

COVID-19

Health Evidence Summary No.107

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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
08.01.2021	6-month consequences of COVID-19 in patients discharged from hospital: a cohort study	The Lancet Article	<ul style="list-style-type: none"> • Cohort study of long-term health consequences of 1733 adult patients with COVID-19 who have been discharged from a hospital in Wuhan, China between 7 Jan 2020 and 29 May 2020 (2469 in total discharged but 736 were excluded from this study) • At 6 months after acute infection, COVID-19 survivors mainly suffered fatigue or muscle weakness, sleep difficulties, and anxiety or depression • Patients that were more severely ill during hospitalisation had more severe impaired pulmonary diffusion capacities and abnormal chest imaging manifestations • Authors raise concern over the decline of 	Long-term COVID-19

			neutralising antibodies for SARS-CoV2 re-infection	
08.01.2021	Prevalence and risk factors for delirium in critically ill patients with COVID-19 (COVID-D): a multicentre cohort study	The Lancet Respiratory Medicine Article	<ul style="list-style-type: none"> To-date, 750,000 patients with COVID-19 worldwide have required mechanical ventilation and thus are at high risk of acute brain dysfunction (coma and delirium) Multicentre cohort study of 2088 patients from 69 adult intensive care units across 14 countries. Median age 64 years (IQR 54 to 71) Acute brain dysfunction was highly prevalent and prolonged in critically ill patients with COVID-19 This study shows that clinicians have reverted to outdated and potentially harmful treatment strategies of deep sedation with widespread use of benzodiazepine infusions, immobilisation, and isolation from families because of the COVID-19 pandemic This study provides evidence that clinicians should aim to use supportive and proven therapies that avoid deep sedation with benzodiazepine infusions, and facilitate safe in-person or virtual visitation for patients with COVID-19 	Brain dysfunction, delirium, coma
21.12.2020	Care bundles for improving outcomes in patients with COVID-19 or related conditions in intensive care – a rapid	Cochrane Systematic Review	<ul style="list-style-type: none"> Recent information suggest that around 26% of people with COVID-19 globally have been admitted to an intensive care unit (ICU), and of these people, almost one-third have died Care bundles are a set of 'evidence-based' practices (usually 3 to 5) 	Care bundles, intensive care

	scoping review		<p>carried out together when delivering care to patients with the same condition or in the same healthcare setting</p> <ul style="list-style-type: none"> • WHO commissioned this 'scoping' review to identify how much and what type of evidence is available on the use of care bundles for patients in the ICU setting suffering from COVID-19, acute respiratory distress syndrome (ARDS) or viral pneumonia • Research specific to patients with COVID-19 that compares patients receiving care bundles and not receiving care bundles is limited. Information is also needed on how care bundles can best be implemented in practice, and difficulties that may be associated with this 	
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Epidemiology and modelling

Publication date	Title/URL	Journal/Article type	Summary	Keywords
Jan 2021	Superspreading event of SARS-CoV-2 infection at a bar, Ho Chi Minh City, Vietnam	Emerging Infectious Diseases Research Letter	<ul style="list-style-type: none"> • Report of a superspreading event of SARS-CoV-2 infection initiated at a bar in Vietnam with evidence of symptomatic and asymptomatic transmission – better understanding of specific settings in which superspreading events take place will inform development and 	Superspreading

			<p>implementation of control measures</p> <ul style="list-style-type: none"> • Note: for SARS-CoV-2, an R0 of 2-3 with 6-8 secondary cases has been suggested to constitute a superspreading event • Authors highlight that crowds in enclosed indoor settings with poor ventilation maybe considered at high risk for transmission 	
31.12.2020	Transmission of SARS-CoV-2 Lineage B.1.1.7 in England: Insights from linking epidemiological and genetic data	medRxiv pre-print (not peer reviewed)	<ul style="list-style-type: none"> • Examination of epidemiological evidence (whole genome sequence data, phylodynamic modelling, SGTF data etc.) of VOC 202012/01 having a transmission advantage • Note estimates of transmission advantage given apply to a period where high levels of social distancing were in place in England and extrapolation to other transmission contexts requires caution 	UK variant, transmission advantage
Dec 2020	Lineage-specific growth of SARS-CoV-2 B.1.1.7 during the English national lockdown	Preliminary report	<ul style="list-style-type: none"> • Using a combination of daily local SARS-CoV-2 incidence data and weekly genomic surveillance data, authors find strong and consistent data that B.1.1.7 proliferated ($R > 1$) during the English lockdown whilst other lineages contracted 	UK variant, transmission, lockdown

