

MDS Alert

In The Spotlight: Facilities Use New Technology To Detect Hidden Pre-Ulcer Condition

Portable ultrasound scans offer latest wave in wound risk management.

No one expects nurses to assess or code hidden risks on the MDS, but detecting a resident's real odds for developing a pressure ulcer no longer requires a crystal ball.

High-frequency portable ultrasound scans can provide images of pressure-induced damage under the surface of even normal-appearing skin on the heels, coccyx or other bony prominences.

The scans detect patterns of edema that flag pre-ulcer conditions, according to **Twalla Wahl, RN**, a long-term care nurse who does the scans in three nursing facilities in Florida.

Wahl is a clinical consultant for Boston-based **Advanced Clinical Services Inc. (ACS)**, which offers portable scanning in nursing homes that's transmitted to a physician to interpret. ACS licenses the portable, high-frequency scanner from **Longport Inc.** in Glen Mills, PA, which is also selling the scanners to facilities. ACS provides scanning services for a facility's residents for a monthly fee.

How it works: The Longport ultrasound system uses high-frequency ultrasound (20 MHz) which allows it to image the skin and the underlying soft tissue about 3 to 4 centimeters deep, explains **Connie Phillips-Jones RN, MSN**, director of clinical support for Longport. "That [depth of imaging] is valuable in visualizing skin and soft tissue over bony prominences" where skin breakdown tends to occur.

Care Plan to Address Risks Quickly

Some facilities scan residents with a score of 16 or below on the Braden scale, says **Steve Mogensen**, president of ACS. "But most facilities scan all new admissions because a resident with low to moderate risk on the Braden scale can still develop pressure ulcers," he adds.

Residents with positive scans receive preventive care and go on a scanning schedule until the ultrasound shows the underlying problem is resolved. By providing immediate, appropriate pressure relief, facilities can turn around even the worst pre-ulcer condition, thereby preventing a pressure ulcer, Wahl says.

In addition, technicians scan residents with existing wounds weekly. The wound scans show tunneling and undermining and also allow clinicians to measure tissue granulation and provide objective data to show the wound is healing, reports Mogensen.

Accurately Assess Darkly Pigmented Skin, Boggy Heels

The ultrasound differentiates between "boggy" or soft heels that are due to the aging process and those that reflect pressure-induced damage, says Phillips-Jones. And because the scanner is "color-blind," it can identify underlying tissue damage regardless of skin pigmentation, she adds.

Assessment tip: According to the revised F314 (pressure ulcer) survey guidelines, evidence suggests that detecting erythema (signaling a stage 1 pressure ulcer) may be more difficult in older adults with darkly pigmented skin.

Thus, facilities should focus on assessing these residents for "bogginess, induration, coolness or increased warmth to the

skin, as well as other signs of skin discoloration," the revised guidance advises.

Coding tip: You wouldn't code a stage 1 pressure ulcer based on scan results showing underlying tissue damage. "But facilities that use the ultrasound technology can simply document that the overlying skin is intact and appears normal but the scan reveals underlying tissue damage," says **Courtney Lyder, ND**, professor of internal medicine and geriatrics at the **University of Virginia** in Charlottesville. "And the facility staff can show they identified the risk and implemented preventive measures much earlier than otherwise possible."

Editor's Note: For more information on how the ultrasound technology prevented a heel ulcer in a very low-risk resident - and how it can improve survey outcomes and litigation-proof your facility - see the April 2005 Long-Term Care Survey Alert. For subscribing information, go to www.elihealthcare.com/spec_long_term_care_survey.htm.