



## International EPI Cell Daily Evidence Digest – 29/04/2020

This Daily Evidence Digest is produced by the PHE COVID-19 Literature Digest Team as a resource for professionals working in public health. We do not accept responsibility for the availability, reliability or content of the items included in this resource and do not necessarily endorse the views expressed within them. The papers are organised under the following themes:

- Diagnostics
- Genomics
- Epidemiology and clinical - children and pregnancy
- Epidemiology and clinical - risk factors
- Epidemiology and clinical - other
- Infection control
- Treatment
- Social sciences
- Miscellaneous
- Modelling
- Guidance, consensus statements and hospital resources (no digest)
- Overviews, comments and editorials (no digest)

Please note that we are including preprints (**highlighted in red**), which are preliminary reports of work that have NOT been peer-reviewed. They should not be relied on to guide clinical practice or health-related behaviour and should NOT be reported in news media as established information.

### Diagnostics

Publication Date	Title/URL	Journal/Article type	Digest
28.04.2020	<a href="#">Imaging features and mechanisms of novel coronavirus pneumonia (COVID-19): Study Protocol Clinical Trial (SPIRIT Compliant)</a>	Medicine (Baltimore) / Clinical trial protocol	<ul style="list-style-type: none"><li>• Prospective multicentre observational study of 100 patients with COVID-19.</li><li>• All patients will undergo chest CT examination with the same scan</li></ul>

			protocol and the distribution and morphology of lesions on chest CT, clinical data will be recorded.
28.04.2020	<a href="#">COVID-19 Anosmia Reporting Tool: Initial Findings</a>	Otolaryngology--head and neck surgery / Article	<ul style="list-style-type: none"> <li>• A recording tool is described that allows health care providers to confidentially submit cases of anosmia and dysgeusia related to COVID-19.</li> <li>• The authors analysed the first 237 entries, which revealed that anosmia was noted in 73% of patients prior to COVID-19 diagnosis and was the initial symptom in 26.6%.</li> </ul>
28.04.2020	<a href="#">Pooling of samples for testing for SARS-CoV-2 in asymptomatic people</a>	The Lancet Infectious Diseases / Correspondence	<ul style="list-style-type: none"> <li>• The authors introduced pooling of samples before RT-PCR amplification to potentially reduce the number of tests needed</li> <li>• Results suggest that pooling of up to 30 samples per pool can increase test capacity with existing equipment and test kits and detects positive samples with sufficient diagnostic accuracy.</li> <li>• Borderline positive single samples might escape detection in large pools.</li> </ul>
27.04.2020	<a href="#">Evaluation of Transport Media and Specimen Transport Conditions for the Detection of SARS-CoV-2 Using Real Time Reverse Transcription PCR</a>	Journal of clinical microbiology / Article	<ul style="list-style-type: none"> <li>• The objective of this study was to determine the stability of SARS-CoV-2 virus RNA in specimen transport media under various storage conditions. Transport medium tested included: VCM, UTM<sup>®</sup>-RT, ESwab<sup>™</sup>, M4 and saline (0.9% NaCl).</li> <li>• Specimen types tested included Nasopharyngeal/Oropharyngeal (NP/OP) swabs in the above transport media, bronchoalveolar lavage (BAL) and Sputum.</li> </ul>
27.04.2020	<a href="#">FDG-PET/CT findings highly suspicious for COVID-19 in an Italian case series of asymptomatic patients</a>	European journal of nuclear medicine and molecular imaging / Short communication	<ul style="list-style-type: none"> <li>• The [18F]FDG-PET/CT can identify probable Covid-19 disease in the absence or before symptoms onset and can guide patient management.</li> <li>• Nuclear medicine staff needs to be aware of the possibility of contact with patients affected by the SARS-CoV-2 infection even if they do not present any symptom.</li> </ul>
17.04.2020	<a href="#">A Review of Salivary Diagnostics and Its Potential Implication in Detection of Covid-19</a>	Cureus / Review	<ul style="list-style-type: none"> <li>• The collection of saliva is non-invasive and greatly minimizes the exposure of healthcare workers to Covid-19. Saliva has a high consistency rate of greater than 90% and SARS-CoV can be detected in saliva at high titers.</li> </ul>
25.04.2020	<a href="#">Mild versus severe COVID-19: laboratory markers</a>	International Journal of Infectious Diseases / Article	<ul style="list-style-type: none"> <li>• In hospitalized patients, clinicians should consider low lymphocyte count as well as the serum levels of CRP, D-dimers, ferritin and IL-6 which may be used in risk stratification to predict severe and fatal COVID-19.</li> <li>• The more several or all of these parameters are altered, the more likely it is that the course of the disease will be unfavourable.</li> </ul>
27.04.2020	<a href="#">Evaluation of the QIAstat-Dx Respiratory SARS-CoV-2 Panel, the first rapid multiplex PCR commercial assay for SARS-CoV-2 detection</a>	Journal of clinical microbiology / Article	<ul style="list-style-type: none"> <li>• The QIAstat-SARS rapid multiplex-PCR panel provides a highly sensitive, robust and accurate assay for rapid detection of SARS-CoV-2.</li> <li>• This assay allows rapid decisions even in non-PCR trained laboratory or point-of-care testing, allowing innovative organisation.</li> </ul>

## Genomics

Publication Date	Title/URL	Journal/Article type	Digest
20.04.2020	<a href="#">The pivotal link between ACE2 deficiency and SARS-CoV-2 infection</a>	European Journal of Internal Medicine / Review article	<ul style="list-style-type: none"> <li>• Angiotensin converting enzyme-2 (ACE2) receptors mediate the entry into the cell of three strains of coronavirus: SARS-CoV, NL63 and SARS-CoV-2.</li> <li>• Clinical reports of patients infected with SARS-CoV-2 show that several features associated with infection and severity of the disease (i.e., older age, hypertension, diabetes, cardiovascular disease) share a variable degree of ACE2 deficiency.</li> <li>• The authors suggest that ACE2 down-regulation induced by viral invasion may be especially detrimental in people with baseline ACE2 deficiency associated with the above conditions.</li> </ul>
28.04.2020	<a href="#">Covid-19, Coronavirus, SARS-CoV-2 and the small bowel</a>	Revista espanola de enfermedades digestivas / Article	<ul style="list-style-type: none"> <li>• Although SARS-CoV-2 may primarily enter the cells of the lungs, the small bowel may also be an important entry or interaction site, as the enterocytes are rich in angiotensin converting enzyme (ACE)-2 receptors.</li> <li>• In this special review, the authors describe the interaction of SARS-CoV-2 with the cell and enterocyte and its potential clinical implications.</li> </ul>
25.04.2020	<a href="#">Chaos game representation dataset of SARS-CoV-2 genome</a>	Data in brief / Article	<ul style="list-style-type: none"> <li>• Describes a dataset to provide a chaos game representation (CGR) of SARS-CoV-2 virus nucleotide sequences.</li> <li>• The dataset provides the CGR of 100 instances of SARS-CoV-2 virus, 11540 instances of other viruses from the Virus-Host DB dataset, and three instances of Riboviria viruses from NCBI.</li> </ul>
20.04.2020	<a href="#">The old but new: Can unfractionated heparin and low molecular weight heparins inhibit proteolytic activation and cellular internalization of SARS-CoV2 by inhibition of host cell proteases?</a>	Medical Hypotheses / Article	<ul style="list-style-type: none"> <li>• During these urgent times, the authors recommend the usage of unfractionated heparin or low molecular weight heparin (LMWH) in intensive care unit (ICU) and non-ICU hospitalized patients with the risk-benefit judgement of the clinician.</li> <li>• Whether the hypothesis is clinically applicable and successful in decreasing viral infection will be evaluated for further studies.</li> </ul>
09.04.2020	<a href="#">Structural basis for the inhibition of SARS-CoV-2 main protease by antineoplastic drug Carmofur</a>	bioRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>• The antineoplastic drug Carmofur was shown to inhibit SARS-CoV-2 main protease (Mpro).</li> <li>• The X-ray crystal structure of Mpro in complex with Carmofur reveals that the carbonyl reactive group of Carmofur is covalently bound to catalytic Cys145, whereas its fatty acid tail occupies the hydrophobic S2 subsite.</li> </ul>

