AMERICAN HEALTH CONSULTANTS®

HOME INFUSION THERAPY MANAGEMENT™

INSIDE

APRIL 2000

VOL. 8, NO. 4 (pages 37-48)

American Health Consultants® is A Medical Economics Company

Making it pay: For ambulatory infusion centers, profitability may be illusion

The key is careful market research

Michael P. Tortorici, president of AlternaCare of America, a Dayton, OH-based alternate site health care consulting company, says, "Ambulatory infusion centers are not a revolutionary thing. Physicians have been doing in-office infusions for their patients for many years. In fact, some physicians feel they can more adequately monitor the patient's response to the medication by seeing them on an almost daily basis."

However, Tortorici observes, Medicare reimbursement is diminishing, so many physicians have to put their patients in the hospital in order to get paid. "The same thing is true for oncologists, many of whom will do office-based infusion, but their reimbursement is also changing. A lot of hospitalization for infusion services is fiscally motivated, which is hardly surprising as you can't expect people to act against their own best interests. Since Medicare is limiting what it reimburses for, physicians really have no option but to put patients in the hospital if they want to be paid."

Physicians move away from home IV

Tortorici says that with third parties and HMOs ratcheting down and reducing reimbursement, physicians have to look for other ways to make money. "So, in many instances, rather than keep patients at home for infusion therapy, they are opting to have patients come into their offices. You also have hospital emergency rooms and outpatient areas that can successfully treat patients and get reimbursed because Medicare will compensate on a short-stay basis."

He points out that hospitals have economies of scale that enable them to provide infusion services on a more profitable basis than physicians can. "What's coming down the pike now is that people are saying, 'Let's put up ambulatory infusion centers. We can make a lot of money.'"

Tortorici says that's absolutely untrue. "The only way somebody could make money with an ambulatory infusion center is to have an exclusive arrangement with an insure, and have a critical mass to fiscally support that venture. There are many people beating drums and advocating ambulatory centers, but they're not doing their homework."

Cannibalism only works in the short term

Tortorici points out that by opening an ambulatory infusion center, some home care infusion agencies wind up cannibalizing their own home care businesses. "It's nice for a patient to be treated at home," he says. "And it may be that for IVIG infusions, which take three to four hours to complete, an ambulatory center is a good way to go. But for daily antibiotic infusions, going to a center isn't necessary. Patients can be treated at home. They can self-administer. People have to be very careful to find out, when they are looking to enter the ambulatory center market, what their population base is going to be, where their referrals are going to come from, and if their current home business could be harmed."

Tortorici, who has been in the infusion-consulting business since 1982, works with organizations to help them develop marketing and sales strategies. He also does interim sales management and coaching and sales training, and is a surveyor with the Joint Commission on Accreditation for Healthcare Organizations. He emphasizes the importance of knowing where ambulatory clients will come from. "It is reimbursable business? Is it going to be marginal? Is it going to be exclusive?"

He says that what insurance companies have done historically is to sign contracts with just about anybody. If five ambulatory infusion centers open in a given area, an insurance company may well sign with all five. "There's no guarantee that you'll get any business from them."

An exclusive agreement doesn't violate any law. Insurance companies can select whomever they wish. Tortorici says a prime example of this is Bayer Company's Bayer Direct service. "That is the manufacturer saying, We're going to provide the product, as well as the service." Nobody can prevent them from doing that, he says.

"The insurance company pays the bills," Tortorici says. It's just like an HMO. They say, 'You can use these doctors.' An HMO can also say, 'You can use this ambulatory infusion center.' Now, if you're dealing with Medicare, which makes the reimbursement extremely marginal and you really need to have a physician involved in that because you need a physician number to do the billing. Even then, Medicare only pays about $40 for the first infusion period and then $18 per time period thereafter. That doesn't even cover your costs, and you can't bill for blood."

Another financial ramification an ambulatory infusion center must face is that delivering blood through an ambulatory infusion center requires developing a contract with a blood bank, which will provide the blood at no cost but charge a processing fee that insurance companies do not reimburse. Thus, a center can only bill insurers for infusion time and loses the processing fee in the transaction. "Home infusion care is working very well, even though insurance companies are reducing its profitability by lowering reimbursement rates," Tortorici says.

Despite the facts of an aging population and the financial savings that home care can offer, many insurers don't appear to be looking at the long-term bottom line. Some, however, seem to be taking a harder look at how they serve their clients. Tortorici refers to one insurer that recently changed its posture regarding case managers. "They were spending millions of dollars having case managers authorize services and what have you," he says, "and a month ago, they came out with a statement saying they're going to have the physician decide. Well, hello — it should have been the physician all along!"

