

COVID-19 e-bulletin

September 2020

The Newfoundland & Labrador Centre for Applied Health Research (NLCAHR) sends this COVID-19 e-bulletin to our health system stakeholders on a bi-weekly basis. This e-bulletin includes results from recent searches of health evidence and grey literature on the pandemic under specific subject headings, highlighting those findings considered to be of particular relevance to you. We hope you will find this information to be helpful. We welcome your <u>feedback and suggestions</u>. You can find NLCAHR e-bulletins and COVID-19 Quick Response Reports online here.

REOPENING AFTER LOCKDOWN

The British Medical Journal (BMJ): <u>COVID-19: re-opening universities is high risk</u> (September 01, 2020) This editorial piece highlights the risks of re-opening universities under the prevailing conditions and the importance of curbing community transmission before reopening <u>LINK</u>

The Social Science Research Network (SSRN): <u>Comparing the COVID-19 Pandemic in Greece, Iceland,</u> **New Zealand, and Singapore** (August 4, 2020)

This report provides an overview of the COVID-19 situation, an analysis of public health policy and measures, and lessons that can be learned from four countries with records of effectively containing the spread of COVID-19 and mitigating its effects. <u>LINK</u>

ANTICIPATING A "SECOND WAVE"

International Journal of Public Health: <u>Planning for a second wave pandemic of COVID-19 and planning for winter: A statement from the Association of Schools of Public Health in the European Region</u> (August 28, 2020)

This detailed planning document provides a variety of suggested approaches to anticipating a second wave. The authors call on all governments to meet these needs in this new and more challenging phase of the pandemic. <u>LINK</u>

The British Medical Journal: <u>COVID-19 in Australia: most infected health workers in Victoria's second</u> <u>wave acquired virus at work</u> (August 27, 2020)

This paper discusses how some 70% of second wave COVID-19 infections in health workers in the Australian state of Victoria have been acquired through their work. <u>LINK</u>

Safety Science: A new model for the spread of COVID-19 and the improvement of safety (August 18, 2020)

The main goal of this study was to develop a more effective method for diagnosing and predicting the COVID-19 spread and to evaluate the effectiveness of control measures to reduce and stop the virus spread. LINK

TREATMENT

STAT News- Health: <u>Inexpensive steroids reduce deaths of hospitalized COVID-19 patients, WHO</u> analysis confirms (September 02, 2020)

"Use of inexpensive, readily available steroid drugs to treat people hospitalized with COVID-19 reduced the risk of death by one-third, according to an analysis encompassing seven different clinical trials conducted by the World Health Organization and published Wednesday in the Journal of the American Medical Association." LINK

ORIGINAL RESEARCH: Journal of the American Medical Association: <u>The association between administration of systemic corticosteroids and mortality among critically ill patients with COVID-19- a meta-analysis (September 02, 2020)</u>

"Administration of systemic corticosteroids, compared with usual care or placebo, was associated with lower 28-day all-cause mortality in critically ill patients with COVID-19." LINK

Canadian Agency for Drugs and Technologies in Health (CADTH): Ongoing Trials for Drugs in the Prevention and Treatment of COVID-19 (August 28, 2020)

"This report provides information on ongoing randomized controlled trials of drugs being investigated to treat or prevent COVID-19." <u>LINK</u>

Canadian Agency for Drugs and Technologies in Health (CADTH): <u>Convalescent Plasma Therapy for the Treatment of COVID-19: A Review of Clinical Effectiveness</u> (August 26, 2020)

"Convalescent plasma (CP) therapy is an intervention where plasma is collected from recovered COVID-19 patients in the hope that the disease-specific antibodies could help the recipient recover from COVID-19. Evidence on the effectiveness of CP therapy for the treatment of COVID-19 is still in the early stages." LINK

Canadian Agency for Drugs and Technologies in Health (CADTH): What You Should Know About Dexamethasone for Treating COVID-19 (August 20, 2020)

"General information about the drug dexamethasone, its past uses, and new evidence for dexamethasone as a potential treatment for COVID-19. The results from the dexamethasone arm of the RECOVERY trial are provided, together with the current Canadian recommendations for its use in treating COVID-19." LINK

CLINICAL MANAGEMENT

MedRxiv: Estimation of a state of Corona 19 epidemic in August 2020 by multistage logistic model: a case of EU, USA, and World (August 31, 2020)

"The article provides an estimate of the size and duration of the Covid-19 epidemic in August 2020 for the European Union (EU), the United States (US), and the World using a multistage logistical epidemiological model." <u>LINK</u>

Nature: Coronavirus research updates: Antibodies persist for months rather than dwindling (Readers are advised to scroll down through the various Nature evidence updates on this webpage to locate this update issued on September 02, 2020)

"A sweeping survey in Iceland shows that antibodies against the new coronavirus endure in the body for four months after infection, countering earlier evidence suggesting that these important immune molecules quickly disappear." LINK

STAT News: <u>Scientists are reporting several cases of Covid-19 reinfection — but the implications are complicated</u> (September 02, 2020)

"Following what appears to have been the first confirmed case of a COVID-19 reinfection, other researchers have been coming forward with their own reports. One in Belgium, another in the Netherlands. And now, one in Nevada." LINK

INFECTION CONTROL

MedRxiv: <u>Beyond Six Feet: A Guideline to Limit Indoor Airborne Transmission of COVID-19</u> (September 01, 2020).

