment until long-term studies of sizable populations, showing cost- and outcome-effectiveness, are completed and verified. A study released at the meeting by SHP and Honeywell HomMed may soon find its way into the portfolios of those lobbyists.

SHP was hired by Honeywell HomMed to determine whether remote monitoring affects outcomes and costs over the long term. By analyzing its large database of OASIS assessments, submitted by its own benchmarking customers between January 1, 2002 and March 31, 2004, SHP was able to draw relatively immediate conclusions based on volumes of historical data instead of having to begin a study and wait 27 months before being able to analyze it.

The SHP study compared outcomes from 178 home health agencies that use Honeywell HomMed monitors against patients served by 300+ agencies that do not use home telehealth systems. Patients were selected for the study if they had one or more of the following diagnoses: Congestive Heart Failure (CHF), Coronary Artery Disease (CAD), Diabetes or Chronic Obstructive Pulmonary

Disease (COPD). Some had more than one of these diagnoses; many had them in combination with other conditions. Patients with multiple co-morbidities were more likely to be chosen for monitoring by agencies offering home telehealth services, which weighted the monitored sample generally sicker than the control group.

Results confirmed previous anecdotal evidence – including most of the small, work-in-progress studies presented at the same meeting – that monitored patients use less emergent care, are admitted to the hospital less often, visit their doctor's office with less frequency and become more medication compliant. One factor, though minor, may prevent full comparison of this study's results with those reported by medical clinics, hospitals and disease management companies. Many of those providers had selected other home telehealth devices, with equipment that offers video conferencing, either exclusively or as an option alongside remote vital sign monitoring. Honeywell HomMed does not offer a video option; its devices measure and transmit patient vital signs only.

### **THE SHP FINDINGS\***

#### CHF average rates

- Hospitalization, not monitored: 10.1%; monitored: 6.2%
- 29 agencies showed zero hospitalization rates
- ER visit, not monitored: 8.8%; monitored: 4.5%
- 39 agencies showed zero CHF ER visits
- ADL Improvement/stabilization, not monitored: 71.8%; monitored: 75.9%
- IADL improvement/ stabilization, not monitored: 58.2%; monitored: 69.1%

#### Diabetes average rates: (50% of monitored patients also have CHF)

- Hospitalization not monitored: 2.4%; monitored: 0.6%
- 109 agencies with 2,316 monitored patients showed zero hospitalizations
- ER visit, not monitored: 1.8%; monitored: 0.3%
- 109 agencies with 2,316 monitored patients showed zero ER visits
- ADL improvement/stabilization, not monitored: 70.4%; monitored: 77.2%
- IADL improvement/stabilization, not monitored: 59.4%; monitored: 70.7%

#### CAD average rates:

- Hospitalization, not monitored: 15.7%; monitored: 11.2%
- ER visit, not monitored: 12%; monitored: 7.9%
- ADL improvement/stabilization, not monitored: 70.4%; monitored: 77.2%
- IADL improvement/stabilization, not monitored: 59.4%; ADL, monitored: 70.7%

COPD average rates:

(42% of monitored patients, 24% of control group also have CHF) (57.9% of monitored patients, 46% of control group have “any other co-morbidity”)

- Hospitalization, not monitored: 16.8%; monitored, 8.3%
- ER visit, not monitored: 13.1%; monitored: 4.5%
- ADL improvement/ stabilization, not monitored: 71.8%; monitored 80.3%
- IADL improvement/stabilization, not monitored: 60.8%; ADL, monitored: 77%

\*SHP did not include some agencies in its reported averages, explaining, “Certain [monitoring] agencies are intentionally excluded from the population for a particular metric. Factors that contribute to a[n]... agency’s exclusion are related to issues such as, a) insufficient data within a diagnosis category, b) insufficient experience with monitoring, and, c) factors that render the agency an ‘outlier.’ ... the report documentation also indicates instances where, if the ‘outlier’ agencies are included, there is no adverse effect on the results.”

Any study funded by the organization most likely to benefit from the exact findings that the study produces is always quoted with disclaimers but this one offered results in line with other reports presented at the ATA meeting. It appeared as one of thirteen briefings in a focused educational track titled, “Telemedicine Success Stories.” Exhibitors and their customers were given 20 minutes to describe their standout programs. Though only two had a home care orientation, all 13 claimed drastically reduced hospitalizations, virtually eliminated ER use and less frequent physician office visits.