Better delivery = creative efficiency

Tortorici stresses the need to provide services more efficiently. "We have the best health care in the world. But we have to deliver it better. For example, a Medicare patient receiving chemotherapy can get it much more cheaply at an ambulatory infusion center than in the hospital. But Medicare reimburses for very, very few chemotherapy drugs, and most of the people who get cancer are the elderly. People are now talking about having the government pay for medications. If that happens, it might be a good thing because the infusion drugs could come under that umbrella."

He cautions that until that happens, reimbursement and homework remain of paramount importance in determining whether to open an ambulatory infusion center. "People are selling manuals on how to do it," he says. "The requirements change like the wind. There's no cookbook, and there's no substitute for good, hard

Need More Information?

- **Jean Hoogendyk**, RN, Clinical Administrator, Medical Infusion Therapy of Louisiana, 1525 Doctors Drive, Bossier City, LA 71111. Telephone: (800) 745-2082.
- **Michael P. Tortorici**, President, AlternaCare of America, 5450 Far Hills Ave., Suite 214, Dayton, OH 45429. Telephone: (800) 433-9503. Fax: (937) 433-4111. Web site: www.alternacareofamerica.com.

market research."

The first market research step determining if there's a need for ambulatory infusion where you'd like to open a center. "Talk to the physicians and the insurance companies," Tortorici says. "Talk to the hospitals. Then see who would pay for it, what type of population could be served and if the potential exists for an exclusive agreement, possibly as a joint venture with an insurance company. That's the key. Some oncologists and other physicians may support an ambulatory infusion center. If you can get one or more of them to be the responsible parties, you can get reimbursed."

However, Tortorici points out that such responsibility carries liability with it because the process is not entirely under the physician's control. "A physician would have to provide oversight and would then be able to share in the profits, but a lot of physicians don't want to do that."

One ambulatory infusion center Tortorici knows of that's doing well is the Medical Infusion Therapy of Louisiana in Bossier City. Though the company caters mainly to privately insured patients, clinical administrator **Jean Hoogendyk** says she does not have a lot of problems getting reimbursed by Medicaid.

"We do electronic billing, so there's no problem with that. Sometimes we have patients who are uninsured except for Medicare. If we have a Medicare-insured only patient who needs IVIG [intravenous immunoglobulin], which is very expensive and would cause a hardship for the patient to have to pay for the medication, we try to get them into a spindown program. It's a program for the medically needy, a spindown from Medicare. Of course, they have to qualify. They can't own 100 acres of land and three houses and hope to get on a spindown program, or be receiving two retirement incomes," she says.

Hoogendyk says Medical Infusion Therapy began as an ambulatory infusion company and an IV pharmacy. "We provide total parenteral nutrition, IVIG, antibiotics, chemotherapy drugs, [and] hydration therapy. We give injections and blood transfusions and provide lab services through an off-site laboratory. We also provide some community services and teach IV nurses."

[Michael Tortorici offers customized workshops to help clients start infusion therapy businesses and improve the profitability and efficiency of existing businesses. To obtain prices and details for those, please contact him at (800) 433-9503.] ■

Improving IV practices: Minimize VAD usage

Patients' VAD needs must come first

"The conventional wisdom has always been you stick and you stick and you stick peripherally until everything is exhausted. By the time you've tried to do a week or two of peripheral therapy, there are no more peripheral veins left to use. Then, if therapy is to continue you have put in a central venous catheter," says **Lynn Hadaway**, principal of Hadaway and Associates in Milner, GA. "That's still the common practice in most hospitals today. We're to the point, in many institutions and agencies, where patients' arms are battered and abused and they have peripheral complications like phlebitis and infiltration. In some patients, peripheral catheters don't last longer than 24 hours."

Hadaway says that home infusion therapy care suffers from the result of this practice. The goal now, she says, is that when the patients are admitted to *any* health care environment — whether they begin their therapy through an outpatient clinic or are referred immediately by the doctor's service to home care — all the clinical components of this decision are reviewed. Then the infusion experts can choose the device that has the greatest likelihood of reaching the end of therapy, with the minimal number of vascular access devices (VAD) used, be that a midline or a PICC, tunnel catheter, or implanted port.

"Regardless of which avenue is used, the very *minute* that it's recognized that IV therapy is needed," Hadaway says, "that critical proactive assessment needs to be made when the patient enters the infusion therapy health care system."

Whether home infusion therapy is the best choice depends on reimbursement structures that have come from the prospective payment system, Hadaway says. "There are some patients for whom it's cost-effective to infuse in the home. Knowing how to assess your patients so that you choose the right ones for home care is paramount. Assessing and choosing the patients who can derive the most benefit in a cost-effective way from home care is the single best thing a home infusion company can do. The goal, in my opinion, should not be to provide more home infusion services, but to provide services for the most appropriate group of patients."

