


Wound Care ADVISOR

PRACTICAL ISSUES IN WOUND, SKIN, AND OSTOMY MANAGEMENT

Official journal of  National Alliance of Wound Care
and Ostomy



**What would
you do with
this ostomy?**

**Providing evidence-based
care for individuals with
cellulitis**

**Exercise for patients with
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CONTENTS

May/June 2015 • Volume 4 • Number 3
www.WoundCareAdvisor.com

FEATURES

- 12 **Helping patients overcome ostomy challenges**
By Beth Hoffmire Heideman, MSN, RN
Physiologic, psychological, and psychosocial issues demand careful planning, monitoring, and creativity.



page 12

- 24 **Providing evidence-based care for patients with lower-extremity cellulitis**
By Darlene Hanson, PhD, RN; Diane Langemo, PhD, RN, FAAN; Patricia Thompson, MS, RN; Julie Anderson, PhD, RN; and Keith Swanson, MD

Find out how to identify and intervene for this potentially dangerous bacterial skin infection.

DEPARTMENTS

- 6 **From the Editor**
Ankle-brachial index: A dirty word?
- 9 **Clinical Notes**
- 18 **Apple Bites**
Moldable ostomy barrier rings and strips
- 20 **Best Practices**
Helping patients with lower-extremity disease benefit from exercise
Get the 'SKINNI' on reducing pressure ulcers
- 30 **Business Consult**
A collaborative approach to wound care and lymphedema therapy: Part 1
Creating high-performance interprofessional teams
- 36 **Clinician Resources**
- 37 **NAWCO News**



page 21



page 24

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Ankle-brachial index: A dirty word?

Silence, roving eyes, fidgeting, excuses, a quick subject change—these are typical responses from healthcare clinicians when asked, “What’s the patient’s ankle-brachial index?” You’d think someone had just uttered a dirty word.



The ankle-brachial index (ABI) is a key component of the lower-extremity vascular exam, recommended and in some cases mandated by numerous clinical practice guidelines, including the most recent **international guidelines** on preventing and treating pressure ulcers.

Nonetheless, the ABI exam more often is omitted than performed. If a patient has an infection, we’d never omit taking

his or her temperature. Yet it’s commonplace to skip the ABI exam in patients with lower-extremity wounds. Why?

I’ve come up with three possible explanations:

- *Lack of knowledge:* Many clinicians have never heard of an ABI or don’t know how to measure it.
- *Poor access to equipment:* The vascular Doppler isn’t on the list of cheap supplies, and its purchase is often superseded by more frequently used supplies.
- *Lack of time:* The ABI exam can take 15 to 45 minutes, depending on the clinician’s skill and how quickly and easily the patient’s pulses can be found.

Although these are all valid explanations, they’re not justifiable reasons for failing to measure the patient’s ABI.

Ideas and solutions

WCCs, DWCs, CWCNs, CWSs, and all other wound care experts should focus on sharing their knowledge with staff and healthcare community education efforts, such as hands-on ABI training sessions. Approach administrators at your healthcare organization with equipment requisitions for vascular Doppler devices, along with clinical practice guidelines that recommend the ABI exam. Explain to administrators that accurately differentiating vascular wounds from pressure

(continued on page 8)



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(continued from page 6)

wounds may decrease the organization's pressure ulcer prevalence rate.

Other suggestions:

- Contract with an outside agency to perform ABI exams for your facility or agency.
- Designate an official ABI staffer to assist with admissions.
- Consider using the **Lanarkshire Oximetry Index** as a substitute for ABIs.

For additional information, visit these other online links:

- Online **video** training
- ABI **policy and procedure**
- Measurement and interpretation of the ankle-brachial index: **A scientific**

statement from the American Heart Association

The ABI is an extremely beneficial tool that can aid early detection of peripheral arterial disease, in turn helping to prevent complications and amputations and potentially saving lives. ABI needs to come off the dirty-word list.



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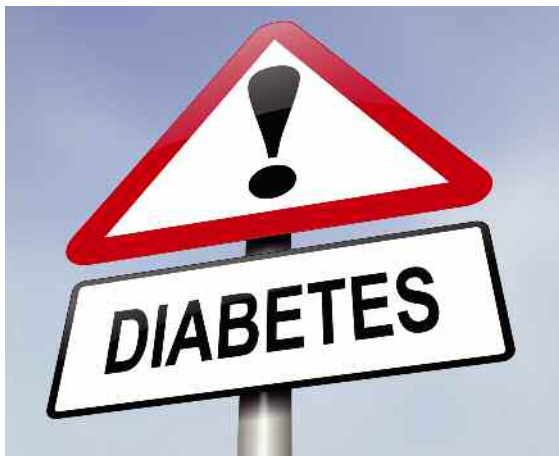
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Factors affecting medication adherence in patients with diabetes identified

Factors associated with better adherence to antidiabetic medications taken by patients with diabetes include older age, male sex, higher education, higher income, use of mail-order vs. retail pharmacies, primary care vs. nonendocrinology specialist prescribers, higher daily total pill burden, and lower out-of-pocket costs.

“**Determinants of adherence to diabetes medications: Findings from a large pharmacy claims database**,” published in *Diabetes Care*, also found that patients who are new to diabetes therapy are less likely to be adherent. The study included more than 200,000 patients who were treated for diabetes with noninsulin medications.



LMW heparin may improve healing of chronic venous ulcers

International Wound Journal has pub-

lished “**Low molecular weight heparin improves healing of chronic venous ulcers especially in the elderly**,” a study that included 284 patients.

The healing rate for those receiving low-molecular-weight (LMW) heparin was around 80% at 12 months, compared to around 60% for those who didn’t receive heparin. Older patients received the most benefit and also had the lowest recurrence rate.



Comparison of dressings for pediatric donor skin-graft sites

Compared to foam and hydrofiber, calcium alginate is the optimum dressing for pediatric donor skin-graft sites, according to a study in the *Journal of Burn Care & Research*.

“**Management of pediatric skin-graft donor sites: A randomized controlled trial of three wound care products**” included 57 children, and the median size of the donor site was 63.50 cm². The median days for healing for those in the calcium alginate group was 7.5, compared to 8 days for hydrofiber and 9.5 days for foam.



Insulin pump clinical safety appraised

“Insulin pump risks and benefits: A clinical appraisal of pump safety standards, adverse event reporting, and research needs,” is a Joint Statement of the European Association for the Study of Diabetes and the American Diabetes Association Diabetes Technology Working Group published in *Diabetes Care*. The article contains several recommendations for reducing adverse effects caused by user error, including:

- Select appropriate candidates for pump therapy.
- Provide those beginning pump therapy with appropriate and ongoing education and support.
- Ensure that healthcare professionals supporting pump users are themselves well trained and supported.

The article also notes that the clinical studies required before marketing an insulin pump are “small and over-reliant on bench testing” and that once a pump is on the market, “insufficient data are made publicly available on its long-term use in a real-world setting.”

Resistance training may improve lymphedema

According to a poster presented at a Florida State University symposium, **“Resistance**



training improves muscular strength and lymphedema in breast cancer survivors,” 33 female participants experienced moderate-to high-intensity resistance therapy over 12 weeks. The researchers found that participants tolerated therapy well and that lymphedema was significantly decreased.



Ability to stop insulin varies with bariatric surgery type

“Insulin cessation and diabetes remission after bariatric surgery in adults with insulin-treated type 2 diabetes,” published in *Diabetes Care*, found that patients who had Roux-en-Y gastric bypass surgery were more likely than those who had laparoscopic adjustable gastric banding to be able to stop insulin after surgery.

Pilot studies find acupuncture reduces lymphedema

“Acupuncture research at Memorial Sloan



Kettering Cancer Center reports acupuncture significantly reduces arm circumference in patients with lymphedema.

The article, published in the *Journal of Acupuncture and Meridian Studies*, discusses two pilot studies that indicate acupuncture is safe for patients who have had breast cancer surgery.



Clinical practice guidelines for ostomy surgery released

Diseases of the Colon & Rectum has published “**Clinical practice guidelines for ostomy surgery.**” The American Society of Colon and Rectal Surgeons developed the guidelines, which discuss ostomy creation, closure, and complications.

The **guidelines** state that the “optimal care for patients undergoing ostomy surgery includes preoperative, perioperative, and postoperative care by an ostomy nurse specialist.”

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Helping patients overcome ostomy challenges

Physiologic, psychological, and psychosocial issues demand careful planning, monitoring, and creativity.

By Beth Hoffmire Heideman, MSN, RN

No one wants an ostomy, but sometimes it's required to save a patient's life. As ostomy specialists, our role is to assess and intervene for patients with a stoma or an ostomy to enhance their quality of life. We play an active role in helping patients perform self-care for their ostomy and adjust to it psychologically, starting even before surgery.

process the life changes it will entail. They can learn about anticipated postsurgical changes in the patient's diet, clothing, and sexuality, and family members can become more sensitive to the change in their loved one.