26.12.2020	Prior SARS-CoV-2 infection is associated with protection against symptomatic reinfection	Journal of Infection Letter to the Editor	<ul style="list-style-type: none"> In a retrospective cohort study of 11,000 UK healthcare workers during a second wave of SARS-CoV-2 transmission, prior SARS-CoV-2 infection is associated with protection against symptomatic reinfection This apparent immunity to re-infection was maintained for at least 6 months Further studies required to define immunological mechanisms(s), durability and generalisability to other at-risk populations e.g. elderly 	Protection, reinfection
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Infection Prevention and Control

Publication date	Title/URL	Journal/Article type	Summary	Keywords
Jan 2021	Nosocomial coronavirus disease outbreak containment, Hanoi, Vietnam, March-April 2020	Emerging Infectious Diseases Synopsis	<ul style="list-style-type: none"> Example of where rapid screening of cases, extensive testing, prompt quarantine, contact tracing, and social distancing contributed to prevent community transmission On 18 March 2020, a total of 3 distinct clusters of COVID-19 cases were identified at Bach Mai Hospital (BMH) in Hanoi, northern Vietnam's largest hospital complex 	Nosocomial outbreak

			<ul style="list-style-type: none"> • Diagnosis of the initial 3 COVID-19 cases led to contact tracing, symptom screening and testing of 495 persons and limited quarantine of affected institutes or departments • When 27 staff members in the catering company tested positive for SARS-CoV-2, the entire BMH staff (7,664) was put under quarantine • Contact tracing in the community resulted in an additional 52,239 persons being quarantined • After 3 weeks, the hospital outbreak was contained with no further spread in the hospital 	
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Therapeutics

Publication date	Title/URL	Journal/Article type	Summary	Keywords
07.01.2021	Interleukin-6 Receptor Antagonists in critically ill patients with Covid-19 – preliminary report	medRxiv pre-print (not peer reviewed)	<ul style="list-style-type: none"> • This study evaluated tocilizumab and sarilumab (two arthritis drugs) in an ongoing international, multifactorial, adaptive platform trial • Adult patients with Covid-19, within 24h of commencing organ support in an intensive care unit, were randomised to receive either tocilizumab or sarilumab or standard care (control) • In critically ill patients with COVID-19 receiving organ support in intensive 	IL-6 receptor antagonists, tocilizumab, sarilumab

			care, treatment with IL-6 receptor antagonists, tocilizumab and sarilumab, improved outcome, including survival (reduced the death rate from 36% to 27%)	
06.01.2021	Early high-titer plasma therapy to prevent severe Covid-19 in older adults	NEJM Article	<ul style="list-style-type: none"> • Convalescent plasma administered to hospitalised patients has been shown to be unsuccessful – possibly because antibodies need to be administered earlier in the infection • Randomised, double-blind, placebo-controlled trial of convalescent plasma with high IgG titers against SARS-CoV-2 in older adult patients within 72 hours after the onset of mild COVID-19 symptoms • Primary endpoint: severe respiratory disease • Note trial was stopped early at 76% of projected sample size due to considerable decline in numbers of COVID-19 cases challenging trial enrolment • 160 patients randomised • Early administration of high-titer convalescent plasma against SARS-CoV-2 to mildly ill infected older adults reduced risk of progression to severe disease • Larger trials needed to see if any impact on mortality 	Convalescent plasma, mild COVID-19, older adults
22.12.2020	A neutralizing monoclonal antibody for hospitalised patients with COVID-19	NEJM Article	<ul style="list-style-type: none"> • Monoclonal antibody LY-CoV555 has been associated with a decrease in viral load and the frequency of hospitalisations or emergency department visits among outpatients with Covid-19 	Monoclonal antibody, LY-CoV555, hospitalised patients

			<ul style="list-style-type: none"> • This platform trial assesses the effect of this antibody in patients who are hospitalised with Covid-19 • Monoclonal antibody LY-CoV555, when co-administered with remdesivir, did not demonstrate efficacy among hospitalised patients who had Covid-19 without end-organ failure 	
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Vaccines

Publication date	Title/URL	Journal/Article type	Summary	Keywords
17.12.2020	T cell and antibody responses induced by a single dose of ChAdOx1 nCoV-19 (AZD1222) vaccine in a phase '1/2 clinical trial	Nature Medicine Letter	<ul style="list-style-type: none"> • Exploratory analyses of the immune responses in adults, aged 18-55 year, up to 8 weeks after vaccination with a single dose of ChAdOx1 nCoV-19 with Th1-induced immune response – a favourable immune profile 	T cell immunity, Oxford vaccine
17.12.2020	Phase '1/2 trial of SARS-CoV-2 vaccine ChAdOx1 nCoV-19 with a booster dose induces multifunctional antibody responses	Nature Medicine Article	<ul style="list-style-type: none"> • Safety and humoral and cellular immunogenicity of ChAdOx1 nCoV-19 vaccine in subgroups of trial volunteers allocated to receive homologous full-dose or half-dose ChAdOx1 booster vaccine 56 days following prime vaccination • A booster dose of ChAdOx1 nCoV-19 is safe and better tolerated than priming doses • Two doses of the ChAdOx1 nCoV-19 boost antibody responses and functions 	Oxford vaccine, safety, immunity

			in phase '1/2 trial participants	
23.12.2020	Safety and immunogenicity of INO-4800 DNA vaccine against SARS-CoV-2: a preliminary report of an open-label, phase 1 clinical trial	EClinical Medicine Article	<ul style="list-style-type: none"> INO-4800 (a DNA vaccine) demonstrated excellent safety and tolerability and was immunogenic in 100% (38/38) of vaccinated subjects eliciting either or both humoral or cellular immune responses 	DNA vaccine, INO-4800, phase 1 clinical trial

