

COVID-19

Health Evidence Summary No.99

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This weekly COVID-19 health evidence summary (HES) is based on 3.5 hours of desk-based research. The summary is not intended to be a comprehensive summary of available evidence on COVID-19 but aims to make original documents easily accessible to decision makers which, if relevant to them, they should go to before making decisions.

Clinical characteristics and management

Publication date	Title/URL	Journal/Article type	Summary	Keywords
23.10.2020	Ventilation management and clinical outcomes in invasively ventilated patients with COVID-19 (PRoVENT-COVID): a national, multicentre, observational cohort study	The Lancet Respiratory Medicine Article	<ul style="list-style-type: none"> • Little is known about the practice of ventilation management in patients with COVID-19 • This national, multicentre, retrospective observational study at 18 ICUs in the Netherlands, aimed to describe the practice of ventilation management and to establish outcomes in invasively ventilated patients with COVID-19 in a single country during the first month of the outbreak • Results add to existing knowledge about epidemiological characteristics and outcomes and could be useful in planning future studies and understanding previous findings about invasive ventilation in patients with COVID-19 	ventilation

23.10.2020	Virology, transmission, and pathogenesis of SARS-CoV-2	BMJ Practice Clinical Update	<ul style="list-style-type: none"> A review providing a broad update on the emerging understanding of SARS-CoV-2 pathophysiology, including virology, transmission dynamics and the immune response to the virus 	Virology, transmission, pathogenesis
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Epidemiology and modelling

Publication date	Title/URL	Journal/Article type	Summary	Keywords
22.10.2020	The temporal association of introducing and lifting non-pharmaceutical interventions with the time-varying reproduction number (R) of SARS-CoV-2: a modelling study across 131 countries	The Lancet Infectious Diseases Article	<ul style="list-style-type: none"> This study quantifies the effects of both introducing and lifting NPIs with the level of transmission (R) of SARS-CoV-2 in 131 countries A global dataset of country-level daily R values was linked with a global dataset of country-level policies on NPIs to model the change in R values from day 1 to 28 following the introduction and relaxation of 8 individual NPIs among 131 countries Individual NPIs including school closure, workplace closure, public events ban, ban on gatherings of more than ten people, requirements to stay at home, and internal movement limits, are associated with reduced transmission of SARS-CoV-2 The effect of introducing and lifting these NPIs is delayed by 1-3 	Non-pharmaceutical interventions, transmission

			<p>weeks, with this delay being longer when lifting NPIs</p> <ul style="list-style-type: none"> This additional evidence can inform policy-maker decisions on the timing of introducing and lifting different NPIs, interpreting R in the context of its known limitations, and when to expect a notable effect following the introduction or the relaxation 	
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Infection Prevention and Control

Publication date	Title/URL	Journal/Article type	Summary	Keywords
21.10.2020	Reusability of filtering facepiece respirators after decontamination through drying and germicidal UV irradiation	BMJ Global Health Original Research	<ul style="list-style-type: none"> Respirators can be recycled using drying and germicidal UV, a relatively simple and inexpensive procedure, in the case of shortages during a SARS pandemic with monitoring of the integrity and penetration efficiency of the respirators during disinfection-recycling cycles 	Respirators, recycling

Therapeutics

Publication date	Title/URL	Journal/Article type	Summary	Keywords
21.10.2020	Efficacy of Tocilizumab in patients hospitalized with Covid-19	NEJM Original Article	<ul style="list-style-type: none"> Efficacy of IL-6 receptor blockade in hospitalised patients with Covid-19 who are not receiving mechanical ventilation is unclear This randomised, double-blind, placebo-controlled 	tocilizumab

			<p>trial of 243 patients (58% men) with median age 59.8y (21.7-85.4y) concludes that Tocilizumab (humanised monoclonal antibody that binds IL-6 receptor) was not effective for preventing intubation or death in moderately ill hospitalised patients with Covid-19</p> <ul style="list-style-type: none"> • Some benefit or harm cannot be ruled out though as confidence intervals for efficacy comparisons were wide 	
20.10.2020	Effect of Tocilizumab vs standard care on clinical worsening in patients hospitalised with COVID-19 pneumonia: a randomized clinical trial	JAMA Internal Medicine Original Investigation	<ul style="list-style-type: none"> • In this randomised clinical trial of 126 adult patients with COVID-19 pneumonia and PaO2/F102 ratio between 200 and 300 mm Hg who received tocilizumab, no benefit on disease progression was observed compared with standard care • Further blinded, placebo-controlled randomised clinical trials are needed to confirm the results and to evaluate possible applications of this drug in different stages of the disease 	tocilizumab
20.10.2020	Effect of Tocilizumab vs usual care in adults hospitalized with COVID-19 and moderate or severe pneumonia: a randomized clinical trial	JAMA Internal Medicine Original Investigation	<ul style="list-style-type: none"> • In this randomised clinical trial of 130 patients hospitalised for Covid-19 and moderate-to-severe pneumonia, tocilizumab may reduce the need for mechanical and non-invasive ventilation or death by day 14 but not mortality by day 28 • Further studies are necessary to confirm these preliminary results 	tocilizumab
20.10.2020	Association between early	JAMA Internal Medicine	<ul style="list-style-type: none"> • In this multicentre cohort study that included 3924 patients, the risk of in-hospital death was estimated to be lower with 	tocilizumab

