6225NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Cabotegravir injections for preventing HIV-1 in adults and young people

Draft scope

Draft remit/evaluation objective

To appraise the clinical and cost effectiveness of cabotegravir within its marketing authorisation as pre-exposure prophylaxis of HIV-1 infection in adults and young people.

Background

Human Immunodeficiency Virus (HIV) is a virus that attacks the immune system by destroying CD4 positive T cells, a type of white blood cell that is vital for fighting infections. The destruction of these cells leaves people living with HIV unable to fight off infections and some other diseases and can result in acquired immune deficiency syndrome (AIDS).

HIV is transmitted through the body fluids of a person with a detectable level of the virus (including semen, vaginal and anal fluids, blood and breast milk). The most common way of getting HIV for people treated in the NHS is sexual intercourse without a condom. The risk of transmission per exposure is low; estimates are on the order of 0.1% per contact for heterosexual transmission, but this varies considerably and increases with concurrent ulcerative sexually transmitted diseases, high HIV viral load in the host, and lack of antiretroviral therapy.[1]

There are two main types of HIV. Most cases within the UK are from the HIV-1 type and it is considered more transmissible than HIV-2. An estimated 103,800 people were living with HIV in the UK in 2018, of which 93% were diagnosed (95,500 diagnosed cases). Of these patients, 97% were receiving treatment (estimated 92,600) and 97% of these patients were virally suppressed (estimated 90,000).[2]

HIV prevention includes a mix of behavioural, biomedical and structural interventions. Pre-exposure prophylaxis is the use of treatments to prevent infection in people who have not yet been exposed. For HIV, this is known as PrEP. Taking PrEP before HIV exposure can prevent HIV from getting into the body and replicating.[3]

NICE guideline 221, on reducing sexually transmitted infections recommends that PrEP is offered to people at higher risk of HIV using the criteria in the British HIV Association / British Association for Sexual Health and HIV (BHIVA/BASHH) guidelines. Normally treatment involves taking tablets every day (daily PrEP) but in some cases, it may mean taking tablets at particular times (event-based or on-demand PrEP).[4] BASHH recommends the use of tenofovir disoproxil (TD) and emtricitabine (FTC). TD can be used alone or in combination where it is known as TD-FTC or TDF-FTC. PrEP is used as part of combination HIV prevention.[5]

Where HIV infection occurs, NICE has also appraised and recommends the use of cabotegravir with rilpivirine as an option for treating HIV-1 infection in adults (TA757).

The technology

Cabotegravir (Vocabria, ViiV Healthcare) is administered as an intramuscular injection.

Cabotegravir does not currently have a marketing authorisation in the UK for prevention of HIV-1 infection. It has been studied in phase 2 and 3 clinical trials in sexually active, female adults who are living without HIV, as well as men who have sex with men and transgender women at high risk of sexually acquired HIV. These trials compared cabotegravir intramuscular injections on top of standard care against placebo on top of standard care.

Cabotegravir injection, in combination with rilpivirine injection, is currently licensed in the UK for the treatment of HIV-1 infection in adults who are virologically suppressed (HIV-1 RNA <50 copies/mL) on a stable antiretroviral regimen without present or past evidence of viral resistance to, and no prior virological failure with agents of the non-nucleoside reverse transcriptase inhibitor and integrase inhibitor class.

Intervention(s)	Cabotegravir intramuscular injections with or without oral lead-in therapy
Population(s)	People at risk of sexually acquired HIV-1 infection
Subgroups	• People at high risk of acquiring sexually transmitted HIV-1
Comparators	Established clinical management including tenofovir alone or in combination with emtricitabine
Outcomes	The outcome measures to be considered include: • number of documented incident HIV infections • adverse effects of treatment • health-related quality of life • renal function • liver function • bone mineral density • incidence of resistance mutations