			<ul style="list-style-type: none"> <li>• Carmofur inhibits viral replication in cells and it is a promising lead compound to develop new antiviral treatment for COVID-19.</li> </ul>
22.04.2020	<a href="#">Evaluation of WHO listed COVID-19 qPCR primers and probe in silico with 375 SARS-CoV-2 full genome sequences</a>	medRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>• Successful design of qRT-PCR assays requires accurate viral genome sequences. Authors compared current assays recommended by WHO with available SARS-CoV-2 genomic sequences in silico.</li> <li>• While most sequences were conserved, there were notable mismatches, particularly in assays developed using early sequences when compared to more recent isolates.</li> <li>• Authors recommend any assay being evaluated for diagnostic tests be compared with prevalent sequence data from the region of proposed testing.</li> </ul>
23.04.2020	<a href="#">A data-driven hypothesis on the epigenetic dysregulation of host metabolism by SARS coronavirus infection: Potential implications for the SARS-CoV-2 modus operandi</a>	Medical hypotheses / Article	<ul style="list-style-type: none"> <li>• Based on both structural and syndromic similarities with SARS-CoV, a hypothesis is formed on SARS-CoV-2 potential to affect the host's metabolism as part of its lifecycle.</li> <li>• This hypothesis is evaluated by (a) exploratory analysis of SARS-CoV/human transcriptomic interaction data and gene set enrichment analysis (b) a confirmatory, focused review of the literature based on the findings by (a).</li> </ul>

#### Epidemiology and clinical - children and pregnancy

Publication Date	Title/URL	Journal/Article type	Digest
26.04.2020	<a href="#">SARS-CoV-2 Infection in Pregnancy - a Review of the Current Literature and Possible Impact on Maternal and Neonatal Outcome</a>	Geburtshilfe und Frauenheilkunde / Review	<ul style="list-style-type: none"> <li>• Based on the literature available at the moment, it can be assumed that the clinical course of COVID-19 disease may be complicated by pregnancy which could be associated with a higher mortality rate.</li> <li>• It may also be assumed at the moment that transmission from mother to child in utero is unlikely. Breastfeeding is possible once infection has been excluded or the disease declared cured.</li> </ul>

#### Epidemiology and clinical - risk factors

Publication Date	Title/URL	Journal/Article type	Digest
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17.04.2020	<a href="#">Diabetes mellitus is associated with increased mortality and severity of disease in COVID-19 pneumonia - A systematic review, meta-analysis, and meta-regression</a>	Diabetes & metabolic syndrome / Systematic review	<ul style="list-style-type: none"> <li>Diabetes mellitus was associated with mortality, severe COVID-19, ARDS, and disease progression in patients with COVID-19.</li> </ul>
22.04.2020	<a href="#">Association of Respiratory Allergy, Asthma and Expression of the SARS-CoV-2 Receptor, ACE2</a>	The Journal of allergy and clinical immunology / Research letter	<ul style="list-style-type: none"> <li>Underlying respiratory allergy and experimental allergen exposure reduce the expression of the SARS-CoV-2 receptor, ACE2, which could lead to reduced COVID-19 susceptibility.</li> </ul>
22.04.2020	<a href="#">Does the pathogenesis of SAR-CoV-2 virus decrease at high-altitude?</a>	Respiratory physiology & neurobiology / Article	<ul style="list-style-type: none"> <li>The authors analyse the epidemiologic data of COVID-19 of Tibet and high-altitude regions of Bolivia and Ecuador, and compare to lowland data, to test the hypothesis that high-altitude inhabitants (+2500 m above sea-level) are less susceptible to develop severe adverse effect in acute SARS-CoV-2 virus infection.</li> <li>Potential underlying mechanisms such as: (i) a compromised half-live of the virus caused by the high-altitude environment, and (ii) a hypoxia mediated down regulation of angiotensin-converting enzyme 2 (ACE2), which is the main binding target of SARS-CoV-2 virus in the pulmonary epithelia are discussed.</li> </ul>
23.04.2020	<a href="#">Association of Digestive Symptoms and Hospitalization in Patients with SARS-CoV-2 Infection</a>	medRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>Association between digestive manifestations and need for hospitalization in 207 COVID-19 patients. 34.5% noted concurrent gastrointestinal symptoms; of which 90% were mild.</li> <li>diarrhoea associated with seven-fold higher likelihood for hospitalization (adjusted OR=7.58, 95% CI: 2.49-20.02, P &lt;0.001); nausea or vomiting with four times higher odds (adjusted OR 4.39, 95% CI: 1.61-11.4, P = 0.005).</li> </ul>
23.04.2020	<a href="#">Heparin-induced thrombocytopenia is associated with a high risk of mortality in critical COVID-19 patients receiving heparin-involved treatment</a>	medRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>Study of 61 critical COVID-19 patients in ICU and 93 severe non-ICU patients at Huoshenshan Hospital, Wuhan.</li> <li>HIT occurred not only in patients with heparin exposure, such as CRRT, but also in heparin-naive patients, suggesting spontaneous HIT may occur in COVID-19.</li> <li>Interpretation: Anti-heparin-PF4 antibodies are induced in critical COVID-19 patients, resulting in a progressive platelet decrease. Exposure to a high dose of heparin may trigger further severe thrombocytopenia with a fatal outcome. Alternative anticoagulant, not heparin, should be used to treat COVID-19 patients in critical condition.</li> </ul>
24.04.2020	<a href="#">Clinical course and risk factors for mortality of COVID-19 patients with pre-existing cirrhosis: A multicenter cohort study</a>	medRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>Retrospective cohort study of all adult COVID-19 in patients with pre-existing cirrhosis discharged or had died by 24 March 2020 from 16 designated hospitals in China ( total of 21 patients).</li> <li>Lower lymphocyte and platelet counts, and higher direct bilirubin level</li> </ul>

