

HOME INFUSION THERAPY MANAGEMENT™

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American Health Consultants® is
A Medical Economics Company

Where knowledge and evidence converge: Defending yourself in court

Documenting site-specific knowledge is the sure route to legal protection

When administrators at McLaren Hospital in Flint, MI, asked **Debbie Ward**, RN, to help design computer programs for documenting IV placement, she assumed the end product would include detailed site drawings with vein names clearly marked. But an unexpected change was on the way.

“What we had done for 10 or 15 years was use an IV flow sheet with a diagram of the arm with drawings of the major veins,” Ward says. “So when I helped design the screens, I used the vessel names and divided the forearm into thirds.”

Ward, who sees computer charting as equally important for home infusion therapy documentation as it is in hospitals, was dismayed when the hospital’s final screens deleted vessel names and gave left forearm, right forearm, and upper arm as documentation choices. The hospital administration’s explanation for this was its belief that most nurses wouldn’t know vessel names anyway, so why confuse them?

Such option reduction makes documentation very difficult.

“Obviously, you’re going to have more than one site in a person’s forearm,” Ward says. “When a patient has an IV for any length of time, a restart will be required. If a problem should arise with one peripheral line — and a patient has already had two or three sites in that same forearm — how can you differentiate the line that had the problem from the other sites? You don’t know whose line caused or resulted in the complication, and so which nurse is implicated? From what I’ve read, a nurse who is called to defend the choice of vein in court has to back up that choice with very good reasons, not just, ‘That was the only site I could find.’”

Ward acknowledges that there is some disagreement about using vessel names. “But certainly the computer screens need to be more specific. Even if the site is just described in words, a nurse needs more options than just

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'left or right forearm.'"

Keith Allen, RN, CRNI, manager of clinical nursing practice for Olsten Health Services in Plainview, NY, uses the IV documentation form with arm drawings (see chart, p. 123).

According to **Darnell Roth**, RN, CRNI, LNC, an IV therapy nurse who does legal consulting through her St. Louis-based firm, D/R Intravenous Therapy Consulting Inc., the historical documentation practice did not include denoting vessel names.

"It was 'left forearm, right upper arm, inner arm, right hand, etc.,'" she says. "Once the peripherally inserted central catheters (PICCs) came on the scene, you started seeing people denoting the vessel into which the tip was inserted. Certainly this raises the question, 'Should we not be doing this with other peripheral lines?' Designating vessels in documentation is not being taught in nursing schools, and the majority of nurses — unless they are really attuned to IV therapy — are not accustomed to doing this kind of documentation."

Documentation is your friend

With today's fast-paced health care environment, nurses often do not always have time to document as thoroughly as they would like. However, nurses are clearly not well-served by failing to designate vessels if IV therapy results in injury and a subsequent malpractice case. **Sue Masoorli**, RN, heads Perivascular Nurse Consultants Inc., an infusion therapy and legal consulting agency. Masoorli, who teaches PICC and IV insertions nationwide, spends about 30% of her time reviewing and testifying in IV therapy malpractice cases, says the most important issue in any lawsuit is documentation.

"The biggest problem when you get to court for liability is that the documentation doesn't back up what you said you did or didn't do," she says. "I don't think that flow sheets work well for IV documentation, so I've designed my own set of documentation forms." (See forms, right and p. 124.)

PERIVASCULAR NURSE CONSULTANTS INC.

UNIVERSAL VENOUS ACCESS DEVICE INSERTION FORM

Patient's name _____
ID/SS# _____

Date of insertion _____
Time of insertion _____

Type of Device

Peripheral
CVC
Tunneled
PICC
Port

Insertion location (vein-name specific) _____

Person inserting _____

Total length of catheter _____

Gauge of catheter _____

Brand of catheter _____

Number of lumens _____

Central vein tip location _____

Number of attempts _____
Initials _____

See nurse's notes
Complications (see form)

Date/ Time / Patient Comments

Signature/Title/ Initial/ Signature /Title/ Initial

Source: Perivascular Nurse Consultants, Philadelphia.

