

# Real World Experience (RWE) Using Near Infrared (NIR) Spectroscopy Analysis of 140 Encounters on Medicare Beneficiaries in Post-Acute Care

Martha R. Kelso, RN, CHWS, HBOT  
Founder and Chief Executive Officer of Wound Care Plus, LLC (WCP)



## BACKGROUND

Wound Care Plus, LLC (WCP) is a mobile wound care advanced practice provider dedicated to advancing wound care for underserved patients across various care settings.

Patients often face delays in scheduling diagnostic tests, transportation obstacles, and concerns about invasive procedures.

Additionally, the wound population may present a mixture of arterial and venous insufficiencies.



Wound Care Plus, LLC has integrated “trunk-to-bed” technology into bedside diagnostics for improved patient care to address these issues.

Access to an easily portable non-invasive real time diagnostic equipment can be a game changer in this scenario.

## OBJECTIVE

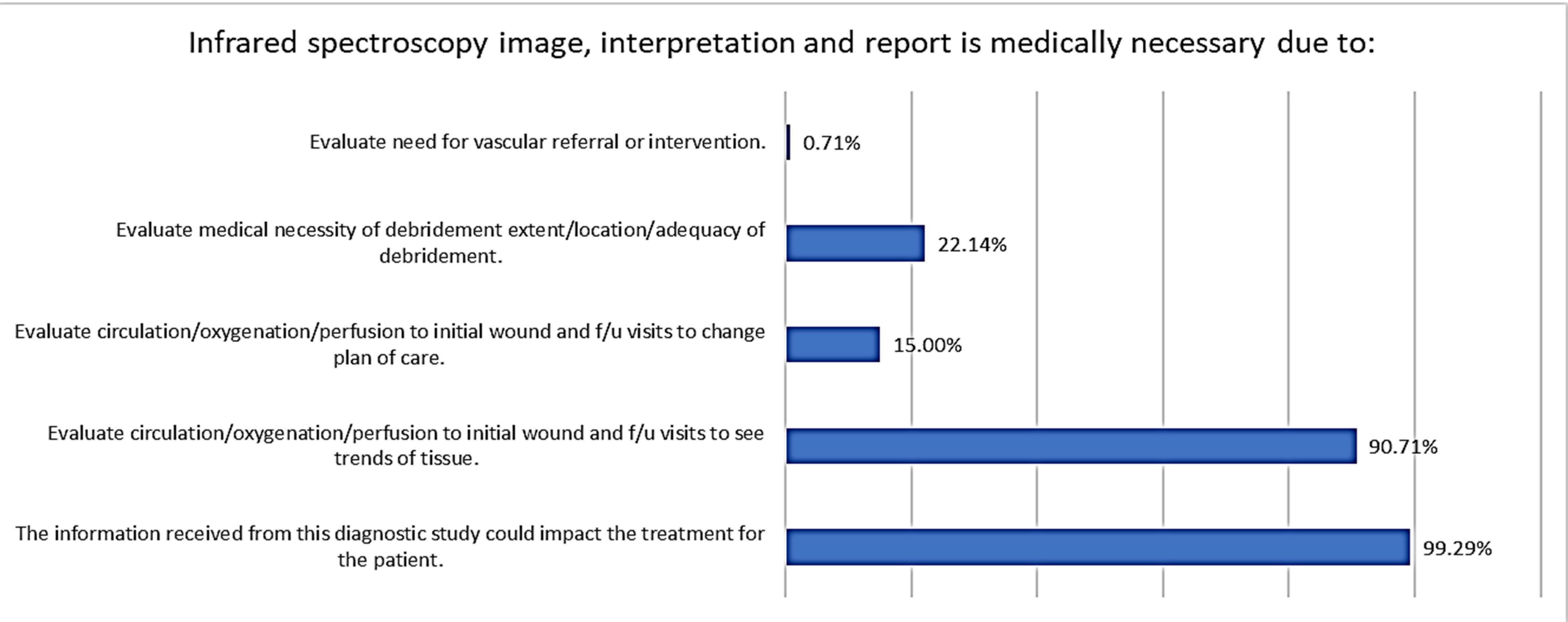
To evaluate if point-of-care near-infrared spectroscopy (NIRS) can enhance or change treatment planning in the Post-Acute Care setting.

## METHOD

Near-infrared spectroscopy (SnapshotNIR) was employed in the workflow to assess tissue oxygen saturation and perfusion. Wound Care Plus (WCP) retrospectively reviewed data from 140 Medicare beneficiaries to evaluate the effect of NIRS in Post Acute care setting

## RESULTS

Figure 1: Medical Necessity of infrared spectroscopy image, interpretation and report



Underlying medical factors or symptoms requiring infrared spectroscopy imaging:

