Healthcare systems strategies to manage pandemics transition phases: a systematic review

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Background:
Several countries facing the COVID-19 pandemic were not prepared to manage it. Public health mitigation strategies, ranging from isolation of infected cases to implementation of national lockdowns, proved their effectiveness for the outbreaks control. However, the adjustment of public health measures is crucial during transition phases to avoid new outbreaks. To address the need for designing evidence-based strategies, we performed a systematic review, identifying healthcare systems approaches, experiences and recommendations used to manage COVID-19 and other epidemics.

Methods:
PubMed, Web of Science, Scopus and Cochrane were searched to retrieve eligible studies of any study design, published in English until April 17th, 2020. Double-blinded screening process was conducted by titles/abstracts and subsequently eligible full-texts were read and pertinent data were extracted. We performed a narrative analysis of each implemented strategy.

Results:
We included a total of 24 articles addressing the public health strategies implemented for respiratory viral infections outbreaks as COVID-19, influenza A H1N1, MERS and SARS. The identified strategies are ascribable to two main categories: healthcare systems management at a national level and healthcare providers strategies at a local level. The key components of the transition strategies regarded the implementation of evidence-based contextual policies, intrahospital management approaches, community healthcare facilities, non-pharmaceutical interventions, enhanced surveillance, workplace preventive measures, mental health interventions and communication plans.

Conclusions:
The identified healthcare systems strategies applied worldwide to face epidemics or pandemics, are a useful knowledge base to inform decision-makers about control measures to be used in the transition phases of COVID-19 and beyond.

Key messages:
- Healthcare systems strategies that can be implemented to manage pandemics/epidemics transition phases are a useful knowledge base to inform policy makers about the most effective solutions to adopt.
- The evidence reporting the healthcare systems management of respiratory viruses epidemics/pandemics, show the lack of a common and shared approach and more evidence-based research is needed.