(Continued on page 124)

COMING IN FUTURE MONTHS

■ Technology: Mining the information highway

■ Comparison: Safety devices vs. one-handed recapping

■ Sound off: The use of ultrasound in infusion therapy

■ On the hill: The latest from Washington

IV Assessment Form

REASON	
1. New start	10. Pain at IV site
2. Additional line	11. Swelling
3. Infiltration	12. Physician request
4. Infusion-related Phlebitis	13. Convenience
5. Clogged	14. Catheter bent
6. Routine	15. Other
7. Pulled out	16. IV Notified
8. Leaking	17. Dressing changed
9. Positional	18. Over Wire
	19. Cap changed
	20. Port reaccessed

DEVICE/LOCATION	
LG = leg	PICC = peripherally inserted central catheter
ft = foot	Fem = femoral
g = gauge	Jug = jugular
IVR = intravenous reservoir	SC = subclavian
Pro = protectiv	PC = Porta cath
Hick = Hickman	Scalp = scalp

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DATE _____

IV THERAPY / INVASIVE LINES	Insertion Date	Time	Gauge / Device	Location	TIME	✓ = site is without redness, pain, or drainage. Dressing dry and intact. ★ See nursing note.																
Monitored Discontinued IV Sites					Initials																	
1.	d/c date		site	description																		
2.	d/c date		site	description																		

IV INFUSIONS TITRATION	Time																						
	Drug	Rate																					
		Dosage																					
	Drug	Rate																					
	Dosage																						
		Initials																					

WOUNDS / DRAINS / TUBES / INCISION / DRESSING	11-7	7-3	3-11
	<p>Document drain(s) amount of suction, site, drainage.</p> <p>Describe wound(s) /incision(s)/ulcer by including size (width, length, depth), stage, color, drainage, odor, and location.</p> <p>Pressure Ulcer Staging I Red, intact skin II Break in epidermis (blister) III SQ tissue exposed IV Muscle and bone exposed.</p>		

Time and initials required with each entry.

PERIVASCULAR NURSE CONSULTANTS INC.

VENOUS ACCESS DEVICE COMPLICATION FORM

Patient's Name _____
ID/SS# _____

Type of device

- Peripheral
- CVC
- PICC
- Tunneled Port

Infiltration: *Leakage of med/solution into tissue.*

_____ Size of swelling
_____ Amount infiltrated

Extravasation: *Leakage of vesicating med/solution into tissue.* _____

Name of drug _____
Size of swelling _____
Amount extravasated _____

Phlebitis: *Inflammation of the vein wall.*

- ___ +1 Tenderness over venous access device.
- ___ +2 Tenderness and erythema.
- ___ +3 Tenderness at site, erythema, streak formation.
- ___ +4 Tenderness at site, erythema, streak formation, palpable cord.

Cellulitis: *Infection at the catheter insertion site.*

- ___ Purulent drainage from site.
- ___ Redness at site.
- ___ Tenderness at site.

Sepsis: *Infectious organisms or toxins in the bloodstream.*

- ___ Fever spike.
- ___ Tenderness/redness at site.
- ___ Fatigue.
- ___ Purulent drainage from site,
- ___ Blood culture through catheter.
- ___ Catheter tip culture.
- ___ Peripheral culture or opposite arm.

Occlusion: *Blood or precipitate blocking the catheter.*

- ___ Unable to infuse solution.
- ___ Urokinase protocol.

Date/Time/ Patient comment/ Nursing action

Source: Perivascular Nurse Consultants, Philadelphia.

Infusion Nursing Malpractice Lawsuits Handled by Perivascular Nurse Consultants Inc. from January 1997 through January 1999 (listed by type)

Nerve Injuries	19 cases
Extravasation	18 cases
Infiltration	15 cases
Catheter Fracture	9 cases
Sepsis/Infection	6 cases
Thrombosis	6 cases
Phlebitis	6 cases
Catheter Malposition	6 cases
Air Embolism	1 case
Total	80 cases

Source: Perivascular Nurse Consultants, Philadelphia.

