DEVELOPMENT OF A PREDICTIVE SCALE FOR THE PREVENTION OF ADVERSE EVENTS IN ONCOLOGICAL AND ONCO-HEMATOLOGICAL PATIENTS WITH VASCULAR ACCESS DEVICES

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INTRODUCTION

Medical Adhesive–Related Skin Injuries (MARSI) are an emerging and often under-recognized complication in patients with vascular access devices, particularly in those with fragile skin. They are associated with pain and discomfort, reduced quality of life and may cause delays or prolongation of treatment; in severe cases, they can require device replacement, increasing clinical risk.

MARSI Risk Assessment Scale – D.A.L.T.E. Method

D.A.L.T.E. = **D**emographics · **A**namnesis · **L**aboratory · **T**herapy · **E**xamination (Skin)

Section	Risk Factor/ Parameter	Values
D - Demographics	Age	◯ < 50 ◯ 50–65 ◯ > 65
	BMI (kg/m²)	◯< 18.5 ◯18.5–24.9 ◯25-29.9 ◯> 30
A - Anamnesis	Compliance	◯ Yes ◯No
	Diabetes	◯ Yes ◯No
	Current Diseases	◯ Oncological ◯ Hematological ◯ None
	Pre-existing skin disorders	◯ Yes ◯No
	Allergies	◯ Drugs ◯ Adhesives/Tapes ◯ Antiseptics ◯ None
L - Laboratory	Serum Albumin	◯ < 35 mg/dl ◯ > 35 mg/dl
	Anemia Men Hb < 13; Women (15y Hb < 12)	◯ Yes ◯ No
T - Therapy	Current Treatments	◯ Corticosteroids ◯ Anticoagulants ◯ Antibiotics ◯ Monoclonal Abs ◯ Chemotherapy ◯ Radiotherapy ◯None
E - Examination	Skin Status	◯ Normal ◯ Dehydrated ◯ Severely Dehydrated
	Previous MARSI	◯ Yes ◯ No
	Skin Edema with Exudate	◯ Yes ◯ No

OBJECTIVES

The specific aims are:

- To identify the main risk factors for the development of MARSI
- To propose a predictive scale to be applied before vascular access device implantation

LITERATURE REVIEW & METHODOLOGY

Literature review (PubMed, CINAHL, INS 2024 guidelines) and expert consultation were used to develop the D.A.L.T.E. assessment scale across five domains:

1. Demographics
2. Medical History
3. Laboratory Data
4. Therapy
5. Skin Examination

A prospective observational pilot study was conducted on patients with vascular access devices at the Vascular Access Implant Clinic in Molinette Hospital, Turin. Data were collected using standardized forms, and descriptive and correlational analyses were performed to identify key predictive variables.

PRELIMINARY RESULTS

The **first specific risk assessment scale.** An easy-to-use clinical tool that represents the first risk scale designed to support risk evaluation and the personalization of clinical management strategies

CONCLUSIONS

The assessment scale can be applied in the pre-implantation phase to assign an individual risk score, supporting appropriate device selection and targeted preventive strategies. Its predictive accuracy will be evaluated through prospective validation correlating risk scores with MARSI incidence.