

# Wound Care™

***Your independent guide to wound management***

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## Get real: Virtual reality eases pain during wound care procedures

*Hypnosis, music, and other distractions also help patients*

A young boy flies over an icy canyon and shoots snowballs at igloos as a wound care nurse debrides a large burn wound on the boy's arm. His wound care used to be unbearably painful, but now that he can experience this chilly flight, he can avoid focusing on the debridement, reducing the pain he feels. The wound cleaning ends and the boy removes his helmet. Welcome to the use of virtual reality in wound care.

In ongoing and groundbreaking studies at the University of Washington's Harborview Burn Center in Seattle, virtual reality (VR) is significantly increasing patient tolerance and comfort levels when provided as an adjunct to opioids during wound cleaning, debridement, and dressing changes for burn wound patients. **David R. Patterson**, PhD, ABPP, professor in the department of rehabilitation medicine, surgery and psychology, and staff psychologist at Harborview, obtained a grant from the National Institutes of Health (NIH) for the VR research. Patterson, who receives frequent requests for pain management consults in his work as a psychologist at the burn unit, began using hypnosis in the early 1990s for adjunctive pain relief.

"When I started on the burn unit, I would see some patients whose pain was not well-controlled with medication. It was apparent to me that adjuncts were necessary. I found that some patients had dramatic responses to hypnosis."

### High pain levels helped by hypnosis

Patterson knew there were few controlled studies, so he applied to NIH and received funding to study the use of hypnosis and other distractive techniques as supplementary pain control. "We know that the mind can override the pain circuits, and we're seeing this as a very eloquent use of the mind in that capacity," Patterson says. An upcoming article details the results of the work at Harborview.<sup>1</sup>

Patterson says patients with higher-than-average levels of pain seem to derive the most benefit from hypnosis, tranquilizers, and VR. However, not everyone is a good candidate for hypnosis and other distraction techniques that cause the patient to disassociate mind from body, he notes.

“In essence, we’re using some coping techniques that might be maladaptive or ill-advised under other circumstances, but in this situation we’re actually trying to encourage them.”

According to Harborview researcher **Hunter Hoffman**, PhD, burn wounds were chosen for the VR study because burns are generally acknowledged to be the most painful type of wound. “Anything you can do to help burn pain will probably help other kinds of pain as well, because burn wound pain is so challenging,” Hoffman says. Opioid drugs usually give sufficient relief while a patient is resting. However, caring for the burn wound — which often involves removing dead tissue on a daily basis to minimize scarring and reduce infection, cleaning the wound, and applying a fresh dressing — frequently lifts pain to excruciating levels. Hoffman observes that wound care may be as painful for the patient as the injury was.

### **Anxiety is always a problem**

“There are two elements of pain during wound cleaning and dressing changes,” observes **Jai Prasad**, MD, medical director of the Adult Burn Center at Detroit Receiving Hospital. “One is the pain caused by the wound care itself, for which we give an opioid drug, and the other is anxiety.”

Anxiety is one of the chief pain management problems for burn wound patients and their caregivers. The patient’s first experience of pain during wound care heightens anxiety about subsequent wound care sessions, and the anxiety heightens pain during subsequent sessions. Because VR removes the patient’s attention from wound care procedures, it “short circuits” this pain loop. When patients are wearing the VR helmet, as they move their heads around what they see in the virtual world changes. This creates the illusion in the patients’ minds that they are in a different place, not in the room where the wound care is going on. Instead of focusing on the wound, they find themselves traveling over a frigid waterfall. Because patients often report reliving their original burn experience during wound care, this video helps “put out the fire.”

“We think the illusion of going to another place is one of the strongest factors influencing VR’s analgesic properties,” Hoffman says. “It draws so much attention away from the pain — it’s really an attention-getting mechanism. Patients tend to be highly motivated to go into the virtual world because the alternative is not very pleasant. The extent to which patients participate in the VR world determines the amount of pain reduction they experience. More importantly, the amount of time they spend thinking about their pain drops dramatically when they go into VR.” VR videos can be

customized for the particular needs of each patient. They can be designed to appeal to each patient’s specific interests and to run as long as the wound care takes. Though the analgesic effects of VR last only as long as the patient is wearing the helmet, by the time the helmet is removed the painful procedures are over.

### **Pain has a strong psychological component**

Hoffman and Patterson note that pain perception is largely psychological, and the depth of the pain experienced depends in part on the attention the patient pays to the pain. While opioid drugs remain necessary for pain during wound care, cognitive-behavioral techniques offer another type of pain intervention. In essence, cognitive interventions treat internal thoughts as modifiable behaviors that can alter the patient’s attention to physical pain signals. Hoffman compares conscious attention to a spotlight that, without pain intervention techniques, will be focused solely on the pain being experienced during wound care. Being drawn into the VR world requires most of the patient’s attention, leaving less attention available to process pain signals. For many patients in VR, rather than having pain as the focus of their attention, the wound care becomes more of an annoyance, distracting them from their primary goal of exploring the virtual world.