The most court cases Masoorli sees are for nerve compression, puncture, or contact injuries. "We see a lot of infiltration lawsuits in which the infiltrations are so large that the weight of the fluid in the tissue causes nerve compression injury, so these patients may have permanent carpal tunnel injury," she says.

The second-largest case type is catheter malpositioning. Masoorli stresses that the only way to document catheter tip placement is by X-ray verification.

"You have to obtain the X-ray report, which will tell you where the tip is," she recommends. "The Intravenous Nurses' Society has that in their standards in four different places; NAVAN has a position paper on tip placement. That's a very big issue when it comes to central lines."

Masoorli says that though most nurses have

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- ☛ **Debbie Ward**, RN, 5311 Olde Saybrooke, Grand Blanc, MI 48439. Telephone: (810) 694-2839.

the X-ray taken, many still do not read the results. "I can't tell you how many cases I've had where the nurse infused medication and never knew where the tip of the catheter was. It usually results in death. The liability does not go back to the person who inserted the tip, but to the nurse who infused the medication without checking the tip placement — it's that nurse's job to know where the tip is. Nurses have to know the placement of all central lines, not just PICC [peripherally inserted central catheter] lines." ■



Help hemophilia clients gain independence

An introduction to the disease

By **Beth Stover, RN**
Clinical Education Coordinator
Hemophilia Health Services
Nashville, TN

Hemophilia is a rare, inherited disorder ranking among the most costly of diseases to treat. Many recent advances in therapy have driven the costs even higher. It is important to consider the high cost of the therapies required to treat hemophilia and the possible complications caused by delay or error in treatment. With those items in mind, it is easy to understand the value of a well-educated professional to aid in training clients to become as independent in their care as possible.

This is the first of a two-part article to provide insight into this rare but often debilitating and very expensive illness. Part I will offer background on the disorder, while Part II will focus on the aspects of home care and helping clients move toward a greater level of independence with their disorder.

Hemophilia is a condition that adversely affects the clotting of the blood. It is an X-linked recessive chromosomal disorder, carried by females, but affecting mainly males. There are approximately 15,000 males in the United States with hemophilia.

The disorder is characterized by the deficiency of one of the blood proteins usually

found in the clotting cascade. Factor VIII Deficiency, also known as hemophilia A or classical hemophilia, is the most common form of hemophilia. Hemophilia A is four to five times more common than Factor IX deficiency, also known as hemophilia B or Christmas disease.

Hemophilia A and B are further categorized into severity subdivisions based upon the measured quantity of clotting factor in the plasma. The below chart shows the severity levels with their corresponding blood values:

Diagnosed Severity	Plasma Factor Level
Normal	> 50 - 200%
Mild	> 5 - 50%
Moderate	1 - 5%
Severe	< 1%

Patients are usually diagnosed based upon assessment related to prior family history or by assessment after symptomatic bleeding and bruising. Frequently, newborn males without a prior family history are diagnosed after prolonged bleeding from a circumcision. It is believed that as many as 30% of the affected individuals have no prior family history of hemophilia.

People with hemophilia do not bleed any faster than someone with a normal factor level. However, they bleed longer. Bleeding episodes can occur anywhere in the body including into the muscles, soft tissue, joints, mucus membranes, internal organs, and central nervous system (CNS). These episodes are not always related to known trauma. Bleeds that occur without known cause are called *spontaneous*. Here are some common types of hemophilia bleeds:

- **Superficial Lacerations:** Small cuts or puncture wounds can usually be controlled with local firm, continuous pressure for 15 minutes. Larger cuts requiring sutures or ones that continue to bleed require factor treatment. Factor should always be given prior to placement or removal of sutures.