			might represent poor prognostic indicators in SARS-CoV-2-infected patients with pre-existing cirrhosis.
24.04.2020	<a href="#">Racial and Ethnic Disparities in SARS-CoV-2 Pandemic: Analysis of a COVID-19 Observational Registry for a Diverse U.S. Metropolitan Population</a>	medRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>• Study of large U.S healthcare system. Among 4,513 tested individuals, 754 (16.7%) tested positive. 26% were African American</li> <li>• African American race and Hispanic ethnicity are associated with higher likelihood of SARS-CoV-2 infection even after adjusting for other important socio-demographic and comorbidity factors.</li> <li>• Residence in a high-density population area partially mediated higher susceptibility among African Americans.</li> </ul>
28.04.2020	<a href="#">This Time Must Be Different: Disparities During the COVID-19 Pandemic</a>	Annals of Internal Medicine / Viewpoint	<ul style="list-style-type: none"> <li>• It is time to learn from the lessons of past epidemics and their disproportionate effect on minority communities.</li> <li>• We need robust data to guide these efforts, but better information must be coupled with urgent and effective action to decrease exposure, susceptibility, and limitations in health care to achieve the desired results</li> </ul>
28.04.2020	<a href="#">ABO blood group predisposes to COVID-19 severity and cardiovascular diseases</a>	European journal of preventive cardiology / Article	<ul style="list-style-type: none"> <li>• Although ABO blood type and/or cardiovascular diseases are prognostic of COVID-19 patient severity, they are not risk factors predisposing to the risk of getting SARS-CoV-2 infection.</li> </ul>
22.04.2020	<a href="#">Factors associated with negative conversion of viral RNA in patients hospitalized with COVID-19</a>	The Science of the total environment / Article	<ul style="list-style-type: none"> <li>• Older age and chest tightness were independently associated with delayed clearance of SARS-CoV-2 RNA in hospitalized patients.</li> <li>• These predictors would provide a new perspective on early identification of patients with prolonged viral shedding and facilitate optimal isolation protocols and treatment strategies.</li> </ul>
22.04.2020	<a href="#">A possible role for B cells in COVID-19?: Lesson from patients with Agammaglobulinemia</a>	The Journal of allergy and clinical immunology / Research letter	<ul style="list-style-type: none"> <li>• COVID-19 had a mild clinical course in patients with Agammaglobulinemia lacking B lymphocytes, whereas it developed aggressively in Common Variable Immune Deficiency.</li> <li>• The data may offer mechanisms for possible therapeutic targets.</li> </ul>
22.04.2020	<a href="#">Presepsin in risk stratification of SARS-CoV-2 patients</a>	Clinica chimica acta; international journal of clinical chemistry / Research letter	<ul style="list-style-type: none"> <li>• Presepsin (PSP) is a regulatory factor that modulates immune responses by interacting with T and B cells, useful for early diagnosis, prognosis and risk stratification prediction.</li> <li>• The authors present data which seems to demonstrate the role of PSP in providing prognostic information in COVID-19 patients, allowing to identify, during the early phase of the monitoring, the patients suffering from a more severe disease which will be hospitalized for a more long time.</li> </ul>
22.04.2020	<a href="#">Clinical value of immune-inflammatory parameters to assess the severity of coronavirus disease 2019</a>	International journal of infectious diseases : IJID : official publication of the	<ul style="list-style-type: none"> <li>• Authors aimed to explore the clinical value of immune-inflammatory markers to assess the severity of COVID-19.</li> <li>• The study showed that high level of IL-6, CRP and hypertension were independent risk factors for assessing the severity of COVID-19.</li> </ul>

International Society for Infectious Diseases / Article

• The risk model established upon IL-6, CRP and hypertension had the highest predictability in this study.

## Epidemiology and clinical – other

Publication Date	Title/URL	Journal/Article type	Digest
01.05.2020	<a href="#">Data sharing in the era of COVID-19</a>	The Lancet Digital Health / Correspondence	<ul style="list-style-type: none"> <li>• Although health-care professionals use modern technology to communicate, never before has the failure to build robust data-sharing systems for large-scale near real-time analysis in health care been more obvious.</li> <li>• The clinical and academic community will learn many lessons during these turbulent times, and crucially, needs to learn that data on health and disease should be shared universally so that everyone can benefit.</li> </ul>
23.04.2020	<a href="#">Features of 16,749 hospitalised UK patients with COVID-19 using the ISARIC WHO Clinical Characterisation Protocol</a>	medRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>• Prospective observational cohort study using a pre-approved WHO questionnaire, of 16,749 people with COVID-19 across 166 UK hospitals.</li> <li>• Increased age and comorbidities including obesity associated with a higher probability of mortality. Distinct symptom clusters: 1. respiratory (cough, sputum, sore throat, runny nose, ear pain, wheeze, and chest pain); 2. systemic (myalgia, joint pain and fatigue); 3. enteric (abdominal pain, vomiting and diarrhoea).</li> <li>• Authors welcome applications for data and material access via their Independent Data And Material Access Committee (<a href="https://isaric4c.net">https://isaric4c.net</a>)</li> </ul>
24.04.2020	<a href="#">Estimation of SARS-CoV-2 infection fatality rate by real-time antibody screening of blood donors</a>	medRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>• Danish authors perform real-time seroprevalence surveying among blood donors (aged 17-69) as tool to estimate previous SARS-CoV-2 infections and population based infection fatality rate (IFR).</li> <li>• 9,496 blood donors were tested; combined adjusted seroprevalence of 1.7% (CI: 0.9-2.3) calculated. A combined IFR in patients younger than 70 is estimated at 82 per 100,000 (CI: 59-154) infections - slightly lower than previously reported from other countries not using seroprevalence data.</li> </ul>
28.04.2020	<a href="#">Sex-specific clinical characteristics and prognosis of coronavirus disease-19 infection in Wuhan, China: A retrospective study of 168 severe patients</a>	PLoS pathogens / Research article	<ul style="list-style-type: none"> <li>• Retrospective study of 168 consecutive severe patients with pathogen-confirmed COVID-19. • Clinical characteristics, laboratory parameters, and outcomes were compared and analysed between males and females.</li> <li>• Male patients appeared to be more susceptible to age and comorbidities. Sex is an important biological variable that should be considered in the prevention and treatment of COVID-19.</li> </ul>