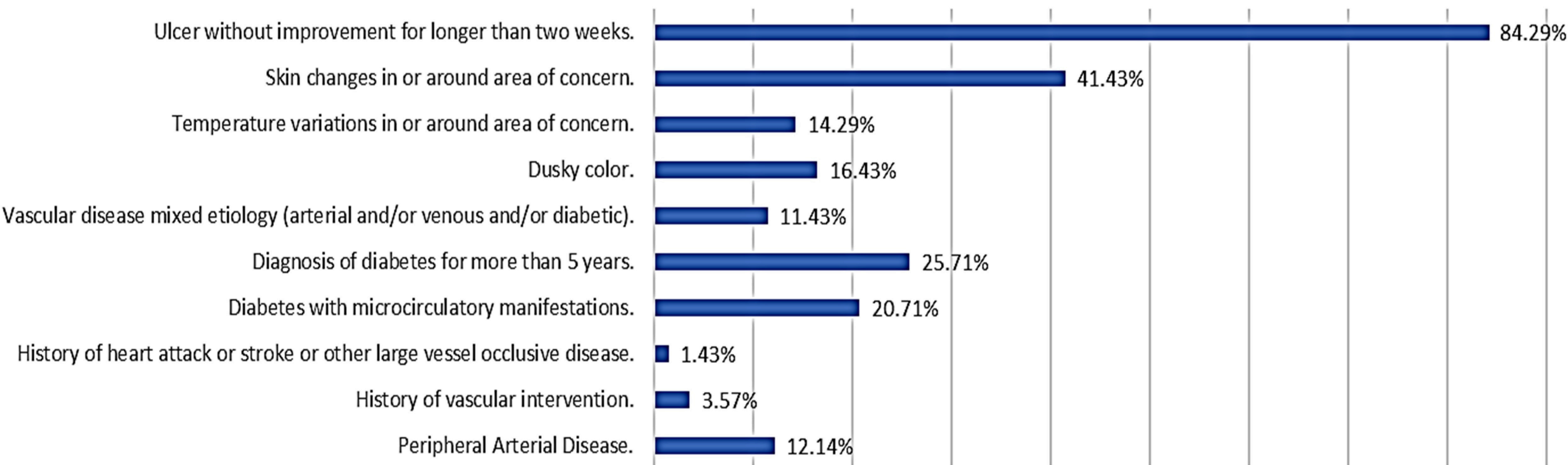


Figure 2: Underlying medical factors of symptoms requiring infrared spectroscopy imaging

Results of the imaging study of the microcirculation and oxygenation impacted treatment plans in the following ways:

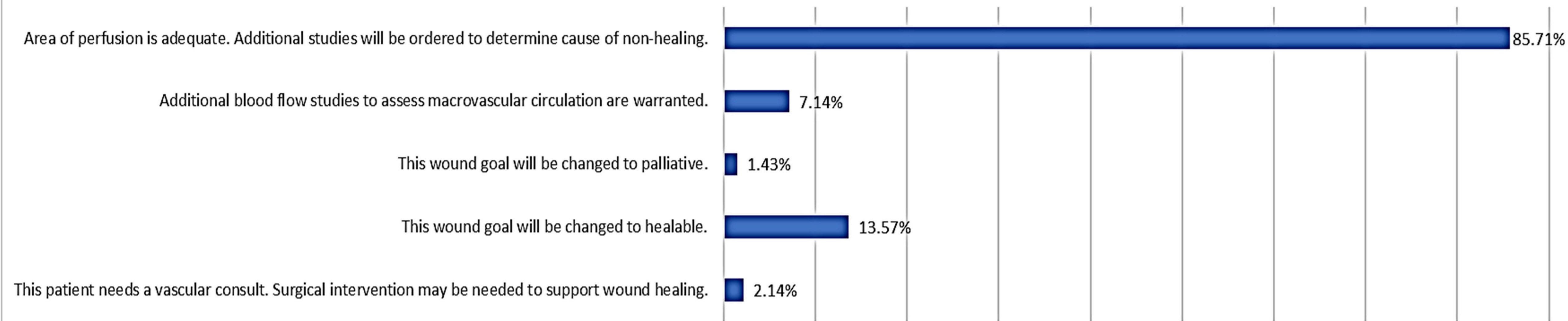


Figure 3. the ways in which results of the imaging study of the microcirculation and oxygenation impacted treatment plans

## DISCUSSION

By utilizing NIRS, WCP was able to identify the flowing trends:

- Decreased need for vascular referrals to 0.71%, validating adequate perfusion and oxygenation.
- 22.14% of patients to evaluate medical necessity or adequacy of debridement.
- 15% of patients had a change in care plans.
- 90.7% evaluate trends in tissue evaluating circulation, perfusion, and oxygenation compared to the initial visit, resulting in identifying sinus tracts and undermining.
- 99.29% changes in treatment.
- 85% had adequate perfusion to debride.
- Only 7% needed additional vascular studies or intervention.
- 13.5% went from palliative care to healable.

## CONCLUSION

This analysis underscores the efficacy of Near-Infrared Spectroscopy (NIRS) as a diagnostic tool for validating sufficient blood flow, assessing perfusion, and evaluating tissue oxygenation.

NIRS supports effective debridement and aids in assessing treatment effectiveness and care plans.

By incorporating NIRS, healthcare providers can enhance patient care while mitigating healthcare costs and overcoming barriers to access.