The wound care in a wound clinical interdisciplinary unit allows increasing the annual rate of healed wounds

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Introduction: In developed countries, about 1-2% of people will suffer a chronic wound during their lifetime. The lower extremity ulcers need long time to heal: 40%-50% of these ulcers keep on unhealed for almost six months, another 40%-50% of wounds need 12 months to complete wound closure, and below 10% of ulcers keep unhealed over 5 years. Moreover, there is one third of recurrence during the 12 months after healing.

The health care system needs more and different means to achieve a reduction on the healing of chronic wounds. Currently, the treatment of chronic wounds involves large number of medical visits, long time to wounds heal, and an appropriate use of health resources. Similarly, the chronic wound care in the Osona region entails a high costs for the health system, an important dedication of professionals, and a low quality of life of patients.

It has been described that the organization of the health care services around the patients may improve the efficiency in the treatment of complex clinical problems.

Description: In 2004, a prevalence analysis of wounds made in Osona identified 377 injuries and reported that 36% of the wounds were treated in an intermediate care hospital. The outcomes of this study promoted that the Hospital Universitari de la Santa Creu de Vic (HUSC) created a wound clinical unit in 2005. This unit was equipped with specific facilities and it was set up an interdisciplinary team (nurses, assistants, geriatrician, vascular surgery and consultants, anaesthetists, orthopaedists, and podiatrists) with professionals from the intermediate care hospital (HUSC) and from the acute hospital in coordination with the primary care system.

The main goal of creating the wound clinical unit was to reduce the healing time of chronic wounds and to increase the number of healed wounds in our county. To achieve this goal, we developed the following actions:
The wound clinical interdisciplinary unit allows increasing the annual rate of healed wounds.

- Establish a protocol to reduce the fragmentation of patient care through the definition of connections and links for the easy accessibility and coordination of the wound clinical unit with other health care resources and professionals;

- Provide appropriated wound care training to the professionals of the region, to ensure that all patients would be treated with an equivalent care level;

- Conduct several clinical trials to progressively incorporate several innovations and technologies on the usual wound care practice to reduce the healing time of different wound types;

- Incorporate the research activity as a strategic area to the unit development. In June 2015, the wound clinical unit of the HUSC, in collaboration with the Universitat of Vic-Universitat Central de Catalunya and the local acute hospital created a translational and interdisciplinary research group focused on the repair and regeneration of tissue.

**Key findings:** The wound clinical wound has permitted to increase the accessibility of patients to treatment. Currently, patients may be visited in 24 hours if they have wounds with clinical symptoms. The origin of patient’s referrals included the followings: primary care (68%), acute care hospital (13.6%), our hospital (15.5%), and others health sources (2.9%). This regional organization for the wound care produced a high continued increase of the number of patients and wounds treated annually on the wound clinical unit we show following.

<table>
<thead>
<tr>
<th>Year 2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ulcers</td>
<td>84</td>
<td>147</td>
<td>204</td>
<td>209</td>
</tr>
<tr>
<td>Patients</td>
<td>70</td>
<td>124</td>
<td>175</td>
<td>181</td>
</tr>
</tbody>
</table>

The wound clinical unit has become the regional reference services for the treatment of complex chronic wounds and for the training in wound care. The wound clinical unit edited a local clinical-practice guide for the treatment of pressure ulcers (2005) and a local wounds guide (2015); and it developed specific training sessions and service training for professionals of the 8 primary care areas of the region. Also, currently, the unit provides telephonic attention for professionals.

The multidisciplinary team and the incorporation of innovative treatments on the wound clinical unit, including the hydrosurgical debridement or the application of autologous growth factors, has promoted a relevant increase on the annual rate of the healed wounds, from 50% in 2010 to 71.3% in 2014.

**Conclusions:** The wound clinical unit with an interdisciplinary team focused in an integrated patient care allowed improving the annual rate of healing wounds and optimizing the use of regional health resources for the wound care. Although, our integrated wound care model developed in the HUSC is transferable to other regions, a close coordination between the regional health agents is absolutely needed for success.

**Keywords:** integrated care; wound clinical unit; wound healing; interdisciplinary team