27.04.2020	<a href="#">Retrospective analysis of laboratory testing in 54 patients with severe- or critical-type 2019 novel coronavirus pneumonia</a>	Laboratory investigation / Article	<ul style="list-style-type: none"> <li>Increased lymphocyte counts, prolonged PT, secondary increases in fibrinolytic activity and increases in sIL-2R and IL-6 are typical features of COVID-19 and are associated with disease severity.</li> </ul>
28.04.2020	<a href="#">Long-term Coexistence of SARS-CoV-2 with Antibody Response in COVID-19 Patients</a>	Journal of Medical Virology / Short communication	<ul style="list-style-type: none"> <li>26 cases of COVID-19 were examined. A subset of these patients had SARS-CoV-2 and virus-specific IgG coexist for an unexpectedly long time, with two cases for up to 50 days.</li> <li>One COVID-19 patient who did not produce any SARS-CoV-2-bound IgG successfully cleared SARS-CoV-2 after 46 days of illness, revealing that without antibody-mediated adaptive immunity, innate immunity alone may still be powerful enough to eliminate SARS-CoV-2.</li> </ul>
28.04.2020	<a href="#">Elevated Interleukin-6 and Severe COVID-19: A Meta-Analysis</a>	Journal of medical virology / Review	<ul style="list-style-type: none"> <li>Systematic review and meta-analysis to demonstrate the association of elevated IL-6 with severe COVID-19.</li> <li>Patients with severe COVID-19 had a significantly higher serum IL-6 levels compared to non-severe patients.</li> <li>This study should encourage researchers to conduct trial evaluating Anti IL-6 antibodies such as Tocilizumab to assess the efficacy in patients with severe COVID-19.</li> </ul>
27.04.2020	<a href="#">Clinical phenotypes of SARS-CoV-2: Implications for clinicians and researchers</a>	The European respiratory journal / Article	<ul style="list-style-type: none"> <li>Patients with COVID19 present a broad spectrum of clinical presentation.</li> <li>Whereas hypoxemia is the marker of severity, different strategies of management should be customised to the specific individual phenotypes.</li> </ul>
28.04.2020	<a href="#">Testing for COVID-19: A way to lift confinement restrictions</a>	OECD / Policy briefing	<ul style="list-style-type: none"> <li>The brief discusses how testing strategies can be used to achieve three main goals: 1) suppressing the resurgence of local outbreaks; 2) identifying people who have developed some form of immunity and can safely return to work; and 3) gaining intelligence on the evolution of the epidemic, including on when a threshold for herd immunity has been reached.</li> </ul>
25.04.2020	<a href="#">Respiratory Muscle Performance Screening for Infectious Disease Management Following COVID-19: A Highly Pressurized Situation</a>	The American journal of medicine / article	<ul style="list-style-type: none"> <li>The authors hypothesize that impaired respiratory muscle performance is an underappreciated factor contributing to poor outcomes unfolding during the coronavirus pandemic.</li> <li>While impaired respiratory muscle performance is considered to be rare, it is more frequently encountered in patients with poorer health, in particular obesity.</li> </ul>
27.04.2020	<a href="#">Objective evaluation of anosmia and ageusia in COVID-19 patients: a single-center experience on 72 cases</a>	Head & neck / Special issue	<ul style="list-style-type: none"> <li>Olfactory and gustatory dysfunctions represent common clinical findings in COVID-19 patients.</li> </ul>
22.04.2020	<a href="#">Ad hoc laboratory-based surveillance of SARS-CoV-2 by real-time RT-PCR using</a>	Journal of clinical virology : the official publication of the	<ul style="list-style-type: none"> <li>The authors' aim was to provide a rapid, easy to establish and cost-effective laboratory-based surveillance tool for SARS-CoV-2.</li> </ul>

	<a href="#">minipools of RNA prepared from routine respiratory samples</a>	Pan American Society for Clinical Virology / Short communication	<ul style="list-style-type: none"> <li>• They used minipools of RNA prepared from nucleic acid extractions of routine respiratory samples, technically validated the assay, and distributed the protocol within an informal network of five German university laboratories.</li> </ul>
28.04.2020	<a href="#">Fatal Invasive Aspergillosis and Coronavirus Disease in an Immunocompetent Patient</a>	Emerging infectious diseases / Case report	<ul style="list-style-type: none"> <li>• Reports a fatal case of invasive pulmonary aspergillosis in an immunocompetent patient in France who had severe coronavirus disease-associated pneumonia.</li> </ul>
27.04.2020	<a href="#">COVID-19 patients presenting with afebrile acute abdominal pain</a>	Clinical medicine / Article	<ul style="list-style-type: none"> <li>• COVID-19 infections may present as an acute abdominal pain.</li> <li>• In this case series, CT scan findings helped to suspect the correct diagnosis, which was subsequently confirmed with COVID-19 RT-PCR tests.</li> </ul>
28.04.2020	<a href="#">Case Report of a SARS-CoV-2 Infection in a Patient With Ulcerative Colitis on Tofacitinib</a>	Inflammatory bowel diseases / Case report	<ul style="list-style-type: none"> <li>• Reports the case of a 33-year-old woman with a 13-year history of ulcerative colitis (UC) on tofacitinib who contracted SARS-CoV-2.</li> </ul>
23.04.2020	<a href="#">COVID-19 in lung cancer patients receiving ALK/ROS1 inhibitors</a>	European journal of cancer / Letter	<ul style="list-style-type: none"> <li>• Report of advanced NSCLC patients who carried on targeted therapy with ALK/ROS1 TKIs during SARS-CoV-2 pneumonia.</li> </ul>
27.04.2020	<a href="#">Case Report: Viral Shedding for 60 Days in a Woman with Novel Coronavirus Disease (COVID-19)</a>	The American journal of tropical medicine and hygiene / Case report	<ul style="list-style-type: none"> <li>• This case report demonstrates that viral shedding after COVID-19 diagnosis can be prolonged.</li> </ul>
27.04.2020	<a href="#">Pseudo acute myocardial infarction in a young COVID-19 patient</a>	JACC / Case report	<ul style="list-style-type: none"> <li>• A 29 year old man tested positive for COVID-19 and developed acute respiratory distress syndrome (ARDS).</li> <li>• While mechanically ventilated, his electrocardiogram (EKG) showed inferior ST segment elevations, with normal serial cardiac troponin I and transthoracic echocardiograms.</li> </ul>
23.04.2020	<a href="#">Severe Thrombocytopenia in a Patient with COVID-19</a>	Infection & chemotherapy / Case report	<ul style="list-style-type: none"> <li>• Reports a case of severe thrombocytopenia with epistaxis and petechiae, while treating a COVID-19 patient with ceftriaxone, levofloxacin, and lopinavir/ritonavir.</li> </ul>

