**Cochrane Special Collections ? Coronavirus (COVID-19): evidence relevant to critical care** [1]

This Special Collection is one of two collections on COVID-19, and it focuses on evidence relevant to critical care. See also the companion Special Collection: Coronavirus (COVID-19): infection control and prevention measures [2].

**Cochrane France ? Dossier spécial COVID-19** [3]

This Special Collection provides information on COVID-19 in French.

**Oxford University Press for the Infectious Diseases Society of America - In Vitro Antiviral Activity and Projection of Optimized Dosing Design of Hydroxychloroquine for the Treatment of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)** [5]

The study examined whether hydroxychloroquine may be useful in controlling the cytokine storm that occurs late-phase in critically ill SARS-CoV-2 infected patients. The pharmacological activity of chloroquine and hydroxychloroquine was tested using SARS-CoV-2 infected Vero cells and Hydroxychloroquine (EC50=0.72 ?M) was found to be more potent than chloroquine (EC50 =5.47=5.47 ?M) in vitro. A loading dose of 400 mg twice daily of hydroxychloroquine sulphate given orally, followed by a maintenance dose of 200 mg given twice daily for 4 days is recommended for SARS-CoV2 infection.

**Science Translational Medicine - Broad-spectrum antiviral GS-5734 inhibits both epidemic and zoonotic coronaviruses** [6]

The study shows that a nucleotide prodrug GS-5734, which is currently in clinical development for the treatment of Ebola, can inhibit SARS-CoV and MERS CoV replication. GS-5734 was also effective against bat-CoVs, pre-pandemic bat-CoVs and circulating contemporary human CoV in primary human lung cells. Studies done on cells and mice provide substantive evidence that GS-5734 may prove effective against endemic MERS-CoV in the Middle East, circulating human CoV and possibly emerging CoV of the future.

**Journal of Hospital Infection - Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents ? Journal of Hospital Infection | Persistenza di coronavirus su superfici inanimate e loro inattivazione con agenti biocidi** [7]

The article summarises the findings of a literature review looking at the persistence of
severe acute respiratory syndrome coronavirus (SARS), Middle East respiratory syndrome coronavirus (MERS) or endemic human coronaviruses (HCoV) on inanimate surfaces. Surface disinfection procedures with 62 and 71% ethanol, 0.5% hydrogen peroxide or 0.1% sodium hypochlorite have shown that these viruses can be efficiently inactivated within 1 minute.

- **The Lancet - What are the risks of COVID-19 infection in pregnant women?** [8]
  The research provides some insight into the clinical characteristics, pregnancy outcomes, and vertical transmission potential of COVID-19 infection in pregnant women.

  The report discusses the uncertain effects of RAAS blockers on ACE2 levels and activity in humans and proposes an alternative hypothesis that ACE2 may be beneficial rather than harmful in patients with lung injury.

- **The New England Journal of Medicine - Compassionate Use of Remdesivir for Patients with Severe Covid-19** [10]
  Remdesivir, a nucleotide analogue prodrug that inhibits viral RNA polymerases, has shown in vitro activity against SARS-CoV-2. In the cohort of patients hospitalized for severe Covid-19 who were treated with compassionate-use remdesivir, clinical improvement was observed in 36 of 53 patients (68%).

  The article summarizes the current evidence and provides guidance on potential COVID-19 treatment options on behalf of the Society of Infectious Diseases Pharmacists.

- **JAMA Network - Pharmacologic Treatments for Coronavirus Disease 2019 (COVID-19)** [12]
  Given the rapid pace of scientific discovery and clinical data generated by the large number of people rapidly infected by SARS-CoV-2, clinicians need accurate evidence regarding effective medical treatments for this infection. The review tries to shed light on the current pharmacologic treatment options.

- **American Heart Association Journals - COVID-19, Arrhythmic Risk and Inflammation: Mind the Gap!** [13]

- **American Heart Association Journals - Effect of Dapagliflozin on Atrial Fibrillation in Patients with Type 2 Diabetes Mellitus** [14]
  The article investigates whether sodium-glucose cotransporter 2 (SGLT2) inhibitors could also reduce the risk of atrial fibrillation (AF) and atrial flutter (AFL).

- **American Heart Association Journals - Antithrome Therapy Following Percutaneous Coronary Intervention in Patients Complicated by COVID-19: Implications from Clinical Features to Pathological Findings** [15]

- **Research in Social & Administrative Pharmacy - Hospital pharmacists’ pharmaceutical care for hospitalized patients with COVID-19: Recommendations and guidance from clinical experience** [16]
  The article discusses the hospital pharmacists' role in providing pharmaceutical care for hospitalized patients with COVID-19 to promote patient care and management during the pandemic.