- **Muscles or Soft Tissue Bleeds:** Small surface hematoma and bruises usually do not require treatment. Pressure, ice, and elevation are often sufficient to stop the bleeding. Bleeding into a muscle such as the thigh or calf usually does require treatment. Muscle bleeds are often characterized by pain, stiffness, swelling, and firmness. Bleeds into confined areas such as the palms of the hands, the balls of the feet and the wrist and forearm may

lead to compartmental syndrome and must be evaluated by a professional and watched carefully. Circumference measurements, neuro and capillary refill checks are a very important part of the ongoing assessment.

- **Joint Bleeds (hemarthroses):** Signs include: bubbling or tingling sensation, stiffness, pain, redness, warmth and swelling. When blood leaks into a joint space, the synovium and the cartilage are broken down and extensive damage may result. Joint spaces that repeatedly bleed are referred to as *target joints*. Joint bleeds frequently lead to arthritis, contractures, loss of mobility, and pain.

- **Mucus Membrane Bleeds** are often very difficult to treat, particularly in the mouth. The saliva is equipped with enzymes that are intended to break down food. However, they are also quite efficient in breaking down the clots necessary to heal a mucus membrane bleed. An oral medication (Amicar) is available by prescription to help prevent clot breakdown. For this reason, Amicar should not be given in the presence of other bleeding episodes as the “super clots” which are formed may lead to undesired complications such as a clot breaking off and travelling to the brain or other vital organs.

- **Hematuria:** Clients may experience lower back pain followed by dark brown or bright red urine that may contain blood clots. An increased fluid intake will help flush the system and keep small clots from blocking the ureters. Bed rest will usually be recommended for a few days as well as avoidance of lifting, straining, and vigorous activity for one to two weeks after the hematuria has stopped.

- **Gastrointestinal (GI) Bleeding:** Symptoms of GI bleeds may include: bloody or tarry stools, hemoptosis, pain in stomach, dizziness, weakness or shortness of breath. Professional evaluation is required, as large volumes of blood can be lost into the GI system.

- **Central Nervous System (CNS) bleeds** are the most serious. These bleeds are life threatening and may result in permanent disability or death. Clients that are suspected of having a CNS injury should immediately seek treatment at an emergency facility. Use of the Emergency Medical System (EMS) is highly recommended due to the need for immediate intravenous access and the possibility of alteration of life sustaining systems. If the client or a caregiver are immediately available and capable of performing a factor infusion, it is recommended that EMS be activated, then a factor infusion giving 100% replacement be given prior to

or concurrent with transport. Symptoms may include headache, vomiting, confusion, irritability, decreased mental acuity, lethargy, or drowsiness. CNS bleeds can occur spontaneously or after a relatively mild trauma. Never allow a client to ‘wait and see’ with a suspected CNS bleed!

Focus on an aura

The client is usually able to identify when a bleeding episode is occurring. Often, they will report a sense of warmth, tightness, or a tingling or bubbling at the site of the bleed. Some clients experience a sense of depression or irritability. These feelings are referred to as an *aura*, and are usually an excellent indicator of a new bleed. It is very important to listen to the client, as the longer treatment is prolonged, the more serious the resulting damage.

Prompt treatment can prevent further bleeding, as well as promote healing and prevent long-term damage such as muscle atrophy, contractures, arthritis, and significant pain. It is often hours or days before symptoms such as external swelling or warmth and redness are visible.

Treatment for hemophilia consists of intravenous factor replacement. There are a variety of products on the market that may be used, including those derived from human plasma, as well as those derived through recombinant technology. There are three main forms of treatment in use today:

- **Reactive or prn therapy.** This means that factor is given in response to an injury. Life is very unpredictable for those clients and their caregivers. This is currently the most common form of treatment in use in the United States.

- **Planned preventive.** In addition to using reactive therapy, clients will infuse prior to activities known to cause bleeding episodes. An example of this might be a man that infuses prior to his weekend basketball game.