## Infection control

Publication Date	Title/URL	Journal/Article type	Digest
20.04.2020	<a href="#">Transmission risk of SARS-CoV-2 to healthcare workers -observational results of a primary care hospital contact tracing</a>	Swiss Medical Weekly / Original article	<ul style="list-style-type: none"> <li>• The authors found a low risk of SARS-CoV-2 transmission in a primary care setting. These findings are compatible with previous reports of the highest transmission probability in household settings with prolonged close contacts.</li> <li>• The current protective measures for healthcare workers, including strict adherence to basic standard hygiene and facemasks, offer considerable</li> </ul>

			protection during short periods of contact with symptomatic COVID-19 cases by diminishing the risk of direct and indirect transmission.
28.04.2020	<a href="#">Pediatric Microlaryngoscopy and Bronchoscopy in the COVID-19 Era</a>	JAMA otolaryngology-- head & neck surgery / Original investigation	<ul style="list-style-type: none"> <li>• In this case series, feasibility of a modified technique for paediatric micro laryngoscopy and bronchoscopy was demonstrated.</li> <li>• By reconsidering the surgical approach in light of specific COVID-19 infection risks, this technique may be associated with reduced spread of aerosolized respiratory secretions perioperatively and intraoperatively, but the technique and patient outcomes require further study.</li> </ul>
28.04.2020	<a href="#">Isolation of Infectious SARS-CoV-2 from Urine of a COVID-19 Patient</a>	Emerging microbes & infections / Case report	<ul style="list-style-type: none"> <li>• Infectious SARS-CoV-2 was successfully isolated from urine of a COVID-19 patient. The virus isolated could infect new susceptible cells and was recognized by its own patient sera. Appropriate precautions should be taken to avoid transmission from urine.</li> </ul>
22.04.2020	<a href="#">Addressing the corona virus outbreak: will a novel filtered eye mask help?</a>	International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases	<ul style="list-style-type: none"> <li>• The purpose of this study was to build and test a filtered eye mask (FEM) to protect the eyes from airborne particles while being usable without excessive fog build up.</li> <li>• The FEM showed minimal fog at 1-minute, very foggy at 5-minutes and dripping with condensation at 60minutes. The FEM was clear at 1-minute, 5-minutes and showed minimal fog at 60minutes.</li> </ul>
27.04.2020	<a href="#">COVID-19 coronavirus: recommended personal protective equipment for the orthopaedic and trauma surgeon</a>	Knee surgery, sports traumatology, arthroscopy / Review	<ul style="list-style-type: none"> <li>• Review on current evidence and recommendations for personal protective equipment and safety recommendations for orthopaedic surgeons and trauma surgeons.</li> </ul>
14.04.2020	<a href="#">Glove-Wall System for Respiratory Specimen Collection and COVID-19 Mass Screening</a>	Infection & chemotherapy / Letter	<ul style="list-style-type: none"> <li>• Illustrated letter describing an effective strategy for massive diagnostic testing combined with isolation in screening clinics in Korea - the 'Glove-Wall system'.</li> <li>• The Glove-Wall is composed of a translucent plate window with a pair of sleeved gloves.</li> <li>• The examiner needs minimum PPE and does not need to change PPE between patients; therefore, the wait time is minimal.</li> </ul>
25.04.2020	<a href="#">Exploration of alternative supply chains and distributed manufacturing in response to COVID-19; a case study of medical face shields</a>	Materials & design / Article	<ul style="list-style-type: none"> <li>• A simplified medical face shield design is presented which repurposes an assortment of existing alternative supply chains, is easy to produce with minimal equipment and training</li> </ul>

## Treatment

Publication Date	Title/URL	Journal/Article type	Digest
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28.04.2020	<a href="#">Finding the dose for hydroxychloroquine prophylaxis for COVID-19; the desperate search for effectiveness</a>	Clinical pharmacology and therapeutics / Brief report	<ul style="list-style-type: none"> <li>• In an exposure driven post-exposure prophylaxis setting, 800 mg loading dose followed in 6 hours by 600 mg, then 600 mg daily for 4 more days achieved daily troughs above EC(50) in &gt;50% subjects.</li> <li>• These doses are higher than recommended for malaria chemoprophylaxis, and clinical trials are needed to establish safety and efficacy.</li> </ul>
25.04.2020	<a href="#">In vitro testing of combined hydroxychloroquine and azithromycin on SARS-CoV-2 shows synergistic effect</a>	Microbial pathogenesis/Article	<ul style="list-style-type: none"> <li>• The authors demonstrate that the combination of hydroxychloroquine and azithromycin has a synergistic effect in vitro on SARS-CoV-2 at concentrations compatible with that obtained in human lung.</li> </ul>
24.04.2020	<a href="#">Effect of High vs Low Doses of Chloroquine Diphosphate as Adjunctive Therapy for Patients Hospitalized With Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Infection: A Randomized Clinical Trial</a>	JAMA network open / RCT	<ul style="list-style-type: none"> <li>• Parallel, double-masked, randomized, phase IIb clinical trial with 81 adult patients who were hospitalized with SARS-CoV-2 infection, conducted from March 23 to April 5, 2020, at a tertiary care facility in Manaus, Brazilian Amazon.</li> <li>• Patients were allocated to receive high-dosage CQ (i.e., 600 mg CQ twice daily for 10 days) or low-dosage CQ (i.e., 450 mg twice daily on day 1 and once daily for 4 days).</li> <li>• The preliminary findings of this study suggest that the higher CQ dosage should not be recommended for critically ill patients with COVID-19 because of its potential safety hazards, especially when taken concurrently with azithromycin and oseltamivir. These findings cannot be extrapolated to patients with non-severe COVID-19.</li> </ul> <p>TRIAL REGISTRATION: ClinicalTrials.gov Identifier: NCT04323527.</p>
25.04.2020	<a href="#">Eculizumab treatment in patients with COVID-19: preliminary results from real life ASL Napoli 2 Nord experience</a>	European review for medical and pharmacological sciences / Article	<ul style="list-style-type: none"> <li>• Case series reporting preliminary data obtained with anti-complement C5 therapy with eculizumab in COVID-19 patients admitted to intensive care unit (ICU) of ASL Napoli 2 Nord.</li> <li>• Eculizumab has the potential to be a key player in treatment of severe cases of COVID-19.</li> <li>• The results support eculizumab use as an off-label treatment of COVID-19, pending confirmation from the ongoing SOLID-C19 trial.</li> </ul>
28.04.2020	<a href="#">What is the evidence for use of macrolide antibiotics for treatment of COVID-19?</a>	CEBM Research / Rapid review	<ul style="list-style-type: none"> <li>• At present, there is insufficient evidence to recommend treatment with macrolides, alone or combined with hydroxychloroquine, for COVID-19 outside of research.</li> <li>• Both macrolide antibiotics and hydroxychloroquine can increase the QT interval; combining these drugs may therefore result in cardiovascular harms.</li> </ul>
06.04.2020	<a href="#">Is low dose radiation therapy a potential treatment for COVID-19 pneumonia?</a>	Radiotherapy and oncology : journal of the European Society for Therapeutic	<ul style="list-style-type: none"> <li>• The authors propose the potential for low doses (&lt; 100 cGy) of low LET radiation to treat viral pneumonia as a possible therapy for COVID-19 patients, on the basis of historical evidence which points to the induction</li> </ul>

