Assessment explained

Medicine: atidarsagene autotemcel (brand name: Libmeldy®) for metachromatic leukodystrophy

Orchard Therapeutics Limited

Atidarsagene autotemcel meets the Scottish Medicines Consortium (SMC) definition of an ultra-orphan medicine, which is a medicine to treat an extremely rare condition. This document summarises the initial SMC assessment of atidarsagene autotemcel for treating children with metachromatic leukodystrophy (MLD) caused by faults in the arylsulfatase A (ARSA) gene.

What does this mean for patients?

If your healthcare professional thinks that atidarsagene autotemcel is the right medicine for you or your child, you or they should be able to have the treatment on the NHS in Scotland within the **ultra-orphan pathway** (see next page). This is provided the company submits a plan to the Scottish Government describing how further data, including on the patient and carer lived experience, will be collected over the next 3 years. After this, SMC will reassess the medicine and make a decision on routine availability.

What is atidarsagene autotemcel used for?

Atidarsagene autotemcel is used to treat children with MLD, which is a rare inherited condition caused by faults in the ARSA gene. These faults lead to the ARSA protein, which normally breaks down sulfatides, not working properly. This results in a build-up of sulfatides which causes damage to the nervous system and other organs. This leads to symptoms such as difficulties in walking and mental deterioration and ultimately leads to an early death. Atidarsagene autotemcel is used for treating children with late infantile or early juvenile forms of MLD who don't yet have symptoms. It is also used for children with the early juvenile form of MLD who have some initial symptoms but can still walk independently and do not yet have signs of mental deterioration.

How does atidarsagene autotemcel work?

Atidarsagene autotemcel is made by taking CD34+ cells (a type of stem cell) from the patient's blood or bone marrow. A correct copy of the ARSA gene is inserted into these cells in the laboratory. They are then infused back into the patient where they go on to make cells that produce a working ARSA protein. These cells can spread around the body including into the nervous system, breaking down the sulfatides and helping to control the symptoms of MLD. This is a one-time treatment and the effects are expected to be long lasting.

How do we assess ultra-orphan medicines?

SMC uses a broad assessment framework for ultra-orphan medicines. This is part of the ultra-orphan pathway in NHSScotland which has **four stages**:

Stage 1 Validation

SMC reviews information from the company to decide if the ultra-orphan definition is met

The company must then agree to further requirements of the ultra-orphan pathway*.

Stage 2 Initial Assessment

SMC considers the:

- nature of the condition
- health benefits of the medicine
- impact beyond direct health benefits and on specialist services
- value for money, and
- costs to the NHS.

Stage 3 Evidence Generation

The medicine can be prescribed while the company gathers futher data, including on the patient and carer lived experience.

Stage 4 Reassessment

After 3 years the company provides an updated submission for reassessment.

SMC considers all the evidence and makes a decision on routine use of the medicine in NHSScotland.

*provide a confidential discount known as a Patient Access Scheme (PAS) to increase the cost-effectiveness of the medicine, and provide a data collection plan.

What have we said in this assessment?

- Data showed that atidarsagene autotemcel improved gross motor function scores (scores from tests that measure a developing child's ability to crawl, walk etc.) compared with records from untreated children. Benefits were seen in late infantile and early juvenile patients who did not yet have symptoms or had early symptoms.
- There were some limitations in the data and there are still some uncertainties about the longer term maintenance of effects and safety.
- Despite the confidential discount offered by the company, the cost in relation to the health benefits of atidarsagene autotemcel remains high.

For further information please see the SMC ultra-orphan medicine initial assessment report (SMC2413).

More information

The organisations below can provide more information and support for people with MLD and their families. SMC is not responsible for the content of any information provided by external organisations.

MPS Society

https://www.mpssociety.org.uk 0345 389 9901

ArchAngel MLD Trust

https://www.archangel.org.uk 0207 250 8240

MLD Support Association UK

https://www.mldsupportuk.org.uk 07414 529392

You can find out more about atidarsagene autotemcel (Libmeldy®) in the European public assessment report (EPAR) summary for the public by searching for the medicine name on the European Medicines Agency (EMA) website.

www.ema.europa.eu