Smooth transition to home

If patients have begun infusion therapy in a hospital, they will generally have a VAD in place when they are sent home. "But if they come to home infusion through some other means, they may not already have a VAD inserted," Hadaway says. "Things have changed in home care now. Home infusion nurses used to freely insert mid-clavicular catheters. Because of practice standards changes, home care doesn't do those insertions much anymore because they do require a chest X-ray to determine the correct location, so the insertion of these is flowing back to an institution, not to the home care service."

She adds that putting in a PICC line in the mid-clavicular region without first doing a chest X-ray never was established as a safe practice. "Home care adopted it because two nurses went around the country teaching it, but there was never any research supporting safe outcomes with it. A few of our voices were saying, 'No, wait a minute — this is not safe,' and then we finally got research that backs us up. This support came via two studies that documented a four- to five-time increase in catheter-related thrombosis from a mid-clavicular tip location. Both the Intravenous Nurses Society and the National Association of Venous Access Nurses [NAVAN] opposed home mid-clavicular catheter insertions."

In fact, Hadaway says, "NAVAN wrote a position paper stating that mid-clavicular catheters should never be a conscious choice because of the complications associated with them."

There are still a few home infusion companies that continue to insert mid-clavicular catheters without an X-ray, but Hadaway points out that they are running a tremendous liability. "I can tell you that there is technology coming that may change that, but it isn't here yet," she says. "We'll always need to determine tip location, but the chest X-ray may be replaced with other technology that is more convenient to use in the home."

On-line courses are one of Hadaway's educational specialties. "The on-line course offers an opportunity to share your experiences with other health care professionals all over the world — anytime of the day, from anywhere you wish."

The on-line course Hadaway's teaches has short reading assignments posted on her Web site. Each week there are assignments to perform, such as reviewing your organization's policies and procedures, discussing vascular access choices with co-workers and patients, and using case studies to discuss your recommendations. Students post their responses at the designated page on the Web site, read the messages of others and respond to their messages if they desire. "The more experiences, ideas, and comments you share, the richer the learning experience for everyone." ■

Need More Information?

Lynn C. Hadaway, M.Ed., RNC, CRNI, Hadaway & Associates, P.O. Box 10, Milner, GA 30257. Telephone: (770) 358-7861. Fax: (770) 358-6793.

Keeping patients happy keeps you prosperous!

Getting the answers you need makes the difference

"Basically, we designed a patient satisfaction surveying system that can easily be used for measuring results in home infusion therapy and is applicable to home health care in general," says **Carl Townsend** of Fazzi Associates, a Northampton, MA, health care consulting firm.

"We've been involved with patient satisfaction measurement for a little over 10 years. Our system generated from consultations we did with agencies that were building total quality management systems and looking for some quality measures." Townsend says his firm's clients were seeking nationally validated measurement so they could have a wide basis for comparison. The result of this research is Fazzi's Pat/Stat system, which uses a

JCAHO-Approved DME/HME Performance Measures

Pat/Stat National Database and Patient Satisfaction System

JCAHO ID Measure Type	Name	Description
8779 Rate-Based	Change in Condition	**Percent** of discharged home health patients who respond "much better" or "a little better" to the question "How would you rate your physical health and emotional condition now as compared to four weeks ago?
8786 Variable	Instructions Regarding Care	**Mean** of all discharged home health patients' responses to patient satisfaction survey item "You were given clear instructions regarding your care."
8791 Variable	Understandable Language	**Mean** of all discharged home health patients' responses to patient satisfaction survey item: "Staff used understandable language to explain your care."
8785 Variable	Explanation of Services	**Mean** of all discharged home health patients' responses to patient satisfaction survey item "Staff explained the services you would receive."
8803 Variable	Encouraged Questions/Concerns	**Mean** of all discharged home health patients' responses to patient satisfaction survey item: "Your questions and concerns were encouraged."

national database and measures patient satisfaction through service-specific surveys.

"The survey process was standard and took about a year and a half. We first looked at research to see what had been said about satisfaction among home care patients. Then we went the extra step and did some focus groups with home care patients to identify what made the difference between satisfaction and dissatisfaction. Then from that information, we developed a survey and tested it nationally." Fazzi later put together software to process the survey data.

The Pat/Stat system measures performance in home infusion and IV therapy, medical equipment, hospice services, and home care. **(See measures, above.)** ORYX-compliant performance measures are collected using patient satisfaction surveys that are mailed to patients following discharge. Surveys for home infusion and IV therapy are returned to Fazzi Associates for data input, analysis, and reporting. Agencies participating in Pat/Stat can choose to receive quarterly or semi-annual benchmark reports that allow them to compare their performance on Joint Commission of Accreditation of Health Care Organizations (JCAHO) and other indicators of patient satisfaction levels. Each agency's data has its own identifier and is stored separately in the database, and no data is released without the owner's written permission.

