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## ABSTRACT

### Cost and effectiveness of a dentistry service in the hospital environment

The aim of this study was to compare the cost and effectiveness of a hospital service containing a dental team (DT) in a period prior to the introduction of dentistry service. This was a retrospective case-control study of economic analysis from a partial descriptive type by searching for data in the electronic medical records of patients admitted in the ward of the State Hospital of Bauru. From 2012 to 2018 there were 6.510 admissions, which 310 admissions were included in this study case, from these, there were admitted 155 in the prior period of the introduction of the DT (GsDT) and there were 155 admitted in the after period of the DT (GcDT). They were selected by gender, age, and underlying disease (UD) (head and neck cancer [HNC], solid tumors [solid TU], and oncohematologic). Furthermore, were collected Demographic data, UD, length of hospital stay (HS), diet, amount of imaging exams, and medications used. In the GcDT, were also collected, information on oral condition (OC), pain severity, and oral mucositis (OM). Were collected the HS cost data from the Single Health System procedure reimbursement table. More men were found (69.7%) with a mean age of 48.6 years old, in the GcDT and 49.1 years old in the GsDT and the most prevalent UD was HNC (GcDT: 40.6%; GsDT:43.2%). In both groups, chemotherapy (GcDT: 26.3%; GsDT: 34.0%) was the main reason for HS. The mean total cost of HS was lower in the period after HD (GcDT: R\$828.00; GsDT:R\$907.00), especially in patients with solid TU. The patients admitted in the period after the presence of DT, presented longer mean HS ( $p=0.001$ ), have had more imaging exams ( $p=0.001$ ) and used more nasoenteric/nasogastric tube ( $p<0.001$ ). The patients hospitalized in the period before the presence of DT had used more chemotherapy ( $p=0.031$ ). The oral changes observed in the patients seen by the DT were: oral biofilm (49%), xerostomia (45.4%), lip dryness (33.5%) and OM (34.8%). Patients with HNC, admitted during the period when the DT was there, had a significant association with more severe OM ( $p=0.019$ ), use of CLX ( $p=0.09$ ), flogoral® ( $p=0.04$ ) and those admitted before the introduction of DT, had used more analgesic ( $p= 0.010$ ) and opioid ( $p<0.001$ ). Oncology patients with severe MO had had more severe oral pain ( $r=0.592$ ;  $p<0.001$ ), poor CB ( $r=0.303$ ;  $p=0.001$ ) and related with lower mean total HI cost ( $p=0.016$ ). Finally, the reduction in the severity of OM ( $p=0.007$ ), improvement in pain ( $p=0.002$ ) and CB ( $p=0.002$ ) was observed when comparing the first and last dental exam. There was lower mean total hospitalization cost in patients with solid TU admitted in the period after the consolidation of the DT. The presence of trained DT on the team was effective as it enabled improvement in the pain and OC, reduction in severity of OM improving the quality of life.

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