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**“Whenever you’re treating pain, you’re also treating some of the emotional aspects of pain.”**

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VR, like hypnosis and guided imagery, is a distractive technique. In her work as a burn nurse, **Gretchen J. Carrougner**, RN, MN, has successfully used the distractive techniques of hypnosis, visualization, and guided imagery in her work, such as having patients picture themselves without pain or solving math problems during a painful procedure. Carrougner, who is also a research nurse on the Harborview VR project, has found that “whenever you’re treating pain, you’re also treating some of the emotional aspects of pain. When we’ve optimized the pharmacological means for pain relief, we should be looking at non-pharmacological treatment strategies.”

These techniques can be applied to patients with other kinds of wounds. “Patients can be taught self-hypnosis, and then they can use that strategy on their own with a little bit of support from nursing personnel who help them through the steps to induce their self-hypnotic state during wound care,” Carrougner says. “With children, distraction works pretty well. As one

gets older, the effectiveness of distraction depends largely on the patient's willingness to participate." Music the patient finds soothing and conversation are also frequently used as distracters at Harborview.

Distractive techniques such as hypnosis, guided imagery, and music now are frequently used adjuncts to pharmacological pain relief in many burn care centers, and psychological counseling is now the norm. **Francis V. Winski**, MD, assistant professor of surgery at New York Medical College in Valhalla, NY, and attending staff member of the university's burn center, says, "We use a clinical nurse specialist who is not quite a psychologist. She has a typical nursing background, but also has the experience of dealing with the families and the patients as well. We also use the support of the college's psychiatry department with some patients, and we rely quite heavily on them, especially in cases where we think there may be problems with drug or alcohol dependency prior to the burn incident."

### A portable VR unit in the future?

The Harborview study suggests that VR reduces pain intensity, unpleasantness, and anxiety, and diminishes the amount of time patients think about their pain during wound care. The analgesic effects of VR for pain control appear to be significant. So, what about making a virtual reality system available to wound caregivers outside of hospitals with patients at home or in skilled nursing facilities?

Hoffman says he thinks it will happen. "There are a number of factors that are quickly reducing the size of VR systems. The VR system I used in 1993 was the size of a refrigerator and weighed several hundred pounds. Now, a computer of comparable power is about the size of a personal computer. Right now, it's still a pain in the neck to move it around, but it's much easier than it was a few years ago, and it's going to get easier in the future." Hoffman says prices for VR systems have fallen precipitously in the last two or three years. His 1993 system cost about \$175,000. The 1999 version is around \$50,000. He says there's a new system out that's under \$20,000. Granted, these prices still are out of reach for many facilities. But, Hoffman asks, "remember how widely affordable and available personal computers became — and how quickly — only a few years ago? I think that a system wound care nurses can take with them when they go out to treat patients is not far off."

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## Buying in bulk: Is the economy size always the best buy?

*It depends on where you'll be using those supplies*

**C**onventional shopping wisdom holds that purchasing anything in small packages costs more per unit than buying the same goods in larger-quantity packaging. So buying wound care supplies in bulk appears to be the most logical, cost-effective thing to do, right?

Not necessarily. What's cost-effective for home care may be penny-wise and pound-foolish for a skilled nursing facility.

**Sylvia Aruffo**, PhD, president of Care Products in Northbrook, IL, explains the pitfalls of buying bulk supplies. "While it may seem at first glance that bulk supplies should offer savings, bulk supplies can in fact turn out to be a nightmare of costs," Aruffo says, offering the following examples:

**1. Labor.** Supplies are only actually useful when they are pulled from their bulk packaging and rearranged into sets by procedure. Who is going to do this and at what labor rate? No matter what else you may plan for, the nurses are usually the ones who wind up organizing the supplies. That means you are spending \$18 an hour to pick and pack. One large East Coast clinic that tried the bulk supply purchase approach now has a full-time employee who does nothing but pick and pack. They are spending more now overall than ever.

**2. Capital.** Items may be cheaper per piece, but you do have to make a commitment to major quantities. That means risk; not only risk because your initial outlay is greater, but also risk that you could be stuck with unusable product if your disease mix changes. Remember, many disposables are not returnable at all, especially not if the package has been opened. One Midwest home care agency was caught with supplies it couldn't use and couldn't return when its parent company shifted strategies mid-year, abandoning the diseases that the agency had stocked up for and bringing on hundreds of patients with needs for a different set of supplies.

**3. Inventory management.** You might say some things will always be necessary, like 4x4 gauze pads or ABDs. Buy those in bulk and the remainder of your supplies in smaller quantities. But then you create a situation that requires a more sophisticated level of inventory

management. Home care agencies are not likely to be prepared to hire expensive materials managers.

**4. Shrinkage.** Face the human factors: The bigger the quantity available, the more waste, loss, and “borrowing.”

### **BBA provides lower reimbursement**

**Shirley Grey**, RN, MSN, vice president of Care Products and also of the Illinois Case Management Association, says home health agencies used to be able to bill Medicare for service for wound care supplies they used for their patients — until Congress passed the Balanced Budget Act (BBA) of 1997. The BBA mandates a prospective pay system, due to be implemented on Oct. 1, 2000. Until then, home health care comes under the interim payment system, a cost-based plan with reduced limits that has drastically cut reimbursements. Grey says that out of a predetermined amount, home health caregivers have to pay for all the supplies their patients need, for any teaching materials they provide to patients, and for the services of the nurse, including travel time and time spent doing paperwork. “This is where the struggle is coming with home health care,” Grey says. “What the government did was arbitrarily use patient care cost statistics from 1994 for existing care providers. So, if it cost you \$50 to take care of a patient in 1994, that’s all they will give you now, in 1999. About 1,200 home care agencies across the country have failed in this past year because they were being reimbursed on the 1994 numbers. There were hundreds of little mom-and-pop home health care businesses that had been in business for years that are in business no longer.”