As of Dec. 31, 1999, JCAHO began requiring accredited agencies to collect data on a minimum of four performance measures. JCAHO has approved a total of five patient-perception-of-care measures for infusion therapy for the national database. The Fazzi system supports full benchmarking with all national database

and patient satisfaction system agencies, the top 10% of same, and with other agencies of similar size in the same area as the subject agency.

The infusion patient satisfaction survey also asks if this is the patients first experience receiving home infusion therapy, and asks the discharged patients to rate the following on a scale of poor, fair, good, very good, excellent, or doesn't apply:

- How well staff explained why infusion/IV therapy is needed.
- How knowledgeable the staff were about infusion/IV procedures, equipment, and supplies.
- How pleasant and courteous the staff were.
- The degree to which staff helped you to feel at ease about infusion/IV therapy.
- How well staff communicated changes in your infusion/IV therapy to you and other staff who cared for you.
- The quality of service you received from the nurse who provided your infusion/IV therapy services.

It also ascertains if supplies and equipment were delivered to the patient's home when expected, and if staff informed patient whom to contact if assistance was needed with infusion/IV therapy. There is a section for overall patient satisfaction that ranges from "very dissatisfied" to "completely satisfied, couldn't be better." Patients are also asked to describe three things they liked most about the infusion service they received and three suggestions they have for improving the services.

"Overall," Townsend says, "this survey should give any home infusion agency the information it needs to correctly benchmark its services, and by using that information your agency will grow and prosper."

[Fazzi Associates began its national benchmark database in 1995. Information on the system, which is configured for quarterly or semi-annual analysis, is available from Fazzi Associates, 243 King St., Suite 46, Northampton, MA 01061. Telephone: (800) 379-0361. Fax: (413) 584-0220. E-mail: patstat@fazzi.com. Web site: www.fazzi.com. Current cost is $1,025 for semi-annual reporting and $1,475 for quarterly reporting.] ■

Challenging the future with INS

"There's definitely something here for everyone associated with infusion therapy," says **Jason Beal**, marketing manager for Challenge the Future for the Intravenous Nurses Society's (INS) annual meeting May 6-11 in Minneapolis. Beal says he expects about 1,400 attendees for this year's program. "In addition to numerous educational opportunities, we'll have three days of uninterrupted exhibits, which is unique for health care trade shows. We'll also have social events and our second annual golf tournament for the Gardner Foundation, our charitable arm."

Classes to focus on IV specialties

Beal says presentations have been carefully planned to offer an integrated approach to infusion therapy practices. Classes will also provide information for antineoplastic therapy, infection control, fluid and electrolytes, technical and clinical applications, transfusion therapy, parenteral nutrition, pediatrics, pharmacology, and quality assurance — the nine core content areas of infusion therapy specialty practice.

INS is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation and the Florida Board of Nursing (#27F1992). INS is also approved by the American Council on Pharmaceutical Education (ACPE) as a provider of continuing pharmaceutical education. The ACPE program code is 224-000-00-001/067.

For RNs, a maximum of 20 contact hours are available at the 2000 Annual Meeting and Industrial Exhibition, and an additional 10 contact hours can be earned by attending the National Academy of Intravenous Therapy during the weekend. The 2000 INS National Academy and Annual Meeting have been approved for CRNI and CLNI recertification units. A total of 40 recertification units will be awarded to CRNI/CLNIs who attend the entire program, 20 for the National Academy, and 20 for the Annual Meeting.

Following is a sampling of available courses:

- **Intra-Arterial Therapy with Implantable Pumps:** Intra-arterial therapy is an alternate route for regional chemotherapy administration. This presentation will include exploring the patient considerations related to implantable pumps.
- **Risk Management Considerations: Principles and Current Trends:** Effective risk management is often the key to an organization's viability. The presentation will explore key principles, current trends, and tools with emphasis on effective risk management

strategies for all health care professionals.

• **Infusion Support of the Complex Cardiac Surgery Patient:** Intravenous therapies for the cardiac surgical patient both in the hospital and alternate care settings, including treating imbalances appropriately and quickly to decrease length of stay and have a positive outcome during the recovery phase. Fluid and electrolyte imbalances intraoperatively, postoperatively, and postdischarge will be reviewed.

• **Nutrition for Optimal Wound Healing Management:** Adequate intake of energy, protein, fluid, vitamins, and minerals are required for effective wound healing. In some cases, pharmacological doses of nutrients are beneficial for optimal healing. The presentation will discuss the importance of nutrients in the wound-healing process and the role of the health care professional in providing nutrition-related support in various health care settings.