		Radiology and Oncology / Letter	of an anti-inflammatory phenotype induced by low doses of radiation as a potential explanation for the observed effects.
27.04.2020	<a href="#">Use of non-invasive vagus nerve stimulation to treat respiratory symptoms associated with COVID-19: A theoretical hypothesis and early clinical experience</a>	Neuromodulation / Clinical research	<ul style="list-style-type: none"> <li>• Preliminary observations and a strong scientific foundation suggest that non-invasive vagus nerve stimulation might provide clinical benefits in patients with COVID-19 via multiple mechanisms.</li> </ul>
28.04.2020	<a href="#">A retrospective cohort study of methylprednisolone therapy in severe patients with COVID-19 pneumonia</a>	Signal transduction and targeted therapy / Letter	<ul style="list-style-type: none"> <li>• Early, low-dose and short-term application of methylprednisolone was associated with better clinical outcomes in severe patients with COVID-19 pneumonia, and should be considered before the occurrence of ARDS.</li> </ul>
25.04.2020	<a href="#">Umifenovir treatment is not associated with improved outcomes in patients with coronavirus disease 2019: A retrospective study</a>	Clinical microbiology and infection / Article pre-proof	<ul style="list-style-type: none"> <li>• 33/45 (73.3%) patients treated with umifenovir were tested negative for SARS-CoV-2 within 7 days after admission and 28/36 (77.8%) in control group (p=0.19).</li> <li>• Patients in umifenovir group had longer hospital stay than patients in control group and no deaths or severe adverse reaction were found in both groups.</li> <li>• Umifenovir might not improve the prognosis or accelerate the SARS-CoV-2 clearance in non-ICU patients. A randomized control clinical trial is needed to assess the efficacy of umifenovir.</li> </ul>
25.04.2020	<a href="#">Use of tocilizumab for COVID-19 infection-induced cytokine release syndrome: A cautionary case report</a>	Chest / Article	<ul style="list-style-type: none"> <li>• Anti cytokine therapy such as tocilizumab, is a potential treatment for COVID-19, however data regarding the efficacy of this anti-IL-6 therapy is currently lacking.</li> <li>• The authors report two cases of patients diagnosed with COVID-19 complicated by CRS treated with tocilizumab.</li> </ul>
22.04.2020	<a href="#">Current status of potential therapeutic candidates for the COVID-19 crisis</a>	Brain, behavior, and immunity / Review	<ul style="list-style-type: none"> <li>• Review summarising the current potential therapeutic approaches for diseases related to COVID-19 infection and introducing their mechanisms of action, safety, and effectiveness.</li> </ul>
22.04.2020	<a href="#">Respiratory conditions in coronavirus disease 2019 (COVID-19): Important considerations regarding novel treatment strategies to reduce mortality</a>	Medical hypotheses / Article	<ul style="list-style-type: none"> <li>• Alternate treatment strategies utilizing clinically available treatments such as hyperbaric oxygen therapy (HBOT), packed red blood cell (pRBC) transfusions, or erythropoiesis-stimulating agent (ESA) therapy were hypothesized to increase oxygenation of tissues by alternative means than standard respiratory and ventilator treatments.</li> <li>• The authors recommend, given HBOT, pRBC, and ESA therapies are currently available and routinely utilized in the treatment of other conditions, that such therapies be tried among COVID-19 patients with serious respiratory conditions and that future controlled-clinical trials explore the potential usefulness of such treatments among COVID-19 patients with respiratory conditions.</li> </ul>

28.04.2020	<a href="#">The Role of the Renin-Angiotensin System in Severe Acute Respiratory Syndrome-CoV-2 Infection</a>	Blood purification / Letter	<ul style="list-style-type: none"> <li>• There is no scientific evidence supporting an aggravation of lung injury in patients treated with RAS blockers who develop pneumonia.</li> </ul>
27.04.2020	<a href="#">Understanding the Renin-Angiotensin-Aldosterone-SARS-CoV-Axis: A Comprehensive Review</a>	The European respiratory journal / Article	<ul style="list-style-type: none"> <li>• Review outlining evidence that supports clinical equipoise regarding the efficacy of RAAS-based interventions, and the imminent need for a multisite randomised controlled clinical trial to evaluate the inhibition of the RAAS-SCoV-axis on acute lung injury in COVID-19.</li> </ul>
25.04.2020	<a href="#">Eosinophil Responses During COVID-19 Infections and Coronavirus Vaccination</a>	The Journal of allergy and clinical immunology/ Article pre-proof	<ul style="list-style-type: none"> <li>• This paper discusses the key COVID-19-related questions concerning eosinophils and eosinopenia and considerations for prevention and care.</li> </ul>
25.04.2020	<a href="#">Calm before the storm: understanding the role of JAK inhibitors in COVID-19</a>	Journal of the American Academy of Dermatology / IETTER	<ul style="list-style-type: none"> <li>• The authors suggest is insufficient evidence to recommend that JAK inhibitors be continued in all patients taking these medications who are acutely infected with SARS-CoV-2.</li> </ul>
25.04.2020	<a href="#">IgA-Ab response to spike glycoprotein of SARS-CoV-2 in patients with COVID-19: A longitudinal study</a>	Clinica chimica acta; international journal of clinical chemistry / Article	<ul style="list-style-type: none"> <li>• The authors evaluated the kinetics of IgM, IgA and IgG SARS-CoV-2 antibodies in COVID-19 patients with confirmed (rRT-PCR) infection.</li> <li>• They found that the IgA response appears and grows early, peaks at week 3, and it is stronger and more persistent than the IgM response.</li> </ul>
27.04.2020	<a href="#">Viral RNA load as determined by cell culture as a management tool for discharge of SARS-CoV-2 patients from infectious disease wards</a>	European journal of clinical microbiology & infectious diseases / Brief report	<ul style="list-style-type: none"> <li>• In a preliminary clinical study, it was observed that the combination of hydroxychloroquine and azithromycin was effective against SARS-CoV-2 by shortening the duration of viral load in Covid-19 patients.</li> </ul>
22.04.2020	<a href="#">Helmet CPAP to Treat Acute Hypoxemic Respiratory Failure in Patients with COVID-19: A Management Strategy Proposal</a>	Journal of clinical medicine / Perspective	<ul style="list-style-type: none"> <li>• The authors discuss the rationale and some important considerations about timing, criteria, and monitoring requirements for patients with COVID-19 respiratory failure requiring a CPAP treatment.</li> </ul>
25.04.2020	<a href="#">Short Report - Medical nutrition therapy for critically ill patients with COVID-19</a>	European review for medical and pharmacological sciences / Short report	<ul style="list-style-type: none"> <li>• The authors argue that attention to nutritional medical therapy and nutritional status should be considered among the “basic vital signs” as important as blood pressure and pulse oximetry.</li> <li>• They make suggestions for a correct evidence-based nutritional therapy indicated for critically COVID-19 patients.</li> </ul>