	treatment with tocilizumab and morality among critically ill patients with COVID-19	Original Investigation	<p>tocilizumab treatment in the first 2 days of intensive care unit admission compared with no early use of tocilizumab</p> <ul style="list-style-type: none"> Findings though may be susceptible to unmeasured confounding, and authors call for further research from randomised clinical trials 	
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Vaccines

Publication date	Title/URL	Journal/Article type	Summary	Keywords
20.10.2020	A global survey of potential acceptance of a COVID-19 vaccine	Nature Medicine Brief Communication	<ul style="list-style-type: none"> Authors conducted a survey of 13,426 people in 19 countries to determine potential acceptance rates and factors influencing acceptance of a COVID-19 vaccine 71.5% (range 55-90%) participants reported that they would be very or somewhat likely to take a COVID-19 vaccine 61.4% reported that they would accept their employer's recommendation to take a COVID-19 vaccine Those with higher levels of trust in information from government sources were more likely to accept a vaccine and take their employer's advice to do so 	Vaccine acceptance

Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal Article type
24.10.2020	Building a tuberculosis-free world while responding to the COVID-19 pandemic	The Lancet Comment
23.10.2020	How Africa fought the pandemic – and what coronavirus has taught the world	Financial Times News
23.10.2020	The engines of SARS-CoV-2 spread	Science Perspective
23.10.2020	Roll out of rapid testing could be a 'game changer' for Africa	Devex News
22.10.2020	Estimating the COVID-19 R number: a bargain with the devil?	The Lancet Infectious Diseases
21.10.2020	The challenges of expanding rapid tests to curb COVID-19	JAMA Medical News & Perspectives
21.10.2020	Understanding COVID-19 vaccine efficacy	Science Perspective
20.10.2020	Time to reassess Tocilizumab's role in Covid-19 pneumonia	JAMA Internal Medicine Editorial
20.10.2020	Lives vs. Livelihoods Revisited: Should poorer countries with younger populations have equally strict lockdowns?	CGD Blog

Dashboards & Trackers

Cases & deaths: Global	Cases & deaths: Regional	Cases & deaths: Country	Living evidence & policy maps	Current research including trials	Diagnostics	Treatments	Vaccines
WHO sitreps	WHO Africa	Ghana	COVID-NMA	WHO	FIND SARS-CoV-2 Test Tracker	Global COVID-19 Clinical Trial Tracker	CEPI
WHO dashboard	African Arguments	Indonesia	EPPI Centre	WHO International Clinical Trials Registry Platform (ICTRP)	FIND SARS-CoV-2 Diagnostics: performance data	US NIH registered clinical trials	Vaccine Centre LSHTM
Johns Hopkins University	European CDC	Nigeria CDC	Norwegian Institute of Public Health	Cytel	Serology-based tests for COVID-19	Solidarity trial	COVID-19 Oxford Vaccine Trial
WEF		Sierra Leone	Oxford C19 Government Response Tracker (OxCGRT)	US NIH	Our World in Data: C19 Testing	COVID-19 Therapeutics Accelerator	COVID-19 Vaccine Tracker

Our World in Data		Singapore	Our World in Data: C19 Policy responses	COVID-evidence			
Global 5050		UK	IFPRI COVID-19 Policy Response Portal	Cochrane			
CEBM, University of Oxford		US	COVID-19 Primer	Clinicaltrials.gov			
Humanitarian Data Exchange			NIH LitCovid	UKCDR			
Information is Beautiful			WHO COVID-19 Database				
LSHTM							
HealthMap (cases)							
The Commons Project							
SeroTracker							

C19 Resource Hubs

Global	Regional & Country	Academic journals & Publishers	Institutes/Centres/ Funders/Other	Health Topics	Social Sciences
WHO COVID-19 pandemic	Africa CDC	Annals of Internal Medicine	LSTM	Stop TB Partnership	SSHAP
WHO risk communication	African Union	BMJ	LSHTM		IDA
WHO Q&A	Nigeria CDC	Bulletin of the WHO	ICL MRC Centre for Global Infectious Disease Analysis	Global Menstrual Collective	Disability and inclusion
WHO Global research	GeoPoll: SSA	Cambridge University Press	ODI	SLH: Handwashing in low resource settings	Coregroup IDDC
COVID-19 Solidarity Response Fund	Global Health Network Africa	Cell Press	Johns Hopkins University	RBM Partnership	Ethics, health systems & COVID-19
UN	African Academy of Sciences	Cochrane	Center for Global Development	Epidemic Preparedness Innovations	Social Development Direct C19 blog series
UN Women	Africa Evidence Network	Elsevier	CMMID Repository		
UNOCHA	OCHA Southern and Eastern	Health Policy and Planning	Norwegian Institute of Public Health		

