#### **SEM Scanner Prevention Algorithm**



Evaluation of Novel Sub-Epidermal Moisture (SEM) Technology in Early Pressure Ulcer Detection Versus Conventional Techniques

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# **Objectives**

To compare the clinical utility of using a SEM Scanning device versus subjective visual skin inspection in the early detection of Category 1 Pressure Injury/Ulcer (PI/PU)

- To observe whether SEM data triggers the allocation of preventative interventions
- To compare the rate of Hospital Aquired Pressure Injury/Ulcer (HAPI/U) before and during the SEM Scanner evaluation



## **Method**

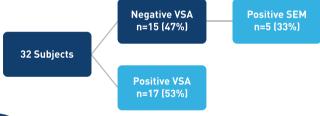
- 32 orthopaedic/plastic surgery patients
- Waterlow ≥ 10 (at risk to very high risk)
- 12 week duration
- 3 consecutive readings taken from sacrum, heels and ischial tuberosities
- SEM Delta of ≥0.6 = increased risk of PI/PU



## Results

- Pre-evaluation HAPI/U incidence rate = 12%
- No patients developed a HAPI/U during the evaluation
- 72% (n=23) patients showed evidence of incipient tissue damage
- 15 subjects with no visible signs of damage 33% (n=5) had positive scan results indicative of underlying damage







### **Discussion**

- SEM Scanning presents an exciting innovation... a method of objectively assessing tissue health before damage becomes visible
- Delta readings prompted front line staff to implement targeted interventions
- 5 patients potentially receiving preventative measures that they may not have had otherwise



