SMART CHECK – COVID-19 TRIAGE SYSTEM: EVALUATION OF THE IMPACT ON THE SCREENING TIME AND IDENTIFICATION OF CLINICAL MANIFESTATIONS OF SARS-COV-2 INFECTION IN A PUBLIC HEALTH SERVICE

Autores: Fernando Anschau, Paulo Valdeci Worm, Luciane Kopittke, Luis Humberto de Mello Villwock, Marcos Luiggi Lemos Sartori, Jéferson Cardoso do Rosário, José Francisco Secorun Inácio, Maicon Diogo Much, Eduardo Marckmann, Sandro Pinheiro, João Ricardo Nickenig Vissoci, Wagner de Lara Machado, Dalton Breno Costa, Daniel Klug, Juliane Martin Prestes, Fabiano Hesse.

Resumo: Introduction: Most patients with COVID-19 have mild or moderate manifestations; however, there is a wide spectrum of clinical presentations and even more severe repercussions that require high diagnostic suspicion. Vital sign acquisition and monitoring are crucial for detecting and responding to patients with COVID-19. Objective: Thus, we conducted this study to demonstrate the impact of using a tool called Smart Check on the triage time of patients with suspected COVID-19 and to identify the main initial clinical manifestations in these patients. Methodology: We assessed triage times before and after the use of Smart Check in 11 466 patients at Hospital Nossa Senhora da Conceição in Porto Alegre, Brazil, from 1 June to 31 July 2020. In this group, we identified 220 patients for the identification of COVID-19 clinical manifestations in a case-control analysis. Results: Smart Check was able to decrease the triage time by 33 seconds on average (P < .001), with 75% of the exams being performed within 5 minutes, whereas with the usual protocol these steps were performed within 6 minutes. A range of clinical presentations made up the COVID-19 initial manifestations. Those with the highest frequency were dry cough (46.4%), fever (41.3%), dyspnoea (35.8%), and headache (31.8%). Loss of appetite was the manifestation that had a statistically significant association with the SARS-CoV-2 presence (univariate analysis). When analysed together, loss of appetite associated with dyspnoea and/or ageusia and/or fever was related to the diagnosis of COVID-19. Conclusions: Smart Check, a simple clinical evaluation tool, along with the targeted use of rapid PCR testing, can optimise triage time for patients with and without COVID-19. In triage centres, a number of initial signs and symptoms should be cause for SARS-CoV-2 infection suspicion, in particular the association of respiratory, neurological, and gastrointestinal manifestations.

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