AN INNOVATIVE APPROACH FOR SACRAL ULCER PREVENTION: AN EVIDENCE-BASED PRACTICE

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Background

- From March 2016 to November 2016, there is 81.8% of sacral ulcer incidence rate in PWH ➔ highest among different sites of pressure ulcer development

**SUPP**
- Collaboration of Nursing Team & Occupational Therapists
- Sacral Ulcer Prevention Program (SUPP) for oncology ward

**Target Group**
- need prolonged prop-up in bed
- at risk of developing sacral ulcers

**AIM**
- To determine the optimal prop-up postures and appropriate devices in relieving sacral pressure through pressure measuring devices
- To facilitate staff on selection and application of postures and pressure relieving devices for patients at risk of sacral ulcer development
Methodology

- 6 Cushions selected were tested for 10 mins in 3 Prop Up Postures by subjects in different body built.

- Sacral and ischial tuberosity were the target anatomical sites for the measurement of pressure distribution
  - Peak pressure
  - Average pressure
  - Sacral pressure
  - Pressure distribution on devices were evaluated
Pressure in Different Prop-up positions
On visco-foam cushion with cut-out design

- **Average Pressure**
- **Peak Pressure**
- **Sacral Pressure**

<table>
<thead>
<tr>
<th>Position</th>
<th>Average Pressure</th>
<th>Peak Pressure</th>
<th>Sacral Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lying Flat</td>
<td>25.1</td>
<td>64.6</td>
<td>7</td>
</tr>
<tr>
<td>Low Fowler's Position</td>
<td>33.8</td>
<td>88.9</td>
<td>13.8</td>
</tr>
<tr>
<td>Semi-fowler's Position</td>
<td>33.2</td>
<td>95.7</td>
<td>14.6</td>
</tr>
<tr>
<td>Standard Fowler's</td>
<td>35.1</td>
<td>109.7</td>
<td>14.6</td>
</tr>
</tbody>
</table>

- **NO.1**
- **NO.2**
- **NO.3**
Visco-foam cushion with cut-out design demonstrated the best result in pressure relieving over sacral area, followed by contour cushion with full gel pad and air sacs cushions.
CUE Cards

to facilitate the application of posture combined with choice of pressure relieving devices selected based on our clinical Ax.
• Additional assistive devices were selected according to individual risk factors and needs.
Case Illustration

No. 1 with knee straight was selected for patient with lower limb but active for ADL.

No. 4 with knee bend were decided for patient without lower limb edema and leg support for difficulty to self maintain proper position while sliding down.
OUTCOME MEASURE

1. Patient satisfaction and feedback
   • Before Application of Device
   • Post Application of Device

- Degree of symptom relief
- Degree of comfort
- Degree of stability
- Overall satisfaction
- Tendency for future use
2. Monitor patients’ prop up posture in bed daily

- Body kept in midline, not leaning to either side or forward
- Hips positioned well in bed or with seat cushion
- Lower limbs well supported
- Proper use of assistive device
Clinical Implementation


Frequency of aids use

Choice of prop-up postures

- Seat cushion: 71%
- Calf support: 20.80%
- Leg support: 0%
- Wedge Support: 0%

Prevention of pressure ulcers recommended postures:

1. 預防壓瘡建議姿勢
2. 預防壓瘡建議姿勢
3. 預防壓瘡建議姿勢
4. 預防壓瘡建議姿勢
Way Forward

• Further test on other pressure relieving devices, e.g. ripple mattress
• For other clinical conditions in medical wards
• To modify the postures for clinical application
END
THANK YOU!