NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Sipavibart for preventing COVID-19

Final scope

Remit/evaluation objective

To appraise the clinical and cost effectiveness of sipavibart within its marketing authorisation for the pre-exposure prophylaxis of COVID-19.

Background

COVID-19 is predominantly an acute respiratory illness caused by infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

In the UK, as of 17 November 2023, there have been 233,791 deaths with COVID-19 on the death certificate.[1] The gradual mutation of SARS-CoV-2 has led to multiple circulating lineages of the virus, each with different transmissibility, morbidity, and mortality effects. In the UK, the lineages with the highest growth rates as of 7 September 2023, were EG.5.1.6, EG.5.1.3 and XBB.1.16.15.[2]

COVID-19 has a diverse range of clinical manifestations, ranging from mild infection to severe disease accompanied by high mortality. It begins with symptoms such as cough, fever and breathlessness. People who become critically ill may develop acute respiratory distress syndrome (ARDS), the leading cause of mortality among people with COVID-19. Some people may also develop post-COVID syndrome (long COVID), defined by the NICE's rapid guideline on managing the long-term effects of COVID-19 as symptoms continuing for more than 12 weeks after the initial COVID-19 infection.

Vaccination is the primary approach to preventing COVID-19. However, vaccination may be unsuitable for people with a history of severe allergic reactions to any of the ingredients in the vaccine. Some people may also have an inadequate response to vaccination. An independent UK government advisory group has identified specific groups of people at the highest risk of hospitalisation and death despite receiving COVID-19 vaccination.[3] The advisory group has also identified groups of people who are most suitable to receive pre-exposure prophylaxis for COVID-19.[4]

As options for treating COVID-19, NICE recommends the use of nirmatrelvir plus ritonavir, sotrovimab and tocilizumab (TA878):

- Nirmatrelvir plus ritonavir is recommended in adults, only if they:
  - do not need supplemental oxygen for COVID 19 and
  - have an increased risk for progression to severe COVID 19 (see section 5 of TA878)

- Sotrovimab is recommended in adults and young people aged 12 years and over and weighing at least 40 kg, only if:
  - they do not need supplemental oxygen for COVID-19 and
  - they have an increased risk for progression to severe COVID-19 (see section 5 of TA878) and

  - nirmatrelvir plus ritonavir is contraindicated or unsuitable.

- Tocilizumab is recommended, within its marketing authorisation, in adults who:
  - are having systemic corticosteroids and
  - need supplemental oxygen or mechanical ventilation.

The technology

Sipavibart (brand name unknown, AstraZeneca) is administered as an intramuscular injection. Sipavibart does not currently have a marketing authorisation in the UK for the pre-exposure prophylaxis of COVID-19. It has been studied in clinical trials in people with conditions causing immune impairment compared with AZD 7442 (Evusheld, AstraZeneca).

Intervention(s)	Sipavibart
Population(s)	People with conditions or treatments causing immune impairment who are not currently infected with SARS-CoV-2
Subgroups	If the evidence allows the following subgroups will be considered: • people with known failure of vaccination • people with anticipated failure of vaccination • people with anticipated sub-optimal vaccination response These subgroups align with those identified in the pre-exposure prophylaxis report
Comparators	• no prophylaxis
Outcomes	The outcome measures to be considered include: • incidence of symptomatic COVID-19 • mortality • requirement for respiratory support • hospitalisation (requirement and duration) • symptoms of post-COVID-19 syndrome • anxiety and depression • time to return to normal activities post COVID-19 • adverse effects of treatment • health-related quality of life.
Economic analysis	The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year.

	The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared. Costs will be considered from an NHS and Personal Social Services perspective. The availability of any commercial arrangements for the intervention, comparator and subsequent treatment technologies will be taken into account.
Other considerations	Guidance will only be issued in accordance with the marketing authorisation. Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.
Related NICE recommendations	**Related technology appraisals:** Tixagevimab plus cilgavimab for preventing COVID-19 (2023), NICE technology appraisal guidance 900. Casirivimab plus imdevimab, nirmatrelvir plus ritonavir, sotrovimab and tocilizumab for treating COVID-19 (2023) NICE technology appraisal guidance 878. **Related technology appraisals in development:** Remdesivir and tixagevimab plus cilgavimab for treating COVID-19. NICE technology appraisal guidance [ID6261] Publication date to be confirmed Nirmatrelvir plus ritonavir for treating COVID-19 (partial rapid review of TA878). NICE technology appraisal guidance [ID6262] Publication date to be confirmed Molnupiravir for treating COVID-19. NICE technology appraisal guidance [ID6340] Publication date to be confirmed **Related NICE guidelines:** COVID-19 rapid guideline: managing COVID-19 (2021, updated 2023) NICE guideline NG191. Review date not stated COVID-19 rapid guideline: vaccine-induced immune thrombocytopenia and thrombosis (VITT) (2021, updated 2022) NICE guideline NG200. Review date not stated COVID-19 rapid guideline: managing the long-term effects of COVID-19 (2020, updated 2021) NICE guideline NG188. Review date not stated COVID-19 rapid guideline: vitamin D (2020, updated 2022) NICE guideline NG187. Review date not stated COVID-19 rapid guideline: haematopoietic stem cell transplantation (2020, updated 2022) NICE guideline NG164. Review date not stated