Some companies that can’t afford to provide supplies are asking patients to obtain their own supplies, Grey says. “Or they’re getting another company to provide them, and getting Medicare to pay for them by charging it off to Medicare part B, and the patients pay the 20% remaining balance.”

These problems are what led Grey and Aruffo to form Care Products. The company puts together kits of supplies by procedure, for a single patient, that last about a week to 10 days. Called Careguide Self-Care Kits, each unit contains a full-color illustrated set of low-reading-level instructions. The company says the kits have been created from benchmarked products for self care and carry the name of the medical center or home care agency that wrote the “best practices” for each procedure.

**Samantha Morgan**, BSN, RN, CRRN, CCM, ET, director of rehabilitation services for Laurel Health Care Corp. in Westerville, OH, says the decision to purchase supplies in bulk depends upon whether the

wound care is provided in the home or in a health care facility. “If your business is home health, it may well be better to go with kits,” she says, “but in long-term care facilities, you have a fixed population that is going to have 100 days of Medicare coverage. I then have 100 days to treat this patient, but the government is only going to pay me a fixed amount. If I spend my money on kits and the physician’s orders change, as frequently happens, or there is a failure to communicate the appropriate use of the kits, the kits could become essentially unusable. If you have to throw away a whole bagful of gauze, you’re out maybe three bucks. If you have to throw out sterile gloves, a hydrocolloid dressing, a sterile irrigant, and more, it’s going to cost a lot more.”

If buying in bulk is a good thing to do when you have a nursing home population, it becomes even better when strict protocols are observed, Morgan says. “We have 17 facilities, and we have specific protocols that say ‘for this type of wound, choose between these two alternative supplies.’ Even in home care you could, for example, take a bottle of saline solution into the home and leave it at bedside for the use of the patient. That’s very economical. It should be the exception to leave supply decisions to the clinician’s judgment. If you have a patient who’s not complying, there’s no point in putting together a special kit. You quickly let the doctor know and you decide how you’re going to manage this or teach the family to manage it as best they can. I have found that when I use wound care kits for house calls, I tend to pick up additional supplies to take with me, anyway.”

### **Company saves 20%-35%**

Laurel Health Care supports its protocols with product decisions. “We have one hydrocolloid of choice, and that’s the one we keep in stock. We have set the inventory levels so we don’t have things expiring on our shelves,” Morgan observes. “Our 4x4s, saline solution, tapes, hydrocolloids, our thin film, all come from one supplier we have evaluated to be the best distributor. We review new products on an ongoing basis.” She estimates that Laurel’s initial saving from buying in bulk is 20%, and expects it may go as high as 35%. Rather than decentralize its facilities, leaving it to the clinicians to make choices, the company has solicited expert opinions from therapists, hands-on clinicians, nurses, and nurses’ aides to learn which dressing stays on or holds drainage, what’s easy to use, and what works or doesn’t. Morgan disagrees with the notion that an RN or a wound specialist has to do the supply counting and the inventory control. “No hospital I know of has an RN doing their inventory,” she says.

“They have a clerical-type person who is taught exactly how to process this stuff, to package it up, to clean it, to send it on.”

Another argument against buying in bulk is that sterility is compromised. But Morgan notes that wound care is a very dirty area and sterility is not guaranteed, even when doing wound care in an operating room. “Since in caring for a wound we’re not doing any incisions and not violating the body any more, it’s perfectly OK to have aseptic — clean but not sterile — supplies. That’s what I advocate to the people I work with. Make sure that you hand-wash, that you use gloves, that your material is not taken from one person to another. Bulk supplies are basically sterile when they’re packed. You open the package, put the supplies into a sealable plastic bag, and label it with the patient’s name. When you take that bag into the patient’s room and remove supplies from it, it’s just going to be his contamination, nothing else.”

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“Since in caring for a wound we’re not doing any incisions and not violating the body any more, it’s perfectly OK to have aseptic — clean but not sterile — supplies.”

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Sterile is a lot more expensive than aseptic. Morgan says opening a sterile 4x4 costs between \$5 and \$7, taking into account both the sterile procedure and the cost of the product itself. A clean, non-sterile gauze pad bought in a package of 200 may work equally well and be just as safe, and you don’t have to fear that if you have to throw one away, you’re throwing away \$7.

However different their approaches to purchasing, Morgan, Aruffo, and Grey firmly agree that Medicare billing needs to be substantially simplified for patient and caregiver alike. Getting through the Medicare billing paperwork can become such an oppressive burden, it can adversely affect everyday functioning. “Patients just absolutely start shutting down,” Morgan says. “One of the things I think would be helpful is home health consultants who can advise people on how to fill out their Medicare forms. It should be someone local, not an 800 number in another area. Say to them, ‘We’ll help you through this. We can’t do it for you, but we sure can talk you through it.’”

