NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Beremagene geperpavec for treating skin wounds associated with dystrophic epidermolysis bullosa

Draft scope

Draft remit/evaluation objective

To appraise the clinical and cost effectiveness of Beremagene geperpavec within its marketing authorisation for treating skin wounds assocatied with dystrophic epidermolysis bullosa.

Background

Epidermolysis bullosa (EB) is a general term used to describe a group of rare inherited skin disorders that cause the skin to become very fragile. Any trauma or friction can cause the skin to blister and tear easily. There are different types of EB, and the condition is classified according to where on the body the blistering takes place and which layer of skin is affected[1]. Symptoms can vary significantly by subgroup:

Dystrophic epidermolysis bullosa (DEB) – accounts for around 25%[2] of cases and can be either dominantly or recessively inherited. DEB is a group of diseases in which blisters heal with dystrophic scarring. Milia (tiny white spots), result from damage to hair follicles.

- dominantly inherited DEB (DDEB) – appears at birth or infancy with generalised blistering. With increasing age, blistering becomes more local.

- recessively inherited DEB (RDEB) – can be mild or severe. Severe RDEB gives generalised blistering at birth followed by extensive dystrophic scarring, especially on the extremities. This can cause deformity on the hands and feet. The degree of severity depends to some extent on the location of the mutation that causes DEB along with environmental and familial factors.

As well as external blisters, EB can manifest internally affecting areas such as the eye, mouth or stomach. Other complications associated with EB can include the development of aggressive skin cancers, dental problems, or nutritional compromise. EB is usually diagnosed in babies and children and is thought to affect 1 in 17,000 births with around 5,000 people affected in the UK[3]. Of these, around 1,250 people have DEB[2]. There is currently no cure for EB. Treatments help ease and control symptoms. It aims to avoid skin damage, improve quality of life and reduce the risk of developing complications such as infection and malnutrition[1]. Given the complex needs of children with EB, treatment is usually carried out by a multidisciplinary team.

The technology

Beremagene geperpavec (B-VEC) is a gene therapy which delivers a healthy or working copy of the human COL7A1 gene directly to skin cells, using a modified virus (herpes simplex virus-1) as a carrier. DEB is caused by genetic defects (or mutations) within the human COL7A1 gene. It is administered topically.

Beremagene geperpavec does not currently have a marketing authorisation for treating wounds in people with dystrophic epidermolysis bullosa. It has been studied in a clinical trial in people with dystrophic epidermolysis bullosa compared with placebo.

Intervention(s)	Beremagene geperpavec
Population(s)	People with dystrophic epidermolysis bullosa
Subgroups	If the evidence allows the following subgroups will be considered: • dominant dystrophic epidermolysis bullosa • recessive dystrophic epidermolysis bullosa
Comparators	• Established clinical management without beremagene geperpavec (including, but not limited to, treatments which can help ease and control infections, pain and other aspects of EB) • Birch bark extract (subject to ongoing NICE evaluation)
Outcomes	The outcome measures to be considered include: • closures of unhealed target wounds • time to wound closure • duration of wound closure • percentage of surface area of wound healed • change in total body wound burden • pain • change in itching • mortality • 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 appraisals in development:** Birch bark extract for treating skin wounds associated with dystrophic and junctional epidermolysis bullosa (ID1505). NICE Highly Specialised Technology Evaluation. Expected publication date: October 2023
Related National Policy	The NHS Long Term Plan, 2019. NHS Long Term Plan NHS England (2018/2019) NHS manual for prescribed specialist services (2018/2019) Chapter 50

Questions for consultation

Where do you consider beremagene geperpavec will fit into the existing care pathway for dystrophic epidermolysis bullosa?

- Does this differ when considering children, adolescents or adult populations?

In which EB populations and under which circumstances would treatment with beremagene geperpavec be considered?

What genes may be affected in dystrophic epidermolysis bullosa? Is dystrophic epidermolysis bullosa always associated with mutations in the COL7A1 gene? If not, would people who did not have mutations in the COL7A1 gene be eligible for treatment with beremagene geperpavec?

Would treatment with beremagene geperpavec be used for all DEB wounds or would treatment be limited to only certain types or wounds?

Are the outcomes listed in scope appropriate? Are their any other outcomes which should be considered?

Are the subgroups listed in the scope appropriate? Are there any other subgroups which should be considered separately?

Would beremagene geperpavec be a candidate for managed access?

Do you consider beremagene geperpavec to be innovative in its potential to make a significant and substantial impact on health-related benefits and how it might improve the way that current need is met (is this a 'step-change' in the management of the condition)?

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

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 beremagene geperpavec 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. We welcome comments on the appropriateness of appraising this topic through this 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. NHS choices. Epidermolysis bullosa. Available at https://www.nhs.uk/conditions/epidermolysis-bullosa/ (assessed September 2022)

2. DEBRA. Epidermolysis bullosa/ Available at What is EB? | DEBRA UK (accessed September 2022)

3. Mellerio JE; Epidermolysis bullosa care in the United Kingdom. Dermatol Clin. 2010 Apr28(2):395-6,