

COVID-19 Evidence Bulletin 8th December 2021

Details of new guidance and evidence relating to the response to COVID-19. Please check SaTH, NHS and Government guidance in conjunction with these resources where necessary.

General

COVID-19 rapid guideline: managing COVID-19 [NICE]

[This guideline covers the management of COVID-19 for children, young people and adults in all care settings. In November, NICE added a new recommendation on ivermectin. In December, NICE updated existing recommendations on colchicine.]

Available [here](#)

COVID-19: Outpatient evaluation and management of acute illness in adults [evidence summary from UpToDate]

Available [here](#). Last updated 29th November

Asthma

Risk of COVID-19 hospital admission among children aged 5–17 years with asthma in Scotland: a national incident cohort study [Shi T. *The Lancet Respiratory Medicine*]

[School-aged children with asthma with previous recent hospital admission or two or more courses of oral corticosteroids are at markedly increased risk of COVID-19 hospital admission and should be considered a priority for vaccinations. This would translate into 9124 children across Scotland and an estimated 109 448 children across the UK.]

Available [here](#)

Cancer

Resilience of elective cancer surgery systems during COVID-19 lockdowns: an international, multicentre, prospective cohort study [COVIDSurg Collaborative, *The Lancet*]

[Surgery is the main modality of cure for solid cancers and was prioritised to continue during SARS-CoV-2 outbreaks. This study aimed to identify areas for health system strengthening by comparing the delivery of elective cancer surgery during COVID-19 in periods of lockdown versus light restriction.]

Available [here](#)

Cardiovascular Care

COVID-19: Myocardial infarction and other coronary artery disease issues [evidence summary from UpToDate]

Available [here](#). Last updated 24th November

European Society of Cardiology guidance for the diagnosis and management of cardiovascular disease during the COVID-19 pandemic: part 1- epidemiology, pathophysiology, and diagnosis [*European Heart Journal*]

[This document is not a formal guideline but rather a summary of current knowledge and guidance to practicing clinicians managing patients with CVD and COVID-19. A narrative literature review of the available evidence has been performed, and the resulting information has been organized into two parts. The first, reported here, focuses on the epidemiology, pathophysiology, and diagnosis of cardiovascular (CV) conditions that may be manifest in patients with COVID-19.]

Available [here](#)

ESC guidance for the diagnosis and management of cardiovascular disease during the COVID-19 pandemic: part 2 - care pathways, treatment, and follow-up [*European Heart Journal*]

[This document is not a formal guideline but rather a summary of current knowledge and guidance to practicing clinicians managing patients with CVD and COVID-19. A narrative literature review of the available evidence has been performed, and the resulting information has been organized into two parts. This second part addresses the topics of care pathways, treatment, and follow-up of CV conditions in patients with COVID-19.]

Available [here](#)

Convalescent Plasma

Effect of Convalescent Plasma on Organ Support-Free Days in Critically Ill Patients With COVID-19: A Randomized Clinical Trial [Writing Committee for the REMAP-CAP Investigators. *JAMA*]

[Among critically ill adults with confirmed COVID-19, treatment with 2 units of high-titer, ABO-compatible convalescent plasma had a low likelihood of providing improvement in the number of organ support-free days.]

Available [here](#)

Convalescent plasma for COVID-19: a meta-analysis, trial sequential analysis, and meta-regression.

[Snow TAC. *British Journal of Anaesthesia*]

[In patients with COVID-19, there was no clear mortality benefit associated with convalescent plasma treatment. In patients with mild disease, convalescent plasma did not prevent either the need for mechanical ventilation or ICU admission.]

Available [here](#)

Critical and Intensive Care

Fungal infections in mechanically ventilated patients with COVID-19 during the first wave: the French multicentre MYCOVID study [Gangneux JP. *The Lancet Respiratory Medicine*]

[Patients with severe COVID-19 have emerged as a population at high risk of invasive fungal infections (IFIs). This study shows the high prevalence of invasive pulmonary aspergillosis and candidaemia and high mortality associated with pr/pb CAPA in mechanically ventilated patients with COVID-19. These findings highlight the need for active surveillance of fungal pathogens in patients with severe COVID-19.]

Available [here](#)

Early warning scores to assess the probability of critical illness in patients with COVID-19 [Veldhuis L. *Emergency Medicine Journal*]

[In this multicentre study, the best performing models to predict ICU admittance were the NEWS2 and the Quick COVID-19 Severity Index Score, with fair diagnostic performance. However, due to the moderate performance, these models cannot be clinically used to adequately predict the need for ICU admission within 24 hours in patients with SARS-CoV-2 infection presenting at the ED.]