Assessment

On initial assessment, evaluate your patient's body configuration, stoma placement, skin integrity, physical limitations, psychological needs, and home caregiving system. Then develop a plan of care to mitigate problems that could impede the patient's ability to maintain and manage the ostomy system.

The human body comes in many configurations and sizes. Because each person's body is unique, clinicians may need to get creative to adapt the ostomy system to a patient's body. Options for adapting it to your patient's physical characteristics include using:

- a one-piece vs. a two-piece system
- a flexible flange, clear drape flange, or moldable flange.

Factors affecting decisions about an ostomy include its location, skin integrity, and physical ability. (See *Decision guide for ostomy products*.)

Location

The stoma may be located near an incision, under a peniculum, or in an ab-



Preoperative considerations

Preparation for the ostomy is the most critical aspect of a healthy adjustment. When the ostomy is planned, the patient and family members are more likely to

Decision guide for ostomy products

The chart below suggests appropriate products to use based on your patient's physical condition or ostomy characteristics. It applies to patients with ileostomies, urostomies, or colostomies. Refer patients with special challenges to a certified wound clinician.

OSTOMY SYSTEM BASICS

Description	What to use
Retracted stoma (below abdominal plane)	<ul style="list-style-type: none"> • Convex flange • Convex ring • Strip paste
Protruded stoma (above abdominal plane)	<ul style="list-style-type: none"> • Flat flange • Flat ring
Acidic effluence (ileostomy or urostomy)	<ul style="list-style-type: none"> • Extended-wear flange • Extended-wear skin protector • Convex adaptor ring
Basic (neutral) effluence (colostomy)	<ul style="list-style-type: none"> • Standard-wear flange • Standard skin protector • Stoma paste, adaptor rings • Adhesive strips

PERIWOUND SKIN

Eroded or denuded	<ul style="list-style-type: none"> • Stoma powder • Use crusting method: Apply powder, dust off, apply skin prep; repeat three times.
Fungal rash	<ul style="list-style-type: none"> • Antifungal powder and skin protectant • Skin protectant product • Use crusting method: Apply powder, dust off, apply skin prep; repeat three times.
Infection or ulcer	<ul style="list-style-type: none"> • Calcium alginate silver powder • Hydrofera blue • Silver hydrofiber • Calcium alginate silver sheet

SPECIAL SITUATIONS

Stoma located in abdominal fold or abnormal position	<ul style="list-style-type: none"> • One-piece system • Extended-wear products • Convex adaptor rings • Silicone tape • Pectin ring
Stoma located on a flat surface (regardless of body position)	<ul style="list-style-type: none"> • One- or two-piece system • Standard ostomy system
Difficult adherence	<ul style="list-style-type: none"> • Consider using ostomy belt, medical adhesive spray, or latex bonding cement.
Stoma near incision line	<ul style="list-style-type: none"> • Offset flange opening to right or left.
Hernia	<ul style="list-style-type: none"> • Ostomy hernia belt (requires physician order and prescription specifying ostomy hernia belt)
High-output stoma	<ul style="list-style-type: none"> • Adaptor valves connected to night drainage bag (for urostomy or ileostomy); acquire through patient's ostomy supply vendor.

Additional recommendations

If your patient's ostomy problems aren't resolving:

- Assess for patterns.
- Determine what occurred and identify related issues.
- Evaluate for changes in the patient's psychosocial status.
- Carefully observe the stoma as the patient passes effluent.

Case study 1: Stoma location challenge

When the patient declines to participate in the plan of care, solving a stoma location problem can be difficult, as this case study illustrates.

History

Mary, a 25-year-old moribund, obese, bedbound patient, had a colostomy to assist with healing a stage IV pressure ulcer adjacent to her anus. The stoma was placed under the pannus, and Mary's family was responsible for ostomy care.

Assessment

On assessment, Mary weighed 365 lb. Her diet was high in fat and salt. The pannus hung below her knees, restricting effluence flow and stretching the stoma. Four assistants and mobility devices were required to move her.

Plan

- Reduce weight of the pannus to lessen pressure on the stoma.
- Promote weight loss.
- Instruct the family in ostomy management.

Actions

To address Mary's problems, the healthcare team:

- taught the family how to stop the pannus from applying pressure on the stoma by using a support binder
- educated the family on how to assess the effectiveness of pressure-reduction techniques for maintaining stoma function
- promoted weight loss by referring Mary to a registered dietitian
- referred Mary to a social worker for emotional counseling related to weight loss
- remeasured the stoma with each wafer change.

Outcome

Although the family responded well to teaching, Mary declined to follow through with the plan of care (which included weight reduction) and continued to gain weight. As a result, the stoma continued to stretch and flatten until it became level with the abdominal plane. As it kept enlarging, she chose to use an incontinence pad to collect effluence.



The stoma, 2.5 cm in height when first placed, became nearly level with the abdominal plane.

dominal fold. Ostomies in these areas can be hard to manage because of wound dressings, staples, adhesive strips, and body shape.

If the ostomy system is located *next to an incision*, you may want to adapt it by using stoma paste strips, moving the flange opening to the right or left, or using a pectin-ring stoma system without a flange. When the stoma is placed *under a peniculum*, pressure from the weight slows effluence (drainage) flow. To decrease pressure on the stoma and promote flow, an abdominal support binder can be used. (See *Case study 1: Stoma location challenge*.)

If the stoma is located *in an abdominal fold*, you can use a one-piece flexible ostomy system to increase adherence. When needed, add stoma paste strips and either medical adhesive spray or a bonding cement.

Skin integrity

Always consider skin integrity when choosing an ostomy system. Take into account the patient's fragility from such factors as age, medications, an irregular abdominal plane from previous surgeries or scarring, moisture or oily skin that limits flange adherence, and comorbidities (such as psoriasis, fungal infections, and ulcers). Options for maintaining skin and ostomy-system integrity include use of crusting, silicone flanges, stoma paste strips, or topical medication covered with hydrocolloid or extended-wear products.

Physical abilities

Be aware that a patient with limited muscle function may have limited gross and fine motor skills, which makes self-care a challenge. Expect patients with such conditions as multiple sclerosis and muscular dystrophy to have limited strength. Those with amyotrophic lateral sclerosis, Parkinson's disease, or stroke are likely to have limited muscle control. In each case, re-

habilitation support and physical or occupational therapy can help the patient learn how to adapt to the stoma.

Psychological adjustment

Hidden issues can make it hard for patients to adjust to the ostomy system. The patient who undergoes an unplanned ostomy has to relearn life skills while grieving the change in self-image and dealing with a sense of having an imperfect body, loss of control, or feeling like an infant. To this patient, the ostomy system may become the enemy, so to speak. The patient may refuse to learn about self-care and ignore ostomy complications. To help patients regain a sense of control, clinicians must address body image with them and provide education.

The following interventions can help the patient focus on the positive:

- Suggest that the patient keep a diary of daily activities.
- Listen actively as the patient expresses thoughts and feelings.
- Confront false ideations, such as “I’m a baby now,” “No one will ever touch me again,” or “I smell” with such positive statements as “I’m still an adult,” “My wife loves me,” or “I can use deodorizers to make sure the ostomy doesn’t smell.”
- Recommend ostomy support groups or spiritual or psychological counseling.

Mental illness

Mental illness also can cause ostomy management problems. Mentally ill patients may respond differently to an ostomy than other patients, leading to lack of proper ostomy self-care. If mental illness goes unrecognized and unaddressed, the stoma or peristomal skin may become damaged.

As a wound care clinician, be sure to carefully review reports of unresolving ostomy malfunction issues, note their frequency, and observe malfunction patterns. When these malfunctions occur consistent-

Case study 2: Effect of psychological distress on ostomy care

As this case study shows, psychosocial and physiologic problems may converge to cause stoma retraction and other ostomy challenges.

History

Jim, a 70-year-old man with a history of high anxiety and schizophrenia, had been managing his ostomy independently in his own home. Five weeks after moving to a senior apartment complex, his ostomy system began to constantly release (pull away) from his abdomen and the peristomal skin became denuded. Jim’s family decided to sever contact with him because of his multiple calls to them for help with the ostomy. At that point, the patient’s physician wrote a referral for home care.

Assessment

Jim’s stoma height had been 2.5 cm. On assessment, the home care nurse found a rosy red stoma and found that hyperperistalsis caused it to retract deeply into the abdomen when the patient experienced anxiety or stress, most notably at night. Psychological assessment revealed Jim was lonely and felt rejected by his family.

Plan

- Monitor the stoma for physical changes.
- Assess the flange-release pattern.
- Observe the patient’s behavior.
- Provide emotional support to the patient.
- Consult a social worker to identify another caregiving option.

