

MULTICENTRE RANDOMISED CONTROLLED TRIAL OF TRANSCUTANEOUS CO2 THERAPY FOR NON-HEALING DIABETIC FOOT ULCERS

Frangéž I, et al. Transcutaneous Carbon Dioxide Therapy Significantly Accelerates Diabetic Foot Ulcer Healing: A Multicentre Randomised Controlled Trial. Biomedicines. 2026;14(2):422.

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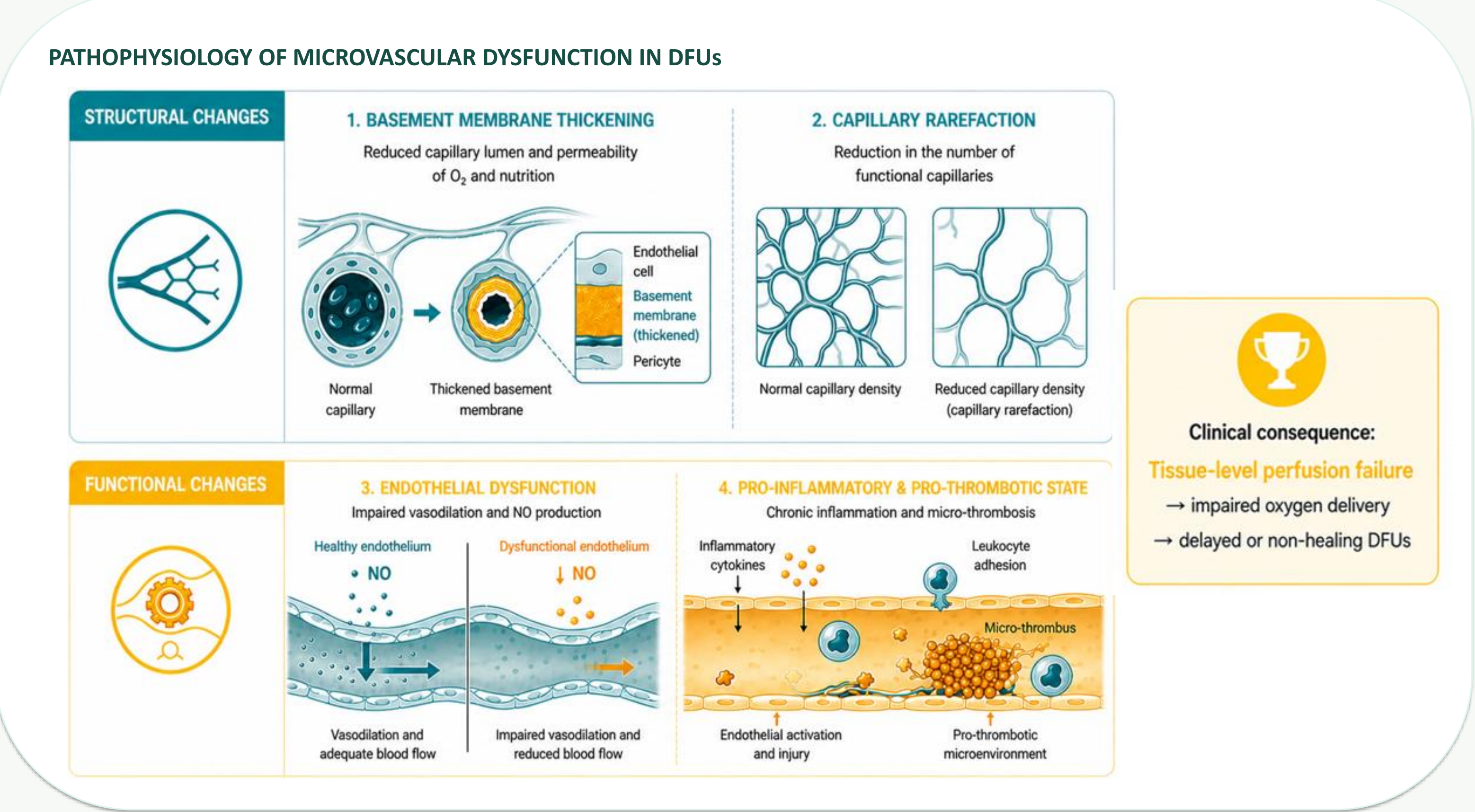
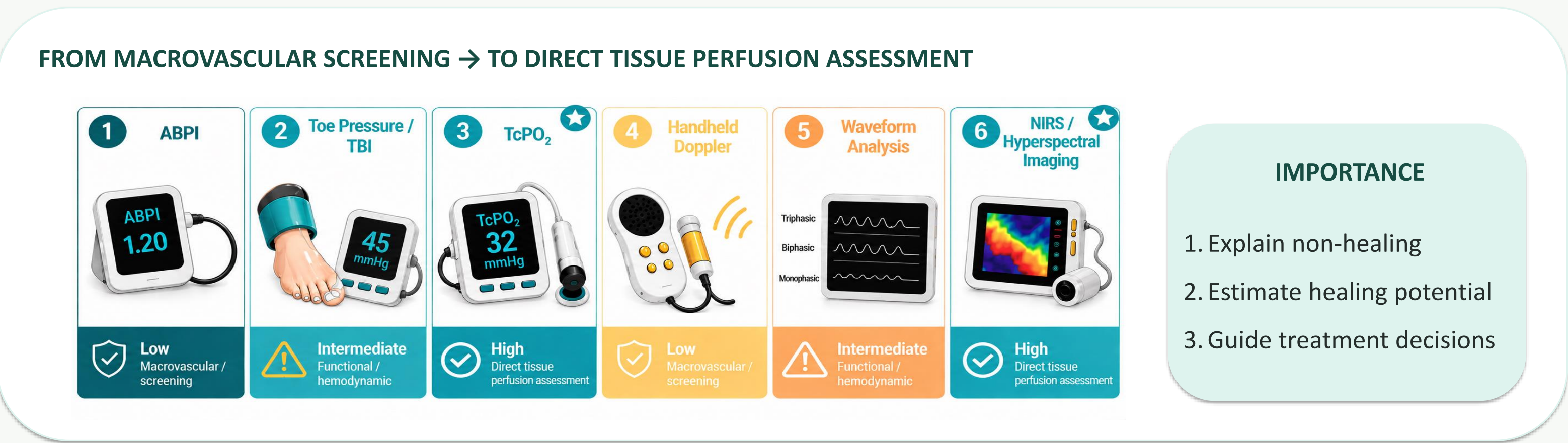
WHY THIS MATTERS

