

عنوان مقاله:

Diagnosing, Managing, and Controlling COVID-19 using Clinical Decision Support Systems: A Study to Introduce CDSS Applications

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خلاصه مقاله:

Coronavirus disease (COVID-19) as an emerging disease decreases security among people from different countries. Sense of security can be raised via quick diagnosis of COVID-19, and its management and control using clinical decision support systems (CDSS) to prevent further spread of the disease. So, the aim of this study is to identify and introduce the applications of a CDSS in the diagnosis, management, and control of COVID-19. This cross-sectional study was conducted to identify and introduce the applications of CDSS in the diagnosis, management, and control of COVID-19. Based on the results of some meetings with infectious disease specialists and a general practitioner as well as reviewing the related literature, information about COVID-19 and CDSS was obtained. Then based on the information obtained, a questionnaire was designed electronically and distributed in a two-round Delphi method among 19 experts in the three fields of medical informatics, health information management, and infectious disease specialists. According to the literature and expert opinions, 35 applications of CDSS applications were identified in the four main groups of "diagnosis", "medication", "monitoring", and "health services". Eventually, a collective agreement was reached on 30 applications in the first and second rounds of Delphi. Among all the applications, the highest means were assigned to "monitoring the vital signs" and "helping diagnose infections and damaged lung tissue through CT scan". Introducing these applications can provide general, basic knowledge of the design and implementation of clinical decision support systems in the real world to prevent irreversible complications and even many people's death.

کلمات کلیدی:

Decision Support Systems, COVID-19, coronavirus, Diagnosi, Disease management

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