For more information on Careguide Self-Care Kits, contact Care Products, 255 Revere Drive, Suite 120, Northbrook, IL 60062. Telephone: (847) 205-1260. Fax: (847) 205-1270. E-mail: carekit@aol.com. ■

## Compression therapy is effective, but when to start it is unclear

### *Guidelines for compression therapy in question*

According to **James C. Watson, MD, FACS**, board-certified vascular surgeon and co-medical director of the Northwest Hospital Wound Care Center in Seattle, when to begin lower leg compression therapy for venous ulcers is a hot topic right now. Traditionally, the concern about using compression therapy has been that if the patient had a clot in a deep vein and compression was used on the vein distal to it, that clot would be squeezed out and move back to the heart, where it could cause pulmonary embolus. “I think that’s true for a day or two,” Watson says, “but after that time the clot becomes fixed to the wall of the vein and it’s very rare that it will squirt up to the heart. I tell people to take a couple of days, take it easy — after that they need to keep their feet elevated, and I move right to compression.”

Deep venous thrombosis (DVT) is the No. 1 reason people develop venous hypertension and consequent ulcerations. Watson notes that although compression therapy does not directly affect the healing response, it does remove the poor calf muscle pump function, edema, and lack of oxygen and nutrient exchange with carbon dioxide and metabolites, which are underlying causes for the ulcer. “If you get the fluid and swelling out of the leg, that allows the tissue to get oxygen and nutrients from the blood because there’s not a lot of fluid in the way. So the compression doesn’t affect your ability to heal a wound, other than taking out the factors that have prevented that healing.”

### **DVT doesn’t always show symptoms**

While there can be outward signs of DVT such as redness and swelling, symptoms don’t have to be present. “It depends on the location,” Watson says. “If it’s a proximal deep vein thrombosis, as in the groin or proximal thigh, most people get some swelling, bring it to the attention of their doctors, and get diagnosed.”

Watson says the deep venous thromboses that cause venous insufficiency and ulcers are usually the ones in the bigger veins. “This is a chronic problem. I tend not to prescribe compression therapy right away because the damaged valve takes a while to damage the subcutaneous tissue and cause the ulcer, and there is some risk. It’s very small, but there is some risk of causing a

pulmonary embolus from doing that. It's sort of like saying, 'Doctor, is there any chance I'll get hit by lightning today?' Well, yes, there is a chance, but it's not very likely."

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**"I'm a real fan of compression, and I don't think you have to wait to use it for months after a deep venous thrombosis."**

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During a recent exchange of opinion on the Wound, Ostomy and Continence Nurses Association Web site, **Ruth Bryant**, RN, MS, CWOCN, a partner in Bryant-Rolstead Consultants in St. Paul, MN, estimates that only about 25% of all DVTs are diagnosed. As for determining how soon compression therapy can or should be started after a diagnosis of DVT, Bryant says, "I have not seen this particular question asked in the literature as yet. Ideally, the physician would conduct another test on the leg — i.e., plethysmography or a scan — to verify resolution of the clot, which would imply it is safe to resume compression. Without that information, you might be wise to consult with a hematologist about clot resolution so you and the patient's physician could make a judgment about compression. It would be nice to have someone write in who says, 'resume one month post-DVT treatment initiation,' but I would bet such an answer would be more [based on experience] rather than research-based. Quite honestly, this is an important question because all patients with a DVT should be instructed in compression therapy."

"I'm a real fan of compression, and I don't believe you have to wait to use it for months after a deep venous thrombosis," Watson says. He advises patients to use elevation — which he says has essentially the same effect as compression — before starting compression therapy, and adds that in lower-extremity ulcers, the presence of necrotic tissue can cause the infection and inhibit granulation and healing. "You need to debride the ulcer down to healthy, non-infected alive tissue and allow granulation to start. Occasionally, it won't heal quickly enough. There are several growth factors derived from patients' blood, as well as a new product called Regranex, that tend to help stimulate granulation. If these don't work, or if the patient wants things done more quickly, we do skin grafts."

**Joan Nowicky**, RN, CWS, of Huntley Health Care in Malapan, NJ, says compression therapy for acute DVT is contraindicated by all manufacturers of pneumatic

compressive devices. "Most vascular surgeons I've talked with define DVT as acute if the condition is less than three months old," she says. "The reason compression is contraindicated in acute DVT is the concern that the thrombus may be dislodged and allowed to embolize. Even that's controversial at this point. I've heard various people speak about studies done on intraluminal pressures with simple dorsi flexion of the foot. External pressures cannot come anywhere near the pressure you get with simple dorsi flexion of the foot."

There is a theory that compression therapy will help break down a fibrin cuff. Various studies have shown that compression stimulates fibrinolytic activity. A recent study using five IPC devices in random sequence indicated that intermittent pneumatic compression is an effective form of treatment for DVT and results in a striking elevation in fibrinolytic activity.<sup>1</sup>

"We also know that acute deep vein thrombosis is a rather insidious disease," Nowicky says. "Its symptoms are usually not very well-noted. By some studies, 90% of patients with DVT have no physical symptoms like redness, swelling, and pain. Usually they won't get symptoms unless the thrombus is rather extensive and occluding the blood vessel. There's no screening for DVT, so most people with it are up and ambulating. This means their intraluminal pressures are higher than pressures you could get with pneumatic devices, so the chances of dislodging a clot with a pneumatic device are almost nonexistent. However, if it did happen, the device would be blamed, so it's definitely listed by all manufacturers that pneumatic devices are contraindicated until someone can prove otherwise."