DFU healing remains suboptimal. Standard wound care addresses the wound environment, but impaired tissue-level perfusion may remain a major limiting factor.



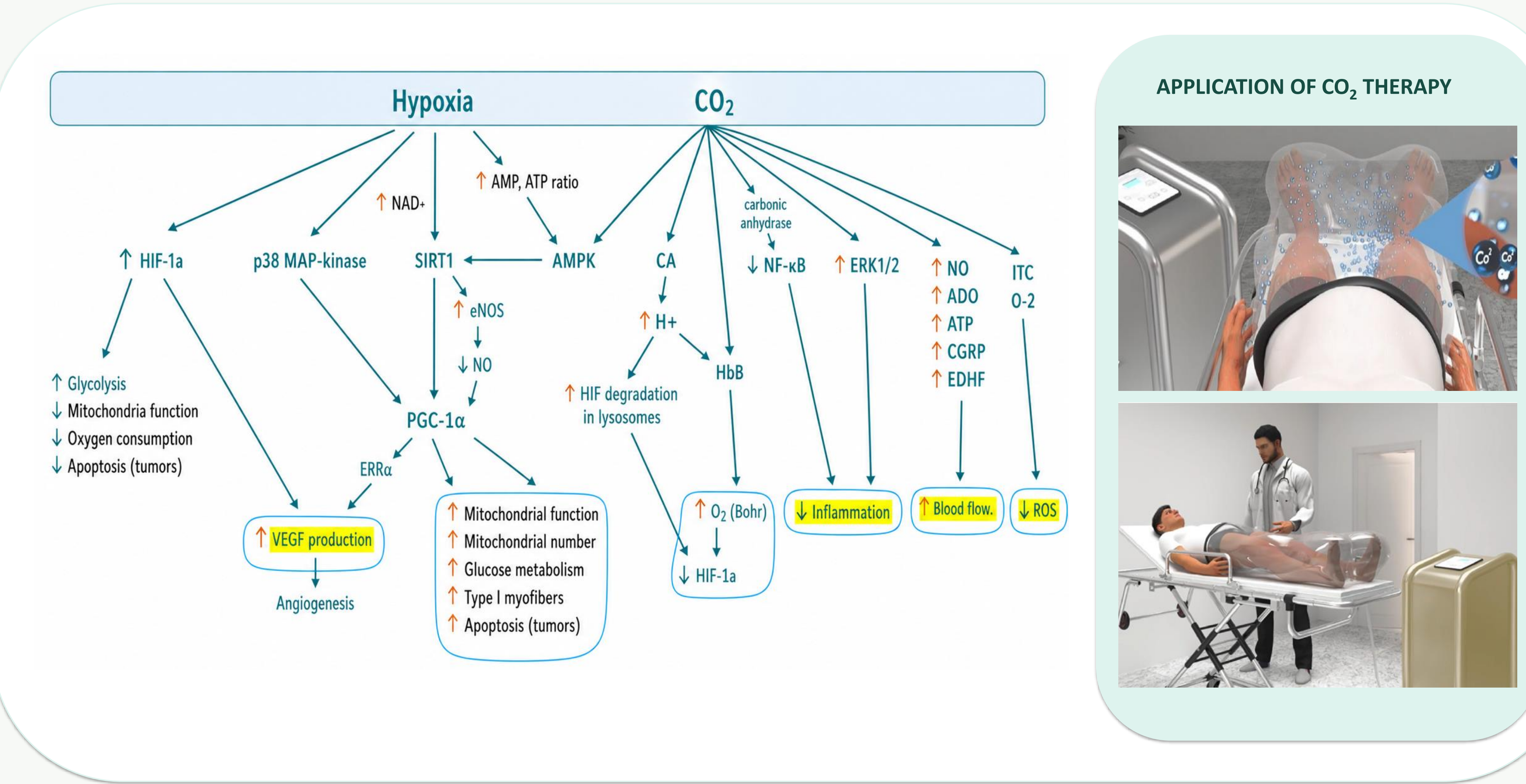
CLINICAL RATIONALE

Macrovascular assessment is essential, but a normal ABPI does not confirm adequate microcirculatory perfusion. Undetected tissue-level impairment can delay healing.

