**Lighten the load**

New studies reveal the benefits of support in semi lateral decubitus at 30°.

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Pressure is one of the essential causes of pressure sore development through secondary hypoxemia of the tissues with resulting ischemia. The risk of trophic problems occurring is linked to specific risk factors that are both extrinsic and intrinsic to the person and their immediate surroundings. Changing a patient’s position every two to three hours, depending on the level of risk of cutaneous and tissular alteration, is one of the caring practices acknowledged by the experts.1

**DDS and DLS at 90°**

If strict dorsal decubitus (DDS) exposes the occipital, sacral and heel support regions, strict lateral decubitus (DLS) at 90° exposes the skin at certain anatomical areas, such as the tubercle major (the source of discomfort and pain) and the great trochanter, to vertical stresses on a small area. At these points the tissular mass is thin.

When caring for a person with severe, long-lasting or temporary incapacity, DDS and DLS at 90° expose anatomical areas to high interface pressure and there is a rapid decrease in the partial transcutaneous pressure in oxygen (TCPO₂). The consequences of intense and prolonged pressure on the trochanter are mainly functional, with a risk of tissular distress that can develop into osteoarthritis of the hip.2

The study by Colin et coll. has demonstrated that TCPO₂ values are closely linked to load pressure.3 The study showed that sustained or strong pressure on a vulnerable anatomical region creates disturbances of the cutaneous and sub-cutaneous micro-circulation, thus encouraging the development of pressure sores.

**DSL at 30°**

Following in the footsteps of Seiler, the study concludes that semi lateral decubitus at 30° (DSL) should be widespread and included in the agreements for pressure sore prevention. The aim is, therefore, to preserve the areas at risk: sacrum and trochanters, and to redistribute the points of support onto the posterior-external side of the pelvis. Measurements obtained using an FSA pressure sensor pad system enable viewing of hyper-support areas and demonstrated the obvious advantages of DSL at 30°. Furthermore, the FSA system also shows the limits to exclusive use of bolsters, enabling the skin to be protected from the risk of pressure sores in dorsal decubitus and avoids pressure being thrown onto the trochanters and the shoulder as found in DLS at 90°. An analysis of interface pressures in DSL at 30° shows that there are no injurious localised pressure peaks on the buttock area. The data gathered from TCPO₂ reinforces this idea. The reduction in risks of infection by cross contamination is obtained by means of a removable cover, compatible with hospital maintenance techniques and the inclusion of bacteriostatic and fongistatic additives in the fabric itself.

DLO at 30° enables a reduction in interface pressures and the preservation of an appropriate vascularisation. In addition, the presence of an anatomical curve helps to maintain the person in a physiological axis. The features of the Alova foam used improve the distribution of support points and patient comfort, and the manoeuvre of changing a patient’s position can be carried out by just one carer instead of two, by unilaterally moving the unit by a few degrees. The risk of infection is managed with increased efficiency.

**Table 1 Compared values of pressure peaks in relation to the decubitus position adopted. Variation coefficient — 2.6 per cent**

<table>
<thead>
<tr>
<th>Support Position</th>
<th>Scapula</th>
<th>Spinal region</th>
<th>Tubercle</th>
<th>Trochanter</th>
<th>Sacrum</th>
<th>Buttock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strict dorsal decubitus</td>
<td>100</td>
<td>69</td>
<td>0</td>
<td>0</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>90° lateral decubitus</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>30° propping using pillow</td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>30</td>
<td>40</td>
<td>87</td>
</tr>
<tr>
<td>30° oblique lateral decubitus</td>
<td>40</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>7.5</td>
<td>55</td>
</tr>
</tbody>
</table>

**A new support**

The Alova foam aids positioning at 30°, enabling the skin and tissue to be protected from the risk of pressure sores in dorsal decubitus and avoids pressure being thrown onto the trochanters and the shoulder as found in DLS at 90°. An analysis of interface pressures in DSL at 30° shows that there are no injurious localised pressure peaks on the buttock area. The data gathered from TCPO₂ reinforces this idea. The reduction in risks of infection by cross contamination is obtained by means of a removable cover, compatible with hospital maintenance techniques and the inclusion of bacteriostatic and fongistatic additives in the fabric itself.

1 ANAES. ‘Prevention and treatment of pressure sores with adults and elderly subjects.’ Consensus Conference 2001 Nov.
2 Nouvel F, Jacquot JM, Abric M. ‘Evaluation of the semi-lateral at 30° positioning using the Alova® support.’ 5th National Conference on wounds and healing.