## Social sciences

Publication Date	Title/URL	Journal/Article type	Digest
26.04.2020	<a href="#">Referencing the novel coronavirus as the "Chinese virus" or "China virus" on Twitter: COVID-19 stigma</a>	Journal of medical Internet research / Article	<ul style="list-style-type: none"> <li>• The study objective was to assess if there was an increase in the frequency of the phrases "Chinese virus" and "China virus" on Twitter, post- the March 16, 2020 United States presidential reference of this term.</li> </ul>

			<ul style="list-style-type: none"> <li>• The rise in tweets referencing "Chinese virus" or "China virus," along with the content of these tweets, indicate that 1) knowledge translation may be occurring online and that 2) COVID-19 stigma is likely being perpetuated on Twitter.</li> </ul>
22.04.2020	<a href="#">Questionnaire on Perception of Threat from COVID-19</a>	Journal of clinical medicine / Article	<ul style="list-style-type: none"> <li>• this study evaluated the factor structure and reliability of the version of the Illness Perception Questionnaire (IPQ) for COVID-19 in a sample of adults.</li> <li>• This brief version has adequate psychometric properties and may be used to evaluate the perception of threat from COVID-19 in an adult Spanish population.</li> </ul>
28.04.2020	<a href="#">Mental health care for medical staff and affiliated healthcare workers during the COVID-19 pandemic</a>	European heart journal. Acute cardiovascular care / Article	<ul style="list-style-type: none"> <li>• This paper details the effects on staff and addresses some of the organisational, team and individual considerations for supporting staff (pragmatically) during this pandemic.</li> </ul>

### Miscellaneous

Publication Date	Title/URL	Journal/Article type	Digest
20.04.2020	<a href="#">Correlation between climate indicators and COVID-19 pandemic in New York, USA</a>	Science of the Total Environment / Article	<ul style="list-style-type: none"> <li>• Average temperature, minimum temperature and air quality have significant correlation with COVID-19 epidemic.</li> <li>• Currently there is no scientific evidence that warm weather would suppress COVID-19 epidemic.</li> </ul>
20.04.2020	<a href="#">COVID-19 pandemic and environmental pollution: A blessing in disguise?</a>	Science of the Total Environment / Short communication	<ul style="list-style-type: none"> <li>• Recent data released by NASA (National Aeronautics and Space Administration) and ESA (European Space Agency) indicates that pollution in some of the epicentres of COVID-19 such as Wuhan, Italy, Spain and USA etc. has reduced up to 30%.</li> </ul>
20.04.2020	<a href="#">Indirect effects of COVID-19 on the environment</a>	Science of the Total Environment / Article	<ul style="list-style-type: none"> <li>• There is a significant association between contingency measures and improvement in air quality, clean beaches and environmental noise reduction.</li> <li>• There are also negative secondary aspects such as the reduction in recycling and the increase in waste, further endangering the contamination of physical spaces (water and land), in addition to air.</li> </ul>
28.04.2020	<a href="#">Change in tobacco and electronic cigarette use and motivation to quit in response to COVID-19</a>	Nicotine & tobacco research / Article	<ul style="list-style-type: none"> <li>• COVID-19 prompted about a quarter of respondents to reduce their TC and EC use, and more than a third to increase their motivation to quit.</li> </ul>

28.04.2020	<a href="#">Negative-Pressure Aerosol Cover for COVID-19 Tracheostomy</a>	JAMA otolaryngology-- head & neck surgery / Research letter	<ul style="list-style-type: none"> <li>• This article presents the use of a novel negative-pressure aerosol reduction cover for use during tracheostomy. This cover was easy to create and deploy using readily available materials found in operating centres.</li> </ul>
28.04.2020	<a href="#">Neuraxial anaesthesia and peripheral nerve blocks during the COVID-19 pandemic: a literature review and practice recommendations</a>	Anaesthesia / Review article	<ul style="list-style-type: none"> <li>• The goal of this review is to provide up-to-date, evidence-based recommendations, or expert opinion when evidence is limited, for performing regional anaesthesia procedures in patients with suspected or confirmed COVID-19 infection.</li> </ul>

## Modelling

Publication Date	Title/URL	Journal/Article type	Digest
28.04.2020	<a href="#">Evidence of initial success for China exiting COVID-19 social distancing policy after achieving containment [awaiting peer review]</a>	Wellcome Open Res	<ul style="list-style-type: none"> <li>• Although the results do not preclude future substantial increases in incidence, they suggest that after very intense social distancing, China successfully exited its lockdown to some degree.</li> <li>• Elsewhere, movement data are being used as proxies for economic activity to assess the impact of interventions.</li> <li>• The results presented here illustrate how the eventual decorrelation between transmission and movement is likely a key feature of successful COVID-19 exit strategies</li> </ul>
28.04.2020	<a href="#">Evaluating the Effectiveness of Social Distancing Interventions to Delay or Flatten the Epidemic Curve of Coronavirus Disease</a>	Emerging infectious diseases / Research	<ul style="list-style-type: none"> <li>• This study uses a mathematical model to investigate the effectiveness of social distancing interventions in a mid-sized city.</li> <li>• The models suggest that social distancing can provide crucial time to increase healthcare capacity but must occur in conjunction with testing and contact tracing of all suspected cases to mitigate virus transmission.</li> </ul>
16.04.2020	<a href="#">Impact of non-pharmaceutical interventions on documented cases of COVID-19</a>	medRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>• With this cross-country analysis, authors provide early estimates regarding the impact of different NPIs for controlling the COVID-19 epidemic.</li> <li>• By largest reduction of new cases: venue closures (36 %; 95% credible interval [CrI] 20-48 %), gathering bans (34 %; 95% CrI 21-45 %), border closures (31 %; 95% CrI 19-42 %). School closures (8 %; 95% CrI 0-23 %) and lockdowns (5 %; 95% CrI 0-14 %) appeared to be the least effective among the NPIs considered in this analysis.</li> </ul>
24.04.2020	<a href="#">The incubation period of COVID-19: A rapid systematic review and meta-analysis of observational research</a>	medRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>• This study provides a pooled estimate of distribution of incubation periods which may be used in subsequent modelling studies or to inform decision-making. The mean was 5.8 (5.01, 6.69 days).</li> </ul>