- **Prophylactic therapy.** This type is further divided into secondary and primary prophylactic therapy. *Secondary prophylaxis* is a routine schedule of infusions, usually three times per week, begun after a client has had multiple bleeding episodes requiring treatment. *Primary prophylaxis* is when those routine scheduled infusions are started prior to the onset of bleeding episodes, perhaps as early as a few months of age. Prophylactic therapy has been in use in other countries for much longer than it has been used in the United States with tremendous success.

Prophylactic therapy is recommended by the Medical and Scientific Advisory Council of the National Hemophilia Foundation.

Complications of therapy

- **Allergic Reactions** are rare but may occur. Mild symptoms may include itching, nasal congestion, coughing, hives or rash, and fever. Severe symptoms may include respiratory distress, swelling and constriction of the face, and throat and back pain.

After consulting with the hematologist, mild allergic reactions are often treated with an antihistamine in response, and possibly as a premedication in the future. It is possible that reactions may be related to a specific lot of medication. If a severe reaction occurs, notify EMS, administer an antihistamine, and notify the client's hematologist about the pending transport. Be sure that the client takes the vial from the infused factor with them to the emergency department. No one should infuse while alone. An adult should always be present for assistance in case of a transfusion reaction.

- **Bloodborne viruses** including hepatitis and HIV have infected people using human-derived clotting factor in the past. Clotting factor in use today is treated by a variety of means to ensure safety against all known viruses. However, it is still very important for clients to practice universal precautions and to be ever vigilant in the watch for new contaminants.

- **Loss of venous access** is a constant worry for hemophilia-affected people. The majority of clients use butterfly-style needles in peripheral veins for their infusions. It is important that site rotation be taught and used to prolong access to those veins. Central devices can be placed, but with greater risks than those of the general population. It is for these reasons that only highly experienced infusion nurses should be utilized for those clients.

- **Intravenous long-term device complications** such as infection, clotting, line trauma, and accidental removal provide serious concerns that must be considered.

- **Loss of reimbursement or insurance** is a very real concern to the people affected by hemophilia and their families. The average cost for the drug alone for one infusion of clotting factor for a 110-pound male is approximately \$1,000. Add to this the cost of doctor and hospital visits, specialists, physical therapy, and home nursing visits, and it is easy to understand how those

patients can quickly reach a lifetime maximum on their insurance policies.

This article has outlined some of the basics of hemophilia. The lifelong nature of the illness, as well as the high cost of treatment requires that the clients and their caregivers have a thorough understanding of the disorder. The next issue of *Home Infusion Therapy Management* will cover the client's responsibilities of home care and provide information for the professional to help the client move toward a greater level of independence. ■

FDA order will lower U.S. blood reserves

Apheresis technology may provide solution

The U.S. Food and Drug Administration (FDA) and Health Canada have directed blood collection agencies in their countries not to collect blood from anyone who has visited the United Kingdom for an extended period of time since 1980. This could reduce by as much as 2.2%, or 286,000 units, the amount of blood donated in the United States each year.

Last May, the National Blood Data Resource Center (NBDRC), predicted that the United States' need for blood would exceed its supply by 249,000 units next year. The two factors combined may create a blood shortage of more than 500,000 units, which could affect as many as 400 patients nationwide.

The FDA mandate states that blood centers must defer blood donations from any person who has visited or resided in the United Kingdom for a cumulative period of six months or more since 1980 in order to reduce the theoretical risk of transmitting new variant Creutzfeldt-Jakob disease (CJD), a derivative of mad cow disease, through blood transfusion. CJD is an infectious, rapidly progressive, fatal brain-deteriorating disease. Researchers in a Yale University study found 13% of Alzheimer patients upon autopsy really had CJD.¹ (You may read the blood labeling text in full at the FDA's Web site: www.fda.gov/cber/gdlns/cjdnvcd.txt.)

Technology from Braintree, MA-based Haemonetics Corp. allows blood centers to safely collect twice as many red blood cells from one donor as they can collect with traditional manual techniques has received FDA approval.