- **Kidney International reports - Management of Patients on Dialysis and With Kidney Transplantation During the SARS-CoV-2 (COVID-19) Pandemic in Brescia, Italy** [17]
  The article describes the experience of practitioners with managing patients with kidney disease during the current COVID-19 pandemic in Brescia City in the Lombardy region of Italy, with particular attention to patients undergoing dialysis and patients with renal
transplantation.

- **Journal of Intensive Care Medicine - Guidelines on the Management of Critically Ill Adults with COVID19** [18]
The scope of the guidelines is to provide recommendations to support hospital clinicians managing critically ill adults with COVID-19 in the ICU.

- **REC: International Cardiology - Consideraciones sobre el abordaje invasivo de la cardiopatía isquémica y estructural durante el brote de coronavirus COVID-19** [19]
(Considerations on the invasive management of ischemic and structural heart disease during the COVID-19 coronavirus outbreak)
Consensus statement of the Interventional Cardiology Association and the Ischemic Heart Disease and Acute Cardiac Care Association of the Spanish Society of Cardiology

- **Intensive Care Medicine - COVID-19 pneumonia: different respiratory treatments for different phenotypes?** [20]
The article puts forward hypotheses on the different respiratory treatments for different phenotypes.

- **Méditerranée Infection Foundation - Combination of hydroxychloroquine plus azithromycin as potential treatment for COVID 19 patients: pharmacology, safety profile, drug interactions and management of toxicity** [21]
The article aims at sharing pharmacology considerations contributing to the rational of this combination, and to provide safety information in order to prevent toxicity and drug-drug interactions, based on available evidence.

- **Drug Safety - Evidence of Clinically Meaningful Drug-Drug Interaction With Concomitant Use of Colchicine and Clarithromycin** [22]
The study examines the evidence and clinical implications of concomitant use of colchicine and clarithromycin.

The article contains a description of the first single-centre experience of COVID-19 in patients infected with HIV-1, including clinical characteristics, antiviral and antiretroviral treatment, and outcomes.

- **The Lancet - Remdesivir in adults with severe COVID-19: a randomised, double-blind, placebo-controlled, multicentre trial** [24]
The article shares results from a multicenter trial carried out between 6 February and 12 March 2020.

- **Nature ? A SARS-CoV-2 protein interaction map reveals targets for drug repurposing** [25]
The report shares information on an analysis of SARS-CoV-2 proteins in human cells.

- **Farmacia Hospitalaria - Patients in Nursing Homes: type 2 diabetes mellitus prevalence and its pharmacologic therapy | Prevalencia de diabetes mellitus tipo 2 y su tratamiento farmacológico en personas institucionalizadas en centros residenciales** [26]
The article determines type 2 diabetes mellitus prevalence, clinical features, specific pharmacologic treatment and problems faced in nursing home patients.

- **The New England of Journal of Medicine - Observational Study of Hydroxychloroquine in Hospitalized Patients with Covid-19** [27]
This article examines the association between hydroxychloroquine use and intubation or death at a large medical center in New York

- **SSRN - Usefulness of Ivermectin in COVID-19 Illness** [28]
The article studies the usefulness of Ivermectin, an antimicrobial therapy, in COVID-19 outcomes.

- **Medicina Intensiva - Recomendaciones de «hacer» y «no hacer» en el tratamiento de los pacientes críticos ante la pandemia por coronavirus causante de COVID-19 de los Grupos de Trabajo de la Sociedad Española de Medicina Intensiva, Crítica y Unidades Coronarias (SEMICYUC)** [29]
The article puts forward recommendations of the Working Groups from the Spanish Society of Intensive and Critical Care Medicine and Coronary Units (SEMICYUC) for the management of adult critically ill patients in the coronavirus disease (COVID-19).

- **The Lancet - Management of patients with multiple myeloma during the COVID-19 pandemic** [30]
  The article summarises some recommendations to help with the management of patients with multiple myeloma during the COVID-19 pandemic.

- **JAMA Pediatrics - Characteristics and Outcomes of Children with Coronavirus Disease 2019 (COVID-19) Infection Admitted to US and Canadian Pediatric Intensive Care Units** [31]
  This article provides an early description and characterization of COVID-19 infection in North American in intensive care units (ICUs), focusing on mode of presentation, presence of comorbidities, severity of disease, therapeutic interventions, clinical trajectory, and early outcomes.

- **European Heart Journal - Cardiac safety of off-label COVID-19 drug therapy: a review and proposed monitoring protocol** [32]
  This review summarizes evidenced-based data regarding potential cardiac adverse effects due to off-label and investigational drugs including chloroquine and hydroxychloroquine, antiviral therapy, monoclonal antibodies, as well as common antibiotics used for the treatment of COVID-19.