• **Developing an Asparaginase Protocol to Minimize Anaphylaxis:** Hypersensitivity reactions are adverse effects of chemotherapy in up to 40% of patients. Asparaginase preparations have a high incidence of anaphylaxis. The institution of an anaphylaxis protocol will minimize symptoms and ensure rapid implementation of life-saving measures when reactions occur. The presentation will define hypersensitivity reactions, review occurrences, and discuss proposed mechanisms for protocol development.

• **Supportive Therapies after Solid Organ Transplantation**: Patients undergoing transplantation of solid organs often require infusion therapies during recovery. The health care professional must be familiar with these therapies, side effects, and how they affect recovery. The presentation will discuss clinical practice guidelines and the most common therapies appropriate to this patient population.

• **Transfusion Therapy with Cryoprecipitate and Fresh Frozen Plasma for Managing Blood Loss:** Transfusion therapy requires familiarity with all types of blood products. The presentation will focus on indications and uses of cryoprecipitate and fresh frozen plasma. Administration guidelines and the roles of each blood replacement component will be discussed.

• **Intravenous Treatment of *Pneumocystis Carinii* Pneumonia (PCP):** Classified as both a fungus and a protozoan, *Pneumocystis carinii* has been known to cause PCP. The presentation will review the approved and investigational infusion treatments and protocols used to treat *Pneumocystis carinii* in the immunocompromised patient.

• **Reviewing Parenteral Nutrition Formulas for Appropriateness:** Parenteral nutrition supplementation is frequently used in hospitals, long-term care, and home infusion care. The presentation will provide tools for reviewing, assessing, and determining nutritional formula suitability in hospital and alternative care settings.

• **Health Outcomes Research for IV Nursing Practice:** Intravenous nursing provides treatment modalities most likely to achieve successful outcomes. The presentation will illustrate key elements of the research process with application in design, implementation, analysis, and results interpretation of intravenous nursing-sensitive outcomes, including complications such as phlebitis and catheters-used-per-successful-needlestick.

• **Drug Delivery Issues in Alternate Care Settings**: Alternate care providers must provide infusion therapy with limited clinical resources. One way to safely provide necessary infusion care is to combine technology with reliable vascular access devices. This presentation will describe scheduled drug delivery systems using programmable infusion pumps and telecommunication technology.

• **Business Techniques for the Nurse Manager:** A general overview of budget development, time management, task delegation, and profit / loss statements.

• **Focused Assessment for the Total Parental Nutrition (TPN) Patient:** The presentation will provide a framework for applying critical thinking skills to the assessment and monitoring of TPN patients to perform a focused assessment.

• **Interviewing Skills for the Nurse Manager:** Helping the nurse manager identify the best candidate for prospective employment by integrating business principles of interviewing. Legal aspects of interviewing techniques and mock interviews will be presented.

• **Hyponatremic Encephalopathy with Use of 5% Dextrose in Water:** Five-percent dextrose in water has been known to cause the infusion-related complication hyponatremic encephalopathy. The presentation will discuss the pathophysiology and treatment with appropriate interventions of this condition. Also discussed will be the variety of dextrose / water formulations and possible untoward effects of administration.

• **Legal Nurse Consulting**: **Putting Your Nursing Expertise to Work in a Medical/Legal Career:** Opportunities exist for registered nurses to use their nursing expertise assisting attorneys

as legal nurse consultants (LNC). LNCs work in such environments as insurance companies, law firms, and as in-house or independent consultants. LNCs may analyze and organize medical records in a more cost-effective manner by capitalizing on their knowledge of hospitals and home care settings. The presentation will discuss how LNCs can assist in literature and research searches, medical writing, and liability issues.

• **Performance Management:** Maintaining a successful health care team through job satisfaction, motivation, stimulation, professional development, and collegial support can ensure high productivity, job commitment, and team building. The purpose of performance management is to evaluate and improve employee performance rather than monitor and criticize. The presentation will build on existing performance evaluation systems and provide skills to positively affect employee performance.

• **Pathophysiological Changes in the Elderly:** Physical and pathological alterations occur during the aging process. Changes affect not only the manner in which infusion therapy is delivered but also the tolerance with which it will be received. The presentation will review these changes and address considerations for safe fluid management in the elderly. Anticipated side effects of fluid administration will be reviewed along with appropriate considerations and interventions.

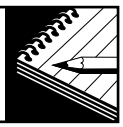
• **Diagnosis, Treatment, and Management of Hepatitis C:** The Centers for Disease Control and Prevention estimates that approximately 4 million people are infected with the hepatitis C virus, including over 80,000 health care workers. The presentation explores risk factors associated with transmission, diagnosis, progression, and treatment of HCV. Patient education, compliance, and reimbursement issues will be discussed.

• **Developing an Alternate Care Transfusion Center:** The alternate site transfusion center can help meet growing health care needs by providing resources necessary for various treatments and VAD placement. The presentation will discuss the process used to develop a transfusion center, the role of the intravenous nurse specialist, and the benefits of transfusion therapy in the alternate care setting.