Nowicky adds that healing will take a long time if the treatment is just putting dressings on a venous ulcer, and the ulcer may not close. "Compression therapy has been found to be very helpful, whether it's in the form of pneumatics or bandaging, to treat the underlying problem and allow oxygen and nutrients to get to the tissue and get rid of metabolic waste and carbon dioxide," she says. "Since venous ulcers can be a chronic condition, they have about a 70% recurrence rate. What you try to enforce with patients is that though the current ulcer may close and heal, they have to continue with the program to try to keep the edema down through proper management, including exercise and wearing the appropriate hosiery, so that the condition doesn't recur."

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# Enzymatic debridement: No perfect solution yet

*The search appears far from over*

A recently published study on procedures for determining the effectiveness of various enzymatic wound debriding agents illustrates the continuing need for a reliable, cost-effective enzymatic debrider for use in wound care.<sup>1</sup>

Researchers concluded that the automated in vitro procedure used in the study can produce useful information for evaluating the effects topical antimicrobials, wound cleansers, wound dressings, and drug infiltrates have on the effectiveness of debriding agents. The study used porcine skin and muscle tissue as substrates in an automated Franz-type in vitro diffusion cell system.

Enzymatic debriding remains a part — albeit often a small one — of most wound care practices. **Ronald G. Scott, MD**, medical director of the Wound Care Clinic of North Texas at Presbyterian Hospital of Dallas, says, “If I were breaking it down, I do probably about 80% sharps debridement, 15% autolytic or some combination of autolytic and enzymatic, and 5% straight enzymatic.” Scott says he often uses a hypertonic saline gel called Hypergel. “It works a lot like an enzymatic debrider at about half the cost.”

## Drawbacks of surgical debridement

Cost is an important factor in debridement no matter how it's done.<sup>2</sup> Surgical debridement is expensive because in most places a surgeon has to do it. In states where nurses are permitted to perform sharps debridement, they face significantly higher liability but don't receive pay equivalent to what surgeons receive for doing the same job.

Patients in nursing homes and in home health care frequently have physical difficulty getting to a hospital or clinic. Surgeons sometimes practice surgical debridement aggressively, going well beyond the outer edges of a wound, which creates a larger wound and an opportunity to spread infection through a bleeding site. Autolytic and enzymatic debridement are less expensive than surgical debridement, and therefore more financially accessible to many patients, but they also are lengthier processes.

**Barry Constantine**, director of product development for Integra LifeSciences Corporation of Island Heights, NJ, has interviewed numerous wound care nurses in the course of his work. “What they want in

an enzymatic debridement agent is one that is fast-acting, that works within 24 hours, and one that will not damage the surrounding viable tissue.” He points out that enzymes may not discriminate between the non-living tissue they are being used to debride and the adjacent living tissue. Enzymes also may degrade themselves, making a truly accurate measure of their efficacy in debriding necrotic tissue impossible. Constantine points out that both enzymatics and hydrogels require multiple applications and usually require between four and eight days before appreciable degradation of the necrotic tissue is seen. “My concern is that during that four- to eight-day interval, that necrotic tissue acts as a substrate for bacteria that have the potential to form an infection, especially if the patient is immunocompromised.”

## A good idea whose time has not come

**Herbert Meites, MD, FACS**, medical director of the wound care center and hyperbaric medicine department and associate medical director of the burn center at Integris Baptist Medical Center in Oklahoma City, also has a low opinion of enzymatics currently available. “The idea is fine,” Meites says, “but we don't have a good enzymatic debridement agent now. We really need a good model to be able to say, ‘OK, we're going to treat all the wounds the same.’ We now have only one variable, which is enzyme vs. none.”

Meites also points out that many of the chronic wounds he sees have had very poor wound care and improve very quickly once the level of wound care rises. He says he thinks the positive outcomes that result from using enzymes to debride wounds come more from the attention given the wound than the ability of the agents themselves. When a patient receives enzymatic debridement, the wound caregiver attends to the wound almost every day, and may sharply debride the wound during the same visits. “The real question is,” Meites says, “is the wound getting better faster because of the enzyme, or because there's a lot more attention being paid to the wound? I think it's probably the increased attention and not necessarily the product. It may well be that good wound care with no agent will do better than poor wound care with an agent.”

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# WOUND CARE FORUM

**Question:** “Will you explain how skilled nursing facilities can receive adequate reimbursement under the new Medicare prospective payment system?”

— Submitted by **Sharon Kleive**, RN, Duluth, MN

**Answer:** **Glenda J. Motta**, BSN, MPH, ET, president of GM Associates in Mitchellville, MD, says in order to receive adequate reimbursement, skilled nursing facilities must understand the minimum data set (MDS), which is the driving force behind the prospective payment system (PPS).

