Pressure Injuries and 3D images from GPC
Digital Health and Care Conference
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Ian Wiles, Medical Director,
IanWiles@gpcsl.com
Dr Ian Wiles

- GP Bath over 20 years
- Worked at InHealth, Assura Group and Virgin Care
- Director operations Virgin Care
- Medical Director GPC
• Wound care is costly
  • The cost of treating a pressure ulcer varies from £1,214 (category 1) to £40,000 (category IV).
  • £5 billion in the UK
  • 4.5% population, average cost £2,300
  • Disruptive to the patients lifestyle

• Wound management is changing
  • Closer to the patient
  • Fewer specialist nurses
  • More pressure ulcers

• Outcomes are difficult to monitor
  • Measurements (staging) are subjective and stepped
  • Population management difficult
RealSense 3D Camera

1. 3D gives perspective
2. Delivering accurate measurement
3. Length, width and DEPTH
4. Reproducible
5. Objective
6. Intuitive
7. Inexpensive
Capture and Analysis of 3D Image
Ulcer Units – ULNITs

• ULNITs are the accurate measurement of an ulcer using a three dimensional camera (3D).
• The ULNIT is the maximum width multiplied by the maximum length multiplied by the maximum depth of any ulcer all measured in millimeters, to produce a numerical value.
• The ULNIT will become surface area multiplied by the maximum depth, and will be automated.
• 3D cameras enable any carer to accurately assess and monitor an ulcer.
• The monitoring of ULNITs ensures close scrutiny of all pressure ulcers, removing the subjective element in previous classifications and allowing consistency across a community.
• The introduction of ULNITs will allow clinicians and mangers to accurately measure the aggregated pressure ulcer ‘load’ in a community simply by referring to the total ULNITs aggregated for a population, again this can be monitored.
• Every clinician involved in ulcer care understands this a powerful development in measurement, using the depth of an ulcer is just a an evolutionary development of ulcer assessment.
Ulcer Healing on Track
Better than Predicted
Ulcer Healing Requiring Intervention
Other Applications

- Burns with calculation of % surface area affected
- Mole surveillance
- Psoriasis monitoring
- Any suggestions
Mobile Applications
1. Capture of image and depth data by clinicians and patients

Cloud Store & Applications
2. Secure send and store with intelligent image processing

Web Applications
3. Dimensions monitored and managed by exception. Specialist Nurses and Physicians review 3D, video and image including change over time and intervene if required

Integration Services
4. Integration with other systems to send and receive worklists and medical records and to link to depth, measurement and 3D images.
KEEP CALM AND Monitor Pressure Ulcers
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