Actions

To address Jim’s problems, the nurse:

- used a convex flange to manage leakage of effluence under the flange, which occurred with stoma retraction
- used the crusting method (stoma powder and skin protectant) to promote healing and protect peristomal skin
- obtained an order for dicyclomine to reduce hyperperistalsis, which had caused the stoma to retract into the abdomen
- advised the patient to listen to music on the radio at low volume at night to decrease his sense of loneliness and anxiety.

Outcome

The social worker was able to connect Jim with an adult day-care program and activities taking place near where he lived. Over a 2-month period, he achieved an intact ostomy system and continued with community outreach supports.



Note that the stoma has retracted into the abdomen.

ly, assess the patient for mental illness and provide a referral to appropriate support services. (See *Case study 2: Effect of psychological distress on ostomy care.*)

Depressed patients may avoid the stoma or ostomy system. They may fail to apply the system or, conversely, leave it on for extended periods to avoid thinking about the body-image change it represents. On the other hand, highly anxious patients may be hypervigilant and remove the ostomy system frequently to check on the stoma. In patients with either depression or high anxiety, the stoma and peristomal skin may break down.

Bipolar patients may have difficulty learning about self-care because of their high or low affect. They should receive care from a mental health specialist, along with appropriate medications, to support their ability to learn and adjust to the ostomy.

Unmedicated schizophrenic patients may have trouble processing the presence of a stoma. They may perceive the stoma or ostomy system as alien and attack it, injuring themselves or damaging the stoma or peristomal skin. This response demands careful mental health observation and medication monitoring to prevent further bodily harm.

Home caregivers' behavior

The patient's home caregivers also may be a hidden cause of ostomy system problems. They may be unable to accept the change in their loved one, and their negative reactions may result in the patient's failure to perform self-care. This lack of self-care reflects the patient's distress. Observe carefully for disharmony among caregivers and address any issues. Through active listening or referral to a support group or counseling, you can help ease negative behaviors.

Financial constraints

If because of complications, your patient

needs additional ostomy supplies beyond what the insurance company allows:

- Ask the physician to write a letter of medical necessity to the insurance company and vendor that explains the reason for product overage.
- Contact the ostomy supply vendor to request free samples.
- Contact ostomy support group members, who may be able to provide samples.

Overcoming adversity

A patient with a malfunctioning ostomy system or a maladaptive response to it can pose a challenge for the ostomy management specialist or the wound, ostomy, and continence nurse. But with careful planning, monitoring, and creativity, such challenges can be overcome so the patient can have the highest possible quality of life. ■

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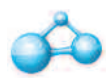
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* J. Lindfors, Ostomy/Wound Management. 2004; 50 (8): 28-41.



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Moldable ostomy barrier rings and strips

By Nancy Morgan, RN, BSN, MBA, WOC, WCC, DWC, OMS

Each issue, *Apple Bites* brings you a tool you can apply in your daily practice. Here's a brief overview on moldable, bendable, and stretchable adhesive rings and strips used to improve the seal around a stoma.

Benefits

Adhesive rings and strips can be an alternative to stoma paste for filling or caulking uneven skin contours next to and around a stoma, fistula, or wound. They create a waterproof seal that protects the underlying skin from irritation and are used with (not in place of) the ostomy pouch and skin barrier. Moldable rings and strips may

- be used with one- or two-piece appliances
- prolong ostomy appliance wear time by creating a better seal
- eliminate the need for ostomy paste
- be easier to use than ostomy paste for patients with limited dexterity
- benefit patients with chronic leakage, fitting problems, or highly sensitive skin
- be used around fistulas and wounds to fill crevices and folds.

These rings and strips are also resistant to erosion, and their softness and flexibility allow

them to be placed against the stoma without causing pressure or cutting off blood supply.

Use

Moldable rings and strips are adhesive, but not reusable. You can

- stretch and mold rings for use on oval or irregularly shaped stomas, and cut, bend, or stack them together to improve the fit of the barrier. They are typically moldable rings and strips are typically made from pectin-based, hydrocolloid-type ingredients, although composition varies by brand.
- break strips into smaller pieces, and roll or mold them. You can cut and rejoin them as needed.
- warm the rings or strips in your hands to increase malleability.
- place moldable rings and strips either around the stoma before applying the wafer or to the wafer directly.

Brand-name examples

Examples of these products include:

- Coloplast™ Brava™ Moldable Ostomy Rings & Brava™ Strip Paste
- ConvaTec™ Stomahesive® Strips
- Hollister™ Adapt® Barrier Strips & Rings

[Access more examples.](#)

Nancy Morgan, cofounder of the Wound Care Education Institute, combines her expertise as a Certified Wound Care Nurse with an extensive background in wound care education and program development as a nurse entrepreneur.

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Helping patients with lower-extremity disease benefit from exercise

By Jeri Lundgren, BSN, RN, PHN, CWS, CWCN

Research has shown that exercise can help ease symptoms in patients with arterial insufficiency, venous insufficiency, neuropathic disease, or a combination of these conditions. Here's what you need to know to ensure your patients reap the most benefits from exercise.

Start on the right foot

It's imperative that the correct disease state is diagnosed before an exercise program is started and that the patient's pri-

mary care provider clears the patient.

Teach the patient to wear well-fitting shoes and socks while exercising, and provide instructions. Guidelines from the Wound, Ostomy and Continence Nurses Society include exercise recommendations for each disease state, as noted in the next sections.

Arterial insufficiency

Supervised exercise for 30 to 45 minutes three times per week for a minimum of 12 weeks improves signs and symptoms of claudication and significantly improves maximal walking time, overall walking ability, and pain-free walking distances.

Other types of exercises to consider include:

- strength training
- polestriding (a form of walking similar to cross-country skiing)
- upper- or lower-limb exercises.

Venous insufficiency

In addition to compression therapy and leg elevation, exercise and physical activity help patients with venous insufficiency reduce edema. Types of exercises to consider include the following:

- Elevate legs above the heart several times a day when possible.
- Perform ankle flexion 5 to 10 times every few minutes for 1 to 2 minutes every 30 minutes throughout the day to avoid venous congestion and to decrease venous reflux.
- Walk briskly at frequent intervals during the day to help the calf muscle pump the blood up and out of the legs.
- Perform resistance calf muscle exercises (plantar flexion), tip-toe exercises, and walk on an incline treadmill. You can [access a video](#) describing calf muscle exer-



cises that might be helpful for patients (have them omit the jumping section).

- Sit and rock in a rocking chair, using the feet to push down, to plantar flex the ankles.

Neuropathic disease

Exercise must be conducted with caution because of the patient's insensate extremities. It's best to avoid weight-bearing exercises.

Types of non-weight-bearing exercises to consider are swimming, water aerobics, bicycling, rowing, and chair and upper-body exercises.

Be aware that resting tachycardia and lack of heart-rate variability during deep breathing or exercise are signs of autonomic neuropathy and are associated with a high risk of coronary heart disease.

Promoting benefits

The benefits of exercise for patients suffering from lower-extremity disease are often overlooked. Encouraging appropriate exercise for these patients may improve the disease state and reduce the risk of ulcer development. ■

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Jeri Lundgren is president of Senior Providers Resource, LLC, in Cape Coral, Florida.



Get the 'SKINNI' on reducing pressure ulcers

By Cindy Barefield, BSN, RN-BC, CWOCN

Like many hospitals, Houston Methodist San Jacinto Hospital uses national benchmarks such as the National Database of Nursing Quality Indicators (NDNQI®) to measure quality outcomes. Based on benchmark reports that showed an increased trend of pressure ulcers in critically ill patients in our hospital, the clinical nurses in our Critical Care Shared Governance Unit-Based Council (CCSGUBC)

identified an improvement opportunity.

As a certified wound, ostomy, and continence nurse (CWOCN), I serve as a resource for the critical care units, so I worked with the council on the initiative. We used the Prosci ADKAR® change model to guide the project. This model incorporates five steps to ensure a smooth change process: Awareness, Desire, Knowledge, Ability, and Reinforcement.

Step 1: Awareness

The first step for the CCSGUBC was to raise awareness of the need for change. During a meeting, we reviewed occurrences of hospital-acquired pressure ulcers so members would know the problem.

Step 2: Desire

Awareness prompted council members to embrace the need for change to improve patient outcomes. Their desire for change fueled a discussion of opportunities for improvement.

Step 3: Knowledge

Knowledge was the next step in the change process. Clinical nurses identified the need for additional resource nurses for each shift to help with pressure ulcer staging and skin care. This led to the development of “skin care champions,” who act as resource nurses for the clinical area. Clinical nurses interested in the project volunteered for the new role. Currently, there are seven skin care champions.

The skin care champions participated in an interprofessional education program led by the CWOCN, a physical therapy/clinical wound specialist, and a clinical dietitian. Topics included wounds, pressure ulcers, nutrition and wound healing, incontinence-associated dermatitis, and an

overview on documentation of pressure ulcers. A review of current literature on best practices with skin care bundles also was included.