Indirect impact of COVID-19

Publication date	Title/URL	Journal/Article type	Summary	Keywords
04.01.2021	Efforts to mitigate the economic impact of the COVID-19 pandemic: potential entry points for neglected tropical diseases	Infectious Diseases of Poverty Scoping Review	<ul style="list-style-type: none"> This paper aims to 'serve as a starting point' for the NTD community, and especially in LMICs, to work quickly, diligently and in close collaboration with decision-makers and stakeholders, across sectors at national and international level to secure its position and access much needed financial support to sustain and revitalise NTD control and elimination efforts 	Neglected Tropical Diseases

Social Science

Publication date	Title/URL	Journal/Article type	Summary	Keywords
2020	6 ways to incorporate social context and trust in	SSHAP Brief	<ul style="list-style-type: none"> Explains how social science can inform infodemiology by making it more attuned to different social, political and cultural contexts and to 	Infodemic management

	infodemic management		<p>the relationships between people and formal institutions which can help infodemic managers to work with people to make decisions based on the most accurate and appropriate information</p> <ul style="list-style-type: none"> • This brief offers six ways to do it 	
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Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal Article type
Jan 2021	Tuberculosis and malaria in the age of COVID-19	The Lancet Infectious Diseases Editorial
Jan 2021	Equitable distribution of COVID-19 vaccines	The Lancet Infectious Diseases Newsdesk
09.01.2021	Health systems neglected by COVID-19 donors	The Lancet World Report
08.01.2021	A New Year's Wish: Invest in Data	CGD Blog
08.01.2021	Sedation in mechanically ventilated patients with COVID-19	The Lancet Respiratory Medicine Comment
05.01.2021	Public health emergency or opportunity to profit? The two faces of the COVID-19 pandemic	The Lancet Diabetes & Endocrinology Comment
04.01.2021	G7: Make plans to share excess vaccine now	CGD Blog
27.12.2020	International Day of Epidemic Preparedness (first one!)	WHO News

18.12.2020	Why the evolution of vaccine resistance is less of a concern than the evolution of drug resistance	PNAS Perspective
15.12.2020	ODA in turmoil: why aid definitions and targets will come under pressure in the pandemic age, and what might be done about it?	CGD Policy paper
15.12.2020	Playing snakes and ladders with international development aid: when fragile accounting rules and political pressures mix	CGD Blog

Guidelines, Statements & Tools

Publication Date	Title/URL	Source	Summary
08.01.2021	Genomic sequencing of SARS-CoV-2: a guide to implementation for maximum impact on public health	WHO Guidance	<ul style="list-style-type: none"> Guidance for laboratories on maximizing the impact of SARS-CoV-2 sequencing now and other merging pathogens in the future

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 Africa COVID-19 Digest	Health Policy and Planning	Norwegian Institute of Public Health		
UNHCR	South African Government	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
14.01.2021	Evidence to impact in crisis: how have we measured up during the COVID-19 pandemic?	Webinar	1h 30	CGD
04.12.2020	COVID-19, supply chain resilience and global trade	Webinar	1h	CGD
03.12.2020	More money for health services: What is the role of PFM in the “new normal”?	WHO & CGD Health systems Governance & Financing	1h 30	Joe Kutzin
01.12.2020	Solutions and support for the mental wellbeing of community health workers on the COVID-19 frontline	Webinar		HSG TWG on CHWs with The George Institute for Global Health
19.11.2020	Looking at the pandemic with a gender lens	Live Twitter conversation		SSHAP
16.11.2020	HIFA and WHO collaborate to promote sharing of experience and expertise around the maintenance of essential health services during (and after) the pandemic	4-week discussion starting 16 Nov		HIFA
10.11.2020	COVID-19 vaccine predictions part 2: estimating the time	Online event	1h30	CGD

	before we approve efficacious COVID-19 vaccines			
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 emergencies, now offers 10 online courses related to COVID19.	Online courses	Varies	WHO
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 for detection, prevention, response and control	Online learning	3 hours	WHO
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	COVID-19 Diagnostics and Testing	Online learning	3 weeks 3 hours weekly study	FutureLearn FIND/LSHTM/ASLM

early June 2020				
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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