Building on models of airborne disease transmission, this article provides safety guidelines to limit indoor airborne transmission of COVID-19. <u>LINK</u>

Reuters: Wear a mask while having sex, Canada's top doctor suggests (September 2, 2020)

"Skip kissing and consider wearing a mask when having sex to protect yourself from catching the coronavirus, Canada's chief medical officer [Dr Theresa Tam] said... adding that going solo remains the lowest risk sexual option in a pandemic" LINK

The Lancet: Measuring mobility to monitor travel and physical distancing interventions: a common framework for mobile phone data analysis (September 01, 2020).

This commentary discusses the potential role of using data from mobile phones to monitor travel and physical distancing interventions as part of a COVID-19 infection control strategy. <u>LINK</u>

Annals of Internal Medicine: <u>Probable Evidence of Fecal Aerosol Transmission of SARS-CoV-2 in a High-Rise Building</u> (September 01, 2020)

Examining the cases of three infected families in a high-rise apartment building, the authors discuss the probable role of fecal aerosols in COVID-19 transmission. <u>LINK</u>

Annals of Internal Medicine: <u>SARS-CoV-2</u>: <u>The Growing Case for Potential Transmission in a Building via Wastewater Plumbing Systems</u> (September 01, 2020)

The editorial piece highlights and discusses the potential role of wastewater plumbing systems in COVID-19 transmission. <u>LINK</u>

Nature: <u>Digital advantage in the COVID-19 response: perspective from Canada's largest integrated</u> <u>digitalized healthcare system</u> (August 31, 2020)

The Alberta Electronic Health Record Information System is one of the largest population-based comprehensive electronic medical record (EMR) installations. This commentary outlines how this information system, with its continuous access to population-level, real-time data to inform healthcare and health system decision making, has become key factor in the effective management of the COVID-19 crisis in Alberta. <u>LINK</u>

MedRxiv: Antibody response to SARS-CoV-2 infection in humans: a systematic review (August 30, 2020)

This article provides a comprehensive review of human antibody response to Covid-19 infections, and the implications for development and efficacy of therapeutics and vaccines. <u>LINK</u>

COVID-19 & HEALTHCARE WORKERS

The Royal Australian College of General Practitioners: Optimising the use of personal protective equipment in general practice during COVID-19. (© 2020. Accessed September 8, 2020)

This guidance document provides recommendations to help optimise the use of PPE while ensuring the safety of healthcare providers, patients, and the general community. LINK

Journal of Affective Disorders: <u>Impact of viral epidemic outbreaks on mental health of healthcare</u> <u>workers: a rapid systematic review and meta-analysis</u> (August 23, 2020)

This study examined the impact on healthcare worker mental health for workers providing healthcare during health emergencies caused by viral epidemic outbreaks; the authors identified factors associated with the worst impacts and assessed the available evidence base regarding interventions to reduce such impacts. <u>LINK</u>

Journal of Clinical Nursing: <u>Compassion fatigue</u>, <u>burnout</u>, <u>compassion satisfaction</u>, <u>and perceived</u> <u>stress in healthcare professionals during the COVID-19 health crisis in Spain</u> (August 28, 2020)

This study evaluated compassion fatigue, burnout, compassion satisfaction, and perceived stress in healthcare professionals during the COVID-19 health crisis in Spain. <u>LINK</u>

SENIORS AND OTHER VULNERABLE GROUPS

Reviews in Medical Virology: <u>SARS-CoV-2 infection in people living with HIV: a systematic review</u> (September 1, 2020)

This systematic review synthesizes current knowledge on SARS-CoV-2 cases in people living with HIV/AIDS. LINK

The British Medical Journal: <u>Clinical manifestations, risk factors, and maternal and perinatal outcomes</u> <u>of coronavirus disease 2019 in pregnancy: living systematic review and meta-analysis</u> (September 1, 2020)

This living systematic review and meta-analysis investigates the clinical manifestations, risk factors, and maternal and perinatal outcomes in pregnant and recently-pregnant women with suspected or confirmed cases of COVID-19. LINK

Diabetology & Metabolic Syndrome: Severity and mortality of COVID-19 in patients with diabetes, hypertension and cardiovascular disease: a meta-analysis (August 31, 2020)

This study evaluated the impact of diabetes, hypertension, cardiovascular disease, and the use of angiotensin-converting enzyme inhibitors/angiotensin II receptor blockers (ACEI/ARB) with severity (invasive mechanical ventilation or intensive care unit admission or O2 saturation < 90%) and mortality of COVID-19 cases. LINK

