ALBERTA INNOVATES

Accelerating Innovations into CarE – Market Access Program (AICE-MAP)

Tissue oxygenation assessment in a diversified chronic wound population

PROJECT FAST FACTS

PARTNERS: Kent Imaging Inc., SerenaGroup Research Institute
AWARD: $253,000
AWARD DATE: September 1, 2020
PROJECT DURATION: 13 months

THE PROBLEM

Oxygen plays an integral role in all phases of the wound healing process, and tissue oxygenation levels are key determinants of wound healing. A comprehensive evaluation of patients with non-healing wounds must include the measurement of oxygenation in and around the area of skin breakdown. The current gold standard, transcutaneous oxygen measurement (TCOM), has numerous drawbacks but remains in-use because non-invasive vascular tests are required for medical decision making and reimbursement.

THE SOLUTION

Kent Imaging's Snapshot$_{NIR}$® using near infrared light imaging was introduced to the wound healing market in 2018. Near infrared light is absorbed to varying degrees in melanin, the substance that gives different color to skin. Initial versions of the device only detected up to Fitzpatrick 3 skin tone (light colored skin), resulting in slow adoption of the technology. Clinicians have asked for a device that works on patients regardless of skin color, leading Kent Imaging to develop an enhanced automated melanin correction feature. The newest algorithm has been incorporated into the Generation 2 Snapshot$_{NIR}$®, and is designed to automatically adjust the image based on skin colour. This elevates the usefulness of the imaging technology up to the top end of the Fitzpatrick scale (level 5-6), which will advance adoption and use. Successful adoption of Snapshot$_{NIR}$® will provide healthcare practitioners with important insights into tissue health which are required to reduce complications and improve patient outcomes.

PROJECT OBJECTIVES

Kent Imaging is working together with the SerenaGroup® Research Institute to conduct clinical trials comparing the Generation 2 Snapshot$_{NIR}$® to the gold standard, transcutaneous oxygen measurement (TCOM), in patients with chronic wounds. The goals of this trial are to:

1. Demonstrate correlation to TCOM measurements, providing confidence in results and providing a clear path for market education on tissue oxygenation.
2. Evaluate and show cost saving opportunities through the replacement of TCOM, which is time intensive and costly to administer.

"The AICE-MAP funding of the head-to-head comparison with TCOM will validate SnapshotNIR as a viable, noninvasive, vascular assessment in limb preservation, which in turn will support its acceptance as a medical imaging procedure for reimbursement. With several advantages over the "gold standard", the validation will quickly accelerate acceptance and market growth of SnapshotNIR." ***– Pierre Lemire, CEO, Kent Imaging.***

ABOUT THE AICE-MARKET ACCESS PROGRAM

AICE - MAP is designed to accelerate health innovations that face evidentiary hurdles in achieving market access. The Program supports small to medium-sized enterprises and real-world testing sites in carrying out clinical trials and feasibility studies of innovative health technologies. Successful Projects are designed to generate key evidence that will facilitate commercial progression and market adoption. If you'd like to learn more, please check out our AICE website.

Learn how

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