

Applying 21st Century Imaging Technology to Wound Healing: An Avant-Gardist Approach

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Abstract

A significant arising complication in the care of patients with diabetes is increased susceptibility to chronic wounds, including diabetic foot ulcers and pressure sores. This is driven by, e.g., neuropathy and peripheral arterial disease. It is well recognized that best practice in wound care requires wound assessment, including measurement, on presentation and regularly throughout the treatment program. Proper assessment is necessary to ensure that the most appropriate and cost-effective therapy is used at all times, with quantitative measurement necessary to track the efficacy of the chosen approach. A documented assessment can also assist patient–clinician dialog and discussion within the multidisciplinary team. Remote evaluation and assessment of the wound is also of increasing importance and practicality through the use of a telemedicine approach. There has been considerable progress in the space of imaging for wounds, including systems that include three-dimensional measurement and telemedicine features. This literature review examines the available options and reviews the clinical evidence for measurement accuracy, scope for remote assessment, and published user feedback on the systems.

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Abbreviations: (2D) two-dimensional, (3D) three-dimensional, (app) application, (EMR) electronic medical record

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