This technique, known as apheresis, was pioneered by Haemonetics in the 1970s for collecting platelets and then plasma. What is new is the ability to use apheresis to collect red blood cells, the most frequently needed blood component. More than 40 million red cell units are transfused annually worldwide.

Apheresis is an automated blood collection technique using a closed circuit disposable collection system. Donated blood is centrifuged immediately into its component parts (platelets, plasma, and red cells) allowing one or more transfusable doses of the desired component(s) to be separated into blood collection bags. The unused portion of the blood is then returned to the donor. Unlike traditional manual collection processes, the blood collected through apheresis requires no further processing before transfusion to a patient, making the procedure efficient and cost-effective for blood centers.

The below chart illustrates the impact that implementing apheresis blood donor programs can have on the blood supply:

	Apheresis Donations Needed	Manual Blood Donations Needed
Yield for Patient		
2 doses of platelets	1	12 to 20
1 dose of platelets	1	6 to 10
1 dose of platelets and 1 of plasma	1	8 to 12
2 doses of red cells	1	2

According to **Harvey Klein, MD**, chief of transfusion medicine at the National Institutes of Health, "Mandates such as this are intended to assure a safe blood supply, but they often reduce blood availability which creates different patient risks. By using apheresis technology for the collection of red cells, blood centers could significantly increase the number of red cell units collected from their existing donor base."

Haemonetics will bring blood donation by apheresis to the donor on mobile drives, where 70% of the U.S. blood supply is collected. Haemonetics is a global company that designs, manufactures, and markets automated blood processing systems. Those systems address important medical markets: surgical blood salvage, blood component collections, and plasma collections. More than 60% of the company's business is outside the United States. For more

information, call Haemonetics at (781) 356-9517, or visit its Web site at www.haemonetics.com.

Reference

1. Manuelidis E, Manuelidis, L. Suggested links between different types of dementias: Creutzfeldt-Jakob Disease, Alzheimer Disease, and retroviral CNS infections. *Alzheimer Dis and Assoc Disord* 1989; 3:100-109. ■

NEWS BRIEFS

Ohio Senate is considering a mandatory needle safety law

State Sen. **Daniel R. Brady** has introduced a bill into the Ohio Senate that would mandate the use of FDA-approved safety needles in all public hospitals and health care facilities in his state. If the legislation passes, Ohio would join seven other states comprising more than one-third of the U.S. population whose legislators have approved safety needle legislation. The Ohio legislation is co-sponsored by Sen. **Grace Drake**, chairwoman of the Senate Health Committee.

"The very people who take care of the sick should not have to live in fear of being infected," says Brady, who is also a member of the Senate Health Committee. "Passage of this bill would save the lives of health care workers in Ohio."

The Ohio Senate is expected to begin hearings on this bipartisan sponsored bill this month. The proposal has strong support from the unions representing Ohio's health care workers and the Ohio Nurses Association (ONA).

"It is unconscionable that there are safety devices available, yet they are not being provided to health care workers," says **Elizabeth O. Ward**, director of the Economic and General Welfare of the ONA. "Registered nurses are committed to caring for their patients, yet they face the risk of potentially lethal needlesticks every day. ONA is committed to fighting this epidemic on behalf of all 135,000 registered nurses and other health care workers in Ohio."

The number of co-sponsors for the federal mandatory safety needle bill currently before the U.S. House of Representatives has grown to 126. The Occupational Safety and Health

Administration is expected to deliver its new safety needle initiatives applying to health care workers in all 50 states by the end of this year. ▼

I-Flow devices get marketing approval

The Food and Drug Administration has given the I-Flow Corp. permission to market two new Paragon pain-management products: The Bolus Accessory Set and Bolus/Basal Administration Set. I-Flow recently re-introduced Paragon to the United States as a cost-efficient mechanical infusion system.

