TRABALHO ORIGINAL - TELEMEDICINA E TELESSAÚDE APLICADAS À GESTÃO NA SAÚDE

# THE COST OF MEDICAL TELECONSULTATIONS OF A BRAZILIAN GOVERNMENT EHEALTH SERVICE

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Introduction: Although many health intervention outcomes can be measured efficiently, the accurate assessment of specific costs in healthcare (e.g. medical teleconsultations) remains difficult. Micro-costing studies provide the most precise and comprehensive valuation method of healthcare costs. Approaches such as time-driven activity-based costing (TDABC) can orient these studies.

Objective: This research investigates a cost assessment of twenty health specialties available at a government TeleHealth service in the southern of Brazil. It aims to identify which areas would gain the most efficiency through a management intervention.

Methods: Records of 19,622 teleconsultations were analyzed from May to August 2018 using the method TDABC. The activity flow of teleconsultations was described and the duration of each activity was measured by a time and movement method. Labor and fixed costs were also identified considering the real expenses for the period. The services' teleconsultation capacities were calculated by subtracting the personal employment contract hours from time spent by health professionals with educational activities. The cost per unit of teleconsultation was calculated by multiplying the duration of each activity by their associated costs. In addition to the unitary cost information, an efficiency target cost per teleconsultation was determined. The target cost might achieve by operating in an effective manner.

Results: The average teleconsultation cost was R$125,17 while the average target cost was R$59,65. The largest differences between measured and target costs were observed in nursing, physiotherapy, psychology and dentistry specialties. Some specialties were implemented in May 2018, suggesting a necessary adjustment period to fully establish these services. The family physicians and general practitioner were identified as the most demanded specialties when compared to others.

Conclusions: TDABC contributes to management, providing accurate cost data to support effective and proactive decisions-making. Consequently, it enables better healthcare delivery. The information provided by this research project has the potential to allow the TeleHealth service manager to understand and reduce inefficiencies in the activity flow of teleconsultations.