			<ul style="list-style-type: none"> <li>• The estimate will need to be revisited as subsequent data become available. An RShiny app allows the meta-analysis to be updated with new estimates.</li> </ul>
27.04.2020	<a href="#">Outbreak dynamics of COVID-19 in China and the United States</a>	Biomechanics and modeling in mechanobiology / Original paper	<ul style="list-style-type: none"> <li>• The authors integrate a global network model with a local epidemic SEIR model to quantify the outbreak dynamics of COVID-19 in China and the United States.</li> <li>• They postulate that the latent and infectious periods are disease-specific, whereas the contact period is behaviour-specific and can vary between different provinces, states, or countries.</li> </ul>
22.04.2020	<a href="#">GIS-based spatial modeling of COVID-19 incidence rate in the continental United States</a>	The Science of the total environment / Article	<ul style="list-style-type: none"> <li>• The authors investigated county-level variations of disease incidence across the continental United States seeking to explain the spatial variability of disease incidence.</li> <li>• The results suggested that even though incorporating spatial autocorrelation could significantly improve the performance of the global ordinary least square model, these models still represent a significantly poor performance compared to the local models.</li> </ul>
28.04.2020	<a href="#">Estimating the burden of United States workers exposed to infection or disease: A key factor in containing risk of COVID-19 infection</a>	PloS one / Research article	<ul style="list-style-type: none"> <li>• Based on the analyses, approximately 10% (14.4 M) of United States workers are employed in occupations where exposure to disease or infection occurs at least once per week.</li> </ul>
23.04.2020	<a href="#">Facing the COVID-19 epidemic in NYC: a stochastic agent-based model of various intervention strategies</a>	medRxiv (not peer reviewed) / Article	<ul style="list-style-type: none"> <li>• Stochastic agent-based microsimulation model of COVID-19 epidemic in New York City; evaluations included potential impact of quarantine duration, quarantine lifting, post-quarantine screening.</li> <li>• A two-step quarantine lifting according to age was associated with substantially lower cumulative mortality and incidence, up to 71% and 23%, respectively, as well as lower ICU-bed occupancy.</li> <li>• Model source code is publicly available.</li> </ul>
23.04.2020	<a href="#">Putative Inhibitors of SARS-CoV-2 Main Protease from A Library of Marine Natural Products: A Virtual Screening and Molecular Modeling Study</a>	Marine drugs / Article	<ul style="list-style-type: none"> <li>• Seventeen potential SARS-CoV-2 Mpro inhibitors have been identified among the natural substances of marine origin.</li> <li>• As these compounds were extensively validated by a consensus approach and by molecular dynamics, the likelihood that at least one of these compounds could be bioactive is excellent</li> </ul>
27.04.2020	<a href="#">A Molecular Modeling Approach to Identify Effective Antiviral Phytochemicals against the Main Protease of SARS-CoV-2</a>	Journal of biomolecular structure & dynamics / Article	<ul style="list-style-type: none"> <li>• Comprehensive computational and statistical analysis of phytochemicals selected through modelling suggest they could be used as potential inhibitors against the SARS-CoV-2.</li> </ul>

Publication Date	Title/URL	Journal/Article type
22.04.2020	<a href="#">ISIDOG Recommendations Concerning COVID-19 and Pregnancy</a>	Diagnostics (Basel, Switzerland) / Guidelines
28.04.2020	<a href="#">General Guidelines in the Management of an Obstetrical Patient on the Labor and Delivery Unit during the COVID-19 Pandemic</a>	American journal of perinatology / Guidelines
06.04.2020	<a href="#">Practice recommendations for lung cancer radiotherapy during the COVID-19 pandemic: An ESTRO-ASTRO consensus statement</a>	Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology / Consensus statement
24.04.2020	<a href="#">Practice recommendations for lung cancer radiotherapy during the COVID-19 pandemic: An ESTRO-ASTRO consensus statement</a>	Radiotherapy and oncology / Consensus statement
02.04.2020	<a href="#">International expert consensus statement regarding radiotherapy treatment options for rectal cancer during the COVID 19 pandemic</a>	Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology / Short communication
28.04.2020	<a href="#">American Geriatrics Society (AGS) Policy Brief: COVID-19 and Assisted Living Facilities</a>	Journal of the American Geriatrics Society / Guidance
20.04.2020	<a href="#">Guidelines of clinical practice for the management of swallowing disorders and recent dysphonia in the context of the COVID-19 pandemic</a>	European Annals of Otorhinolaryngology, Head and Neck Diseases / Guidelines
26.04.2020	<a href="#">A rapid review of evidence and recommendations from the SIOPE Radiation Oncology working group to help mitigate for reduced paediatric radiotherapy capacity during the COVID-19 pandemic or other crises</a>	Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology / Guidance
28.04.2020	<a href="#">A Health System Response to COVID-19 in Long Term Care and Post-Acute Care: A Three-Phase Approach</a>	Journal of the American Geriatrics Society / Brief report
07.04.2020	<a href="#">Staffing with disease-based epidemiologic indices may reduce shortage of intensive care unit staff during the COVID-19 pandemic</a>	Anesthesia and analgesia / Article
22.04.2020	<a href="#">Management of Lung Nodules and Lung Cancer Screening During the COVID-19 Pandemic: CHEST Expert Panel Report</a>	Chest / Expert panel report
22.04.2020	<a href="#">Cancer patients and research during COVID-19 pandemic: A systematic review of current evidence</a>	Critical reviews in oncology/hematology / Review
27.04.2020	<a href="#">Emergency Responses to Covid-19 Outbreak: Experiences and Lessons from a General Hospital in Nanjing, China</a>	Cardiovascular and interventional radiology / Scientific paper
27.04.2020	<a href="#">Interventional Radiology Procedures for COVID-19 Patients: How we Do it</a>	Cardiovascular and interventional radiology / Technical note
15.04.2020	<a href="#">Redesigning emergency department operations amidst a viral pandemic</a>	The American journal of emergency medicine / Article
28.04.2020	<a href="#">The application of Temporary Ark Hospitals in controlling COVID-19 spread: the experiences of one Temporary Ark Hospital, Wuhan, China</a>	Journal of medical virology / Hospital resources

## Overviews, comments and editorials

Publication Date	Title/URL	Journal/Article type
23.04.2020	<a href="#">The Use of Digital Health in the Detection and Management of COVID-19</a>	International journal of environmental research and public health / Commentary
23.04.2020	<a href="#">Readying for a Post-COVID-19 World: The Case for Concurrent Pandemic Disaster Response and Recovery Efforts in Public Health</a>	Journal of public health management and practice / Commentary
22.04.2020	<a href="#">Sex-Specific SARS-CoV-2 Mortality: Among Hormone-Modulated ACE2 Expression, Risk of Venous Thromboembolism and Hypovitaminosis D</a>	International journal of molecular sciences / Commentary
27.04.2020	<a href="#">Antibody testing will enhance the power and accuracy of COVID-19-prevention trials</a>	Nature medicine / Comment
28.04.2020	<a href="#">Limiting the spread of COVID-19 in Africa: one size mitigation strategies do not fit all countries</a>	The Lancet Global Health / Comment
15.04.2020	<a href="#">Embracing telemedicine into your otolaryngology practice amid the COVID-19 crisis: An invited commentary</a>	Am J Otolaryngol / Commentary
28.04.2020	<a href="#">Immunotherapies for COVID-19: lessons learned from sepsis</a>	The Lancet Respiratory Medicine / Comment
28.04.2020	<a href="#">A Novel Plan to Deal with SARS-CoV-2 and COVID-19 Disease</a>	Journal of medical virology / Commentary
28.04.2020	<a href="#">Covid-19 — A Reminder to Reason</a>	N Engl J Med / Perspective

**Produced by the PHE COVID-19 Literature Digest Team**

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