- **American Journal of Health-System Pharmacy - Use of telemedicine to provide clinical pharmacy services during the SARS-CoV-2 pandemic** [33]
  The article looks at the provision of clinical services by pharmacists a from remote locations.

- **The New England Journal of Medicine - Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19** [34]
  This study analyses the associated risk of cardiovascular disease with an increased risk of in-hospital death among patients hospitalized with COVID-19.

- **Wiley Online Library - In-hospital management of persons with haemophilia and COVID-19: practical guidance** [35]
  The article is a practical guidance for persons with haemophilia (PWH) diagnosed with COVID-19, admitted in hospital and possibility transferred to intensive care unit (ICU).

- **The Journal of Thrombosis and Thrombolysis - Thromboembolism and Anticoagulant Therapy During the COVID-19 Pandemic: Interim Clinical Guidance from the Anticoagulation Forum** [36]
  This guidance document addresses key issues pertaining to prevention or treatment of thrombotic events in hospitalized patients with COVID-19 with the overarching purpose of striking a balance between risks and benefits of anticoagulation therapies.

- **Diabetologia - Phenotypic characteristics and prognosis of inpatients with COVID-19 and diabetes: the CORONADO study** [37]
  Study in people with diabetes hospitalized for COVID-19.

- **Drug and Therapeutics Bulletin - Deprescribing in the time of COVID-19** [38]
  The editorial examines task of deprescribing and adjusting patients' medicines who are at high risk of, or who have developed symptoms suggestive of COVID-19.

- **Springer - Thromboembolism and anticoagulant therapy during the COVID-19 pandemic: interim clinical guidance from the anticoagulation forum** [39]
  The article provides guidance on the use of anticoagulant therapies in patients with COVID-19.

- **NEJM Catalyst - A Paradigm for the Pandemic: A Covid-19 Recovery Unit** [40]
  The article reviews the convenience of a dedicated multidisciplinary post-ICU recovery
- BMJ - British society of Gastroenterology guidance for management of inflammatory bowel disease during the covid-19 pandemic [41]
  The article provides information on the treatment of people with of inflammatory bowel disease (IBD).
- Journal of Clinical Oncology Practice - Providing oncology pharmacy services during the coronavirus pandemic: French Society for Oncology Pharmacy (Société Francaise de Pharmacie Oncologique-SFPO) guidelines [42]
  These recommendations seek to adapt oncology pharmacy activities to ensure safe oncology care and to limit the risk of transmission of CoV-2-SARS for cancer patients.
- European Journal of Hospital Pharmacy - Epinephrine use in COVID-19: friend or foe? [43]
  The study evaluates the use of epinephrine in COVID-19 patients with cytokine storms.
- European Journal of Hospital Pharmacy - Involvement of interleukin 6 in SARS-CoV-2 infection: siltuximab as a therapeutic option against COVID-19 [44]
  The short report explores the involvement of interleukin 6 in SARS-CoV-2 infection and positions the drug siltuximab in the management of severe forms of COVID-19.
  The study investigates if cytokine inhibitor tocilizumab could have a favorable effect on survival in the most severely infected patients who require mechanical ventilation.
  The article contains recommendations for pharmacists and their teams which can be used to counsel patients on interim management for common dental emergencies during the COVID-19 pandemic.
- Journal of Neurosurgical Anesthesiology - Anesthetic Management of Endovascular Treatment of Acute Ischemic Stroke During COVID-19 Pandemic: Consensus Statement From Society for Neuroscience in Anesthesiology & Critical Care (SNACC) [47]
  Recommendations for the safe and effective anesthetic management of endovascular therapy for acute ischemic stroke during the COVID-19 pandemic.
- Recovery - Low-cost dexamethasone reduces death by up to one third in hospitalised patients with severe respiratory complications of COVID-19 [48]
  Statement from the Chief Investigators of the Randomised Evaluation of COVid-19 thERapY (RECOVERY) Trial on dexamethasone.
- Revista Colombiana de Gastroenterologia - Management of patients with inflammatory bowel disease during the COVID-19 pandemic [49]
  Review on the interaction of the SARS-CoV-2 virus with the gastrointestinal tract and the potential mechanisms whereby a patient with inflammatory bowel disease could have an increased risk of COVID-19 infection.
  The article discusses the impact of guidelines on orthopaedic surgery and provides the general framework used to determine which procedures have been postponed.
- AHA Journals - Guidance for Cardiac Electrophysiology During the COVID-19 Pandemic from the Heart Rhythm Society COVID-19 Task Force; Electrophysiology Section of the American College of Cardiology; and the Electrocardiography and Arrhythmias Committee of the Council on Clinical Cardiology, American Heart Association [51]
  The article includes guidance for managing invasive and noninvasive
electrophysiology procedures, clinic visits, and cardiac device interrogations.

