



TRANSPARENCY COMMITTEE

OPINION

11 MARCH 2020

L-Arginine hydrochloride / L-Lysine hydrochloride **LYSAKARE 25 g/25 g solution for infusion**

First assessment

► Key points

Favourable opinion for reimbursement for the reduction of renal radiation exposure during Peptide-Receptor Radionuclide Therapy (PRRT) with lutetium (^{177}Lu) oxodotreotide in adults.

► What therapeutic improvement?

No clinical added value compared to the hospital preparation.

► Role in the care pathway?

During Peptide-Receptor Radionuclide Therapy (PRRT), the kidneys are exposed to high levels of radiation. The administration of a solution of 2.5% lysine and 2.5% arginine in 1 litre of 0.9% sodium chloride solution reduces the radiation dose administered to the kidney. Other solutions with a lysine and arginine content of 18 to 24 g can also be used, but these are more likely to cause nausea and vomiting due to their higher osmolality and the larger volume administered.

Several learned societies recommend the co-administration of an amino acid solution in patients treated with PRRT in gastroenteropancreatic neuroendocrine tumours.

For any administration of LUTATHERA (lutetium (^{177}Lu) oxodotreotide), section 4.2 of the SPC specifies that co-administration of amino acid solutions is essential to protect renal function. In addition,

an anti-emetic treatment should be administered 30 minutes before the start of the amino acid infusion to limit nausea and vomiting associated with this infusion.

Role of LYSAKARE (L-Arginine hydrochloride / L-Lysine hydrochloride) in the care pathway:

LYSAKARE is a first-line treatment for the reduction of renal radiation exposure during Peptide-Receptor Radionuclide Therapy (PRRT) with lutetium (¹⁷⁷Lu) oxodotreotide.

01 COMMITTEE'S CONCLUSIONS

01.1 Clinical benefit

- ▶ The consequences of renal irradiation during Peptide-Receptor Radionuclide Therapy (PRRT) can be serious.
- ▶ LYSAKARE (L-Arginine hydrochloride / L-Lysine hydrochloride) is a preventive treatment.
- ▶ Its efficacy/adverse effects ratio is high.
- ▶ There is a therapeutic alternative, with the hospital preparation, although this does not have an MA.
- ▶ LYSAKARE (L-Arginine hydrochloride / L-Lysine hydrochloride) is a first-line treatment for the reduction of renal radiation exposure during Peptide-Receptor Radionuclide Therapy (PRRT) with lutetium (^{177}Lu) oxodotreotide.

Public health impact

Considering:

- the consequences of renal irradiation during PRRT in the absence of renal protection,
 - the incidence of GEP-NET in which PRRT with LUTATHERA is used of 3.56/ 100,000¹,
 - the medical need partially met by the hospital preparation,
 - the absence of robust data concerning quality of life and the care and life pathway,
 - the absence of any demonstrated additional impact on the organisation of care,
 - the partial response to the identified need in the same way as the hospital preparation,
- LYSAKARE is unlikely to have an additional impact on public health.

Considering all these elements, the Committee deems that the clinical benefit of LYSAKARE (L-Arginine hydrochloride / L-Lysine hydrochloride) is substantial in the MA indication.

The Committee issues a favourable opinion for inclusion in the hospital formulary list of reimbursed proprietary medicinal products approved for use in the MA indication(s) and dosages.

¹ Dasari A et al. Trends in the incidence, prevalence, and survival outcomes in patients with neuroendocrine tumors in the United States. JAMA Oncol. 2017; 3:1335–1342.

01.2 Clinical Added Value

In the absence of prospective and comparative data specific to LYSAKARE (L-Arginine hydrochloride / L-Lysine hydrochloride), the Committee considers that LYSAKARE provides no clinical added value (CAV V) compared to the hospital preparation with the same composition.