The MDS consists of specific assessment items that are used to assess patients' clinical conditions and needs. It's a lengthy checklist. For example, section “M” has components related to skin and wound care focusing on stage of wound, type of wound, skin lesions, skin treatments, and so on. When a patient has a wound, the specific MDS items must be documented. The MDS is a multidisciplinary clinical tool. The physical therapist completes certain items, nurses complete others, the dietitian completes a part, and so does the social worker. It's a group effort to do this comprehensive resident assessment, and teamwork is critical to success.

The data from your MDS are then converted to a resource utilization grouping (RUG). The needs of the individual as assessed determine which of 44 RUGs the patient fits into, and the RUG determines how much reimbursement you receive.

## Every facility gets paid a different rate

Reimbursement under the PPS is divided into two parts: 25% of the reimbursement is a federal payment that is the same for that RUG all across the nation, and 75% of the reimbursement is a facility-specific rate that is administered by your facility's fiscal intermediary, the insurance company that processes and pays the claim for Medicare Part A. The facility-specific rate is calculated according to your facility's cost-reporting history. This system is designed to account for local variations in labor costs and materials costs, as well as factors such as the quantity of supplies purchased.

This means every nursing facility has its own rate of reimbursement. The federal part of the reimbursement rate is published; your facility's fiscal intermediary can tell you what the rate is for your facility.

Next year, the federal-local payment ratio will become 50% federal and 50% facility-specific. In 2001,

payment rates will be 75% federal and 25% facility-specific. By 2002, 100% of the reimbursement rate will be federal, which means the rate of payment will be the same in every nursing home. In effect, the government has said, “There are variations in costs, so we're not going to hit you the first year with a federal government rate. We're going to give you four years to complete this transition.”

Some skilled nursing facilities are taking a financial hit from this. The government has admitted that in certain categories under the RUGs, the reimbursement rate just does not cover what is necessary, but they've effectively said: “Although we admit there are certain categories in which some residents' needs are so complex that the reimbursement rate will not cover it, there are also categories under which the reimbursement rate more than covers other needs, and we expect that it will balance out.” The best thing clinicians can do is to go through the documentation very carefully and know what the federal and facility-specific parts of the payment rate are for every RUG.

## 'Cherry-picking' is not the answer

A key concern is that facilities may “cherry-pick” by turning away prospective residents with complex needs and choosing instead to admit patients who are expected to be less costly. For instance, if you assess a prospective resident and see that the patient is taking 10 oral medications and intravenous antibiotics, and has an infected wound, it would be easy to decide not to admit that person because his or her care would be so expensive. After all, out of its payment rate a facility has to pay pharmaceutical costs, wound care dressings, therapy . . . everything has to come out of this rate! The government's position is that facilities are going to win some and lose some in reimbursement, but the sum total will balance.

In about six months, there may be extensive hearings on Capitol Hill about what's going on in nursing homes. The National Citizens' Coalition for Nursing Home Reform, a big consumer group located in Washington, DC, follows quality of care in nursing homes. Its Web site, [www.nccnhr.org](http://www.nccnhr.org), is an excellent one to monitor for this issue. Other good Web sites for information on reimbursement procedural changes are the American Health Care Association (AHCA) at [www.ahca.org](http://www.ahca.org), the National SubAcute Care Association at [www.nasca.net](http://www.nasca.net), and the Update Center for Long Term Care at [www.longtermcare.com](http://www.longtermcare.com).

The AHCA, which is the lobbying group for the for-profit nursing homes, just published on its Web site the information it sent to HCFA showing that payment

rates do not cover what they need to in order to pay for so-called "non-medical ancillaries," which include drugs, wound care supplies, and support services. Facilities used to bill for all of that separately, and they can't bill for any of it now, so many facilities have responded by reducing utilization or discontinuing use of certain devices, wound dressings, and other things. They're not using specialty dressings, they're not using support services, wound care consultants, physical therapy. It's the patient who's the loser.

*If you have a wound care-related question you would like to have answered, please send it to: The Wound Forum, c/o Wound Care, P.O. Box 740056, Atlanta, GA 30374. ■*

## Product POINTERS

### Manufacturers market wide variety of dressings

By **Liza Ovington, PhD, CWS**  
President, Ovington & Associates  
Fort Lauderdale, FL

Judging by a recent tour of the exhibit floor at a large wound care symposium, the proliferation of advanced wound care dressings is at an all-time high. New and different dressings continue to be introduced into the marketplace every year. A review of the different brands of various categories of dressings listed in three consecutive annual buyer's guides shows that while numbers have decreased slightly in a few individual categories, the overall numbers have increased every year.

Many of the new dressings are copycats of something already on the market, with the primary difference being a reduced price. Some new dressings claim to offer better performance such as increased absorption, better conformability, better adhesion and wear time, or specialized shapes. Others claim to be specialized, with singular performance parameters such as special ingredients that facilitate a particular phase or cell of the healing process. Promotional materials and

reports describing clinical use accompany most of the new dressings as well as the returning brands. These reports may be as simple as a descriptive case study or a case series or a comparative study vs. a logical competitor. More and more, the wound care decision makers are demanding randomized controlled trials to evaluate wound care products, and this type of study may be available as well.