- **Cochrane Library** - *Personal protective equipment for preventing highly infectious diseases due to exposure to contaminated body fluids in healthcare staff* [52]
  The systemic review evaluates which type of full-body personal protective equipment (PPE) and which method of donning or doffing PPE have the least risk of contamination or infection for healthcare workers.

- **The Lancet** - *Interleukin-1 blockade with high-dose anakinra in patients with COVID-19, acute respiratory distress syndrome, and hyperinflammation: a retrospective cohort study* [53]
  The retrospective study looked at the benefits of anakinra for patients with non-invasive ventilation outside of the ICU.

- **Journal of Pharmaceutical Analysis** - *Use of subcutaneous tocilizumab to prepare intravenous solutions for COVID-19 emergency shortage: Comparative analytical study of physicochemical quality attributes* [54]
  The study evaluated the use of tocilizumab in its intravenous form of administration for treatment of severe cytokine release syndrome patients.

- **Journal of the American Geriatrics Society** - *COVID-SAFER : Deprescribing Guidance for Hydroxychloroquine Drug Interactions in Older Adults* [55]
  The study quantifies the degree of polypharmacy and burden of potentially inappropriate medications (PIMs) that older hospitalized adults are taking that would interact with hydroxychloroquine.

- **Journal of the American Geriatrics Society** - *Optimizing Medication Management During the COVID-19 Pandemic: An Implementation Guide for Post-Acute and Long-Term Care* [56]
  The article provides a practical guidance on strategies to improve medication management and support the efforts of frontline staff within these care settings.

- **Critical Care Medicine (CCM) and Intensive Care Medicine (ICM)** - *Surviving Sepsis Campaign: Guidelines on the Management of Critically Ill Adults with Coronavirus Disease 2019(COVID-19)* [57]
  This guideline provides recommendations to support hospital clinicians managing critically ill adults with COVID-19 in the intensive care unit (ICU).

- **Critical Care** - *Prevention of thrombotic risk in hospitalized patients with COVID-19 and hemostasis monitoring* [58]
  The study aims to assist clinicians in the therapy and monitoring of anticoagulation to prevent thrombosis in hospitalized patients with COVID-19.

- **Farmacia Hospitalaria** - *Hospital Pharmacist Experience in a Multidisciplinary Team in Special Care Settings* [59]
  This article provides a description of the hospital pharmacist experience of two public hospitals located in the Autonomous Community of Madrid, Spain during the COVIDI-19 pandemic.

- **American Journal of Health-System Pharmacy** - *Perspectives from the frontline: A pharmacy department's response to the COVID-19 pandemic* [60]
  The report describe the institution's strategy to deploy pharmacy resources and standardize pharmacy processes to optimize the management of patients with COVID-19.

- **Cancer Treatment Reviews** - *Cancer, immune suppression and Coronavirus Disease-19 (COVID-19): Need to manage drug safety* [61]
  The aim of the present guidelines is to review and report a summary of the various recommendations/expert consensus for the management of cancer patients in the context of the COVID-19 pandemic.
- **Nature Medicine - Extrapulmonary manifestations of COVID-19** [62]
  The article reviews extrapulmonary organ-specific pathophiology, presentations and management considerations for patients with COVID-19 to aid clinicians and scientists in recognizing and monitoring the spectrum of manifestations.

- **Farmacia Hospitalaria - Survey on the situation of telepharmacy as applied to the outpatient care in hospital pharmacy departments in Spain during the COVID-19 pandemic** [63]
  The study analyses the status of the implementation and development of telepharmacy as applied to the pharmaceutical care of outpatients treated at hospital pharmacy services in Spain during the COVID-19 pandemic.

- **Journal of Affective Disorders - Impact of coronavirus syndromes on physical and mental health of health care workers: Systematic review and meta-analysis** [64]
  The article identifies physical and mental health outcomes in healthcare workers infected or exposed to coronavirus syndromes, monitors their course and implements preventive/treatment measures to mitigate their effect in this vulnerable population.

- **American Journal of Infection Control - Prevalence of Comorbidities Among Individuals With COVID-19: A Rapid Review of current Literature** [65]
  The aim of the review is to explore the prevalence of top global comorbidities (CVD, Diabetes, COPD, Cancer, and CKD) among individuals with COVID-19, as well as investigate any significant associations.

- **Dermatologic Therapy - Psoriasis and COVID-19: A narrative review with treatment considerations** [66]
  The article summarises different treatments for psoriasis during the COVID-19 pandemic.

- **MedRxiv - The Possible Role of Vitamin D in Suppressing Cytokine Storm and Associated Mortality in COVID-19 Patients** [67]
  This article investigates the possible role of Vitamin D deficiency via unregulated inflammation in COVID-19 complications and associated mortality.