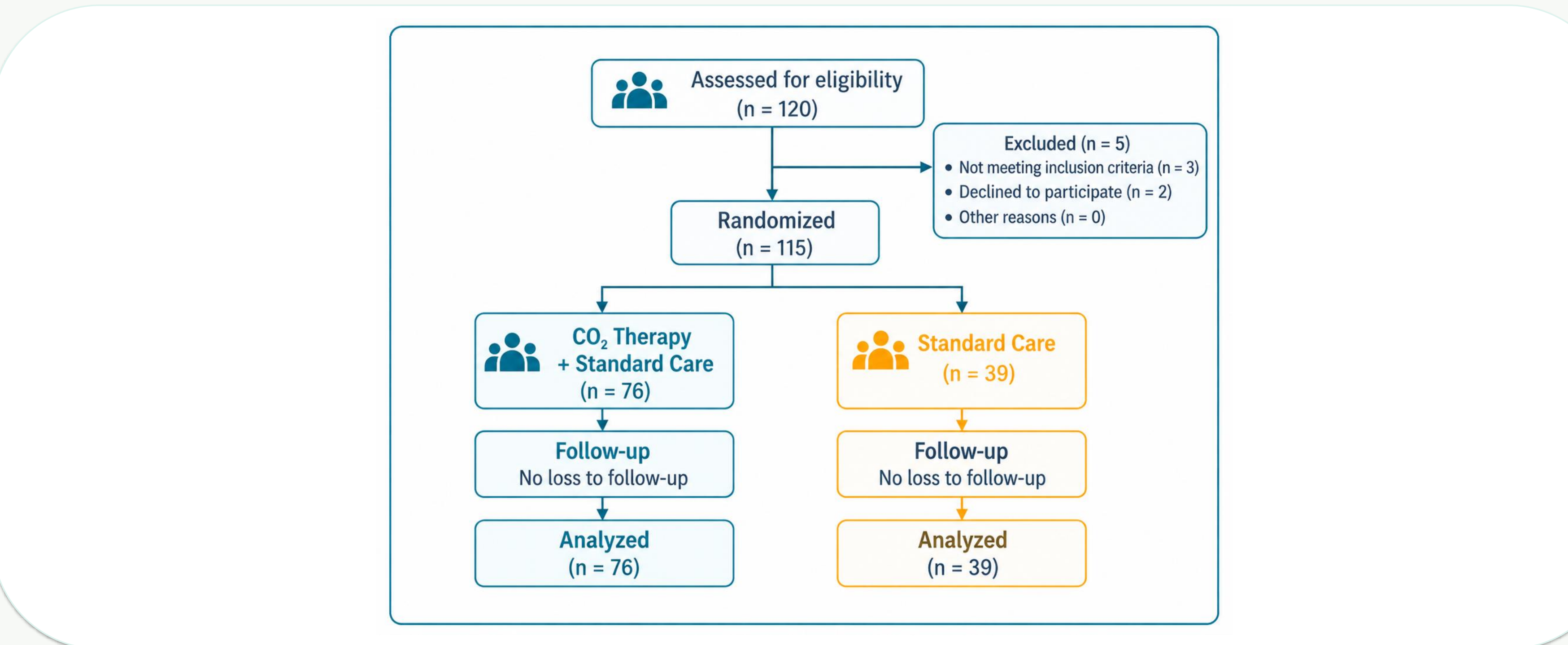


TRANSCUTANEOUS CO2 THERAPY

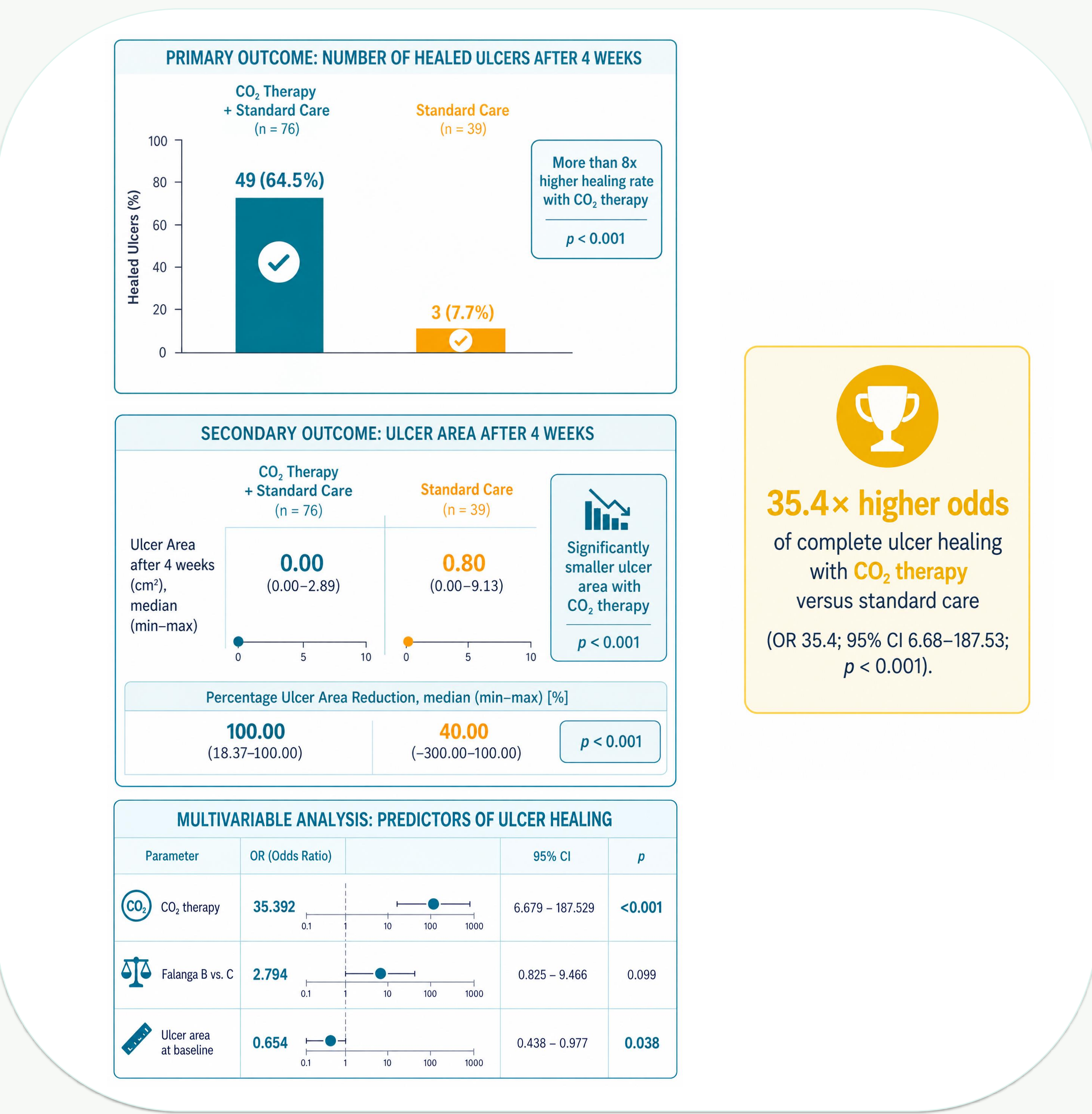
A treatment strategy designed to target microvascular dysfunction through physiological and molecular mechanisms that improve local tissue oxygen delivery and healing biology.



MULTICENTRE RANDOMISED CONTROLLED TRIAL – STUDY DESIGN



KEY RESULTS



CONCLUSIONS

- Microcirculation is the key limiting factor in DFU healing.
- CO₂ therapy directly targets microvascular dysfunction.
- CO₂ therapy significantly improves healing rates and ulcer area reduction.