Tropical Diseases, Travel Medicine, and Vaccines: <u>COVID-19 in adult patients with pre-existing chronic cardiac, respiratory and metabolic disease: a critical literature review with clinical recommendations</u> (August 28, 2020)

This narrative review analyses the multitude of issues faced by individuals with underlying medical conditions during the COVID-19 pandemic. <u>LINK</u>

Infection: Risk factors for COVID-19 severity and fatality: a structured literature review (August 28, 2020)

The authors present a systematic literature review on the risk factors of severe and fatal COVID-19 cases. LINK

Journal of Endocrinological Investigation: <u>High body mass index and night shift work are associated</u> with COVID-19 in healthcare workers (August 27, 2020)

This paper assessed the magnitude of COVID-19 spread and the associated risk factors among healthcare workers as reported in an in-hospital survey conducted in a central Italian COVID-19 hospital. <u>LINK</u>

Obesity Reviews: <u>Individuals with obesity and COVID-19: A global perspective on the epidemiology</u> <u>and biological relationships</u> (August 26, 2020)

This systematic review and meta-analysis examines the biological relationships and epidemiology of obesity and COVID-19 over the full spectrum of issues, from risk to mortality. <u>LINK</u>

Metabolism Open: COVID-19 and diabetes cutaneous comorbidity (August 25, 2020)

This paper discusses how diabetes should be considered as a risk factor for rapid progression and poor prognoses in COVID-19 cases. <u>LINK</u>

MENTAL HEALTH & WELLNESS

Journal of the American Medical Association Network Open: <u>Prevalence of Depression Symptoms in</u> **US Adults Before and During the COVID-19 Pandemic** (September 2, 2020)

This paper investigates the prevalence of and risk factors associated with depression symptoms among US adults during vs before the COVID-19 pandemic. <u>LINK</u>

International Journal of Mental Health Nursing: <u>A rapid review of pandemic-related behaviours and psychological outcomes</u> (August 29, 2020)

This rapid review was conducted to systematically examine, synthesize and critically appraise the available evidence on the relationship between pandemic-related behaviors and psychological outcomes. <u>LINK</u>

International Journal of Environmental Research and Public Health: <u>Characterization of Home Working</u>

<u>Population during COVID-19 Emergency: A Cross-Sectional Analysis</u> (August 28, 2020)

This cross-sectional study examined the impact of working from home on perceived job productivity and satisfaction, work-related stress, and musculoskeletal (MSK) issues. LINK

Journal of Affective Disorders: Mental health of French students during the COVID-19 pandemic (August 25, 2020)

This study evaluates the impact of COVID-19 on the mental health of 8004 students in eastern France, the first region in that country to be infected with the virus and the hardest hit region in terms of COVID-19 infection rates in France. LINK

Psychiatry Research: <u>Alarming levels of psychiatric symptoms and the role of loneliness during the COVID-19 epidemic: A case study of Hong Kong</u> (August 23, 2020)

The authors conducted an online survey to examine the impact of loneliness on mental health during the COVID-19 pandemic in Hong Kong, a model case for the population-wide practice of effective social distancing. <u>LINK</u>

Psychiatric Quarterly: <u>The COVID-19 Pandemic and its Effect on Mental Health in USA – A Review with Some Coping Strategies</u> (August 23, 2020)

In this article, the authors critically examine the onset of the pandemic in the USA focusing on its effect on the mental health of the American people. The authors discuss various strategies to overcome the mental health challenges associated with both the outbreak and the response. <u>LINK</u>

Trends in Psychiatry and Psychotherapy: <u>Mental health consequences of COVID-19: the next global pandemic</u> (August 21, 2020)

This paper discusses how pathological conditions resulting from disease, injury, therapy, or other trauma (mental health sequelae) will be greater after COVID-19 than those seen after other disasters. <u>LINK</u>

Psychiatry Research: <u>Mental health during the COVID-19 pandemic: Effects of stay-at-home policies,</u> social distancing behavior, and social resources (August 20, 2020)

This study examined whether stay-at-home orders and individuals' personal distancing behavior were associated with symptoms of depression, generalized anxiety disorder (GAD), intrusive thoughts, insomnia, and acute stress. LINK

This **COVID-19 e-bulletin** was prepared by researchers at the Newfoundland & Labrador Centre for Applied Health Research (Kazeem Adefemi, Waseem Abu Ashour, Wendy Lasisi, and Pablo Navarro) to summarize research evidence and grey literature produced by a variety of sources that were accessed online in July and August 2020.

Given the rapidly changing nature of the coronavirus pandemic, some of the references included in this e-bulletin may quickly become out-of-date. We further caution readers that researchers at the Newfoundland & Labrador Centre for Applied Health Research are not experts on infectious diseases and are relaying work produced by others. This report has been produced quickly and it is not exhaustive, nor have the included studies been critically appraised.

QUESTIONS/ SUGGESTIONS? CONTACT

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