Early Proper Treatment Benefits Pressure Ulcers

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SCOTTSDALE, ARIZ. — Pressure ulcers should be treated early using validated protocols of care to keep them from becoming infected or advancing to full-thickness wounds, Dr. Laura Bolton said at the annual meeting of the Wound Healing Society.

"A full-thickness pressure ulcer takes twice as long to heal as a partial-thickness ulcer, and in our real-world pressure ulcer outcome study, baseline infection predicted delayed healing," said Dr. Bolton of the bioengineering section of the department of surgery at the Robert Wood Johnson



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DR. BOLTON

Medical School in New Brunswick, N.J.

Pressure ulcer healing is further delayed by the use of gauze dressings. "When hydrocolloid and fibrous dressings, such as a Hydrofiber, were used, the wounds healed three times faster than when gauze only was applied. We were surprised to see that nearly 9% of pressure ulcers entered the study infected. Controlling for wound depth and pain, baseline infection predicted delayed healing," she said.

From March 2001 to December 2002, Dr. Bolton and her colleagues collected data on 297 patients with 821 stage II, III, or IV pressure ulcers treated at five home care agencies via telemedicine, a long-term care facility at point of care, and a long-term acute care hospital at point of care.

The purpose was to conduct research without the rigor or exclusion criteria of a prospective, randomized controlled study. Although clinical studies produce muchneeded evidence of comparative product safety and efficacy, she said, "the scientific rigor that makes them valuable support for clinical decision making also isolates them from the realm of normal practice."

All patients were managed by wound specialists using standardizing documen-

Healing Time for Large Ulcers
(in days)

Partial-thickness ulcers
50

Unknown-depth ulcers
121

Full-thickness pressure ulcers
167

Note: Based on a study of 297 patients.
Source: Dr. Bolton

tation and care and an adapted Pressure Sore Status Tool with pain assessments.

In this cohort with pressure ulcers, 74% of the patients were older than 70 years of age and 60% were female. Full-thickness wounds, which composed 60% of all pressure ulcers, had a median area of 4 cm, while partial-thickness (28%) had a median area of 2.4 cm, and the 11% of ulcers with unknown depth had a median area of 6 cm.

The mean healing time of smaller (below median area) partial-thickness wounds

was 24 days, compared with 58 days for smaller full-thickness ulcers and those of unknown depth. Large partial-thickness ulcers took an average of 50 days to heal, compared with 121 days for unknown-depth ulcers and 167 days for full-thickness pressure ulcers. "Within the partial-thickness and unknown-depth subsets, smaller area drove faster wound healing, and for all depths of ulcers, a decrease of 20% in area during the first 2 weeks of care predicted faster healing," Dr. Bolton said.

At least one sign of infection was found in more than 20% of pressure ulcers. Partial-thickness and unknown-depth pressure ulcers were less than half as likely to become infected during the study, compared with full-thickness pressure ulcers. Controlling for patient age and baseline wound depth, pressure ulcers with at least one infection were almost twice as likely to have some pain.

The study was funded by ConvaTec, a Bristol-Myers Squibb company.

