COVID-19 Bibliometrics 7th – 13th September 2020

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A. Medicine and Health

September 11, 2020 (JAMA Cardiol.)

Cardiovascular Magnetic Resonance Findings in Competitive Athletes Recovering From COVID-19 Infection Saurabh Rajpal, Matthew S. Tong, James Borchers et. al. https://doi.org/10.1001/jamacardio.2020.4916

This study investigates the use of cardiac magnetic resonance imaging in competitive athletes who recovered from coronavirus disease 2019 (COVID-10) to detect myocardial inflammation that would identify high-risk athletes for return to competitive play.

September 11, 2020 (JAMA)

COVID-19 and the Path to Immunity David S. Stephens, Juliana McElrath https://doi.org/10.1001/jama.2020.16656

This Viewpoint reviews what is known about acute and long-term B-cell, antibody, and T-cell responses to SARS-CoV-2 infection and explains how each is implicated in vaccine candidates likely to be effective and durably protective against COVID-19.

September 10, 2020 (JAMA Int. Med)

Effect of Recombinant Human Granulocyte Colony–Stimulating Factor for Patients With Coronavirus Disease 2019 (COVID-19) and Lymphopenia: A Randomized Clinical Trial Lin-ling Cheng, Wei-jie Guan, Chong-yang Duan et al. https://doi.org/10.1001/jamainternmed.2020.5503

This randomized clinical trial examines the effect of recombinant human granulocyte colony-stimulating factor on peripheral blood leukocyte and lymphocyte cell counts and clinical improvement in Chinese patients with COVID-19.

September 9, 2020 (JAMA Int. Med)

Clinical Outcomes in Young US Adults Hospitalized With COVID-19 Jonathan W. Cunningham, Muthiah Vaduganathan, Brian L. Claggett et al. <u>https://doi.org/10.1001/jamainternmed.2020.5313</u>

This case series examines the clinical outcomes for young adults hospitalized with COVID-19.

September 9, 2020 (JAMA Net. Open)

Incidence of Nosocomial COVID-19 in Patients Hospitalized at a Large US Academic Medical Center Chanu Rhee, Meghan Baker, Vineeta Vaidya et al. https://doi.org/10.1001/jamanetworkopen.2020.20498

This cohort study evaluates the incidence of nosocomial coronavirus disease 2019 (COVID-19) among patients admitted to a US medical centre in the context of a comprehensive and progressive infection control program.

September 8, 2020 (JAMA)

Effect of an Inactivated Vaccine Against SARS-CoV-2 on Safety and Immunogenicity Outcomes: Interim Analysis of 2 Randomized Clinical Trials Shengli Xia, Kai Duan, Yuntao Zhang et al. https://doi.org/10.1001/jama.2020.15543

This interim analysis of 2 randomized trials compares adverse reactions and neutralizing antibody responses to inactivated coronavirus disease 2019 (COVID-19) vs adjuvant-only control vaccination, and compares the outcomes at varying vaccine doses among healthy adults in China.

August 27, 2020 (Health, Policy and Technology) COVID-19 pandemic in the United Kingdom Darren Flynn, Eoin Moloney, Nawaraj Bhattarai et al. https://doi.org/10.1016/j.hlpt.2020.08.003

The authors describe epidemiological data on cases of COVID-19 and the spread of Severe Acute Respiratory Syndrome Coronavirus 2 in the United Kingdom (UK), and the subsequent policy and technological response to the pandemic, including impact on healthcare, business and the economy.

August 26, 2020 (J of Int. Medical Research)

Understanding the epidemiology, pathophysiology, diagnosis and management of SARS-CoV-2

Adewale Oluwaseun Fadaka, Nicole Remaliah Samantha Sibuyi et al. <u>https://doi.org/10.1177/0300060520949077</u>

In this review, the authors summarize the epidemiology, pathophysiology, and diagnosis of COVID-19. They also address the mechanisms of action of approved repurposed drugs for the therapeutic management of the disease.

August 19, 2020 (J Anx Dis)

Fear and avoidance of healthcare workers: An important, under-recognized form of stigmatization during the COVID-19 pandemic Steven Taylor, Caeleigh A. Landry, Geoffrey S. Racho et al.

https://doi.org/10.1016/j.janxdis.2020.102289

During past disease outbreaks, healthcare workers (HCWs) have been stigmatized by members in their community, for fear that HCWs are sources of infection. Here, the authors investigate the prevalence and correlate of HCW stigmatization during the COVID-19 pandemic in a large sample of adults from the United States and Canada. They assessed the prevalence of stigma-related beliefs that HCWs are sources of infection with SARSCoV2, and identify the correlates of such attitudes, particularly the question of whether HCW-related stigmatizing attitudes are associated with the COVID Stress Syndrome.

August 7, 2020 (J of Affective Disorders)

Reactions to COVID-19: Differential predictors of distress, avoidance, and disregard for social distancing Steven Taylor, Caeleigh A. Landry, Michelle M. Paluszek et al.

https://doi.org/10.1016/j.jad.2020.08.002

In this study, the authors investigate the differential predictors of over- and underresponses to COVID-19. They highlight the importance of understanding underresponses to COVID-19 and how these relate to distress, excessive avoidance, and nonadherence to social distancing. Implications for addressing the problems of over- and under-response are discussed.

July 22, 2020 (Psychiatry Research)

The COVID-19 anxiety syndrome scale: Development and psychometric properties

Ana V. Nikcevic, Marcantonio M.Spada https://doi.org/10.1016/j.psychres.2020.113322

The authors developed a COVID-19 Anxiety Syndrome Scale (C-19ASS) to identify the presence of anxiety syndrome features associated with COVID-19. They evaluated the C-19ASS and found that it appears to be a reliable and valid measure of COVID-19 anxiety syndrome. The implications of these findings are discussed in this paper.

