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EPISCAN I-200

EPISCAN BENEFITS

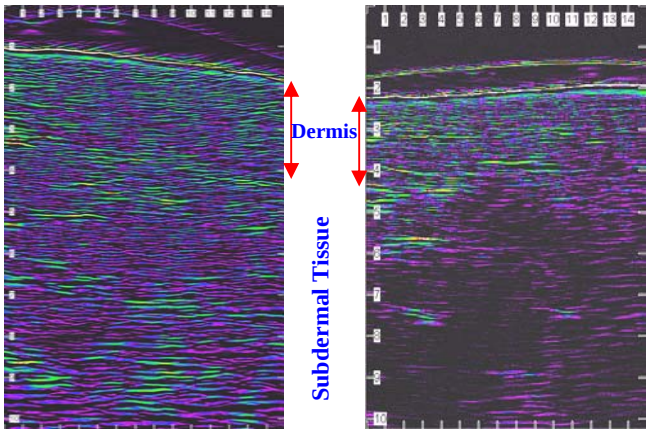
- **Have you ever considered how many pressure ulcers could be prevented if there was a method for objective assessment for deep tissue injury?**
- **Wouldn't you appreciate knowing of the existence and extent of deep tissue injury at the time of patient admission?**
- **Have you been challenged by a lack of objective documentation of treatment effectiveness?**

How Does It Work?

Pressure ulcers primarily develop over boney prominences and eventually, sometimes rapidly, work their way to the skin's surface causing a break in the skin, as well as, discomfort to the patient. By using high frequency ultrasound, the EPISCAN can visualize down to the boney prominence and detect subtle changes to the soft tissue associated with the early onset of deep tissue injury prior to any visual clinical changes to the skin's surface.

The EPISCAN's ability to provide early detection of pressure ulcers allows the clinician to provide early prevention intervention which often leads to deep tissue injury resolving without open wounds developing. By scanning a patient on admission, the clinician can determine and document any anatomical sites at risk of breakdown as well as answer the question, "Where did the pressure ulcer originate?" The EPISCAN is your objective assessment tool which is used in conjunction with your standard of care visual skin assessment.

EPISCAN Ultrasound Images of a Patient's Heels



Normal Pathology * Early Stage Pressure Ulcer

***Note:** dark areas in the subdermal tissue on the right image, which denotes early deep tissue injury. The dermis is intact in both images, so tissue damage would not be detected by visual assessment.*

The EPISCAN is a point-of–care ultrasound technology that is wheeled to the residents bedside.

Nurses scan and interpret the images as "normal" vs. "abnormal" as part of their routine skin assessment.

Recommendations for Use

Within first 24-48 hours of admission and on all **"at risk"/ "high risk"** residents to:

- Help determine tissue changes upon admission.
- Provide ability to initiate preventative intervention earlier to prevent pressure ulcers.

Residents with Abnormal Scans:

- Re-scan every 7-14 days or according to **facility policy.**
- **Ability to compare** images and monitor treatment effectiveness.
- **Help Determine** if pressure ulcer was "unavoidable" based on scan results and intervention documentation.
- **Differentiate** between pressure and friction/ incontinence ulcers.
- **Wounds**: Determine sinus tract formation and undermining and monitor wound treatment effectiveness.

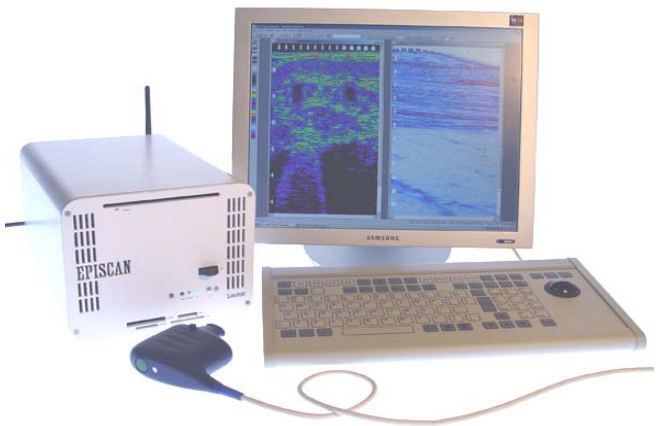
Cost-Benefit of the EPISCAN

"We conclude that EPISCAN, in extended care rehabilitation units, is a cost-benefit to providers for preventing costly pressure ulcers. **The expected cost savings for the at-risk patient is approximately $5,300.00 per resident over a 1 year period."**

Clinical Impact of EPISCAN on a Study Population of 150

	Stage 1 ulcer Incidence Coccyx	> Stage 1 Ulcer Incidence Coccyx	Stage 1 Ulcer Incidence Heel	> Stage 1 Ulcer Incidence Heel
EPISCAN with Evidence-Based Prevention Methods	**1.3%**	**0.0%**	**1.3%**	**0.0%**
Evidence-Based Prevention Methods without EPISCAN	**5.0%**	**3.0%**	**7.5%**	**4.4%**

Abstracts from **Cost-Benefit of the EPISCAN Ultrasound System in Extended Care Rehabilitation Units**, Ronald J. Shannon, MPH. Presented at 20TH ANNUAL SYMPOSIUM ON ADVANCED WOUND CARE AND



Customer's Prospective

"The **incidence of pressure ulcers at Hawfields had dropped to 2 percent in February 2007, from 7 percent in September 2005,** and the nurses' treatment time has been better utilized in other direct-care patient issues such as teaching, documentation, and assessment-related procedures.

Due in part to the decrease in incidence of pressure ulcers, **liability insurance rates were decreased** upon renewal. Incorporation of this new technology has drastically decreased the pain and suffering of the patients at Hawfields and possibly saved thousands of dollars in wound-treatment costs. It is even possible that the **facility may have circumvented costly lawsuits."**

Abstracts from, **A New Look At Pressure Ulcers** Provider Magazine April 2007, BILL OSMAN, RN, *Director of Nursing and* MAX H. KERNODLE, *Administrator, Presbyterian Home of Hawfields, Mebane, N.C*

Pathogenesis of Pressure Ulcer Development

CONCLUSION: High-resolution ultrasound is an effective tool for the investigation of skin and soft tissue changes consistent with the documented pathogenesis of pressure ulcers. A progressive process for pressure ulcer development from deep subdermal layers to superficial dermal then epidermal layers can be inferred.

A better understanding of the pathogenesis of pressure ulcers through the use of high-resolution ultrasound to detect soft tissue damage and edema before visible clinical signs could **lead to earlier and more focused pressure ulcer prevention programs, resulting in reduced pain and suffering for improved patient quality of life and wound care cost savings.**

Abstract from, **Use of High-Resolution, High-Frequency Diagnostic Ultrasound to Investigate the Pathogenesis of Pressure Ulcer Development** ADVANCES IN SKIN & WOUND CARE & VOL. 19 NO. 9, Paul R. Quintavalle, DPM; Courtney H. Lyder, ND, RN; Philip J. Mertz, PhD, CWS, FCCWS; Connie Phillips-Jones, MSN, RN; and Mary Dyson, PhD, FAIUM, FCSP

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A NEW WEAPON IN THE FIGHT AGAINST
PRESSURE ULCERS
NOW THERE'S SOMETHING WORTH SMILING ABOUT