The pain management products are used in patient-controlled analgesia applications. They have been successfully marketed in Europe and the Far East. Both the Bolus Accessory Set and the Bolus/Basal Administration Set will be marketed simultaneously by I-Flow's international distribution partners and by the company's United States sales force. I-Flow designs, develops, and markets technically advanced, low-cost ambulatory infusion systems for pain management and infusion therapy. For further information, contact: I-Flow Corp. at (949) 206-2700. Web site: www.i-flowcorp.com. ▼

Coram Healthcare concentrates on home care during legal battles

A spokesman for Coram Healthcare Inc., providers of home infusion therapy from 90 locations in 44 states and Canada, says the company remains focused on growing its core businesses, despite recent legal actions relating to its termination of an agreement with US Healthcare to manage home health services for Aetna in eight northeastern and mid-Atlantic states. Coram filed a \$50 million lawsuit charging Aetna with fraud, misrepresentation, breach of contract, and rescission related to the master agreement.

Coram manages networks of home health care providers on behalf of managed care plans and other payers, and provides home care and product development services to pharmaceutical, biotechnology, and medical device companies sponsoring clinical trials. On Aug. 19, a small group of providers, led by competitor Apria Healthcare Group, initiated an involuntary

bankruptcy proceeding against Coram's Resource Network subsidiary. The filing is limited to the subsidiary and relates to the terminated Aetna Master Agreement.

Coram President and CEO Richard M. Smith says those legal actions will not stop the company's overall business plan that includes continuing expansion of its infusion therapy business and redesigning the company's 88 branches with an eye toward better technology utilization. For more information, visit Coram's Web site at www.coramhealthcare.com. ▼

Furon unit can market new syringe pump line abroad

Furon Co.'s Medex unit has been granted clearance to market and sell the new Medex Protege 3010 series syringe pump in Europe. The company received the necessary European Commission certification and permission to display the CE Mark, which is necessary for any medical device sales into the European community.

Furon received clearance of its 510(K) application in April from the FDA to market the line of syringe pumps to the general anesthesiology market in the United States.

The Medex Protege 3010 series features a horizontal, stackable design and software differentiation that provides for drug delivery. J. Michael Hagan, Furon's chairman, president and CEO, says the company will continue to pursue registration for the Medex Protege 3010 series syringe pump in other global markets. Furon, a global manufacturer of engineered polymer components, serves both the commercial and health care markets. For further information, contact Michael Hagan or Ron Bissell of Furon at (714) 831-5350. Web site: www.furon.com. ▼

New NHIA directors

The National Home Infusion Association recently announced the appointments of Jack Collins, PD, and Britt Wimberly, PharmD, to the association's board of directors. Collins and Wimberly bring a wealth of IV therapy management and operations experience to the NHIA board. Collins has been in community pharmacy and home medical equipment since 1975, entering the home infusion business in 1992 with the

founding of Collins IV Care. He is chairman of the AM Health Group Inc., a comprehensive provider of diversified home infusion, home medical equipment, and respiratory therapy services.

Wimberly has been in home infusion practice since 1986, rising from staff pharmacist to vice president of operations with I Care Inc. in Little Rock, AK. Today, he is executive vice president of Care Partners, a new Little Rock-based infusion company formed last January, with five years as a home care pharmacy surveyor with the Joint Commission of Healthcare Organizations and four years as director of pharmacy operations for I Care Home IV Affiliates, a nationwide organization.

Tony Powers, PharmD, of Medical Alternatives, Memphis, TN, is the new president of NHIA; and Grant Brown, PharmD, of Option Care Inc., Bannockburn, IL, is vice president of the association. Also serving on the NHIA board of directors are Georgia state Rep. Jim Martin, PD, (treasurer), of College Pharmacy, Statesboro, GA; Jim Rankin, PD, of Family Care Pharmacy, Highland, IL; and Lisa Lyons, RN, MNSc (secretary), of United Healthcare, Little Rock, AK. Outgoing NHIA President Tony Dasher, PharmD, of American Pharmaceutical Services, San Antonio, will remain on the board in an ex-officio capacity.