To provide additional educational support, all critical care nurses were given access to free NDNQI Pressure Ulcer Training modules via the hospital intranet.

The skin care champions embraced the challenge of creating a skin care bundle. As nurses with critical care experience, they were familiar with bundles for catheter-associated urinary tract infection and ventilator-associated pneumonia. They had implemented these best practices to



improve patient outcomes and were eager to do the same for pressure ulcer prevention. They were confident that the success of the skin care bundle depended on synergy of all components as a whole rather than on a single component.

During an interactive session, the skin care champions developed the components of the skin care bundle based on a literature review for topics of importance to their patient population. They chose the following topics: **S**upport surface, **K**eeper repositioning, **I**ncontinence management, **N**eeds/risks, and **I**mprove docu-

mentation, which form the acronym SKINNI. “What’s the SKINNI?” has become a common question at our organization. The energy and enthusiasm for this nurse-led initiative have been widespread.

One challenge the skin care champions faced was adding documentation for the new skin care bundle to the electronic medical record (EMR). The clinical dietitian on the project team and a technologically savvy skin care champion collaborated to create a process that clinical nurses could use when documenting.

Step 4: Ability

Ability was the next step in the change process. At this stage, the skin care bundle was integrated into nursing practice. The team has developed many innovative ways to keep the focus on the new process:

- The skin care champions and the nurse leader of the project wear a large button that reads “What’s the SKINNI?” to raise awareness about the skin care bundle throughout the organization. The stick figure used with the message has become a symbol for the project.
- Small cardboard signs taped at each computer have the same “What’s the SKINNI?” message to remind nurses to document the skin care bundle.
- The leader of the CCSGUBC and I send frequent e-mails with reminders and reinforcement messages.

Step 5: Reinforcement

As with any change, reinforcement and sustainability of this new practice are necessary to achieve quality outcomes. We’re using several reinforcement strategies, including:

- The skin care champions and I provide peer-to-peer feedback informally and

face-to-face using criteria specific to the skin care bundle.

- A Life Saver® candy with a card that says “You are a Life Saver® for your patient today” is given to clinical nurses who correctly document the skin care bundle in the EMR. This provides reinforcement for the change in practice. Life Saver® cards are distributed as needed at the discretion of the skin care champions.
- The skin care champions conduct monthly pressure ulcer surveys to evaluate outcomes and share the results with the nursing team.

Success story

Skin care champions and members of the CCSGUBC presented the project for the hospital-system Shared Governance Conference. It was a great opportunity to share best practices with nurse colleagues. Over the past year, we have also been pleased to validate a significant decrease in the rate of pressure ulcers in critically ill patients. ■

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Cindy Barefield, RN is a certified wound, ostomy, and continence nurse at Houston Methodist San Jacinto Hospital in Texas.

Providing evidence-based care for patients with lower-extremity cellulitis

Find out how to identify and intervene for this potentially dangerous bacterial skin infection.

By Darlene Hanson, PhD, RN; Diane Langemo, PhD, RN, FAAN; Patricia Thompson, MS, RN; Julie Anderson, PhD, RN; and Keith Swanson, MD

Cellulitis is an acute, painful, and potentially serious spreading bacterial skin infection that affects mainly the subcutaneous and dermal layers. Usually of an acute onset, it's marked by redness, warmth, swelling, and tenderness. Borders of the affected skin are characteristically irregular. Although cellulitis may occur in many body areas, this article discusses the most common location—the lower limb.

In cellulitis, bacteria enter through an

The body reacts to these microbes as foreign, leading to presenting signs and symptoms. On assessment, clinicians may notice a recent insect bite, surgical incision, or trauma to the leg.

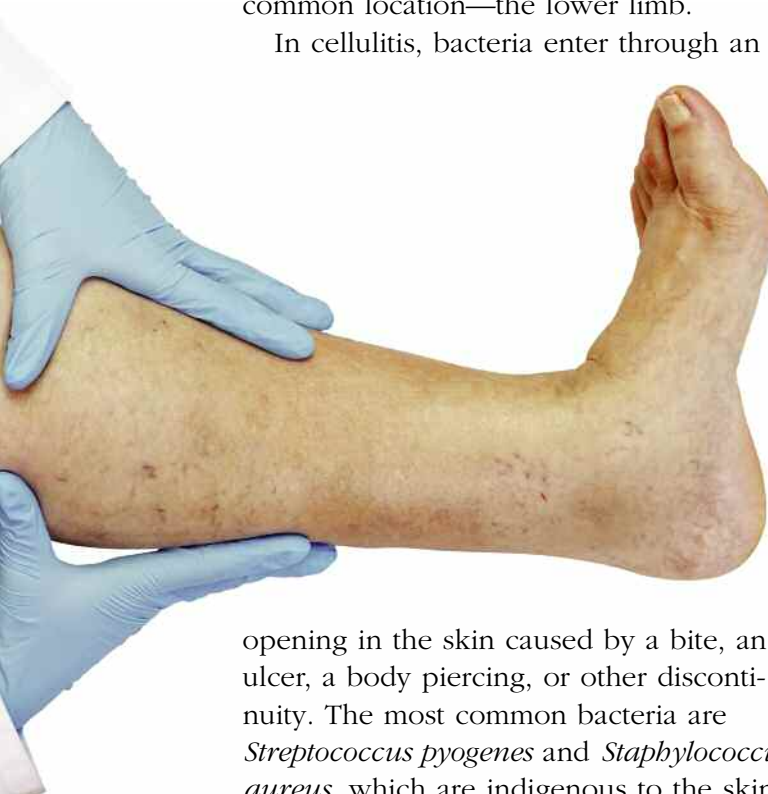
Cellulitis and cutaneous abscesses combined cause nearly 600,000 hospital admissions annually in the United States—an increase of 65% since 1999. Cellulitis and other soft-tissue infections account for up to 10% of hospital admissions. Incidence of cellulitis ranges from 0.2 in 1,000 person-years to 24.6 in 1,000 person-years in different populations.

In 2006, about 14.5 million cases of cellulitis occurred, incurring costs of approximately \$3.7 billion overall. Costs may rise when the condition is misdiagnosed or when antibiotics are used inappropriately, as this may prolong treatment or predispose patients to complications.

What the literature shows

In 2012, Lipsky and colleagues completed a prospective multicenter study of patients with soft-tissue infections to explore the epidemiology, clinical presentation, treatment, and clinical outcomes. Of the 1,033 subjects, 26.9% had cellulitis and the same percentage had diabetic foot infections. In contrast, surgical-site infections affected 16.7% and deep soft-tissue

opening in the skin caused by a bite, an ulcer, a body piercing, or other discontinuity. The most common bacteria are *Streptococcus pyogenes* and *Staphylococcus aureus*, which are indigenous to the skin.



abscesses affected 13.6%. The lower leg was the most common cellulitis site (49.6%). Pain was rated as moderate to severe in 73% ($n = 203$) of patients. Overall, patients with cellulitis had more severe erythema and local warmth than those with other soft-tissue infections. However, abscess, induration, tenderness, and pain were more common and more severe in patients with deep soft-tissue abscess. Leg warmth was absent in only 10 of the 278 cellulitis patients.

Comorbidities most often accompanying cellulitis included diabetes, peripheral vascular disease, chronic lung disease, and renal insufficiency. Treatment included initial I.V. vancomycin in 60% of patients, followed by penicillins, beta-lactamase inhibitors, and cephalosporins. For patients hospitalized with cellulitis, the mean stay was 7.1 days (range, 5.8 to 8.1 days).

A 2010 study by Kilburn and colleagues found 25 randomized controlled trials related to cellulitis. The review noted that macrolides reportedly were more effective than penicillins in treating cellulitis and oral antibiotics were more effective than I.V. antibiotics. But due to lack of research-supported findings, reviewers couldn't give specific recommendations for cellulitis treatment; further study is needed to determine the best treatment.

A retrospective epidemiologic and outcomes study by Zervos and colleagues (in 2012) assessed the origin of complicated and soft-tissue infections and the appropriateness of initial antibiotic therapy in hospital patients. In the sample of 1,096 patients, the most common soft-tissue infections were cellulitis and abscess, usually community acquired. *S. aureus* was the most common culture-positive skin infection; 74% of these infections were methicillin-resistant. More work needs to be done to examine the impact of skin infections and use of appropriate initial therapy for such infections.

Risk factors

Cellulitis is common in patients with circulatory problems of the legs, particularly those with venous disease. Anyone who sustains leg trauma, an insect bite, or a surgical wound is at risk. People who are overweight or have leg ulcers or lymphedema are at higher risk. Lymphedema especially increases cellulitis risk because the lymphatic pathways transport immune cells to fight infection; if these pathways are blocked, cellulitis can readily occur.

Cellulitis is common in patients with circulatory problems of the legs.

Cellulitis isn't contagious because it's an infection of the dermis and subcutaneous tissues, which act as a protective layer over the infected tissues. Rarely, it can lead to a deeper, more serious skin infection, such as necrotizing fasciitis.

