Pressure ulcer risk assessment: risk factors and risk screening in older persons - a validation study

Aglécia M. V. Budri¹,², Zena Moore¹, Declan Patton¹, Tom O’Connor¹
¹School of Nursing & Midwifery, RCSI, Dublin, Ireland; ²Science Without Borders Programme, Brazil

INTRODUCTION

Using novel movement sensor technology, in addition to SEM measurement, the present study aims to determine the contribution of mobility, activity, nutritional status and incontinence on the development of PUs and to identify how these risk factors are actually related to the pathology underlying the development of PUs.

METHODS

- Mobility (movement sensor system - continuously)
- Continence score
- Activity (Braden)
- Nutritional Status (MUST)
- Visual skin assessment
- Sub epidermal moisture (SEM) measures

Pilot study with 48 older persons during 20 days assessment

RESULTS

- 5 PU grade I
- 10% incidence
- 1 male
- 4 female

- SEM’s measures were abnormal 3.6 days before PU visually appear
- Among 5 PUs: 2 in low freq movers
- 3 in high freq movers

DISCUSSION

- SEM and movement readings vary reflecting changes in the patients’ actual movements and responses to pressure and shear forces.
- High freq movers/agitated patients are consistently rubbing their skin off the bed and may be more likely to the superficial PUs. Low freq movers may be at risk of developing deeper PUs due to unrelieved pressure.

CONCLUSION

Low freq movers
- dressings to protect the areas exposed to shear/friction
High freq movers
- Repositioning

May be better tools for assessment and prevention