

TRANSCUTANEOUS OXIMETRY AS INDICATOR FOR SUCCESS TREATMENT WITH TNP**Manlio Ottonello¹.**¹*Ospedale Santa Corona (Pietra Ligure, Italy)*

Aim: It is a common experience within patient care that a small number of patients are «non-responders» to treatment with topical negative pressure (TNP). We wanted to find a tool that could identify patients before actual treatment with TNP, and to find those that would not benefit from this therapy. This would avoid treatment failures and create healthcare cost savings.

Method: A group of 50 paraplegic patients suffering from pressure ulcers underwent the transcutaneous oximetry measurements. We considered normal values as in use for perfusion of lower limbs (>50%, 50%<x<30%, <30%). We have highlighted 5 different patient groups:

- 1) Oximetry >50% increasing after treatment
- 2) Oximetry 50%<x<30%, increasing during and after treatment
- 3) Oximetry <30% increasing during and after treatment
- 4) Oximetry <30% increasing during treatment
- 5) Oximetry <30% not changing or decreasing during and after treatment
(= non-responders)

Results: 7 patients (13%) belong to group 5, which is considered the group of non-responders. To support these findings we also performed a retrospective analysis of our paraplegic patients with TPN-treated* ulcers.

Forty-two (14%) of the 300 treated patients were non-responders.

Both groups of non-responders showed similar characteristics:

- Paraplegic from ischemic injury
- Diabetes Mellitus
- Heavy smokers
- Arterial vascular disease
- Age >70 years

Conclusion: This study and the retrospective analysis showed that perilesional transcutaneous oximetry can help identifying patients who will not respond to treatment with TPN.

* TPN used is V.A.C.[®] Therapy (KCI Medical Srl., Italy)