Diagnosis, staging, and classification

Clinical Resource Efficiency Support Team (CREST) guidelines aid diagnosis. Cellulitis ranges from class I to class IV, with IV being the most severe.

- Class I: Patients lack systemic signs or symptoms.
- Class II: Patients have comorbid conditions that affect recovery.
- Class III: Patients have accompanying limb-threatening conditions or confusion, tachycardia, or other unstable conditions.
- Class IV: Patients have severe, life-threatening infections or septicemia. (See *Classifying cellulitis*.)

Classifying cellulitis

This chart describes characteristics of the four classes of cellulitis.

CLASSIFICATION	CHARACTERISTICS
Class I	<ul style="list-style-type: none">• No signs or symptoms of systemic toxicity• No uncontrolled comorbidities
Class II	<ul style="list-style-type: none">• Systemic illness <i>or</i>• Systemic wellness with comorbid conditions—for instance, peripheral vascular disease, chronic venous insufficiency, or morbid obesity, which may impede resolution of infection
Class III	<ul style="list-style-type: none">• Significant systemic signs and symptoms, such as acute confusion, tachycardia, tachypnea, or hypotension• Unstable comorbidities that may interfere with response to therapy• Limb-threatening infection caused by vascular compromise
Class IV	<ul style="list-style-type: none">• Sepsis syndrome.• Severe life-threatening infection, such as necrotizing fasciitis

Based on Clinical Research Efficiency Support Team (CREST). Guidelines on the Management of Cellulitis in Adults. June 2005. www.acutemed.co.uk/docs/Cellulitis%20guidelines,%20CREST,%202005.pdf

Cellulitis treatment

Treatment of cellulitis depends on its classification.

- **Class I:** oral antibiotics in an outpatient setting
- **Class II:** oral or I.V. antibiotics in an outpatient setting
- **Class III:** hospitalization for I.V. antibiotic therapy
- **Class IV:** urgent hospitalization for intensive multiple therapy and specialist consult

Differentiating cellulitis from similar conditions

Cellulitis is diagnosed definitively based on classic symptoms, which include a unilateral hot, erythematous, nonblanching redness that persists with limb elevation. Skin may be dry and flaking. Commonly, subcutaneous tissue is tender; in severe cellulitis, crepitations may occur.

Differentiating cellulitis from other conditions may prove challenging. One study with a sample of 635 patients who'd been diagnosed with cellulitis found only 425 (67%) actually had the condition. Disorders that can mimic cellulitis include eczema, tinea pedis, and other chronic conditions such as erysipelas. Lipodermatosclerosis also may be mistaken for cellulitis.

Unlike cellulitis, venous eczema can cause a range of manifestations, such as bilateral symptoms, itching, hemosiderin deposits, and edema. Suspect venous eczema, not cellulitis, in a patient with reddened leg skin, chronic venous disease or an ulcer, and a history of appropriate antibiotics with no improvement.

Dependent rubor from peripheral vascular disease also may resemble cellulitis. But in this condition, further assessment reveals short-distance claudication or “rest” pain, lack of hair growth on the lower limb, and redness that completely disappears on elevation.

Assessing for induration

If you suspect cellulitis, assess for induration—a hardened mass or formation with defined edges, with slight swelling and firmness at the edges or border between normal skin and skin affected by cellulitis. The Bates-Jensen Wound Assessment Tool recommends assessing induration by gently attempting to pinch the affected area; with induration, you won't be able to pinch the tissue. Use a measuring tool to document how far induration extends. Wound care clinicians typically outline the indurated area from visit to visit to

determine if induration has increased or decreased.

Treatment

Guidelines for cellulitis treatment hinge on severity. A triple approach using I.V. antibiotics, I.V. fluids, and pain management is recommended. Light compression is suggested if the ankle-brachial index (ABI) is adequate, but use caution during an acute cellulitis episode. Consider limb elevation and analgesics for comfort.

Treatment should be prompt to help prevent complications. Using the HAMMMER acronym can help you remember the essential elements of treatment. (See *Cellulitis treatment* and *HAMMMER interventions*.)

Antibiotics

Clinicians typically prescribe a 14-day course of antibiotics (unless contraindicated) if they're unsure whether inflammation stems from infection. Advise patients to contact their primary care practitioner if they don't notice a response to therapy within 3 days. Antibiotics are effective in about 90% of cases. If the affected area is quite small and cellulitis isn't severe, it may clear without antibiotics; if exudate is more than minimal, the patient usually needs antibiotics.

Empirical treatment with semisynthetic penicillin, first- or second-generation cephalosporins, macrolides, or clindamycin is advised, primarily because of the increasing incidence of methicillin-resistant *S. aureus* (MRSA) or erythromycin-resistant *S. pyogenes*. When cellulitis surrounds an abscess formation with MRSA, about half of the infections resist clindamycin. Of the *S. pyogenes* cases resistant to macrolides, about 99.5% are susceptible to clindamycin and 100% to penicillin. If the condition doesn't improve, symptoms are extensive, or the patient has a high temperature, hospitalization and I.V. antibiotics may be warranted.

HAMMMER interventions

To help you remember interventions for patients with cellulitis, think HAMMMER.

- H** for *Hydrate*: Urge patients to drink plenty of fluids—about 68 oz per day if possible.
- A** for *Analgesia*: Provide pain relief on a regular basis.
- M** for *Monitor pyrexia*: Is the patient's temperature still rising?
- M** for *Mark off the area*: Is the redness spreading?
- M** for *Measure limb circumference*: Is leg size increasing?
- E** for *Elevate the limb*: Reduce swelling, if possible.
- R** for *Record assessment findings*: Ensure accurate documentation.

Based on Beasley A. Management of patients with cellulitis of the lower limb. *Nurs Stand*. 2011;(26)11:50-5.

I.V. fluids and hydration

As with any systemic infection, I.V. fluids are indicated, as the infection can significantly increase insensible water loss, in turn causing dehydration and possibly multisystemic failure.

Compression

In the past, studies recommended against using compression, assuming it could spread bacteremia. Current best practice includes light compression therapy used cautiously. (Acute infections that lead to swelling can cause higher tissue pressures than normal and compression could fur-

Recurrent cellulitis can damage the lymphatic drainage system of the affected limb, causing lymphangitis, chronic lymphedema, or both.

Cellulitis: A case study

Henry Castillo*, a 68-year-old migrant farm worker, comes to your clinic for diabetes management. On examination, you find a weeping open leg wound with lower-leg redness and swelling. You note early signs and symptoms of chronic obstructive pulmonary disease, including shortness of breath on exertion and bilateral inspiratory wheezes.

Mr. Castillo's history includes type 2 diabetes with peripheral neuropathy and hypertension. He reports he smokes one pack of cigarettes daily and drinks two or three beers a day.

Initial laboratory tests show a glycosylated hemoglobin (HbA1c) level of 9.7, white blood cell count of 13,000, hemoglobin level of 11.7 g/dL, low-density lipoprotein level of 187 mg/dL, high-density lipoprotein level of 50 mg/dL, and total cholesterol level of 252 mg/dL.

Further assessment is warranted. You observe induration and dry, flaky skin on his lower leg, but no obvious signs of peripheral arterial disease. You stage his cellulitis as class II and document absence of peripheral

arterial disease. Oral antibiotics and increased fluids are ordered. Although Mr. Castillo is treated at home, he will require hospitalization if his inflammation spreads while on oral antibiotics, if he has a suspected systemic infection, or if he shows objective signs and symptoms of infection, including an elevated temperature or a red streak spreading up toward the trunk.

Mr. Castillo is prescribed oral antibiotics with analgesics and moisturizing lotions to increase his comfort. He is referred to the wound care center for ankle-brachial index measurement, which reveals adequate circulation. The clinician marks the affected leg area to help determine if induration is increasing or decreasing, cleans the wound with normal saline solution, and carefully applies an antimicrobial absorbent dressing.

The clinician correctly applies compression wraps, and teaches Mr. Castillo how to protect the compression wraps and what to do if they seem too tight. She instructs family members to make sure he keeps his

leg elevated properly to relieve the accompanying edema. She also advises him when to return to the clinic and teaches him how to do ankle exercises to increase blood flow. She instructs family members how to support the limb carefully when moving and turning him.

To ensure comprehensive care, the clinician refers Mr. Castillo to a nutritionist for dietary management of his low hemoglobin value and high cholesterol and HbA1c levels. The treatment plan includes physical therapy, wound care, compression therapy, foot exercises, and routine monitoring after his clinic visit.

When Mr. Castillo returns to the clinic, the clinician notes improvement. Induration and redness have decreased, no signs or symptoms of fever are present, and his wound has healed. She fits him for compression stockings to decrease the risk of cellulitis recurrence. For this patient, comprehensive, holistic management resulted in a positive outcome.

