



The pain watch: it's about time to relieve cancer pain

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Over the last years, attention has shifted towards the benefits of integration of palliative care into the standard oncology practice. The early provision of palliative care can improve quality of life, survival, and reduce symptom burden among cancer patients (1). Although, there are more than 16,000 palliative care services worldwide (2), very little is known about what is the best palliative care model, and how to promote such integration in a cost-effective and sustainable way.

More recently, a consensus of experts has proposed a list of quality indicators aimed to identify cancer centers with a high level of integration between palliative care and oncology (3). To highlight the importance of pain relief, the routine assessment of cancer pain was included as a major process indicator of integration. Indeed, pain is one of the most feared symptoms in advanced cancer patients, with a prevalence rate of 90% during the course of disease (4).

Despite controversies, the correct use of the analgesic ladder proposed by the World Health Organization appears to control cancer pain in most cases (5). However, in Latin America, multiple barriers often contribute to the undertreatment of cancer pain such as poor education and training of physicians on pain management, lack of access to opioids, inadequate legislation, and cultural barriers (6,7).

To overcome some of these barriers, our mobile palliative care team has started to use technology combined with a telephone-based intervention in an attempt to reduce inequalities in access to palliative care services, improve cancer pain management, and increase operational efficiency at the bedside. In most palliative care settings, the documentation of symptoms is paper-based, but preliminary evidence suggests that the use of real time electronic monitoring can improve symptom management in advanced cancer patients (8,9). Based on these findings, we have

trained non-specialists nurses and hospitalists to use a modified version of the Edmonton Symptom Assessment Scale (10), twice a day. Then, the results of the assessment are routinely documented in the electronic chart in real time. If a cancer patient has pain level higher than 7, an electronic text message is sent automatically to a palliative care specialists' cell phone or smart watch (*Figure 1*). This message triggers a proactive telephone-based intervention, which is commonly focused on solving simple problems such as opioid titration, adjuvant drug adjustment, and management medication side effects. Because the Edmonton Symptom Assessment Scale has become an important bedside tool to trigger clinical actions, other symptoms such as dyspnea and agitation are now being included in our telephone-based protocol.

Our preliminary findings suggest a positive effect on pain control, patient's satisfaction, staff education, and communication among team members. Relying purely on telemonitoring of pain might not be the best strategy to improve end of life care in people with advanced cancer. However, this intervention can be particularly useful to improve the connection between specialized palliative care teams and other health care providers, who work in underserved areas, with low supply of palliative care services, a common scenario observed in many hospitals, and remote rural areas in Latin America. Therefore, our results should be interpreted with caution, and may not be generalizable to other settings. In addition, as death approaches, advanced cancer patients often have multiple symptoms, which can be difficult to manage by a telephone-based intervention. Further prospective studies are necessary to better understand how to integrate other important aspects of care such as spiritual and psychosocial support in this protocol.



Figure 1 Workflow example. [1] Pain intensity is documented in the electronic chart. [2] If pain level is higher than 7, an electronic text message is sent to a palliative care specialist's smart watch. [3] Telephone-based intervention. [4] Opioid titration, drug adjustment, management of medication side effects.

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Footnote

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