- **The New England Journal of Medicine - Multisystem Inflammatory Syndrome in U.S. Children and Adolescents** [68]
  The article reports on the emergence of a life-threatening hyperinflammatory syndrome across the United States that involves damage to multiple organ systems in predominantly previously healthy children and adolescents during the COVID-19 pandemic.

- **Research in Social and Administrative Pharmacy - Drive-thru pharmacy services: A way forward to combat COVID-19 pandemic** [69]
  The article shares an overview of opportunities and challenges related to the implementation of "drive-thru pharmacy services" and their role in improving public health during this crisis.

- **MedRxiv - Renin-angiotensin-aldosterone system inhibitors and COVID-19 infection or hospitalization: a cohort study** [70]
  Cohort study that examines the association between angiotensin-converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs) and COVID-19 infection or hospitalisation.

- **Clinical Microbiology and Infection - COVID-19: don't neglect antimicrobial stewardship principles!** [71]
  Recommendations regarding the use of antibiotics in patients with COVID-19.

- **European Journal of Hospital Pharmacy - Informing critical care drug requirements in response to the COVID-19 pandemic** [72]
  The article shares insights on the development a process to estimate critical care drug requirements to robustly inform regional procurement planning and preparedness in
response to the COVID-19 pandemic.

- **Journal of Interprofessional Care** - Development of an interprofessional rotation for pharmacy and medical students to perform telehealth outreach to vulnerable patients in the COVID-19 pandemic \[73\]
  This report describes an interprofessional rotation for pharmacy and medical students focused on telehealth outreach to patients at high risk for delays in care due to the COVID-19 pandemic.

- **Supply Chain Forum: An International Journal** - Automated hospital pharmacy supply chain and the evaluation of organisational impacts and costs \[74\]
  This article aims at demonstrating to what extent taking into account organisational impacts (and more particularly HR impacts) can significantly affect the outcome of economic evaluations and the decision to invest in the intra-hospital supply chain.

- **Research in Social and Administrative Pharmacy** - Pharmacy practice research priorities during the COVID-19 pandemic: Recommendations of a panel of experts convened by FIP Pharmacy Practice Research Special Interest Group \[75\]
  The article covers a discussion about the current status of COVID-19 related research, provides recommendations, and identifies focal points for pharmacy practice, social pharmacy, and education research moving forward.

- **American Journal of Health-System Pharmacy** - Considerations for development of pharmacy support models for COVID-19 alternate care sites \[76\]
  Guidance on alternate care site planning based on the experience of a health-system pharmacy department in preparing for an expected surge in coronavirus disease 2019 (COVID-19) cases is provided.

- **MedRxiv** - Interactions between SARS-CoV-2 and influenza and the impact of coinfection on disease severity: a test negative design \[77\]
  The study aims at assessing whether infection with influenza is associated with a reduced risk of SARS-CoV-2 infection and assessing whether coinfection with influenza is associated with a more severe SARS-CoV-2 outcome such as death, being admitted to hospital, admitted to ICU or requiring ventilatory support.

- **Farmacia Hospitalaria** - Hospital Pharmacy Compounding against COVID-19 pandemic \[78\]
  This article highlights the challenges encountered and the impact that COVID-19 has had on hospital pharmacy compounding.

- **Journal of Pharmaceutical Policy and Practice** - Pharmacists and COVID-19 \[79\]
  The article analyses the role that pharmacists have played in supporting the healthcare system during COVID-19.

- **Journal of Pharmaceutical Policy and Practice** - Mental health issues impacting pharmacists during COVID-19 \[80\]
  This article seeks to address the specific implications of COVID-19 on the mental health of pharmacists.

- **The Lancet** - Lopinavir?ritonavir in patients admitted to hospital with COVID-19 (RECOVERY): a randomised, controlled, open-label, platform trial \[81\]
  This article reports results of a randomised trial to assess whether lopinavir?ritonavir improves outcomes in patients admitted to hospital with COVID-19.

- **Intensive Care Medicine** - The ten reasons why corticosteroid therapy reduces mortality in severe COVID-19 \[82\]
  The article highlights the current understanding of the effect of corticosteroid therapy in severe COVID-19.

- **Journal of Antimicrobial Chemotherapy** - Antimicrobial stewardship challenges and innovative initiatives in the acute hospital setting during the COVID-19 pandemic \[83\]
A guidance document on the antiviral treatment of COVID-19 based on rapid evidence reviews as well as AMS strategies during the pandemic to assist clinicians nationally.

- **Farmacia Hospitalaria** - The pharmacist facing the logistics of safely dispensing, storing and preserving drugs in healthcare units | El farmacéutico frente a la logística de dispensación, almacenamiento y conservación segura de medicamentos en unidades asistenciales [84]

  The article describes how the pharmacy service has quickly adapted to respond to a critical situation.