*Fictitious name

ther compromise the limb.) Teach the patient how to apply and care for the compression hose. Before considering compression in any form, perform a vascular assessment, including ABI measurement. (See *Cellulitis: A case study*.)

Pain management and skin comfort

Assess the patient's pain level and provide pain management as needed. Nonsteroidal anti-inflammatory drugs hasten healing when combined with antibiotics. Moisturizing the limb can reduce skin dryness and flaking and ease discomfort.

Limb elevation

Elevating the affected leg above heart level is a key intervention for cellulitis. Raise the ankle higher than the knee, the knee higher than the hip, and the entire leg higher than heart level. Continue elevation for the first 24 to 48 hours while I.V. antibiotics are infusing.

Monitoring for complications

Measure the patient's temperature on an ongoing basis. Expect to obtain blood cultures as a standard of care. For complex patients with peripheral arterial disease, as-

ness for complications, such as gangrene and poorly healing wounds.

If cellulitis doesn't respond to ordinary treatment, suspect complications, such as septicemia. This condition arises when bacteria spread to the lymph system and bloodstream. Rarely, the infection may spread to deeper fascial tissues (resulting in necrotizing fasciitis) or to the bone (causing osteomyelitis). Signs and symptoms of systemic infection include chills, sweating, fatigue, general malaise, muscle ache, and a sensation of heat. These require prompt attention.

Recurrent cellulitis can damage the lymphatic drainage system of the affected limb, causing lymphangitis, chronic lymphedema, or both. Also, abscesses may form if the infection becomes highly localized in a small area.

Innovations in therapy

In England, a nurse-led "Red Legs" service has been established to help meet the needs of patients with conditions that can be misconstrued as cellulitis. A team of healthcare professionals established integrated care pathways for cellulitis diagnosis and treatment. Results were promising and included a significant cost savings. Another group of British researchers reported on the effectiveness of training caregivers about cellulitis using simulation methods. In a 2011 simulation study by Unsworth and colleagues, nurses who participated in patient simulation scenarios had a 45% increase in confidence levels regarding diagnosing and managing cellulitis and recognizing patient deterioration. Further research is needed so healthcare professionals can provide cost-effective, evidence-based treatment for the many individuals affected by cellulitis. ■

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A collaborative approach to wound care and lymphedema therapy: Part 1

By Erin Fazzari, MPT, CLT, CWS, DWC

Have you seen legs like those shown in the images below in your practice? These images show lymphedema and venous stasis ulcers, illustrating the importance of collaboration between clinicians in two disciplines: lymphedema and wound care.

My experience

Over the last 12 years as a physical therapist specializing in lymphedema therapy and wound care, I've had the opportunity to treat many patients with wounds in multiple settings. I've also had the opportunity to collaborate with medical professionals in

multidisciplinary treatment centers where lymphedema therapists and wound care clinicians act as a team. Through this experience—and through review of the literature—I've learned that such a team has improved patient outcomes.

To help the team reap maximal benefits, I'd like to share information related to lymphedema, its management, and how collaboration in multidisciplinary treatment centers can enhance outcomes.

In Part 1 of this two-part series, I discuss pathophysiology related to wounds and lymphedema and begin the discussion of collaboration.

The basics

To understand the role of lymphedema therapy as it relates to wound care, it's first necessary to take a step back and define both chronic wound and lymphedema. A chronic wound is a wound that doesn't heal in an orderly set of stages and in the predictable amount of time that most wounds do. Delayed healing may result from a variety of underlying factors,



Lymphedema



Chronic venous stasis wounds

World action on lymphedema and wound care

The World Health Organization (WHO) recognized the benefits of addressing wound care and lymphedema together in October 2009 with the formation of the World Alliance of Wound and Lymphedema Care (WAWLC). The WAWLC's mission statement, "Working in partnership with communities worldwide to advance sustainable prevention and care of wounds and lymphedema in settings of limited resources," is included in the 2010 WHO white paper entitled "Wound and Lymphedema Management." This paper was written to establish and share best practices for patients with lymphedema who have chronic wounds.

such as poor systemic immune function, malnourishment, chemotherapeutic agents, high bioburden, repetitive mechanical trauma, and cytotoxic agents.

Lymphedema is a condition of localized fluid retention and tissue swelling characterized by high-protein edema caused by a compromised lymphatic system. All exterior regions of the body (for example, face, neck, torso, extremities, and genitals) can be affected. Common causes of lymphedema and accompanying diseases that can contribute to lymphedema include heredity, filariasis, trauma, surgeries, lymph node dissections, radiation therapy, malignancy, obesity, diabetes, chronic heart failure, dependent mobility and, of course, venous disease—the principal culprit of our wound for discussion, the venous stasis ulcer.

The venous stasis ulcer is one major debilitating result of advanced venous disease. Venous ulceration is the most common cause of lower-extremity ulcer, accounting for half of these ulcers and affecting 1% to 2% of the U.S. population, with 3% to 5% of patients older than age 65.

Venous stasis ulcers and lymphedema

So how are the venous ulcer and lymphedema related? The venous and lymphatic systems are closely intertwined. When explaining the systems to patients, I often refer to the lymphatics as the sewer system of the venous system.

Most wound care clinicians are familiar with the pathophysiology that results in venous disease and the cascade of events that leads to a venous ulcer. Many clinicians, however, aren't as familiar with the role of the lymphatics in this process.

Under optimal circumstances, the venous system is responsible for the removal of 90% of interstitial fluid at the capillary level. The remaining 10% is the responsibility of the lymphatic system. However, the lymphatics have a built-in safety net to manage excess interstitial fluid that occurs when the veins function inefficiently or ineffectively. Venous reflux may be present, but edema in the tissue isn't yet visible when the lymphatics are able to manage the load. Edema in the lower extremities, as well as other areas of the body, is visible only when both the veins and lymphatics are no longer capable of managing the load.

The lymphatics are also responsible for the removal of large macromolecules from the interstitial space, including proteins that are unable to diffuse back into the venous system at the capillary level. A venous stasis ulcer occurs when the increase in protein concentrations in the tissue results in chronic inflammation and infiltration of white blood cells and fibroblasts. This leads to fibrosis of the edematous tissue, dilation and insufficiency of lymphatic tissue, and damage to endothelial cells, further reducing lymphatic

flow and enhancing the destructive process.

The body's physiologic responses illustrate the close anatomic and physiologic connection between the two systems. Consequently, it should be a priority for us, as clinicians, to address both the lymphatic and venous systems when edema is detectable in the tissue.

Worldwide impact

The anatomy and physiology of these systems have a huge impact on our patient population. Each year in North America, 5 to 7 million chronic wounds occur. Lower-extremity venous stasis ulcer is the most common of these, with an incidence of 2.5 million. In the United States alone, chronic leg wounds account for 2 million lost workdays per year.

When it comes to lymphedema, 1 in 30 people worldwide are estimated to be afflicted with this debilitating disease, not including those suffering from venous disease.

World organizations have begun to recognize the importance of addressing lymphedema and wound care collaboratively. (See *World action on lymphedema and wound care*.) As noted earlier, anatomy and physiology don't separate the venous and lymphatic systems, so wound care and lymphedema clinicians need to work collaboratively to help patients.

Common goals

A good place to start collaborating is to understand that the disciplines of lymphedema therapy and wound care have many common goals, including:

- reducing and stabilizing edema
- achieving ulcer healing
- preventing recurrence
- preventing infection

- maximizing tissue healing.

Multidisciplinary teams are the wave of the future of health care. Consider how a team approach with lymphedema and wound care professionals would enhance your practice, and watch for Part 2 of this series, which will further address common goals, review the gold standard of management (complex decongestive therapy), and illustrate how collaboration in multidisciplinary treatment centers can enhance patient outcomes. ■

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Creating high-performance interprofessional teams

With healthcare reform, team-based care has become more crucial than ever.

By Terry Eggenberger, PhD, RN, CNE, CNL; Rose O. Sherman, EdD, RN, NEA-BC, FAAN; and Kathryn Keller, PhD, RN

Kate Summer, a wound care clinician in a urban hospital, is leading an initiative to reduce pressure ulcers. She knows from experience that more effective communication and collaborative planning by the interdisciplinary team managing these patients is crucial for reducing pressure ulcers. But doing this has been challenging for Kate.

Recently, a local university asked her to present a talk on strategies to reduce pressure ulcers to students in interprofessional education classes. She is intrigued that students from multiple disciplines now attend classes together—something that never happened during her nursing education.

The language of healthcare is evolving rapidly. Consider the term *interdisciplinary*. Many clinicians associate this word with the interdisciplinary team meetings required for regulatory compliance or discharge planning, as in the scenario above. Just getting everyone to attend these meetings can be daunting logistically. Typically, the meetings occur weekly and have a



designated start and end time, or are convened for a particular project or outcome.