Sentara Home Care Services of Chesapeake, VA discussed its use of ViTel Net’s “ViTelCare™” system and the VNA of Somerset Hills, NJ offered results of four years of virtual videoconference visits with CHF patients using units from American TeleCare, Inc. Sentara’s results were similar to those reported by SHP. The 100 year-old VNA’s list of home telehealth benefits expanded to include improved patient satisfaction, shortened home care lengths of stay, improved compliance with medical regime and diet and reduced depression and feelings of isolation through active participation in their own care.

Brief summaries of home telehealth companies are as follows:

More telemedicine companies than ever demonstrated an interest in home telehealth at the traditionally hospital- and physician-oriented American Telemedicine Association annual meeting in Denver last month. Here is our rundown of who was present and what they were saying about themselves, along with our objective interpretation.

One insight that should jump off the page is that there is still no single, neat definition of “Home Telehealth.” Technical device variations combined with wide-ranging pricing models make vendor evaluation and selection a complex process. Some may decide that a combination of vendors is a sensible choice. Others may look for one vendor with a variety of technical features or multiple business models. Many will be concerned first about price, hopefully also about cost-effectiveness. Here is a list of other variations to consider as you read through these summaries.

- Purchase or lease vs. rent: You will either own the equipment (and hire sufficient staff to deliver, pick up and disinfect it between uses) or order it to be sent via FedEx from the vendor directly to each new patient. Consider: obsolescence, repair and replacement; unused units gathering dust, the ability to quickly respond to multiple unexpected admissions.
- Video vs. vital sign monitoring: They are both called home telehealth but they are as different as planes, trains and automobiles. Do you need all of one or the other or a mix? Consider: video is most like an in-person visit, saving nurse travel time but requiring one-on-one attention; vital sign monitoring allows one nurse to evaluate a range of measurements with dozens, even hundreds of patients but only offers a view of digital data, not the patient.
- One-way vs. two-way communication: Attach a stethoscope, scale and BP cuff to a phone line and you receive information about a patient. Put a small computer screen at the patient’s bedside and you can deliver customized instructions, teaching materials and warnings. Consider: what is your typical patient population, age, education, income-level, rural distance factor? What diseases and conditions do you plan to select for your monitored patient category? Budgetary restrictions are important here.
- Standalone vs. integrated/ interfaced data: One home care software vendor has produced its own home telehealth system, another has incorporated an existing one into its family of products. Alliances are becoming more frequent between home telehealth companies and billing and clinical software developers. Most implementations still exist in silos, keeping telehealth data separate from core systems, sometimes keeping the monitoring station entirely off the network. Consider: how important is it to you to incorporate patient vital sign data into your primary clinical and billing system? Have you developed a clear list of pros and cons before talking to vendors?
- Owned vs. hosted data: Some systems establish direct connections from each patient’s home to an application residing on an agency PC or server.

Others have the home unit dial an 800 number and transmit to a central, secure web server or server farm. Agency clinicians and designated primary care physicians access patient data on a web site. Consider: isolated data can only be accessed from one computer in the agency; web-based data can be viewed anywhere, by anyone. Does your care model call for consultations between your field nurses and the patients' primary care physicians or nurse specialists? Are your referring physicians likely to check on their patients on a web site? Would that feature be a marketing advantage on which you could capitalize?

**ADT Home Health Security Svcs Palm Harbor, FL** A division of **ADT Security Services, Inc.**, a **Tyco** company, **ADT** more often sells its emergency response service directly to the consumer, though it will work through hospices and home care providers. In addition to a 24/7 call center, ADT places small, wireless, motion sensors throughout the home. The central computer behind the sensors "learns" normal patterns of daily activity and reports abnormalities. Following a triage algorithm, call center staff notifies emergency response services, home care or hospice nurses or family caregivers by phone, secure web page, text message or pager.

<http://www.adt.com>

**AMD Homecare Lowell, MA**

*CareCompanion* is an FDA-approved, two-way monitor that records vital signs via wireless peripherals and transmits patient information to a server through a standard phone line. It delivers customized assessment questionnaires and event reminders to the patient through a large-type, touch screen. AMD offers an optional video phone but most off-the-shelf video speaker phones are supported. On the agency side, *Nurse Station Software* analyzes and stratifies vital sign data on a standard Windows PC.