- **Journal of Oncology Pharmacy Practice** - Global oncology pharmacy response to COVID-19 pandemic: Medication access and safety [85]

  The article highlights challenges related to safe handling of hazardous drugs and maintaining high-quality medication safety standards that have impacted various stakeholders.

- **International Journal of Pharmaceutical Research** - Knowledge, attitude and perception of COVID infections among elders with respiratory diseases [86]

  The study aims to determine the perception, attitude, and knowledge of COVID-19 infections among elders with respiratory diseases.

- **BMJ** - Living risk prediction algorithm (QCOVID) for risk of hospital admission and mortality from coronavirus 19 in adults: national derivation and validation cohort study [87]

  The article aims at deriving and validating a risk prediction algorithm to estimate hospital admission and mortality outcomes from coronavirus disease 2019 (COVID-19) in adults.

- **Infection Control & Hospital Epidemiology** - Environmental contamination in a COVID-19 intensive care unit (ICU) ? what is the risk? [88]

  Observational study that evaluates the extent of environmental contamination in the ICU and correlates this with patient and disease factors, including the impact of different ventilatory modalities.

- **Cochrane Systematic Review** - Prophylactic anticoagulants for people hospitalised with COVID-19 [89]

  The research aims to assess the effects of prophylactic anticoagulants versus active comparator, placebo or no intervention, on mortality and the need for respiratory support in people hospitalised with COVID-19.

- **The Lancet Diabetes & Endocrinology** - Practical recommendations for the management of diabetes in patients with COVID-19 [90]

  The article provides insight into potential mechanistic links between the novel coronavirus infection and diabetes, presents practical management recommendations and elaborates on the differential needs of several patient groups.

- **Journal of the Faculty of Medicine and Dentistry of the Université catholique de Louvain (UCL)** - COVID-19 and diabetes | COVID-19 et diabète [91]

  The article summarises current information available on the clinical presentation and risks associated with COVID-19 in diabetic patients. The authors propose several recommendations for the management of COVID-19-infected diabetes patients.


  The article describes the Taskforce recommendations for the care of pregnant and postpartum women with COVID-19.

- **British Journal of Clinical Pharmacology** - Challenges of drug development during the COVID?19 pandemic: key considerations for clinical trial designs [93]

  This article reviews translational science principles and strategies for conducting clinical
trials in a pandemic and evaluates recent trials for different drug candidates.

- **BMC Medicine - Adapting hospital capacity to meet changing demands during the COVID-19 pandemic** [94]
  The research article aims to estimate hospital care capacity before the pandemic and to quantify the impact of interventions for treatment of adult COVID-19 patients, focusing on general and acute (G&A) and critical care (CC) beds, staff and ventilators.

- **The bmj - Clinical manifestations, risk factors, and maternal and perinatal outcomes of coronavirus disease 2019 in pregnancy: living systematic review and meta-analysis** [95]
  The article determines the clinical manifestations, risk factors, and maternal and perinatal outcomes in pregnant and recently pregnant women with suspected or confirmed coronavirus disease.

- **British Pharmacological Society - Unfractionated heparin inhibits live wild-type SARS-CoV-2 cell infectivity at therapeutically relevant concentrations** [96]
  The research aims at comparing the potential antiviral effect of various heparin preparations on live wild-type SARS-CoV-2, in vitro.

- **European Heart Journal Quality of Care and Clinical Outcomes - Cardiovascular comorbidities as predictors for severe COVID-19 infection or death** [97]
  The article analyses if patients with pre-existing cardiovascular diseases are at higher risk of adverse COVID-19 outcomes.

- **The Journal of Clinical Endocrinology & Metabolism - Thyroid Dysfunction in Relation to Immune Profile, Disease Status and Outcome in 191 Patients with COVID-19** [98]
  The article evaluates the thyroid function of a cohort of COVID-19 patients, in relation to their clinical features, biochemical, immunological and inflammatory markers.

- **Nature - Identification of SARS-CoV-2 Inhibitors using Lung and Colonic Organoids** [99]
  Through the development of a lung organoid model using human pluripotent stem cells, the authors of this article performed a high throughput screen of FDA-approved drugs and identified entry inhibitors of SARS-CoV-2.

- **Research in Social and Administrative Pharmacy - The impact of COVID-19 on pharmacy transitions of care service** [100]
  This paper highlights the important role pharmacists can play in providing effective communication, supporting continuity of care, and advocating for patient engagement and empowerment during transitions of care in the COVID-19 pandemic.

- **Dermatologic Therapy - Does therapy with biological drugs influence COVID-19 infection? Observational, monocentric prevalence study on the clinical and epidemiological data of psoriatic patients treated with biological drugs or with topical drugs alone.** [101]
  The study compares the prevalence and disease course of COVID-19 in psoriatic patients under treatment with biologic drugs with psoriatic patients using only topical therapies.

