

# Ivivi Technologies

The SofPulse machine helped this facility realize better wound care outcomes.

By Rob Hall, PT

**A**s clinicians in the health care industry, we are witnessing the aging of America. This is especially true here in South Florida, where we have a large geriatric population. This growing segment of our population is especially susceptible to decubitus ulcers due to their decreased mobility and declining nutritional status.

Estimates indicate that the U.S. health care industry spends from \$5 billion to \$8.5 billion every year on nonhealing decubiti.' Here at Kindred Hospital South Florida, a 125-bed long term acute care hospital in Hollywood, Fla., we've seen admissions of nonhealing decubitus ulcers rise steadily over the last several years.

While an experienced wound care team is essential to achieving positive outcomes, we are always looking for ways to get better results, contain costs and decrease our patients' lengths of stay. To this end, we're constantly considering how new technology can help us attain these goals.

Over the years, our team has studied and tried many modalities, including whirlpools, pulsed irrigation, hyperbaric oxygen, high voltage galvanic stimulators (HVGS), vaso-pneumatic dressings, diathermy and ultra

sound. While each has benefits, these adjunctive therapies tend to be costly and time-consuming for patients and caregivers.

## SOFPULSE

In 2000, we found our modality of choice when we conducted a product trial on the SofPulse machine. Using pulsed electromagnetic fields (PEMF), this device passes an electric current through an induction coil that is sealed in a drum-shaped housing, which generates a controlled magnetic field. The SofPulse is a nonthermal modality as the tissue temperature increases less than 0.5 degrees Celsius during a 30-minute treatment. The only contraindication is direct application over a pacemaker.

Using CMS' standard wound care techniques and adding the SofPulse as an adjunctive therapy has helped us achieve our goals. Since we didn't need to use coupling gels or cutaneous electrodes with the device, we saved time and money. In the first week, we started seeing increased epithelialization with decreased volume and surface area of the Stage III and Stage N wounds we were rising it on.

Over the next two years, we decreased our

dependency on vaso-pneumatic dressings by 65 percent, saving us an average of \$150,000 per year on equipment rental and dressings. This also freed up the nursing staff for other patient care activities. Over the past four years, we've decreased healing time by 33 percent, with healing time measured as an 80 percent decrease in wound size or a 100 percent epithelialized wound bed.

While we use the SofPulse primarily for wound care, we also use it for additional therapeutic benefits. The device's same cellular mechanisms that enhance wound healing reduce edema in soft tissue and post-traumatic injuries. Using the SofPulse, we can decrease pain and quicken healing times for these types of injuries. As we continue to use this pain-reducing aspect of the SofPulse we expect to see a savings in pain relief medications.

## MAKING IMPROVEMENTS

When it came to improving the device, SofPulse manufacturer Ivivi Technologies proved to be very clinician-friendly. Last year, my therapists suggested features they'd like to see incorporated in the device. Ivivi was very receptive to these ideas and this year, they provided us with a new SofPulse that reflected clinician input. This new device has patient-specific coils that are malleable to the wound's shape and come in different sizes. This increases the effectiveness of the PEMF and is more comfortable for the patient.

Ivivi continues to improve the device. The company has shown us the prototypes to the coming generation of SofPulse technology that are in production now. The new units will be smaller than cell phones and the delivery coils will be available in formfitting dressings in addition to the present malleable coils. Our learn is eagerly awaiting these new developments in PEMF technology.

It is not very often that you find a situation where everyone is happy with the results of a new idea or device. In the case of the SofPulse, we believe everyone benefits: The therapist has a user-friendly, timesaving modality that has consistently produced therapeutic results over almost five years. Over 2,000 patients have benefited from wound healing and pain reduction. The hospital has saved not only money, but decreased the overall length of stay. If these results are indicative of what the future holds, everyone will be winners again. ■

## Reference

1. Evans JM, et al. Pressure ulcers: prevention and management. *Mayo Clinic* 1995. *Proc.70: 789-799.*

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