<http://www.amdtelemedicine.com>

**American TeleCare, Inc. Eden Prairie, MN**

The home telehealth pioneer has been around since 1993. Today, in addition to its flagship video phone system, it offers options that cover nearly the entire decision matrix outlined above. Members of the FDA-approved **ATI** product family include simple, one-way, stethoscope over phone line units, two-way bedside units with large-print touch screens, wired and wireless peripherals, and both in-house server and hosted web server options. Two-way audio/video virtual visits can be combined with real-time medical peripheral operation. For wound-care, ATI's *Video Patient Station* can download high-resolution digital snapshots.

<http://www.americantelecare.com>

**Carematix, Inc. Chicago, IL**

Founded in 2001 by three engineers, Carematix markets its system mostly to disease management companies, insurance companies and self-insured employers, though it does have a few home care and hospice provider clients. The *Carematix Wellness System* is a low-cost, one-way vital sign measurement and transmission system that features wireless peripherals and an open systems design that permits interfaces with multiple device brands. Patients already using a glucose monitor can often continue using the same one. A centrally located wireless hub can communicate with peripherals up to 100 feet away, allowing the patient to leave the bathroom scale in the bathroom. Data is forwarded to a web site for caregiver monitoring. Patient interaction can be done via Interactive Voice Response (IVR) or standard video phone.

<http://www.carematix.com>

**Cybernet Medical Ann Arbor, MI** Remember Tang? **Cybernet Systems Corporation** develops products for NASA and the U.S. military and then spins off commercial corporate divisions when one of its creations is deemed to have a wider market application. **Cybernet Medical** offers the *MedStar™ Remote Data Collection System*, originally built for astronauts. It collects and transmits blood pressure, weight, pulse oximetry, respiration values, blood glucose and EKG from the patient's home to the caregiver, either via a web-based clinical information system or directly to a standalone system. A companion product, *PALStar* (for Patient Activity Log), allows for two-way communication of customized questions and answers between caregiver and patient. Decision matrix logic selects subsequent questions based on patient answers.

<http://www.cybernetmedical.com>

**Health Hero Network, Inc. Mountain View, CA**

The *Health Buddy* system is a two-way communication device that forwards patient vital signs to a central web server and provides the patient visual and sound reminders, customized questionnaires and disease or condition education through a large-print touch screen. The system includes content development tools so caregivers can customize content for each patient. Two monitoring devices are available, *Health Buddy* and *Health Buddy II*. The newer device, which received FDA approval last month (see page 15), is smaller but offers more peripheral connection ports, including four USB ports, so patients no longer have to swap cables in and out of one port to perform multiple measurements.

<http://www.healthhero.com>

### **Honeywell HomMed Brookfield, WI**

The *Honeywell/HomMed Health Monitoring System*® consists of two FDA Class II

medical devices. *Sentry*, the full-featured model, and *Genesis*, the more economical version, are one-way communication monitors with voice prompts that guide patients through the use of attached peripherals up to four times per day. Both models can also be programmed to ask a series of subjective, disease-specific questions which patients answer by touching buttons. *Sentry* accepts multiple peripherals attached simultaneously, including glucose meter, peak flow meter/FEV 1, spirometer, PT/INR and ECG. A multiple-user card reader for multi-resident environments, a digital camera or videophone can also be attached. *Genesis* measures heart rate, blood pressure and weight. Units can be upgraded in the home through Smart Media Card technology.

<http://www.hommed.com>

### **LifeLink Monitoring Lake Katrine, NY**

A creative business model makes **LifeLink** a consideration for providers who want to start a home telehealth service but do not want to invest capital in home telehealth equipment. Once they determine a new patient is appropriate for monitoring, LifeLink customers submit a one-page enrollment form to the company. LifeLink delivers its monitoring kit to the patient by FedEx. If necessary, a nurse can set it up and train the patient in its use but many patients can follow the large-print, laminated instruction card and do it themselves. Setup involves little more than attaching the unit to a phone line. The battery-powered unit is about the size of a cigar box and the peripherals are wireless. Patients send their vital signs with a single button and then pick up the telephone handset to answer subjective questions via an IVR system, which has been customized to their disease or condition. At discharge, the patient or nurse re-boxes the equipment and calls FedEx for pickup. LifeLink sanitizes equipment between uses.

<http://www.llmi.com>

### **Patient Care Technologies Atlanta, GA**

The first home care software application vendor to develop its own home telehealth system, **PtCT** offers *well@home*®, an FDA-approved, two-way communication system. Patients interact with an 8" touch screen to answer subjective questions and receive education and instructions based on their physician's plan of care, as well as reminders tailored to his/her plan of care and daily routine. The *well@home* bedside device includes BP, Pulse Oximeter, Temperature and ECG measurement devices and contains a modem for communication with a web browser management system. Ports enable connection with other external physiologic measurement devices such as a digital scale or glucometer and battery backup for portable use or use during power failures.