- **The Journal of Hospital Infections - Clinical characteristics and humoral immune response in healthcare workers with COVID-19 in a teaching hospital in Belgium** [102]
  The study analyses the clinical characteristics, humoral immune response, sources of contamination, and outcomes among HCWs with COVID-19.
The aim of the study is to assess the clinical efficacy and safety of Remdesivir in the treatment of COVID-19 patients, using human studies.

- **Le Pharmacien Hospitalier et Clinicien** - Virological cure, clinical efficacy and safety of Remdesivir supplementation against SARS-CoV 2 infection; evidence from human studies | Cure virologique, efficacité clinique et sécurité de la supplémentation en Remdesivir contre l'infection par le SRAS-CoV 2 ; preuves issues d'études sur l'homme [103]

- **The Journal of Hospital Infections** - Incidence and outcomes of healthcare-associated COVID-19 infections: significance of delayed diagnosis and correlation with staff absence [105]


- **Disaster Medicine and Public Health Preparedness** - Symptoms associated with personal protective equipment among frontline healthcare professionals during the COVID-19 pandemic [108]

- **The Lancet Respiratory Medicine** - Human recombinant soluble ACE2 in severe COVID-19 [109]

- **Research in Social and Administrative Pharmacy** - The impact of COVID-19 on pharmacy transitions of care services [100]

- **JAMA** - Diagnosis, Management, and Pathophysiology of Arterial and Venous Thrombosis in COVID-19 [110]
of care services with real world examples from Sharp Grossmont Hospital and Hoag Memorial Hospital Presbyterian.

- **European Journal of Hospital Pharmacy - Lopinavir/ritonavir, a new galenic oral formulation from commercial solid form, fine-tuned by nuclear magnetic resonance spectroscopy** [111]
  This article analyses a galenic oral formulation prepared in the hospital pharmacy from lopinavir/ritonavir tablets was fine-tuned, evaluating the content of the active pharmaceutical ingredient (API) and stability of the formulation.

- **European Journal of Hospital Pharmacy - Implementation of a novel home delivery service during pandemic** [112]
  The article analyses the role that hospital pharmacists develop during the COVID-19 pandemic.

- **European Journal of Hospital Pharmacy - Investigating the challenges and opportunities for medicines management in an NHS field hospital during the COVID-19 pandemic** [113]
  The article describes the development of a framework to convert the large non-hospital setting into a functioning NHS field hospital with standardised MM processes adjusted appropriately to cope with operational constraints in the pandemic situation.

- **American Journal of Health-System Pharmacy - Rising to the challenge: Pharmacy residents on the front lines during COVID-19 pandemic** [114]
  The article provides the pharmacy residents' perspective on how the department of pharmacy at a large academic medical center prepared and managed the surge in admissions of patients with coronavirus disease 2019 (COVID-19).

- **Lancet Health Longevity - Metformin and risk of mortality in patients hospitalised with COVID-19: a retrospective cohort analysis** [115]
  The article aims to identify whether metformin reduced COVID-19-related mortality and whether sex-specific interactions exist.

- **European Journal of Pharmacology - Drug designing against NSP15 of SARS-CoV2 via high throughput computational screening and structural dynamics approach** [116]
  The article study integrates the high throughput computational screening and dynamic simulation approach to identify the most promising candidate lead compound against NSP15.

- **Research in Social and Administrative Pharmacy - Provision of clinical pharmacy services during the COVID-19 pandemic: Experiences of pharmacists from 16 European countries** [117]
  This study sought to explore the views and experiences of clinical pharmacists in relation to the provision of clinical pharmacy services during COVID-19.

- **Journal of Pharmaceutical and Biomedical Analysis - Challenges and stepwise fit-for-purpose optimization for bioanalyses of remdesivir metabolites nucleotide monophosphate and triphosphate in mouse tissues using LC?MS/MS** [116]
  The research develops a method suitable to monitor remdesivir nucleotide monophosphate and remdesivir nucleotide triphosphate and provides a useful approach for exploring more detailed effects of remdesivir in treating diseases.

- **JACCP: Journal of the American College of Clinical Pharmacy - Adapting Clinical Pharmacy Staffing Models During the COVID-19 Pandemic: Lessons Learned and Considerations for Future Disaster Planning** [118]
  The article aims to elucidate how pharmacy departments adapted their staffing models and the impact on frontline staff satisfaction.
American Journal of Health-System Pharmacy - COVID-19 preparedness: Clinical pharmacy services remote staffing in a quaternary, level I trauma and comprehensive stroke center [119]
The article identifies strategies to allow clinical pharmacists to continue to participate in daily rounds, provide consultations under collaborative practice agreements, verify medication orders, collect medication histories, provide antimicrobial stewardship, and deliver medication education to patients from off-site locations.