Available [here](#)

Treating COVID-19 patients using continuous positive airway pressure (CPAP) outside of a critical care unit [Healthcare Safety Investigation Branch]

[Investigation, launched after a fatality, specifically explores risks of caring for patients in the side rooms of general wards, as staff cannot easily see the patient, highlighting that patients with COVID-19 who require CPAP need a close level of supervision.]

Available [here](#)

Drug Therapy

Efficacy and Safety of Immunomodulators in Patients with COVID-19: A Systematic Review and Network Meta-Analysis of Randomized Controlled Trials [Ngamprasertchai T. *Infectious Diseases and Therapy*]

[Overall, immunomodulators were more effective than standard of care. Important differences exist among immunomodulators regarding both efficacy and safety in favor of ruxolitinib and baricitinib. Further well-conducted randomized controlled trials should focus on JAK inhibitors. Methylprednisolone use should be discouraged because of its poor efficacy and high risk of superimposed infection.]

Available [here](#)

Aspirin in patients admitted to hospital with COVID-19 (RECOVERY): a randomised, controlled, open-label, platform trial [RECOVERY Collaborative Group. *The Lancet*]

[Aspirin has been proposed as a treatment for COVID-19 on the basis of its anti-thrombotic properties. In patients hospitalised with COVID-19, aspirin was not associated with reductions in 28 day mortality or in the risk of progressing to invasive mechanical ventilation or death, but was associated with a small increase in the rate of being discharged alive within 28 days.]

Available [here](#)

Sarilumab in adults hospitalised with moderate-to-severe COVID-19 pneumonia (CORIMUNO-SARI-1): An open-label randomised controlled trial [The CORIMUNO-19 Collaborative group. *The Lancet Rheumatology*]

[Patients with COVID-19 pneumonia can have increased inflammation and elevated cytokines, including interleukin (IL)-6, which might be deleterious. Thus, sarilumab, a high-affinity anti-IL-6 receptor antibody, might improve the outcome of patients with moderate-to-severe COVID-19 pneumonia. Sarilumab treatment did not improve early outcomes in patients with moderate-to-severe COVID-19 pneumonia. Further studies are warranted to evaluate the effect of sarilumab on long-term survival.]

Available [here](#)

Effect of famotidine on hospitalized patients with COVID-19: A systematic review and meta-analysis [Chiu L. *PLoS ONE*]

[Based on the existing observational studies, famotidine use is not associated with a reduced risk of mortality or combined outcome of mortality, intubation, and/or intensive care services in hospitalized individuals with COVID-19, though heterogeneity was high, and point estimates suggested a possible protective effect for the composite outcome that may not have been observed due to lack of power.]

Available [here](#)

Intravenous immunoglobulins in patients with COVID-19-associated moderate-to-severe acute respiratory distress syndrome (ICAR): multicentre, double-blind, placebo-controlled, phase 3 trial [Mazeraud A. *The Lancet Respiratory Medicine*]

[In patients with COVID-19 who received invasive mechanical ventilation for moderate-to-severe ARDS, IVIG did not improve clinical outcomes at day 28 and tended to be associated with an increased frequency of serious adverse events, although not significant. The effect of IVIGs on earlier disease stages of COVID-19 should be assessed in future trials.]

Available [here](#) [NHS OpenAthens account required]

Health Services

Health systems resilience during Covid-19: lessons for building back better [European Observatory on Health Systems and Policies]

[This study, developed together with the WHO Regional Office for Europe and the European Commission, draws out lessons for strengthening resilience to future health threats. It gathers the evidence on how countries have managed (or not managed) to re-engineer how they work, the ways in which they utilise their resources, and the methods they use to face and counter the pressures exerted by both Covid and non-Covid challenges.]

Available [here](#)

Fit for the future: International learning on digital health care [Nuffield Trust]

[The Covid-19 pandemic has had a significant impact on the use of digital technology in multiple countries. Respondents reported that the pandemic had helped to highlight the benefits to patients and health care professionals. Helping to maintain this shift into the long term is a significant goal to aim for.]

Available [here](#)

Prehabilitation and preparation for surgery: has the digital revolution arrived? [Durrand J. W. *Anaesthesia*]

[The marked shift to digital prehabilitation delivery holds enormous potential to produce rapidly scalable solutions that can support patients facing extended waits for surgery. Realising this potential will require thoughtful intervention development that places patients at the centre, minimises the risk of increasing inequalities and supports creation of an evidence base.]