	Africa COVID-19 Digest				
UNHCR	South African Governme nt	JAMA Network	Oxford Centre for Evidence-based Medicine		
UNICEF		The Lancet	HEART		
UNESCO		medRxiv and bioRxiv (Preprints)	UKRI		
UN WFP		NEJM	Evidence Aid		
GOARN		Oxford University Press	NIH		
EPI-WIN		PLoS	IFPRI Resources and Analyses of C19 Impact		
World Bank		SAGE journals	Prevent Epidemics		
Our World in Data		Science			
COVID-19 Narratives by David Nabarro		Springer Nature			
Reliefweb		SSRN (Preprints)			
Humanitarian OpenStreetM ap Team		Wiley			

Global Partnership for Sustainable Development Data					
WorldPop					
Flowminder					
COVID-END					
Premise COVID-19 Global Impact Study					
GISAID					

Online learning & events

Date	Title/URL	Online learning/event	Duration	Lead
16.10.2020	Financing a Global Public Health Response	Online event	1h30	CGD
02.10.2020	Understanding and Improving COVID-19 Vaccine Portfolio	Online event	1h30	CGD
21.09.2020	Mitigating the Economic and Health Impact of COVID-19 across Africa	Online event	1h30	CGD, GF, AU
June 2020	OpenWHO, the free, open-access learning platform for health	Online courses	Varies	WHO

	emergencies, now offers 10 online courses related to COVID19.			
Available now	Standard precautions: Environmental cleaning and disinfection	Online course	1 hour	WHO
Available now	COVID-19: Effective Nursing in Times of Crisis	Online course	2 weeks – 2 hours per week	Johns Hopkins School of Nursing
Available now	WHO Academy and WHO Info mobile applications	Mobile app		WHO
Available now	COVID-19: Pandemics, Modelling and Policy	Online learning	2 weeks 2 hours weekly study	FutureLearn UNESCO UNITWIN Complex Systems Digital Campus/Open University
11.5.2020	COVID-19 Contact Tracing course	Online learning	5 hours	Johns Hopkins Bloomberg School of Health
7-28 May 2020	Virtual Evidence Weeks	5 sessions	1h 30	International Initiative for Impact Evaluation (3ie)
Tuesdays at 1700 CEST (Geneva time) & Thursdays 0830 CEST (Geneva time)	COVID-19 Open online brief with Dr David Nabarro	Event	1h	4SD
Available now	Emerging respiratory viruses, including COVID-19: methods	Online learning	3 hours	WHO

	for detection, prevention, response and control			
Available now	Responding to COVID-19: Real-time training for the coronavirus disease outbreak	Online learning	Multiple self-paced course	WHO
25 May 2020	COVID-19: Tackling the Novel Coronavirus	Online learning	3 weeks 4 hours weekly study	FutureLearn LSHTM/UK PHRST
Available online now without mentors. Updated version will commence early June 2020	COVID-19 Diagnostics and Testing	Online learning	3 weeks 3 hours weekly study	FutureLearn FIND/LSHTM/ASLM
6 April 2020	COVID-19 Critical Care: Understanding and Application	Online learning	5 weeks 1 hour weekly study	FutureLearn University of Edinburgh & Royal College of Physicians of Edinburgh
Available now	COVID-19 supporting online courses	Online learning	Multiple self-paced course	BMJ Learning

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Rapid review methodology

The rapid weekly search for peer-reviewed literature is carried out through a PubMed search with the following keywords (“COVID-19” OR “severe acute respiratory syndrome coronavirus 2” OR “2019-nCoV” OR “SARS-CoV-2” OR “2019nCoV” OR “coronavirus”) AND (“Africa” OR “South Asia” OR “Developing” OR “low-income” OR “low income” OR “lower-middle income” OR “low and middle income” OR “LMIC” OR “LIC” OR “global south”) OR (“poverty”) OR (“equity” OR “equities”), restricted to articles published in the previous 2 to 3 days, in English. This is complemented by a search of the homepage of the following high-impact global health journals: The Lancet journals, New England Journal of Medicine, Nature, JAMA, Annals of Internal Medicine, Cochrane Reviews, BMJ Global Health, the PLoS journals and a Twitter search of their Twitter pages. A search also of preprints from bioRxiv and medRxiv. Please note that papers that have not been peer-reviewed are highlighted in red. All primary research papers that relate to the primary and secondary impacts of the COVID-19 response in LMICs, and disease control and health system responses are included. Articles related to tackling the secondary impacts on other sectors are not included. Additional commentaries, opinions, and commissioned pieces are selected based on relevance.

The search for dashboards, guidelines, tools, editorials, comments, blogs, opinions and news is through the academic journals listed above, C19 resource hubs and following lead academics and professionals on Twitter.

About this report

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