June 23, 2020 (Int J of Inf. Dis)

Comparing COVID-19 and the 1918–19 influenza pandemics in the United Kingdom

Daihai He, Shi Zhao, Yingke Li https://doi.org/10.1016/j.ijid.2020.06.075

The authors compared the COVID-19 and 1918–19 influenza pandemics in the United Kingdom. They found that the ongoing COVID-19 wave of infection matched the major wave of the 1918–19 influenza pandemic, with both reaching similar magnitudes (in terms of estimated weekly new infections). They also discussed the similarities in epidemiological characteristics between these two pandemics.

June 5, 2020 (Diab. & Metabolic Syndrome: Clin Research & Reviews) COVID-19 and addiction Mahua Jana Dubey, Ritwik Ghosh, Subham Chatterjee et al. https://doi.org/10.1016/j.dsx.2020.06.008

The COVID-19 pandemic has caused a significant psychosocial impact worldwide Marginalized community, particularly those with substance use disorders (SUD), are particularly vulnerable to contract the infection and also likely to suffer from a greater psychosocial burden. This article analyses the intricate bi-directional relationship between COVID-19 and addiction.

May 22, 2020 (Public Health)

Overview of rapid mitigating strategies in Singapore during the COVID-19 pandemic W.C. Lee, C. Y. Ong https://doi.org/10.1016/j.puhe.2020.05.015

This article describes the preparations and rapid mitigation strategies in addressing the rocketing number of coronavirus disease 2019 (COVID-19) cases in Singapore. The government had constructed a three-pronged approach which includes travel, healthcare and community measures to curb the spread of COVID-19.

B. Science and Engineering

August 27, 2020 (Scientific Data)

A structured open dataset of government interventions in response to COVID-19

Amélie Desvars-Larrive, Elma Dervic, Stefan Thurner https://doi.org/10.1038/s41597-020-00609-9

The authors develop a hierarchical coding scheme for non-pharmaceutical interventions to generate a comprehensive structured dataset of government interventions and their respective timelines of implementation. They share information sources via an open library and provide codes. This dataset provides an in-depth insight into the government strategies and could be a valuable tool for developing relevant preparedness plans.

August 18, 2020 (Safety Science)

A new model for the spread of COVID-19 and the improvement of safety Costas A. Varotsos, Vladimir F. Krapivin https://doi.org/10.1016/j.ssci.2020.104962

This study develops a method for diagnosing and predicting the COVID-19 spread and to evaluate the effectiveness of control measures to reduce and

stop the spread. The COVID-19 Decision-Making System (CDMS) was developed to study disease transmission. The simulation experiments have shown a good agreement between the CDMS estimates and the data reported in Russia and Greece. The analysis showed that the instability indicator may be the precursor to the pandemic dynamics. They predicted three potential countries for a second wave: USA, Russia and Brazil.

August 14, 2020 (The Mathematical Intelligencer)

Are Models Useful? Reflections on Simple Epidemic Projection Models and the Covid-19 Pandemic Marc Artzrouni https://doi.org/10.1007/s00283-020-09997-7

"Prediction is very difficult, especially if it's about the future" is a quotation uttered by Niels Bohr, the Nobel laureate Danish physicist. "All models are wrong, but some are useful" by statistician George Box. These quotations hold, especially for epidemiological modelling. The authors introduce a few epidemic projection models and compartmental models to capture the demographic dynamics of an infected population. They then introduce a novel variant of these models to fit data from China and the United States. However, these questions remain, "Why are epidemiological predictions so difficult, and how could we reconcile scepticism with the fact that projection models may be useful despite being wrong?"

August 13, 2020 (Computational Mechanics)

Diffusion–reaction compartmental models formulated in a continuum mechanics framework: application to COVID-19, mathematical analysis, and numerical study

Alex Viguerie, Alessandro Veneziani, Guillermo Lorenzo et al. <u>https://doi.org/10.1007/s00466-020-01888-0</u>

The COVID-19 has led to a resurgence in interest in the mathematical modelling epidemics research. In this paper, the authors propose a formulation of compartmental models based on partial differential equations. They then proceed to focus on a compartmental model to analyze mathematically with several results on its stability and sensitivity.

C. Social Sciences, Humanities and Public Policies

September 3, 2020 (Health Policy and Technology) The COVID-19 pandemic in Italy: policy and technology impact on health and non-health outcomes Berardi Chiara, Antonini Marcello, Genie Mesfin et al. https://doi.org/10.1016/j.hlpt.2020.08.019

The outbreak of COVID-19 significantly affected Italy with severe health, social and economic consequences. The paper aims to analyse the policies implemented by the government and their impact on health and non-health outcomes. They investigate the impact of policies on the daily reported number of deaths, fatality rate, confirmation rate, intensive care unit saturation and financial and job market indicators across three areas in Italy. They suggest that the strictness and timing of containment and prevention measures played a key role in controlling the pandemic. Future government interventions should be based on evidence to balance the benefits against adverse social and economic cost.

August 27, 2020 (Health Policy and Technology)

The first months of the COVID-19 pandemic in Spain Josefa Henríquez, Eduardo Gonzalo Almorox, Manuel Garcia-Goni et al. https://doi.org/10.1016/j.hlpt.2020.08.013

This paper examines the spread of COVID-19 in Spain from February to May 2020, as well as the public policies and technologies used to contain the evolution of the pandemic. In particular, it aims to assess the effectivity of the policies applied within the different communities. They show that a stringent confinement policy enforced through fines is needed to contain the spread. It resulted in a substantial reduction in mobility and economic activity.