The more specialized a product becomes in terms of its function or performance parameters, the less widely applicable it may be for different wound types or for one wound over the entire course of its healing process. Everyone would agree that the use of an enzymatic debriding agent in a wound with slough or eschar should be discontinued once the devitalized tissue is cleared.

Most clinicians also would agree that as a wound evolves in its healing, it has different requirements in terms of the topical dressing used for management. A wound that presents as a deep crater with copious exudate may need a conformable, absorbent dressing such as an alginate until it begins to granulate in and drain less. At that point, the alginate may be too absorbent and topical management might be switched to another type of dressing such as a hydrocolloid. As the same wound begins to epithelialize, the hydrocolloid may become too adhesive for the nascent epithelium, and topical treatment may again evolve to a less adhesive dressing. As the wound evolves, so should the dressing or topical management.

Dressing category	Number of brands*		
	1996	1997	1998
Alginate	18	20	26
Biosynthetics and skin substitutes	7	7	9
Collagen	5	8	9
Composites	18	20	20
Contact layers	8	8	7
Foams	28	27	26
Hydrocolloids	35	39	41
Hydrofibers	N/A	1	1
Hydrogels-amorphous	31	32	30
Hydrogels-sheets	18	23	19
Hydrogels-impregnated gauze	13	15	14
Specialty absorptives	12	13	17
Transparent films	17	19	21
Wound fillers	5	8	10
<b>Totals</b>	<b>215</b>	<b>240</b>	<b>250</b>

\* Listed in the Ostomy Wound Management Buyer's Guide

However, this logical evolution of dressing type with wound healing progress is rarely employed in the course of a comparative, randomized clinical trial. Usually, the control and test dressings are used from the time of patient enrollment until the day of complete wound closure. So, while the design of a randomized controlled trial minimizes bias between the two modalities being compared, does it represent the reality of clinical practice as it relates to product utilization? If the same dressing is used from the time of wounding until the time of healing, might it not be inappropriate or at least not the best choice at some time point or status of wound healing? Might the randomized controlled trial that employs one dressing throughout the course of healing actually be dampening the benefit of the dressing?

These thoughts lead to questions about study designs that may best evaluate and compare the efficacy of the wide variety of dressings available on the market today. ■

## NEWS BRIEFS

### AAWM completes CWS candidate reviews

The credentials committee of the American Academy of Wound Management (AAWM) received a record 160 portfolios in its last quarterly final review of candidates for board certification. Past quarterly reviews typically involved review of 80 to 100 portfolios. The almost 100% increase in completed portfolios submitted for review is probably related to the end of certification by portfolio effective at the end of this month, according to AAWM administrative director **Mike Freedman**.

Candidates who want to become board-certified in wound management via the portfolio method have just one more opportunity. Completed portfolios submitted by June 30, 1999, will be reviewed during a credentials committee meeting in July. That meeting will span two days and involve additional AAWM volunteers who are expected to review more than 250 portfolios.

For all those who apply for board certification after June 30, certification will only be achieved via a passing score on the National Board Certification Examination. The first exam is scheduled for Oct. 4 in Denver during the 14th Clinical Symposium on Wound Management. Certified Wound Specialists also will field-test the exam via the Internet. AAWM recently signed an agreement with Intralearn ([www.intralearn.com](http://www.intralearn.com)) to help develop and host an on-line version of the exam for field testing.

More than 100 current Certified Wound Specialists have volunteered to help with the development of the National Board Certification Examination. The response followed a letter requesting assistance from AAWM examination committee chair Liza Ovington, PhD. AAWM will field-test its exam in Anaheim, CA, during the Health Management Publications Wound Care Conference. About 25 certified wound specialists will take portions of the test to help AAWM determine relevancy and efficacy of questions. ▼

### Is drug industry Y2K-OK?

According to a recent *Medline* report, the pharmaceutical industry is Y2K-prepared. **Alan F. Homer**, president of the Pharmaceutical Research and Manufacturers of America (PhRMA), says the pharmaceutical industry has extensive experience in getting medicines to where they are needed in time of crisis, such as sites of hurricanes, fires, other natural disasters, and military conflicts. Homer says his organization anticipates no interruption in the supply of medicines due to Y2K problems, but notes that "success in meeting the Y2K challenge depends not only on our industry, but on other links in the supply chain and on doctors, hospitals, insurers and — not least of all — patients themselves. Hoarding and stockpiling by patients could create a greater threat to the supply of medicines than any computer glitch."

A recent survey of member companies by PhRMA found that all of the companies responding, including most of the top 20 research-based pharmaceutical firms, have a Y2K plan in place and are developing contingency plans to ensure the continuous supply of medicines to patients. All of the companies have completed an inventory of their equipment containing embedded chips and are taking corrective action where needed. ▼

## British wound partnership puts articles on-line

The Surgical Materials Testing Laboratory (SMTL) at the Princess of Wales Hospital in Bridgend, UK, and the Tissue Viability Society (TVS) have announced their new partnership. In return for SMTL hosting and maintaining the TVS Web site, the TVS will make available selected articles from the *Journal of Tissue Viability* to be published on-line in *World Wide Wounds*, the on-line journal published by the SMTL. The first of these articles, "Morphological Characteristics of the Dermal Papillae in the Development of Pressure Sores," is now available at: <http://www.smtl.co.uk/World Wide Wounds/1999/march/Hiromi-Arao/Dermal-Papillae.htm>. ▼

