

COVID-19 Evidence Bulletin

19th April 2022

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

Available [here](#). Last updated 4th April

Cardiovascular Care

Cardiovascular drugs and COVID-19 clinical outcomes: a systematic review and meta-analysis of randomized controlled trials [Asiimwe IG. *British Journal of Clinical Pharmacology*]

[Moderate- to high-certainty RCT evidence suggests that cardiovascular drugs such as ACEIs/ARBs are not associated with poor COVID-19 outcomes, and should therefore not be discontinued. These cardiovascular drugs should also not be initiated to treat or prevent COVID-19 unless they are needed for an underlying currently approved therapeutic indication.]

Available [here](#)

Drug Therapy

Tocilizumab plus dexamethasone versus dexamethasone in patients with moderate-to-severe COVID-19 pneumonia: A randomised clinical trial from the CORIMUNO-19 study group [Hermine O. *eClinicalMedicine*]

[In moderate-to-severe COVID-19 pneumonia, dexamethasone (DEX) and tocilizumab (TCZ) reduce the occurrence of death and ventilatory support. Mechanical ventilation need and mortality were not improved with TCZ+DEX compared with DEX alone. The safety of both treatments was similar. However, given the wide confidence intervals for the estimate of effect, definitive interpretation cannot be drawn.]

Available [here](#)

Ruxolitinib in addition to standard of care for the treatment of patients admitted to hospital with COVID-19 (RUXCOVID): a randomised, double-blind, placebo-controlled, phase 3 trial [Han MK. *The Lancet Rheumatology*]

[COVID-19 is associated with acute respiratory distress and cytokine release syndrome. Ruxolitinib 5 mg twice per day showed no benefit in the overall study population. A larger sample is required to determine the clinical importance of trends for increased efficacy in patient subgroups.]

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

Early Th2 inflammation in the upper respiratory mucosa as a predictor of severe COVID-19 and modulation by early treatment with inhaled corticosteroids: a mechanistic analysis [Baker JR. *The Lancet Respiratory Medicine*]

[An initial blunted interferon response and heightened T-helper 2 inflammatory response in the respiratory tract following SARS-CoV-2 infection could be a biomarker for predicting the development of severe COVID-19 disease. The clinical benefit of inhaled budesonide in early COVID-19 is likely to be as a consequence of its inflammatory modulatory effect, suggesting efficacy by reducing epithelial damage and an improved T-cell response.]

Available [here](#)

Health Services

Virtual wards and Covid-19: An explainer [Nuffield Trust]

['Virtual wards' have existed for a number of years, but Covid-19 has led to further research and pilot schemes exploring their use. How have they been used during the pandemic and what does the future hold? This explainer by Holly Walton and Naomi Fulop provides some answers.]

Available [here](#)

Immunity

SARS-CoV-2-specific antibody and T-cell responses 1 year after infection in people recovered from COVID-19: a longitudinal cohort study [Guo L. *The Lancet Microbe*]

[SARS-CoV-2-specific neutralising antibody and T-cell responses were retained 12 months after initial infection. Neutralising antibodies to the D614G, beta, and delta viral strains were reduced compared with those for the original strain, and were diminished in general. This study suggests that cross-reactive SARS-CoV-2-specific T-cell responses could be particularly important in the protection against severe disease caused by variants of concern.]

Available [here](#)

Long COVID

COVID-19: Evaluation and management of adults following acute viral illness [evidence summary from UpToDate]

Available [here](#). Last updated 7th April

Risks and burdens of incident diabetes in long COVID: a cohort study [Xie Y. *The Lancet Diabetes & Endocrinology*]

[In the post-acute phase, we report increased risks and 12-month burdens of incident diabetes and antihyperglycaemic use in people with COVID-19 compared with a contemporary control group of people who were enrolled during the same period and had not contracted SARS-CoV-2, and a historical control group from a pre-pandemic era. Post-acute COVID-19 care should involve identification and management of diabetes.]

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

Post-acute and long-COVID-19 symptoms in patients with mild diseases: a systematic review [van Kessel S A M et al. *Family Practice*]

[The frequency of persistent symptoms in patients after mild COVID-19 infection ranged between 10% and 35%. Fatigue was the most frequently described persistent symptom. Other frequently occurring persistent symptoms were dyspnoea, cough, chest pain, headache, decreased mental and cognitive

status and olfactory dysfunction. In addition, it was found that persisting symptoms after a mild COVID-19 infection can have major consequences for work and daily functioning.]