<http://www.ptct.com>

**SCOTTY Technology of the Americas, Inc. Wilmington, NC** SCOTTY is an international videoconference technology company that has recently introduced a home telehealth system, *CareStation*. FDA 510, Class II Medical Device certified, the *CareStation* product line includes video phones with vital sign measurement connection ports. One model connects over standard telephone lines and another over public IP or H.323 PSTN video conference systems. A PC-based agency application receives and organizes patient records. Available peripheral measurement devices include Peak Flow, Stethoscope/ Stethophone, BP, Weight Scale, Blood Glucose, Fetal Monitor and Pulse Oximeter.

<http://www.scottysgroup.com/telehealth>

**ViTel Net, Inc. McLean, VA**

ViTel Net established itself in hospital telemedicine before developing a home telehealth version of its ViTelCare™ system. ViTelCare *Turtle* is a one-way communication, touch screen device with peripherals for measuring SpO2, blood pressure, pulse, temperature, blood glucose, and weight. A video camera can also be attached. ViTelCare *Patient Care Management* is a desktop PC application that receives transmissions from patient homes and creates a database that can serve as an electronic health record. ViTel Net also offers transport monitoring, clinic/hospital telemedicine, telerehabilitation and assisted living health kiosks.

<http://www.vitelnet.com>

**Viterion TeleHealthcare LLC Tarrytown, NY** Viterion Telehealthcare, a Bayer-Panasonic Company, offers two in-home units, one with more features, the other lower-priced. Both are two-way communication, FDA-approved devices that transmit patient vital sign measurements to a secure web site. The *Viterion 100 Home Telehealth Monitor* is a bedside unit that measures BP, Blood Oxygen, Blood Sugar, Weight, Temperature and Peak Flow. Case managers can change measurement schedules and patient instruction materials through a web connection. The *Viterion 500 Home Telehealth Monitor* adds real-time video conferencing, digital photography, stethoscope and ECG. Both models offer personalized advice messages, schedule reminders and a large-print touch screen user interface. Physicians can be given access to their patients' information on a secure web site.

<http://www.viterion.com>

**WebVMC Conyers, GA** WebVMC, LLC has put a Windows PC into the typical home telehealth bedside device form factor, enabling customizable, two-way

communication and software enhancements without requiring equipment

change. WebVMC's *RemoteNurse*<sup>™</sup> system monitors **ECG, Blood Pressure, Weight, Pulse-Ox, Blood Glucose, Peak Flow and PT/INR**, up to four connections at a time. The *RemoteConsult*<sup>™</sup> model adds two-way voice and video communication and can be set to provide threshold alerts when patient measurements go outside a set range. WebVMC is also the first home telehealth company to have announced the addition of the *Zoe*<sup>™</sup> skin resistance monitor for CHF patients.

<http://www.webvmc.com>

### **ZOE OMNI Medical Supply Walled Lake, MI**

The *ZOE*<sup>™</sup> *Personal Impedance Monitor* is a new peripheral device that will soon be available with many of the above monitors. It checks fluid levels to detect an impending CHF attack earlier than existing methods. By measuring thoracic base impedance or "ZO" – the time it takes a small frequency electric current to travel from the top to the bottom of the thorax – the *ZOE*<sup>™</sup> monitor detects fluid congestion or dehydration two weeks before weight gain occurs or breath capacity decreases. An FDA-approved product, *ZOE*<sup>™</sup> is being marketed by **OMNI Medical Supply, Inc.** of Walled Lake, Michigan, primarily to other home telemedicine vendors to be incorporated as a peripheral into their systems.

<http://www.omnimedicalsupply.com>

## **Vendor Watch**

Alacare switches software systems. Alabama's oldest and largest privately-owned home care and hospice provider has signed a deal to convert its point-of-care and billing systems to one of home care's newer market entrants, **Homecare Homebase**. Birmingham-based **Alacare** will help the Dallas-based software developer design a hospice application, Alacare president John Beard told HCAR. Homecare Homebase offers a web-enabled application and handheld, Pocket PC point-of-care system, which will replace Alacare's current laptop/notebook field computers.

Alacare's 20 offices are located throughout Alabama; the provider employs over 300 field staff and more than 200 office workers. Since 1970, Alacare has provided home care, hospice and palliative care, diabetes education, rehabilitation services, wound care, nutritional services and infusion therapy. Implementation is set to begin during the third quarter of 2005.