• **Will OASIS Demonstrate the Value of Infusion Nursing?** The Outcomes Assessment and Information Set (OASIS) is the culmination of the Health Care Financing Administration-sponsored research effort that began in 1988. The data collected through OASIS is to be used to formulate the case mix adjusted for final Medicare reimbursement rates under the prospective payment system, mandated under the Balanced Budget Agreement of 1997. The presentation will discuss how the data is collected, implications, and how the value of infusion nursing will be measured by OASIS.

To register for the INS annual meeting, or to obtain a complete listing of classes and events call (617) 441-3008. ■

GUEST COLUMN



Metamorphosis: Becoming an infusion 'butterfly

By **Ann Williams**, RN, CRNI
Infusion Nurse Educator
Deaconess Home Services
Evansville, IN

I have been fortunate to witness, as well as participate in, the metamorphosis of home care nurses into home care infusion nurses. It was a slow process, but much like the unfolding of fresh new butterfly wings, it was a thing of beauty and a process all can be proud of.

In 1995, I was hired as the infusion nurse of the newly formed, hospital-based Deaconess Home Medical Equipment and Infusion. I had been the IV coordinator at the same hospital for six years previous and an SICU nurse for 15 years prior to that. My job in the beginning was to be one of creating the P&Ps for the new department, writing the patient teaching manuals, educating on-call RNs and teaching the patients requiring home infusions, as well as placing lines, troubleshooting, line tracking, QI, etc.

Change is inevitable

As with any new developing process, change occurs often. As a nurse for 25 years, I have learned to tolerate, and often accept, change. If we didn't at least try to adjust to change in today's world, I think we would go nuts! Change soon came along as business picked up and I got a part time nurse to help me with the patient care. Then the next change was when we began to make our process a more seamless one. Rather than HME trying to maintain on-call nursing, we blended

with our home care department that was already doing the follow-up visits after I had taught the patients.

I attained my CRNI in September 1997, and my job title and responsibilities changed in November 1998. I became the infusion educator, and now I was responsible for teaching the home care nurses to also do the patient education. I also needed to continue working with them, building their skills, and mostly their confidence in their abilities.

This process is where I witnessed the greatest change! The nurses, some having done home care for 15 years, were not thrilled about this new experience of starting IVs and all that goes with an IV patient. It was a new world to them. I tried to work with them patiently (one must always remember that every one of us was new once). I gave them classes, demos, one-on-one conversations, I listened when they had questions, I involved them on teams to correct or perfect a process. I bragged on their skills. At the start of this process, I once said they were like cats being drug by their tails — clawing all the way, trying not to go there! But soon, I saw a change. They were making appropriate decisions, they were actually enjoying doing an infusion set-up. No more fighting the change. METAMORPHOSIS!

End result: Excellent team

Today, we have an excellent home care staff capable of providing excellent infusion nursing. We provide all therapies from hydration, antibiotics, TPN, PCA, IVIG, chemo, inotropics, etc. I continue to provide frequent inservicing to refresh their skills and bring them up to date on new procedures. We work together on teams to get input from their perspective when solving problems. The team approach is what makes this difference. I even had a contest for IV Nurses Day, giving away T-shirts as prizes, just letting them know that they are a part of the team.

If you are struggling with developing your staff into infusion or any new process, here are my suggestions to aid that process. First, be patient. Listen to them complain, then work together to get to a workable, realistic solution. Then, reinforce their abilities over and over and over again. I found they were most frightened about "teaching" the patients to do this themselves. I had taught this for so long, that it came second nature. I tried to instill in them the ideas that they are nurses who know how to give this med themselves and know how to teach patients. Put that all together and teach them on the patient's level how to do what the nurse would do if she were administering the drug.

I also provide them with the patient teaching manuals; this can serve not just as a tool for the patient, but more or less an outline for the nurse, assuring her that she doesn't leave anything out. Anything you can provide them that they can have at their fingertips is very much appreciated. These nurses see a lot of patients during the day, so anything we can do to simplify their jobs, thus increasing their productivity and relieving their stress is very much appreciated.

We have weekly care conferences on the IV patients in which the pharmacist is present so they can ask any questions of either of us. They also know where we can be found every day.

Treat them with respect and encouragement and you will soon find that you too have a willing team of excellent infusion nurses! ■

Need More Information?

Ann Williams, RN, CRNI, Infusion Nurse Educator, Deaconess Home Services, 600 Mary St., Evansville, IN 47747. Telephone: (812) 450-3828. E-mail: ann_williams@deaconess.com.

