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European guideline on managing adults in hospital with COVID-19



The widespread rollout of COVID-19 vaccines plus national lockdowns seem to have been playing their part in slowing down the pandemic in 2021, particularly for older age groups; in England for example, deaths have decreased in people older than 65 years, and hospital admission rates fell from 6.12 per 100 000 in the week of March 1–7 to 4.63 per 100 000 in the following week. However, there is no room for complacency, as SARS-CoV-2 is still very much in circulation with accompanying risks of serious illness, hospital admissions, and death. Delays and hesitancy might cause difficulties with vaccinations; in addition, SARS-CoV-2 strain variations are of concern. One study has estimated the mortality hazard ratio of the new B.1.1.7 variant as 1.64 (95% CI 1.32–2.04) in UK community patients, representing an increase in deaths from 2.5 to 4.1 per 1000 detected cases. Equally concerning are reports as of March 18, 2021, that the number of cases of this variant and admissions to hospital or intensive care units (ICU) have increased in Europe for the third consecutive week; more than 1.2 million new cases were reported in the previous week, 15 European countries reported increasing hospital or ICU admissions due to COVID-19, and the number of people dying in Europe at this time was apparently higher than the same time last year. With one systematic review and meta-analysis estimating the COVID-19 in-hospital mortality rate as 28.1% (95% CI 23.4–33.0; $I^2=96\%$), it is clear that effective treatments and optimal management of patients admitted to hospital with COVID-19 are still crucial.

To this end, the European Respiratory Society (ERS) have published their first guideline on the management of hospitalised adults with COVID-19; slides in an accompanying webinar summarised the main points. For the guideline, a panel of experts used

evidence obtained from systematic reviews and pooled-data meta-analyses of studies published between June 26, 2020, and Feb 20, 2021, to provide recommendations for and against specific pharmacological interventions and ventilatory support, based on their balance of risks and benefits.

The guideline is described as “living”, with the intention of being continuously updated with new evidence as it emerges in this rapidly shifting disease area. Currently, the guideline strongly recommends the use of anticoagulation in all patients admitted to hospital with COVID-19, and strongly recommends the use of systemic corticosteroids in all patients admitted to hospital who require supplementary oxygen or ventilatory support. Conditional recommendations were made for IL-6 receptor antagonist monoclonal antibody therapies only for patients in hospital with COVID-19 requiring oxygen or ventilatory support who have received corticosteroids, and for use of high flow nasal oxygen or continuous positive airway pressure in patients with hypoxaemic respiratory failure. Currently the guidelines strongly recommend against the use of hydroxychloroquine and lopinavir-ritonavir, and makes conditional recommendations against the use of azithromycin, colchicine, interferon beta, and remdesivir (eg, the guideline recommends not to offer remdesivir to patients in hospital with COVID-19 who require invasive mechanical ventilation, but make no recommendations regarding when remdesivir could be used).

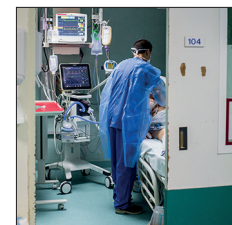
The guideline, and the opportunity to update it as a living document, have been welcomed by clinicians in the field. Martin Allen (Respiratory Clinical Lead, Getting it Right First Time program, NHS England and NHS Improvement, London, UK)

commented “The therapeutic interventions are well documented and their potential benefit reviewed with clear recommendations. This information may be useful for some centres who are uncertain which of the several treatments are proven and cost effective.” However, he continued “it is disappointing that the utility of vaccination was not addressed given the emerging evidence base, and this may be worthy of a similar future publication.”

The guideline is a good starting point for unravelling the huge amount of data on the hospital management of COVID-19 produced just in the past year. But as Tim Briggs (GIRFT Chair, NHS England & NHS Improvement, London, UK) and Annakan Navaratnam (GIRFT, NHS England & NHS Improvement, London, UK) note, integrated, joined-up management between clinical specialties linking with community care will be needed. They commented “clinical practice should evolve and adapt to changing patterns of infection, presentation, and response to treatment as new information becomes available. [Additionally], COVID-19 management needs to be incorporated into business as usual so that emergency and elective services can be maintained whilst dealing with future potential case surges”.

It will be important that the guidelines are updated rapidly with new information, particularly with regards to treatment effectiveness for COVID-19 from new and emerging variants (especially as vaccine efficacy against these variants is still uncertain). Additionally, as Briggs emphasised, “we need to look after our health-care workforce to whom so much is already owed; this must not be overlooked”.

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This online publication has been corrected. The corrected version first appeared at [thelancet.com](https://www.thelancet.com) on April 14, 2021

For more on **COVID-19 deaths and hospital admission rates in England** see <https://www.gov.uk/government/news/weekly-national-flu-and-covid-19-surveillance-reports-published#history>

For the **study of mortality risk with the B.1.1.7 SARS-CoV-2 variant** see *BMJ* 2021; 372: n579

For the **number of cases in Europe as of March 18, 2021** see <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/statements/statement-who-european-region-covid-19-case-incidence-on-the-rise-as-deaths-edge-towards-1-million>

For current **European data on hospital admissions and mortality from COVID-19** see <https://covid19-country-overviews.ecdc.europa.eu/>

For the **systematic review and meta-analysis of mortality in patients in ICUs** see *Chest* 2021; 159: 524–36

For the **ERS guideline on management of adults in hospital with COVID-19** see *Eur Respir J* 2021; published March 10. DOI:10.1183/13993003.00048-2021

For the **webinar slide presentation on the ERS guideline on COVID-19 management** see <https://www.ers-education.org/sdi/media/showMedia.aspx>