But the concept of healthcare professionals from different disciplines coming together and working in teams is changing. Reflecting this change, the term interdisciplinary has given way to interprofessional in many settings. Interprofessional teamwork refers to the cooperation, coordination, and collaboration expected among members of different professions in delivering patient-centered care collectively.

Creating an interprofessional team

Getting team members on the same page—or even getting them together in the same place, as Kate hopes to do—can be difficult. Helping team members get past their day-to-day duties, conflicts, and communication problems to attain the goal of working together effectively is a significant leadership challenge. Nowhere are the stakes higher than in health care, where good patient outcomes hinge on

team synergy and interdependence.

Most medical errors involve communication breakdowns among team members. Ineffective interprofessional teamwork jeopardizes patient safety, and some experts believe it correlates strongly with higher mortality. An interprofessional-team approach could benefit many situations. Opportunities for team effectiveness exist in many key areas, including medication reconciliation, discharge planning, length of stay, care transitions, end-of-life issues, error disclosure, and reducing 30-day readmissions.

In any setting, high-performance work teams rarely occur naturally. They must be created and managed. To instill effective teamwork into health care, leaders need to recognize and emphasize its importance. They play a key role in helping a team develop the ability to collaborate effectively, build relationships and trust, innovate, and achieve results at a consistently high level.

Promoting more effective teamwork

If you've worked on a highly effective and smooth-running team, you know it's an experience you won't soon forget. Effective teams share the following characteristics:

- clear goals that everyone on the team works towards
 - clarity about each team member's role and contributions
 - clear and open communication
 - effective decision making
 - engagement of all members in the work of the team
 - appreciation of diversity in terms of generation, culture, and thinking
 - effective conflict management
 - trust among members
- cooperative relationships
 - participative leadership.

Achieving this level of teamwork can be challenging. Communication breakdowns and conflict are inevitable, especially if team members keep changing.

When managed effectively, teams provide an opportunity for growth. But this doesn't always happen.

The most common obstacles to effective teamwork are blaming others, turf protection, mistrust, and inability to confront issues directly. Without complete trust, members are more likely to withhold their ideas, observations, and questions.

People also are more likely to leave a team that has trust issues. Trust begins with communication. As a leader, emphasize to team members that relationships live within the context of the conversations they have—or don't have—with one another. Without open and frank communication, things can and do go wrong on teams.

Also, never assume healthcare professionals completely understand the unique knowledge, skills, and abilities that members of other disciplines bring to the team. Seeing through the lens of another professional as a way of building trust can be enlightening and enhance one's understanding of roles and responsibilities. Each discipline has a unique culture, language, and model through which it approaches patient situations. Spending time with or shadowing members of other dis-



ciplines helps professionals understand what it's like to experience patient care from another perspective.

As a leader, you can assess whether your team is working effectively. (See *Assessing a team's effectiveness*.)

The future of interprofessional practice

With healthcare reform, interprofessional practice has become even more crucial. Most new care-delivery initiatives being tested today involve team-based care. Using the skills of each discipline is important in reducing healthcare costs and improving patient outcomes through shared responsibility.

On a multidisciplinary team, each professional functions independently of the others, and one person usually makes treatment decisions. In contrast, interprofessional teams reach decisions collectively. In many healthcare settings, collective decision-making will require a major shift in thinking. In response to *Crossing the Quality Chasm: A New Health System for the 21st Century*, a 2001 report from the Institute of Medicine, healthcare education programs increased the emphasis on students from different healthcare professions coming together to learn about collaborative teamwork from and with each other.

In 2011, the Interprofessional Education Collaborative published *Core Competencies for Interprofessional Collaborative Practice*. This report states that healthcare professionals need certain core competencies to provide high-quality, integrated care. Together, these competencies offer a structure for best practices. The competencies fall into four domains:

- values and ethics for interprofessional practice

Assessing a team's effectiveness

Ask yourself the following questions to gauge whether team members are working together effectively:

- Do team members know each other's names?
- Do they talk about "my patient" or "our patient"?
- How do they address each other?
- Have clear team goals been established? Have roles been assigned?
- Do team members respect each other's viewpoints and expertise?
- Do they understand the scope of practice and key responsibilities of each discipline on the team?
- Do they round on patients together?
- Do they feel accountable to attend team meetings or care-coordination conferences?
- Can patients identify the members of their care team?
- How does the team manage conflict or disagreement about care decisions?

- roles and responsibilities
- interprofessional communication
- teams and teamwork.

In today's academic programs, students of medicine, pharmacy, social work, and other related disciplines come together side by side to learn how to communicate, work in teams, and discuss pertinent issues, such as ethics and policy. This may be an unusual case where academic settings are ahead of their practice partners (especially in acute-care settings) in implementing new professional competencies. Healthcare students frequently comment that they don't see such behaviors in practice. When educating students about evidence-based tools for communication and

(continued on page 41)

Clinician RESOURCES

Learn about resources useful to your practice.



Nutrition and pressure ulcers

Advances in Skin & Wound Care has published “**The role of nutrition for pressure ulcer management: National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, and Pan Pacific Pressure Injury Alliance White Paper.**” The white paper includes evidence-based nutrition strategies for preventing and managing pressure ulcers.



Updated guidance on workplace violence

Download “**Guidelines for preventing workplace violence for healthcare and social service workers,**” recently updated by the Occupational Safety and Health Administration. In 2013, the Bureau of Labor Statistics reported more than 23,000 significant injuries caused by assaults at work, with more than 70% of these assaults in healthcare and social service settings. Healthcare and social service workers are almost four times as likely to be injured as a result of violence than

the average private-sector worker.

How to engage patients and families

Access “**Partnering to improve quality and safety: A framework for working with patient and family advisors,**” from Hospitals in Pursuit of Excellence, which provides a guide for working with patients and families who serve as advisors on quality and patient safety initiatives.

Updated summaries of pressure ulcer guidelines

The National Guidelines Clearinghouse has updated its succinct summaries of the following guidelines from the National Pressure Ulcer Advisory Panel:

- **Interventions for prevention and treatment of pressure ulcers**
- **Prevention of pressure ulcers**
- **Special populations**
- **Treatment of pressure ulcers.**

You can view these summaries online and download them as PDFs.



Sexuality and ostomy

The United Ostomy Association of America has resources related to **intimacy, sexuality, and an ostomy** that are available in both English and Spanish. ■

Note from Executive Director



By Cindy Broadus, RN, BSHA, LNHA,
CLNC, CLNI, CHCRM, WCC, DWC, OMS



Nominations for WCC Outstanding Achievement Awards now open

Nominations for the 9th annual WCC Outstanding Achievement Awards are open until July 24. These prestigious awards are given annually to three outstanding WCCs from across the country.

Each award category recognizes one WCC for his or her contributions in the field of wound management. Winners will receive airfare, hotel, and registration for the 2015 Wild on Wounds (WOW) conference, where they will be recognized. This year's conference will be held September 2-5 at the Rio Hotel and Convention Center in Las Vegas.

You may nominate more than one individual for any given award category, and each nominee must meet all the criteria for the category. One form must be used for each nominee. **Learn more** about the awards program and nomination process.

NAWCO Introductions

In the previous issue of *Wound Care Advisor*, I introduced you to two of the National Alliance of Wound Care and Ostomy (NAWCO) board members, President Debbie Dvorachek and Vice President Katie Pieper. In this issue, I'd like you to meet two more board members.

Andrew Joiner, CWCMS

Andrew has been a board member for 11 years and has been involved in the wound care marketplace for nearly 30 years—20 years with Hill-Rom, 8 years with KCI, and 1 year with the Wound Care Education Institute.

“As a CWCMS, I would really like to see this credential earned by more nonclinical industry sales professionals,” Andrew says. “The education really expands the understanding of how products contribute to wound healing vs. ‘when to use’ or ‘who reimburses’ the product.”

Andrew believes that by understanding the phases of wound healing, the CWCMS can consult with clinicians based on the quality of materials, clinical research, and mechanisms of action of products. As a member of the board, Andrew works with wound care manufacturers to promote the **Wild on Wounds** (WOW) conference, where he visits with exhibitors to explain the benefits of the program. He vows to continue to promote the opportunities to marketing specialists, stating, “The CWCMS is a unique and rewarding program.”

Cheryl Robillard, PT, WCC, CLT, DWC

Cheryl is employed as a clinical specialist for Aegis Therapies, where she provides education and training for multidisciplinary staff members, with particular emphasis on wound care in long-term care. As a physical therapist, Cheryl's expertise includes sharp debridement, edema management, and the use of

electrophysical modalities to facilitate healing.

“I have had the honor of both presenting and assisting with hands-on labs at Wild On Wounds numerous times,” says Cheryl, who has been a member since the board’s inception. She notes, “Our role is to support the membership of NAWCO. We ensure the WCC exam and credential are meaningful and useful, provide ongoing mentoring, and facilitate career opportunities for the WCCs.”

Cheryl adds, “I am proud that we are the most inclusive of the credentials available. Our goal is to make the WCC credential the premiere credential available to healthcare professionals.”