NHIA, based in Alexandria, VA, provides information, education, and legislative and regulatory representation to the nation's approximately 5,000 home infusion therapy companies. Today, home infusion therapy represents approximately \$4 billion in annual health care expenditures — and significantly more in health care savings. For more information about NHIA, call (703) 549-3740, or visit the association's Web site at www.nhianet.org. ▼

New publication gives infusion providers needed tools

Market dynamics in the infusion therapy industry have changed dramatically in recent years. Gone are the days when companies could simply establish a market presence and expect growth and profitability to follow. Developing a successful market niche in infusion therapy now depends on understanding your local market inside and out, knowing your competition, and being able to identify new opportunities for expansion.

A comprehensive marketing plan can do all of

those. The National Home Infusion Association (NHIA) has published a new business resource book, *Creating a Marketing Plan: A Workbook for Infusion Therapy and Homecare*, by **Alison Cherney**, MBA. Cherney, who is president of Cherney and Associates in Brentwood, TN, specializes in health care marketing analysis, especially for infusion therapy, home care, and related market segments.

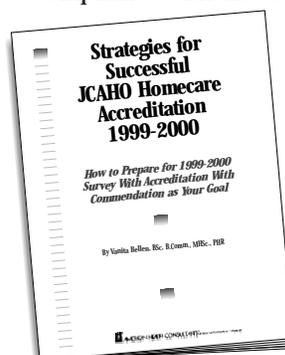
Creating a Marketing Plan includes practical information and worksheets covering market assessment and planning. Topics include:

- how to calculate local market size;
- revenue analysis;
- market assessment for all primary referral source markets;
- competitive market analysis;
- analyzing revenue and market assessment data;
- writing home care marketing plans;
- sample marketing plan.

The workbook's primary focus is infusion therapy; however, it also includes information on home medical equipment and intermittent and extended care nursing services. *Creating a Marketing Plan* is available from NHIA, 205 Daingerfield Road, Alexandria, VA 22314. Telephone: (703) 549-3740. Fax: (703) 683-1484. E-Mail: nhia@vais.net. The cost

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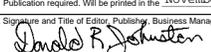
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NHIA will hold its ninth annual conference from May 17-20, 2000, in Cincinnati. The conference, which is the association's primary business and political meeting, will include two program workshop tracks on management and clinical operations, a trade exposition and industry-sponsored symposia. NHIA continuing educational programs offer continuing education credits for nurses and pharmacists. For further information, call NHIA at (703) 549-3740, or visit the NHIA Web site at www.nhianet.org. ■

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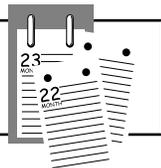
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Editorial Questions

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

CALENDAR



• **National Association for Home Care 18th Annual Meeting and Home Care Expo** — Oct. 9-13, San Diego Convention Center. For more information, contact NAHC at (202) 547-7424.

• **HIDA/99 Trade Show** — Oct. 9-11, Navy Pier Convention Center, Chicago. For more information, call (703) 549-4432.

• **CINA 1999** — Oct. 20-22, Toronto. For more information, call (416) 292-0687 or go to <http://web.idirect.com/~csotcina>.

• **Medtrade 1999** — Nov. 3-6, Ernest N. Morial Convention Center, New Orleans. For more information, call (770) 641-8181.

• **Intravenous Nurses Society Educational Meeting** — Nov. 5-7, Boston. Educational programs include industrial exhibits. For more information, call (617) 441-3008.

• **1999 Fall National Academy of Intravenous Therapy** — Nov. 5-7, Westin Hotel Copley Place, Boston. For more information, call (617) 441-3008.

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• **Medtrade 2000** — Oct. 3-6, 2000, Orange County Convention Center, Orlando, FL. For more information, call (770) 641-8181. ■

CE objectives

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

1. Document IV procedures sufficiently for a court case.
2. Describe the blood collection procedure apheresis.
3. Identify and describe five possible complications of hemophilia therapy.
4. Cite seven different types of hemophilia bleeds. ■