## New wound dressing uses high-glycerine gel

Southwest Technologies, manufacturer of Elasto-Gel wound care products as well as pressure relief and hot/cold therapy products, has introduced a new sterile toe and wound dressing that incorporates a high-glycerine gel pad attached to a T-shaped water-resistant adhesive. The manufacturer says the bacteriostatic and fungistatic properties of Toe-Aid help control fungus under the toenail. If the toenail has been removed, Toe-Aid will not stick to or dissolve into the wound. Contact Southwest Technologies, 1746 Levee Road, North Kansas City, MO 64116. Telephone: (816) 221-2442. ■

## The Wound Calendar

• **"Positive Outcomes in Dermal Wound Management"** — June 10, Kansas City, MO; June 12, Denver; June 24, San Francisco; June 26, Seattle. Contact: Health Management Publications, 950 West Valley Road, Suite 2800, Wayne, PA 19087. Telephone: (800) 766-6014.

• **"Optimum Wound Management: A Cost-Effective, Comprehensive Approach"** — presented by Bonnie Sparks-DeFriesse, PT, CWS, will be held on:

June 11-13, Las Vegas  
June 25-27, Philadelphia  
Aug. 14-15, Dallas  
Aug. 28-29, Chicago  
Sept. 11-12, Sarasota, FL  
Sept. 25-26, Denver

Contact: Illume, 15505 E. 590th Road, Inola, OK 74036. Telephone: (918) 543-6933. Fax: (918) 543-3334. Web site: <http://www.illume-ed.com>.

• **"Taking Charge of Wound Management"** — June 7, Florence, SC; Aug. 23, Nashville, TN; Sept. 20, Charleston, SC. Contact: Donna Morgan, Professional Rehabilitation, Easley, SC. Telephone: (800) 447-2059.

• **"Advanced Wound Healing: Normal and Pathological Wound Healing Mechanisms"** — June 26-27, Minnetonka, MN. Contact: Wound Care Associates, 177 Cherry St., Williams Bay, WI 53191-9704.

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Telephone: (414) 245-6812. Fax: (414) 245-6912. E-mail: feedar@woundcareresources.com.

• **“Current Concepts in Wound Healing”** — June 12-13, Hot Springs, AR. Contact: Wound Care Associates, 177 Cherry St., Williams Bay, WI 53191-9704. Telephone: (414) 245-6812. Fax: (414) 245-6912. E-mail: feedar@woundcareresources.com.

• A two-day conference on the use of living organisms in medicine will be held June 10-11 at the Grand Pavilion, Porthcawl, South Wales, UK. Contact: Tony Fowler, Biosurgical Research Unit, SMTL, Princess of Wales Hospital, Coity Road, Bridgend, CF31 1RQ. Telephone: +44-1656-752820. Fax: +44-1656-752830. E-mail: bioconf@smtl.co.uk.

• **Wound Ostomy and Continence Nurses Society annual national meeting** — June 20-24, Minneapolis. Telephone: (888) 224-9626.

• **“Advances in the Biology and Treatment of the Skin”** — June 23-25, Piscataway, NJ. Contact: Mitchel Rosen, coordinator, Environmental and Occupational Health Sciences Institute, Center for Education and Training, 45 Knightsbridge Road, Brookwood Plaza II, Piscataway, NJ 08854-3923. Telephone: (732) 235-5062. Fax: 235-5133. E-mail: mrosen@umdnj.edu.

• **The 1999 Joint European Tissue Repair Society/Wound Healing Society Meeting** — Aug. 24-28, Lyon, France. Contact: Alexis Desmouliere, GREF, Universite Victor Segalen Bordeaux 2, 146 rue Leo-Siagnant, 33076 Bordeaux, France. Telephone: +33 557 571 771. Fax: +33 556 514 077.

• **Wound Care Specialty Course** — Sept. 6-25, Charleston, SC. Sponsored by the Medical University of South Carolina College of Nursing, 99 Jonathan Lucas St., Charleston, SC 29425. Telephone: (843) 792-2651. Fax: (843) 792-3680. E-mail: kellerhals@musc.edu.

• **Second Joint Conference on Infection Control** — Sept. 9-11, Queensland, Australia. Sponsored by the

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Practitioners Association of Queensland and the Queensland Wound Care Association. Telephone: +61-0-7-3369-0477. E-mail: wic99@im.com.au. ■

• **Third annual Wound Care Congress for Rehabilitation Professionals** — Sept. 19-22, Las Vegas. Telephone: (318) 869-3322. Web site: <http://www.woundcareinternational.com>. ■

## Coming in Future Issues

- Benchmarking: How to create positive outcomes
- Burn care products: What's new, what works best
- Magnets: Help or hoax for wounds?
- Light therapy for healing: What's being done now

## CE objectives

After reading each issue of *Wound Care*, the health care provider will be able to:

- identify management, clinical, education, and financial issues relevant to wound care;
- describe how those issues affect wound care providers and patients;
- describe practical ways to solve problems commonly encountered by care providers in their daily activities. ■