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. The availability and cost of biosimilar and generic products 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:** Cabotegravir with rilpivirine for treating HIV-1 (2022) NICE technology appraisal guidance 757. **Related technology appraisals in development:** Cabotegravir with rilpivirine for the oral treatment of HIV-1 NICE technology appraisal guidance [ID3731] Publication date to be confirmed. Lenacapavir for treating multidrug resistant HIV-1 NICE technology appraisal guidance [ID11775]. Publication date to be confirmed. **Related NICE guidelines:** HIV testing: increasing uptake among people who may have undiagnosed HIV (2016) NICE guideline 60. **Related quality standards:** HIV testing: encouraging uptake (2017) NICE quality standard 157
Related National Policy	The NHS Long Term Plan (2019) NHS Long Term Plan NHS England (2018) NHS manual for prescribed specialist services (2018/2019) [Chapter 16 Adult specialist services for patients infected with HIV] NHS England (2013) 2013/14 NHS STANDARD CONTRACT FOR SPECIALISED HUMAN MMUNODEFICIENCY VIRUS SERVICES (ADULTS). Reference: B06/S/a

	NHS England (2013) 2013/14 NHS STANDARD CONTRACT FOR SPECIALISED HUMAN MMUNODEFICIENCY VIRUS SERVICES (CHILDREN). Reference: B06/S/b NHS England (2020) Reimbursement for the use of generic drugs for pre exposure prophylaxis (PrEP) for the prevention of HIV UK Health Security Agency (2022) Routine commissioning of HIV preexposure prophylaxis (PrEP) in England: Monitoring and evaluation framework Public Health England (2017) Sexual health, reproductive health and HIV: commissioning review Public Health England (2015) Making it Work – a guide to whole system commissioning for sexual health, reproductive health and HIV Department of Health and Social Care (2013) HIV Outpatient Clinical Care Pathway

Questions for consultation

Where do you consider cabotegravir injections will fit into the existing care pathway for pre-exposure prophylaxis of HIV-1?

Would cabotegravir injections be a candidate for managed access?

Do you consider that the use of cabotegravir injections can result in any potential substantial health-related benefits that are unlikely to be included in the QALY calculation?

Have all relevant comparators for cabotegravir injections been included in the scope?

Are the outcomes listed appropriate?

Are there any subgroups of people in whom cabotegravir is expected to be more clinically effective and cost effective or other groups that should be examined separately?

In what situations is cabotegravir expected to be used in clinical practice? For example, are cabotegravir injections expected to be used in place of oral PrEP?

Will cabotegravir injections need to be administered in healthcare settings?

How do patients and clinicians determine a person's level of risk for acquiring HIV-1?

Please identify the nature of the data which you understand to be available to enable the committee to take account of these benefits.

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. Please let us know if you think that the proposed remit and scope may need changing in order to meet these aims. In particular, please tell us if the proposed remit and scope:

- could exclude from full consideration any people protected by the equality legislation who fall within the patient population for which cabotegravir injections will be licensed;

- could lead to recommendations that have a different impact on people protected by the equality legislation than on the wider population, e.g. by making it more difficult in practice for a specific group to access the technology;

- could have any adverse impact on people with a particular disability or disabilities.

Please tell us what evidence should be obtained to enable the committee to identify and consider such impacts.

NICE intends to evaluate this technology through its Single Technology Appraisal process. (Information on NICE's health technology evaluation processes is available at https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-technology-appraisal-guidance/changes-to-health-technology-evaluation).

References

1. BMJ Best Practice (2022) HIV infection: aetiology. Accessed May 2023

2. Public Health England (2019) HIV in the United Kingdom: Towards Zero HIV transmissions by 2030. Accessed May 2023

3. Terrence Higgins Trust (2020) PrEP (pre-exposure prophylaxis). Accessed May 2023

4. BHIVA/BASHH guidelines on the use of HIV pre-exposure prophylaxis (PrEP) (2018). Accessed May 2023

5. Clinical Commissioning Policy Reimbursement for the use of generic drugs for Pre Exposure Prophylaxis (PrEP) for the prevention of HIV (2020). Accessed May 2023