Below is the complete list of board members:

Debbie Dvorachek—president
Kathryn Pieper—vice president
Carol Krueger—board member
Ottamissiah Moore—board member
Cheryl Robillard—board member
Roselyn Jordan—board member
Andrew Joiner—board member
Clive Horrocks—board member
Michael Richardson—board member

Watch for upcoming issues of *Wound Care Advisor* to meet other members of the board.

New certificants

Below are WCC, DWC, and OMS certificants who were certified from February to March 2015.

Josephine Amarosa
Jennifer Anderson
Amy Andress
Laura Apostolico
Anjelyna Araiza
Theresa Arturo
Ellen Baker
Marie Baker
Karen Barnett
Kelly Barrette
Maria Bawar
Julia Becker
David Bennett
Cindy Bennett
Laura Berger
Patricia Blevins
Sheri Boone
Farrah Bottiggi
Alison Bowen
Patricia Bozzi

Krysta Bratt
Laura Brown
Barbara Brown
Tiffany Browning
Grace Brunner
Lynn Brunson
Mary Bryan
Millicent Burns
Michael Bush
Carolann Campbell
Arleen Maria Canta
Susan Cappleman
Crystal Castillo
Michael Chadwick
Kelly Chapman
Claudia Charry
Andrea Chavous
Maurice Chevalier
Valerie Christensen
Lisa Chubb

Aloyma Cintado
Alisa Clawson
Stacy Collingwood
Marjorie Condon, DO
Gail Coopey
Sandra Cox
Jenniffer Criffield
Jill Crohan
Hillary Croy
Lauren Danzi
Meranda Darden
Hazel De Castro
Teresa DeGrave
Ramona Deguzman
Cheryl Deliz-Colby
Tammy DelValle
Jacqueline
Demichele
Lynn Desmet
Judith Despotovich
Denise Dinich
Kelsey Dockendorf
Allison Donahue
Alex Dreikosen
Damien Duignan
Elizabeth Dunn

Melissa Duval
Rachella Early
Eileen Ebert-Aguilar
Cristin Eccles
Amanda Ellis
Tammy Engle
Tammy Epperson
Shirley Erb
Michelle Esparza
Jacquelline Esteves
David Faison Jr
Shannon Fields
Decora Franklin
Joe Franz Llenos, MD
Rachel Frawley
Jorge Garayua-
DeJesus, MD
Michelle Gasperi
Cynthia George
Denise Gerhab
Tiffany Gerkey
Jennifer Giacometti
Emily Gibson
Heather Glenn
Nicole Gomez
Melodie Grainger

Robert Graves
Crystal Haag
Ashley Hall
Denise Hall
Randi Handy
Helen Harrison
S M ABU Zaheed
Hassan, MD
Tawny Hassett
Kristy Havey
Maureen Hawkins
Cynthia Haynie
Lorraine Heim
Retta Henry
Angie Hickey
Katherine Hillyer
Tiffany Holbein
Jennifer Horan
Lori Howard
Rita Hrcsko
Dawn Hume
Erin Hummel
Treyce Hunt
Charlotte Hutchison
Vivian Irizarry
Jessica Irvine, DO
Amanda Jackson
Claudine Jackson
Ashley Jacobs
Noelle Jauregui
Rebecca Johnson
Wendy Johnson
Connie Johnson
Shealyn Kamrath
Tracy Kandolin
Paul Karsten
Kathy Kearney
Nancy Kehoe
Debra Keller
John Keller
Danielle Ketel
Kimberly Kincaid
Loria Kirkham

Jennifer Knight
Carrie Kocer
Adrienne Koopman
Brenda Krohn-
Gleason
Susan Kruppa
Maureen Kubicek
Kym Lagafuaina
Tara Leiting
Shannon Leslie
Patricia Litzinger
Maricar Llamzon
Christine Locey
Diane Lockett
Rolando Lores
Elizabeth Luna
Stephanie
Machowiak
Julie Malone
Owen Maranan
Diana Martil
Julia Martin
Elsa Martinez
Carrie Materniak
Vivien Mayo Bautista
Tammy McCoy
Jeanette McCre
Angela McCullen
Haley McCullough
Cynthia Meacham
Silvia Mehmel
Dana Melena
Charles Miller
Virginia Milligan
Dana Milner
Alba Miranda
Brooke Mitchell
Adrienne Mitchell
Albert Mogul
Chyle Morgan
Tracy Morrison
Tameca Moss
Jo Muller

Annamarie Murdock
Elizabeth Nelson
Rosemary Newbold
Jessica Niebrugge
Julane Nisporic
Winifred Njonge
Jessica Obydyennov
Abieyuwa Ogbeta
Terri Ohlinger
Francisco Olio
Justin Olsen
Tanya Oswald
Shaun Owens
Carmen Oxford
Shanda Paguntalan
Lyubov Paperno
Sadie Parcher
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 Angela Vaughn
 Melissa Veenendaal
 Danielle Veli
 Fe Villacentino
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 Maria Vista
 Khoi Vu
 Zachary Walthers
 Brenda Watts
 Therese Wauters
 Sandra Wetzel
 Zoe White
 Zoe White
 Jacob White
 Mary Wietlispach
 Thelma Williams
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 George
 JoAnn Medina
 Sarah Medrano
 Raisa Meyerovich
 Cheryl Meza
 Karen Miller
 Mary Minaglia
 Anthony Mitchell
 Bernadette Montalvo
 Cody Morgan
 Irene Morris
 Denise Morrison
 Hope Moyers
 Tonya Mulligan
 Christine Myers
 Gail Natale
 Chrystelle Nguyen
 Marilyn Nosworthy
 Gbemisola
 Odekanmi
 Lilibet Ong
 Sheryl Osborn
 Roger Owens

Recertified certificants

Below are WCC, DWC, and OMS certificants who were recertified from February to March 2015.

Jillian Abata
 Sharon Adams

Sherolyn Patterson
Katherine Peabody
Judith Peacock
Tammy Peebles
Evelyn Perez
Abbey Pippin
Shaeleen Piquet
Karen Portillo
Margaret Prosser
Nancy Rager
Kiran Rambhatla
Linda Rasar
Patricia Reetz
Edda Rodriguez
Janice Rodriguez
Perez, MD
Elena Rom
Beth Roper
Digna Rosales

Michael Roth, DPM
Michael Rothstein
Barbara Rovreit
Mariola Sanchez
Tina Schroeder
Michael Sears, DPM
Natalie Shur-Litvak
Renata Sienkiewicz
Danielle Singson
Gina Slama
Michelle Stagg
Kathy Steele
Dawn Stone
Esther Tacusalme
Janet Tait-Roper
Lydia Tally
Marilyn Teamer
Connie Terry
Holly Thompson

Connie Thompson
Carolyn Thorn
Belinda Toatley
Karen Tolli
Steven Tolson
Gail Troxell Martin
Engle Tunstell
Michelle Urban
Amy Van Ellen
Michelle Vaughn
Leta Wagoner
Shannon Walker
Linda Ware
Laurie Weeda
Jeanne Wheeler-
Loveland
Junecia White
Angela White
Ingrid Wood

Shirley Wynne
Jill Youens
Kimberly Young
Malgorzata Zebryk

(continued from page 35)

conflict resolution, teachers must support and model these skills in clinical practice so students can increase their proficiency and effectiveness. Academic and clinical practice partners must be aware of evolving priorities and trends.

Building and maintaining effective teams and interprofessional practice is a journey that never ends. As new members join the team, leaders should encourage them to participate in building a collaborative team culture and should urge team members to nurture these novices. ■

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Dr. Maurie Markman, MD
Medical Oncologist

WHEN YOU DON'T KNOW WHAT TO SAY, STAND UP.

When someone you love is diagnosed with cancer, you have the power to help. There are many ways you can stand up and show that you care.

THEY TALK, YOU LISTEN. One of the most helpful and important things you can do is listen—without judgment and resisting the urge to give advice.

DON'T ASK, DO TELL. Instead of waiting to be asked for help when it is needed, be specific about what you can do and when, such as: prepare a meal, babysit, pick up groceries, help with pets, or provide rides to and from appointments.

LIVE AND LEARN. Educate yourself about your loved one's diagnosis and treatment. When you understand what a cancer patient is going through, you're better able to help keep information clear, track questions, and know how you can be most useful.

STAY CONNECTED. After the initial diagnosis, people tend to drift away. Be someone to count on for the long haul. Check in, send a quick note, or drop off a book. Small gestures go a long way.

Visit ShowThatYouCare.org to learn more about how you can stand up for someone you love.

Pamela Cromwell
cancer survivor

Christina Applegate
SU2C Ambassador



Cancer
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Cancer Treatment Centers of America is a proud supporter of Stand Up To Cancer, an initiative designed to accelerate groundbreaking cancer research for the benefit of the patient.

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