<http://www.hchb.com>

<http://www.alacare.com>

**Cerner BeyondNow adds electronic signatures.** The home health care subsidiary of **Cerner Corporation** (Nasdaq: CERN) has inked an agreement with **SecureCARE Technologies, Inc.** (OTC-BB:SCUI) of Austin, Texas, to provide paperless document exchange for home care and hospice providers. Cerner BeyondNow will use SecureCARE's Internet-based document exchange and e-signature technology to provide its clients with the ability to capture electronic signatures from physicians, reducing paper use. According to Cerner home care director Lisa Cone, several BeyondNow clients were using the SecureCARE system. "Now we are able to offer this functionality to all of our customers." SecureCARE Technologies offers a Microsoft ".NET" application, *SecureCARE.net*, for managing forms and authorizations online and providing physicians with a way to track and report patient oversight time spent. Longtime HCAR readers will remember SecureCARE under its pre-Chapter 11 names, **eClickMD**, **Venture Information Systems** and **Link-dot-com**.

<http://www.beyondnow.com>  
<http://www.securecaretech.com>

**Misys to host Brailer and Gingrich.** Former House Speaker **Newt Gingrich** and National Health Information Technology Coordinator **David Brailer, MD** will present keynote addresses at this summer's **Misys Healthcare Systems** Annual Conference and Expo in Orlando, Florida. The annual event is open to hospital, physician and home care customers of the Raleigh, North Carolina software vendor. Brailer will speak on "The National Agenda for Health Information Technology Adoption" at a general session; Gingrich is scheduled to appear at an "invitation only" Executive Summit during the conference to discuss his vision for the future of U.S. healthcare. Misys indicated it expects more than 1,000 healthcare professionals at this year's meeting, set for July 21-24 at the Walt Disney World Dolphin Hotel.

<http://www.mysishealthcare.com>

**Procura to offer Innovative Pathways.** Vancouver-based **Procura** and its U.S. subsidiary **Procura, LLC**, have completed an agreement with **Innovative Healthcare Solutions, Inc.** (IHS) of Naperville, Illinois to integrate 96 Care Pathways into its home care billing and clinical application. IHS is a subsidiary of **VNA First**, based in nearby Willowbrook, and offers homecare and hospice agencies business solutions for disease management, case management, OBQI/M and documentation. Their products and services include *VNA FIRST Home Care Steps® Protocols*, *Steps to Health™* patient education, telecourses and consultation services.

Procura president Warren Brown said he believes this joint venture will provide *Procura* software users with the ability to increase the quality care they provide,

particularly organizations focusing on disease management services. Protocol integration work will begin immediately at several U.S. and Canadian customer sites. Procura's U.S. sales offices are located in Detroit, Baltimore, Chicago, Tampa, Los Angeles and New Orleans.

<http://www.goprocura.com>  
<http://www.innovativehcs.com>

**FDA approves new Buddy. Health Hero Network** made two announcements last month. On April 11 the Mountain View, California company said it had received FDA clearance for its next-generation home telehealth appliance, *Health Buddy II*. A smaller version of the original *Health Buddy*, the new device offers multiple USB and serial ports to enable simultaneous peripheral connection, reducing the need for patients to handle cables. The appliance measures and transmits patient vital signs and returns customized reminders and instructions to patients through a high-resolution touch screen and large response buttons.

Health Hero Network also announced that a home telehealth study with CHF patients is being conducted by the Henry Ford Health System, using its *Health Buddy* system. Preliminary results, reported at last month's ATA annual meeting in Denver by Health Hero Network medical director Julie Cheitlin Cherry and Jonathan Ehrman, Ph.D. of the Henry Ford Health System, indicate 92% patient satisfaction, 88% patient compliance and early indications of decrease in ER visits and hospitalizations. Henry Ford will add a weight management study and is currently recruiting participants in the South Eastern Michigan area.

<http://www.healthhero.com>

**Private duty software vendor hopes to raise its profile. Kaleida Systems, Inc.** has over 300 clients, most of them **Comfort Keeper** franchises, but they have kept a low profile until recently. Based in Matthews, North Carolina, the vendor offers a web-enabled application for scheduling private duty nurses, aides and non-medical home care assistants. According to VP Barry Dupstadt, the Windows .NET system, *electronic Resource Scheduling Pro*, is commonly known as *eRSP*.

[www.kaleidasystems.com](http://www.kaleidasystems.com)