Framacia Hospitalaria - COVID-19 Pandemic. New challenge for hospital pharmacy services [120]
The editorial examines how hospital pharmacy services respond to the emergency of the COVID-19 pandemic in Spain.

Journal of Medical Internet Research - Implementation of A Remote Oncology Pharmacy Service Platform During the COVID-19 Pandemic: The Sun Yat-sen University Cancer Center Experience [121]
The aim of this study is to investigate the characteristics, acceptance, and initial impact of Cloud SYSUCC during the outbreak of COVID-19 in a tertiary cancer hospital in China.

Frontiers in Public Health - Multilevel Engagements of Pharmacists During the COVID-19 Pandemic: The Way Forward [122]
The article analyses the role of pharmacists, including those working in hospitals, during the ongoing COVID-19 crisis.

BMJ - Comparative evaluation of clinical manifestations and risk of death in patients admitted to hospital with covid-19 and seasonal influenza: cohort study [123]
The research comparatively examines differences in risk of clinical manifestations and death among people admitted to hospital with coronavirus disease 2019 (COVID-19) and seasonal influenza.

JAMA network - Assessment of Air Contamination by SARS-CoV-2 in Hospital Settings [124]
The investigation reviews current evidence on air contamination with SARS-CoV-2 in hospital settings and the factors associated with contamination, including viral load and particle size.

The Lancet - The European Medicines Agency's EU conditional marketing authorisations for COVID-19 vaccines [125]
The article describe in detail EMA’s evaluation process that led to the recommendation of the first EU conditional marketing authorisation for a COVID-19 vaccine.

BMC - Treatment of COVID-19 pneumonia with glucocorticoids (CORTIVID): a structured summary of a study protocol for a randomised controlled trial [126]
The aim of this study is to assess the effectiveness and safety of glucocorticoid infusion pulse therapy to improve the clinical outcomes of patients with COVID-19 pneumonia with elevated inflammatory biomarkers.

The Journal of Pediatric Pharmacology and Therapeutics - Drug Shortage and Critical Medication Inventory Management at a Children's Hospital During the COVID-19 Pandemic [127]
The article provides information on a framework for modeling drug inventory management at a freestanding children’s hospital during a global pandemic.

Journal of the American Pharmacists Association - Summary of Adverse Drug Events for Hydroxychloroquine, Azithromycin, and Chloroquine During the COVID-19 Pandemic [128]
The objective of the study was to summarize the adverse drug events (ADEs)
associated with HCQ, CQ, and AZM use during the COVID-19 national emergency declaration and compare the results to known adverse reactions listed in the drugs’ package inserts.

- **NEW!** Journal of Oncology Pharmacy Practice - Global oncology pharmacy response to COVID-19 pandemic: Medication access and safety [85]
  The document aims to provide a global oncology pharmacy perspective (including both developed and developing nations) on how COVID-19 has impacted access to and delivery of cancer therapies.

- **NEW!** Antibiotics - Multidrug-Resistant Bacterial Infections in Geriatric Hospitalized Patients before and after the COVID-19 Outbreak: Results from a Retrospective Observational Study in Two Geriatric Wards [129]
  The observational study aimed to assess if the COVID-19 pandemic led to an increase of the infections sustained by multidrug-resistant in hospitalized older patients.

  Through the metatrial study, the authors aimed to examine the efficacy of inhaled nebulised unfractionated heparin in patients with COVID?19.

- **NEW!** British Journal of Clinical Pharmacology - Using in silico viral kinetic models to guide therapeutic strategies during a pandemic: An example in SARS?CoV?2 [131]
  The article proposes the use of in silico mathematical models to provide insights that optimize therapeutic interventions designed to effectively treat respiratory infection during a pandemic.

- **NEW!** bioRxiv - Hydroxyzine inhibits SARS-CoV-2 Spike protein binding to ACE2 in a qualitative in vitro assay [132]
  The article reports the benefits of hydroxyzine on COVID-19 patients, raising the need for further investigation into its effectiveness in the treatment of COVID-19 given its well-characterized medical properties and affordable cost.

The disclaimer for the EAHP COVID-19 Resource Centre can be found here [133]

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Links
[8] https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30365-2/fulltext
[12] https://jamanetwork.com/journals/jama/fullarticle/2764727
[13] https://www.ahajournals.org/doi/pdf/10.1161/CIRCULATIONAHA.120.047293
[14] https://www.ahajournals.org/doi/10.1161/CIRCULATIONAHA.119.044183
[15] https://www.ahajournals.org/doi/pdf/10.1161/CIRCULATIONAHA.120.046988