

## Pharmacoeconomic aspects of FOLFIRI or FOLFOX regimens administered with a fully ambulatory pump compared to the day hospital setting

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### ABSTRACT

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**Aims and background.** The social cost of management of patients suffering from colorectal cancer has been growing dramatically in the last decade due to the high number of active antitumor agents and to the increased incidence of the tumor in western countries. The aim of the study was to explore from a pharmacoeconomic point of view a different way to administer the two most common regimens in this patient setting.

**Study design.** This was a cost-minimization study. Data were extracted from hospital registries and dedicated offices. The traditional setting (day hospital inpatient setting) and a fully ambulatory setting (CIP<sup>TM</sup> pump) were considered and compared.

**Results.** The CIP<sup>TM</sup> system resulted in higher direct costs than the day hospital setting (444.70 *vs* 159.00 euro/cycle). However, traditional infusion resulted in longer nursing care, with an increase in nursing costs of more than 100.00 euro/cycle. Moreover, the inpatient setting obliged patients to stay in the hospital as much as ten times longer than with the CIP<sup>TM</sup> system. This meant that with the same time span and the same resources, the CIP<sup>TM</sup> pump permitted treatment of at least five times more patients than the traditional setting. Thus, a threshold of 52.00 euro per patient for general hospital costs (ordinary and extraordinary maintenance of buildings, power supply, and housekeeping) was identified to discriminate whether the CIP<sup>TM</sup> pump is cost-saving or not.

**Conclusions.** Administration of the FOLFIRI or FOLFOX regimen in a traditional day hospital setting was less costly when considering the direct costs. However, a fully ambulatory pump permitted to better employ hospital resources and could permit cost-saving in those units in which more than five patients per day are treated and global costs are higher than 52.00 euro per patient. Free full text available at [www.tumorionline.it](http://www.tumorionline.it)

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**Key words:** advanced colorectal neoplasms, FOLFOX, FOLFIRI, infusional therapy, pharmacoeconomics.

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