Available [here](#)

Immunosuppressive Medication

Long-term use of immunosuppressive medicines and in-hospital COVID-19 outcomes: a retrospective cohort study using data from the National COVID Cohort Collaborative [Andersen KM. *The Lancet Rheumatology*]

[Many individuals take long-term immunosuppressive medications. We evaluated whether these individuals have worse outcomes when hospitalised with COVID-19 compared with non-immunosuppressed individuals. Among this cohort, with the exception of rituximab, there was no increased risk of mechanical ventilation or in-hospital death for the rheumatological, antineoplastic, or antimetabolite therapies examined.]

Available [here](#) [NHS OpenAthens account required]

Infection Control

COVID-19: stepdown of infection control precautions and discharging patients to home settings [UK Health Security Agency]

[Advice on appropriate infection prevention and control precautions for stepdown in hospital or discharge to home or residential settings for COVID-19 patients.]

Available [here](#)

Long COVID

Long COVID care pathways: a systematic review [Wolf, S. Austrian Institute for Health Technology Assessment]

[The present systematic review aimed to support preparations and adjustments in the long COVID care planning in Austria by giving (1) an overview of recommendations about long COVID care pathways as well as (2) examples of already existing care structures in selected European countries]

Available [here](#)

Nutrition

Nutrition therapy for long COVID [Nguyen-Hoang A. *British Journal of Nursing*]

[A clinical definition of long COVID has been released by the World Health Organization (WHO) (2021) in response to a global surge in patients suffering with long COVID, where symptoms are continuing 3 months and beyond. Up to 3 in 10 post-COVID-19 patients are suffering with long COVID symptoms, which are reported to include fatigue, poor memory and concentration, smell and taste impairment, and lack of appetite.]

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Smoking

Is there a smoker's paradox in COVID-19? [Usman MS. *BMJ Evidence-Based Medicine*]

[Hypotheses for both protective and detrimental effects of smoking on COVID-19 have been proposed in the literature. Further investigation into the interaction between smoking and COVID-19 is warranted for two main reasons: to assess the possibility of nicotine as a therapeutic option; to allow accurate assessment of risk of contracting COVID-19 among smokers, and progression to mechanical ventilation or death in patients suffering from it.]

Available [here](#)

Thrombosis

Prevention and management of thrombosis in hospitalised patients with COVID-19 pneumonia

[Vincent J-L. *The Lancet Respiratory Medicine*]

[This Viewpoint provides a summary of the pathophysiology of thrombosis and associated laboratory and clinical findings, and highlights key considerations in the management of coagulopathy in hospitalised patients with severe COVID-19.]

Available [here](#)

Vaccination

Vaccine Effectiveness Over Time in Vaccinated Individuals [SPOR Evidence Alliance]

[This rapid review sought to appraise, and summarise emerging research evidence (covering 1st January to 19th November 2021) to support evidence-informed decision making and answer the question: How does the level of vaccine protection, including effectiveness against asymptomatic and symptomatic infection, and severe outcomes change over time in individuals who have received a complete primary COVID-19 vaccine series? This report is an update to the previous version submitted in October 2021.]

Available [here](#)

mRNA-1273 COVID-19 vaccination in patients receiving chemotherapy, immunotherapy, or chemoimmunotherapy for solid tumours: a prospective, multicentre, non-inferiority trial.

[Oosting SF. The Lancet Oncology]

[Most patients with cancer develop, while receiving chemotherapy, immunotherapy, or both for a solid tumour, an adequate antibody response to vaccination with the mRNA-1273 COVID-19 vaccine. The vaccine is also safe in these patients. The minority of patients with an inadequate response after two vaccinations might benefit from a third vaccination.]

Available [here](#) [NHS OpenAthens account required]

Vaccination Adverse Effects

Myocarditis and Pericarditis Following COVID-19 Vaccination: A Rapid Review [SPOR Evidence Alliance]

[This rapid review includes evidence available from a search conducted on Oct 6 but with grey literature as late as Oct 21, 2021. The research questions were as follows: 1. What is the incidence of myocarditis and pericarditis following COVID-19 vaccination, and does the incidence vary by patient and vaccine factors. 2. What are the characteristics and short-term clinical course in patients with myocarditis and pericarditis after COVID-19 vaccination?]

Available [here](#)

COVID-19 vaccination and rare side effects including blood clotting [Specialist Pharmacy Service]

[Information about rare side effects associated with COVID-19 vaccination focussing on blood clotting, myocarditis and Guillain-Barre syndrome.]

Available [here](#)

KnowledgeShare Evidence Alerts

KnowledgeShare contains many updates on COVID-19 that can be accessed from the KnowledgeShare website without a password. If you'd like to receive these by email (along with updates on any other topics of interest) please complete the [form](#).

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