	COVID-19 rapid guideline: delivery of systemic anticancer treatments (2020, updated 2022) NICE guideline NG161. Review date not stated COVID 19 rapid evidence summary: anakinra for COVID-19 associated secondary haemophagocytic lymphohistiocytosis (2020) NICE evidence summary 26 COVID-19 rapid evidence summary: Long-term use of non-steroidal anti-inflammatory drugs (NSAIDs) for people with or at risk of COVID-19 (2020) NICE evidence summary 25 COVID-19 rapid evidence summary: angiotensin-converting enzyme inhibitors (ACEIs) or angiotensin receptor blockers (ARBs) in people with or at risk of COVID-19 (2020) NICE evidence summary 24 COVID-19 rapid evidence summary: acute use of non-steroidal anti-inflammatory drugs (NSAIDs) for people with or at risk of COVID-19 (2020) NICE evidence summary 23 **Related NICE diagnostics guidance in development:** Exploratory economic modelling of SARS-CoV-2 viral detection point of care tests and serology tests. NICE diagnostics guidance. Publication date to be confirmed **Other:** COVID-19 technology appraisal recommendations: surveillance and rapid update process statement consultation. Publication date to be confirmed.
Related National Policy	Department of Health and Social Care (Nov 2022) Interim Clinical Commissioning Policy: Baricitinib for patients hospitalised due to COVID-19 (adults and children aged 2 years and over) Department of Health and Social Care (Nov 2022) Interim Clinical Commissioning Policy: IL-6 inhibitors (tocilizumab or sarilumab) for hospitalised patients with COVID-19 (adults) Department of Health and Social Care (Nov 2022) Interim Clinical Commissioning Policy: Remdesivir for patients hospitalised due to COVID-19 Department of Health and Social Care (Nov 2022) Interim Clinical Commissioning Policy: Treatments for hospital-onset COVID-19 Department of Health and Social Care (Nov 2022) Interim Clinical Commissioning Policy: Treatments for non-hospitalised patients with COVID-19 Department of Health and Social Care (Dec 2021) Withdrawal of the Recommendation for Consideration of Inhaled Budesonide as a Treatment Option for COVID-19 Department of Health and Social Care (Mar 2021) Convalescent Plasma in the Management of Hospitalised Patients with COVID-19

	Department of Health and Social Care (Jan 2021) Antimicrobials (azithromycin and doxycycline) Not Beneficial in the Management of COVID-19 (SARS-CoV-2) Positive Patients Department of Health and Social Care (Sept 2020) Corticosteroids in the treatment of suspected or confirmed COVID-19 The NHS Long Term Plan (2019) NHS Long Term Plan NHS England (2018) NHS manual for prescribed specialist services (2018/2019)

References

1. UK Government (2024). Deaths in the UK with COVID-19 on the death certificate. Accessed January 2024.

2. UK Health Security Agency (2024). SARS-CoV-2 variant surveillance and assessment: technical briefing 55. Accessed January 2024.

3. Department of Health and Social Care (2022) Defining the highest-risk clinical subgroups upon community infection with SARS-CoV2 when considering the use of neutralising monoclonal antibodies (nMABs) and antiviral drugs: independent advisory group report. Accessed May 2023.

4. Department of Health and Social Care (2022) Pre-exposure prophylaxis (PrEP) report. Accessed May 2023.

NICE and SMC/HIS collaboration on the health technology appraisal of AZD 3152 for preventing COVID-19

Throughout the COVID-19 pandemic NICE and Healthcare Improvement Scotland (HIS) have collaborated with other partners to ensure rapid access to medicines for COVID-19. As part of this, NICE and the Scottish Medicines Consortium (SMC, as part of HIS) worked together on a Multiple Technology Appraisal (MTA) of treatments for COVID-19 and the Single Technology Appraisal of tixagevimab plus cilgavimab for preventing COVID-19. This was to ensure continued alignment of guidance on therapies for COVID-19 in all parts of the UK.

NICE and the SMC have agreed to maintain this collaboration for the health technology appraisal of AZD 3152 for preventing COVID-19. NICE Technology Appraisal guidance is implemented in Wales and there is an established processes for endorsing NICE Technology Appraisal guidance for implementation in Northern Ireland.

As in the collaboration on the other pieces of Technology Appraisal guidance, for medicines for COVID-19, the SMC will input directly into evaluation so that the conclusions will also be relevant to the NHS in Scotland. NICE and the SMC will produce separate guidance and advice documents, but the recommendations will be aligned. The usual obligations for complying with Technology Appraisal recommendations will apply to healthcare commissioners in England. In Scotland, the advice will have the same status for health board consideration as other SMC advice on new medicines.

NICE and the SMC will continue to work together on any updates to the guidance after publication.