New catheters for peripheral vascular access

The Food and Drug Administration has granted marketing permission for a new micro catheter for peripheral vascular use to Micro Therapeutics, an Irvine, CA-based manufacturer of medical devices. According to George Wallace, president of Micro Therapeutics, the company is currently developing catheters of additional lengths for a range of applications.

In addition, the Rebar catheter will be a standard component of Micro Therapeutics' ONYX Liquid Embolic System ONYX LES, a revolutionary

treatment for brain aneurysms currently in feasibility trials in the United States and Europe. ONYX LES involves using Micro Therapeutics' medical devices to reach vascular abnormalities. Once the delivery catheter is in position, ONYX, a liquid embolic material, is released and quickly transforms into a solid, yet flexible, polymer mass, filling the vascular defect. This enables blood to flow through the parent vessel with less risk of rupture and subsequent stroke.

Micro Therapeutics, founded in 1993, develops, manufactures, and markets medical devices that are minimally for the diagnosis and treatment of vascular disease. For further information, call Maureen Mazzatenta of Fischer & Partners at (310) 577-7870, ext. 103. ▼

Disposable IV poles for home infusion

Sharps Compliance Corp., a manufacturer of systems for managing medical waste and infusion equipment, recently announced that it has developed a new concept in IV poles. The poles are the designed specifically for home health care patients receiving gravity- or pump-administered infusions.

The Pitch-It poles can eliminate the need for home health care nurses or drivers to transport and store large, bulky IV poles in their vehicles. The Pitch-It poles unfold in seconds and do not require any assembly. They are disposable and collapse to fit into any ordinary-size garbage container upon completion of treatment. The poles may also be recycled.

Pitch-It poles are available in tabletop, floor, and full-size models with wheels. The poles can support up to 3 liters of solution, and the full-size pole also accommodates an IV pump. Sharps president and CEO **Burt Kunik**, MD, says that the disposability of poles after use compliments the company's mailback product line and will allow home health care companies to reduce the travel and labor costs associated with retrieving equipment after patient treatment is completed.

Sharps also offers a Disposal by Mail system to contain, transport, destroy, and track medical waste. The Houston-based company's Trip LesSystem includes the Sharps Disposal by Mail System and either a disposable IV pole or an asset return box to accommodate any size infusion pump. For further information, call (800) 772-5657 or visit www.sharps.com. ▼

Baby boomers influence pharmaceuticals

A recent report issued by Express Scripts Inc. says that new prescription drugs, empowered consumers, and aging baby boomers had the most influence on pharmaceutical developments during the past year. The three factors led Express Scripts' Top Ten list, compiled by a committee of Express Scripts pharmacists, physicians, and pharmacy benefit experts. The Top Ten developments were selected on the basis of their impact on providers of healthcare insurance and management of pharmacy benefit plans. Express Scripts is the nation's leading independent, full-service pharmacy benefit management company.

The report points out that for the first time in history, patients are becoming participants in the prescribing process and cites direct-to-consumer advertising, media coverage and the Internet as creating more knowledgeable, more sophisticated consumers. "Of all that is occurring, perhaps no trend holds more profound implications for benefit design than the transformation of the American public into informed consumers of prescription drugs," says **Barrett Toan**, president and CEO of Express Scripts.

The report forecasts that greater public awareness will spur companies to include employees in discussions of the pharmacy benefits, stating, "Pharmacy benefit plan sponsors should anticipate that designing the pharmacy benefit to provide optimal choice will be the single greatest factor in employee satisfaction." An electronic version of the Express Scripts Top Ten, including clinical responses to each development, is available at

COMING IN FUTURE MONTHS

- PPA effect: Elimination of venipuncture benefit fallout
- Sound off: The use of ultrasound in infusion therapy
- Outcomes: Designing a work model that works
- Unapproved drugs: A lawyer looks at declotting lines

www.express-scripts.com. For additional information, contact Ryan Soderstrom of Express Scripts, (612) 837-5160, or rsoderst@express-scripts.com. ▼

FDA may approve new anticoagulant drug

The Food and Drug Administration has issued a letter to Texas Biotechnology Corp. saying that the company's anticoagulant drug Novastan, an anticoagulant for prophylaxis or treatment of thrombosis in patients with heparin-induced thrombocytopenia (HIT), is approvable. The drug is a synthetic direct thrombin inhibitor that prevents clots from forming. It was developed for patients who can not continue to receive heparin. Clinical trials showed Novastan acts quickly and produces predictable anticoagulation levels. It also appears safe and is relatively easy to use.

HIT may affect as many as 300,000 Americans every year. The problem is caused by a paradoxical response to heparin, the most widely used blood thinner. SmithKline Beecham has codevelopment and marketing rights for Novastan. The drug is already in commercial-scale manufacture and presentation of the drug's Phase III clinical trial results and medical education initiatives will occur soon.