Available [here](#)

Multisystem Inflammatory Syndrome in Children

Autoantibodies against interleukin-1 receptor antagonist in multisystem inflammatory syndrome in children: a multicentre, retrospective, cohort study [Pfeifer J. *The Lancet Rheumatology*]

[Anti-IL-1Ra autoantibodies were observed in a high proportion of patients with MIS-C and were specific to these patients. Generation of these autoantibodies might be triggered by an atypical, hyperphosphorylated isoform of IL-1Ra. These autoantibodies impair IL-1Ra bioactivity and might thus contribute to increased IL-1 β -signalling in MIS-C.]

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

Paediatrics

COVID-19: Management in children [evidence summary from UpToDate]

Available [here](#). Last updated 8th April

Prognosis

Immunoglobulin G1 Fc glycosylation as an early hallmark of severe COVID-19 [Pongracz T. *eBioMedicine*]

[Association of low galactosylation, sialylation as well as high bisection with disease severity and inflammatory markers suggests that further studies are needed to understand how anti-S IgG1 glycosylation may contribute to disease mechanism and to evaluate its biomarker potential.]

Available [here](#)

Pulse Oximetry

COVID-19 Oximetry @home: evaluation of patient outcomes [Boniface M. *BMJ Open Quality*]

[Conclusions: We have demonstrated a significant association between CO@h and better patient outcomes; most notably a reduction in the odds of hospital lengths of stays longer than 7, 14 and 28 days and 30-day hospital mortality.]

Available [here](#)

Reinfection

Risk of SARS-CoV-2 reinfection and COVID-19 hospitalisation in individuals with natural and hybrid immunity: a retrospective, total population cohort study in Sweden [Nordström P. *The Lancet Infectious Diseases*]

[The risk of SARS-CoV-2 reinfection and COVID-19 hospitalisation in individuals who have survived and recovered from a previous infection remained low for up to 20 months. Vaccination seemed to further decrease the risk of both outcomes for up to 9 months, although the differences in absolute numbers, especially in hospitalisations, were small.]

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

Risk of SARS-CoV-2 reinfections in children: a prospective national surveillance study between January, 2020, and July, 2021, in England [Mensah AA. *The Lancet Child & Adolescent Health*]

[Reinfection after primary SARS-CoV-2 infection is uncommon in adults, but little is known about the risks, characteristics, severity, or outcomes of reinfection in children. Reinfection after primary SARS-CoV-2 infection is uncommon in adults, but little is known about the risks, characteristics, severity, or outcomes of reinfection in children.]

Available [here](#)

Rheumatic Diseases

SARS-CoV-2 Infection and COVID-19 Outcomes in Rheumatic Diseases: A Systematic Literature Review and Meta-analysis [Conway R. *Arthritis & Rheumatology*]

[Patients with RMDs have higher rates of SARS-CoV-2 infection and an increased mortality rate.]

Available [here](#)

Symptoms

Symptom prevalence, duration, and risk of hospital admission in individuals infected with SARS-CoV-2 during periods of omicron and delta variant dominance: a prospective observational study from the ZOE COVID Study [Menni C. *The Lancet*]

[The prevalence of symptoms that characterise an omicron infection differs from those of the delta SARS-CoV-2 variant, apparently with less involvement of the lower respiratory tract and reduced probability of hospital admission. Our data indicate a shorter period of illness and potentially of infectiousness which should impact work–health policies and public health advice.]

Available [here](#)

Vaccination

COVID-19 vaccine waning and effectiveness and side-effects of boosters: a prospective community study from the ZOE COVID Study [Menni C. *The Lancet Infectious Diseases*]

[After 5 months, vaccine effectiveness remained high among individuals younger than 55 years. Booster doses restore vaccine effectiveness. Adverse reactions after booster doses were similar to those after the second dose. Homologous booster schedules had fewer reported systemic side-effects than heterologous boosters.]

Available [here](#)

Workforce

COVID-19: managing healthcare staff with symptoms of a respiratory infection [UK Health Security Agency]

[Guidance for managing healthcare staff with symptoms of a respiratory infection including coronavirus (COVID-19), or a positive test result for COVID-19.]

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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For more information, please contact

Jason Curtis
Site Librarian
Shrewsbury Health Library
Learning Centre
Royal Shrewsbury Hospital
jason.curtis1@nhs.net
01743 492511

Louise Stevens
Site Librarian
Telford Health Library
Education Centre
Princess Royal Hospital
l.stevens@nhs.net
01952 641222 Ext. 4694