HAUTE AUTORITÉ DE SANTÉ

TRANSPARENCY COMMITTEE
OPINION
04 MARCH 2020

plerixafor
MOZOBIL 20 mg/ml solution for injection

New indication

Key points

Favourable opinion for reimbursement in combination with granulocyte-colony stimulating factor (G-CSF) to enhance mobilisation of haematopoietic stem cells to the peripheral blood for collection and subsequent autologous transplantation in children with lymphoma or solid malignant tumours, either:
- pre-emptively, when circulating stem cell count on the predicted day of collection after adequate mobilisation with G-CSF (with or without chemotherapy) is expected to be insufficient with regards to desired hematopoietic stem cells yield, or
- who previously failed to collect sufficient haematopoietic stem cells.

What therapeutic improvement?

Therapeutic improvement in the strategy to enhance mobilisation of haematopoietic stem cells to the peripheral blood for collection and subsequent autologous transplantation in children with lymphoma or solid malignant tumours.

Role in the care pathway?

The mobilisation of haematopoietic stem cells (HSC) is performed using granulocyte-colony stimulating growth factors (G-CSF) administered alone or following chemotherapy on exit from aplasia. HSC harvesting is performed until a minimum number of CD34+ progenitor cells to be collected is obtained. It is considered that a suitable transplant contains more than $5x10^6$ CD34+ cells/kg.

If mobilisation failure is observed, either before cytapheresis (inadequate number of circulating stem cells < 20 CD34+ cells/µL +/- combined with factors predictive of poor mobilisation) or during collection of the graft following cytapheresis (graft ≤ $2x10^6$ CD34+ cells/kg after mobilisation), remobilisation a period of time after the initial mobilisation using the abovementioned strategies (G-CSF) may be envisaged in certain patients. Autologous transplantation of bone marrow haematopoietic stem cells may also be proposed in some cases.

Plerixafor (MOZOBIL) in combination with G-CSF has been available for several years as a second-intention treatment to enhance mobilisation of haematopoietic stem cells for collection and subsequent autologous transplantation in adult patients with lymphoma or multiple myeloma whose cells mobilise poorly.

Role of the medicinal product in the care pathway:

MOZOBIL (plerixafor) is a second-intention treatment, in combination with G-CSF, to enhance mobilisation of haematopoietic stem cells to the peripheral blood for collection and subsequent autologous transplantation in children with lymphoma or solid malignant tumours in the following situations:

- pre-emptively, when circulating stem cell count on the predicted day of collection after adequate mobilisation with G-CSF (with or without chemotherapy) is expected to be insufficient with regards to desired hematopoietic stem cells yield, or
- who previously failed to collect sufficient haematopoietic stem cells.

COMMITTEE'S CONCLUSIONS

Clinical Benefit

◗ The mobilisation of haematopoietic stem cells with a view to autologous transplantation concerns life-threatening conditions.
◗ MOZOBIL (plerixafor), in combination with granulocyte-colony stimulating factor (G-CSF), is a curative treatment to enhance mobilisation of haematopoietic stem cells to the peripheral blood for collection and subsequent autologous transplantation.
◗ The efficacy/adverse effects ratio of MOZOBIL (plerixafor) is high.
◗ There are medicinal alternatives (remobilisation a period of time after the initial mobilisation with G-CSF).
◗ MOZOBIL (plerixafor) is a second-intention treatment.

Public health impact

Considering:
- the seriousness of the disease,
- its low incidence,
- the partially met medical need,
- efficacy data obtained from a phase I/II study on a small number of patients (n=45) concerning a biological primary endpoint only (doubling of CD34+ cells in the peripheral blood between the morning preceding the day of the first cytapheresis and the morning of the day of the first cytapheresis)
- the expected impact of MOZOBIL (plerixafor) on morbidity and mortality in children despite the absence of robust morbidity and mortality data assessed during the study concerned but taking into account experience of its use in adults,
- an expected impact on the organisation of care of the G-CSF + MOZOBIL (plerixafor) combination,
- the partial response to the identified medical need,

MOZOBIL (plerixafor) is likely to have an additional impact on public health.

Considering these elements, the Committee deems that the clinical benefit of MOZOBIL (plerixafor) is substantial in the paediatric indication extension in combination with granulocyte-colony stimulating factor (G-CSF) to enhance mobilisation of haematopoietic stem cells to the peripheral blood for collection and subsequent autologous transplantation in children with lymphoma or solid malignant tumours, either:
- **pre-emptively, when circulating stem cell count on the predicted day of collection after adequate mobilisation with G-CSF (with or without chemotherapy) is expected to be insufficient with regards to desired hematopoietic stem cells yield, or**
- **who previously failed to collect sufficient haematopoietic stem cells.**

The Committee issues a favourable opinion for inclusion in the hospital formulary list of reimbursed proprietary medicinal products approved for use in the paediatric indication extension in combination with granulocyte-colony stimulating factor (G-CSF) to enhance mobilisation of haematopoietic stem cells to the peripheral blood for collection and subsequent autologous transplantation in children with lymphoma or solid malignant tumours, either:
- **pre-emptively, when circulating stem cell count on the predicted day of collection after adequate mobilisation with G-CSF (with or without chemotherapy) is expected to be insufficient with regards to desired hematopoietic stem cells yield, or**
- **who previously failed to collect sufficient haematopoietic stem cells.**

Clinical Added Value

Considering:

- **efficacy data obtained from a phase I/II study on a small number of patients (n=45) and concerning a biological primary endpoint of little relevance only (doubling of CD34+ cells in the peripheral blood between the morning preceding the day of the first cytapheresis and the morning of the day of the first cytapheresis),**
- **the absence of robust morbidity and mortality data assessed during the study concerned but taking into account,**
- **the known efficacy and safety profile of plerixafor in adults,**

the Committee considers that MOZOBIL (plerixafor) in combination with G-CSF provides a minor clinical added value (CAV IV) to enhance mobilisation of haematopoietic stem cells to the peripheral blood for collection and subsequent autologous transplantation in children with lymphoma or solid malignant tumours, either:

- **pre-emptively, when circulating stem cell count on the predicted day of collection after adequate mobilisation with G-CSF (with or without chemotherapy) is expected to be insufficient with regards to desired hematopoietic stem cells yield, or**
- **who previously failed to collect sufficient haematopoietic stem cells.**