An analysis of 34 million hospitalizations from the Health Care Financing Administration database shows over 10 million patients receive heparin in the United States annually. Medical literature suggests that HIT occurs in approximately 300,000 to 400,000 of U.S. heparin patients per year, although it is widely believed to be underdiagnosed.

John G. Kelton, MD, chairman of medicine at the McMaster University Faculty of Health Sciences, Ontario, and an expert in the area of heparin-induced thrombocytopenia, says, "HIT is a serious and life-threatening adverse reaction

Home Infusion Therapy Management™ (ISSN 1082-8648) is published monthly by American Health Consultants®, 3525 Piedmont Road, Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodical postage paid at Atlanta, GA 30304. POSTMASTER: Send address changes to **Home Infusion Therapy Management**™, P.O. Box 740059, Atlanta, GA 30374.

Subscriber Information

Customer Service: (800) 688-2421 or fax (800) 284-3291. Hours of operation: 8:30 a.m.-6 p.m. Monday-Thursday; 8:30 a.m.-4:30 p.m. Friday EST. E-mail: customerservice@ahcpub.com. World Wide Web: www.ahcpub.com.

Subscription rates: U.S.A., one year (12 issues), $399. Approximately 18 nursing contact hours annually, $449. Outside U.S.A., add $30 per year, total prepaid in U.S. funds. One to nine additional copies, $239 per year; 10-20 additional copies, $160 per year. Call for more details. Missing issues will be fulfilled by customer service free of charge when contacted within 1 month of the missing issue date. **Back issues**, when available, are $67 each. (GST registration number R128870672.)

This continuing education offering is sponsored by American Health Consultants®, which is accredited as a provider of continuing education in nursing by the American Nurses Credentialing Center's Commission on Accreditation. Provider approved by the California Board of Registered Nursing, Provider CEP 10864, for approximately 18 contact hours.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Editor: **Julie Crawshaw**, (828) 749-1889, (juliecrawshaw@excite.com).
Vice President/Group Publisher: **Donald R. Johnston**, (404) 262-5439, (don.johnston@medec.com).
Associate Publisher: **Jim Stommen**, (404) 262-5402, (jim.stommen@medec.com).
Managing Editor: **Lee Landenberger**, (404) 262-5483, (lee.landenberger@medec.com).
Production Editor: **Nancy McCreary**.

Editorial Questions

For questions or comments, call **Lee Landenberger** at (404) 262-5483.

to heparin. The condition is caused by a complex immune reaction characterized by a strong tendency to clot that puts the patient at risk of major complications, such as heart attack and stroke, which can in turn, lead to amputation or even death." For more information, contact Pamela Murphy, vice president of Texas Biotechnology Corporation, at (713) 796-8822. ▼

New intraosseous infusion system available soon

Subsidiary Pyng Medical Corp. has signed production designs and drawings for a new intraosseous infusion system for adults. The F.A.S.T.1 System for Adult Intraosseous Infusion, designed, developed, patented, and trademarked by Pyng Medical Corp., has Food and Drug Administration approval and is the first I/O System for sternal access on the market. Extensive field trials across North America showed that the F.A.S.T. will allow emergency caregivers to achieve safe, assured central vascular access in 60 seconds or less in shock and trauma victims when conventional methods fail. The manufacturer says that the F.A.S.T.1 economical design used computer analysis, specialized plastic selection, and "snap-fit" assembly. Pyng reports receiving more than 1,400 pre-manufacture inquiries about the system. For further information, contact Michael W. Jacobs at Subsidiary Pyng (800) 349-7964 or visit www.pyng.com. ▼

Implantable access system for chemotherapy

St. Paul, MN-based SIMS Deltec Inc. has announced development of a new drug delivery system for trans-arterial percutaneous (TAP) delivery of regional chemotherapy to treat metastases of colorectal liver cancer.

The company's Port-a-Cath II TAP implantable access system is designed for hepatic arterial infusion of chemotherapy. It uses a portal implanted in the chest and a catheter that is threaded along the axillary to the hepatic artery to the liver, which is a day hospital procedure with local anesthesia.

The system requires a minimally invasive surgical procedure and allows a high drug concentration to the target area while keeping systemic toxicity low. The manufacturer says the system also minimizes trauma and cost.

The company manufactures a wide range of infusion and access systems for domestic and international markets. For additional information regarding SIMS Deltec, visit Deltec's Web site at www.deltec.com, or call (651) 628-7248. ■

CE objectives

After reading the April issue of *Home Infusion Therapy Management*, CE participants will be able to:

1. Define the problems associated with opening an ambulatory infusion center.
2. Discuss why specific questions are needed to determine patient satisfaction.
3. Describe the Medicare "spindown" program.
4. Cite two reasons mid-clavicular catheters are not appropriate for insertion in the home. ■