国立保健医療科学院　保健医療経済評価研究センター
Center for Outcomes Research and Economic Evaluation for Health (C2H), National Institute of Public Health (NIPH) | URL:https://c2h.niph.go.jp

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[C2H2403] Summary of cost-effectiveness evaluation of elranatamab (Elrexfio®)

1. Indications

Relapsed or refractory multiple myeloma (limited to cases in which standard care is difficult)

2. Price of the drug

Elranatamab has been reimbursed since May 2024 at JPY 558,501 for 44 mg and JPY 957,222 for 76 mg (as of November 2025). The price was calculated using the similar efficacy comparison method (Ⅰ). This product was designated as an H1 cost-effectiveness evaluation item.

3. Scope of Cost-effectiveness Evaluation

This product is indicated for the treatment of patients with relapsed or refractory multiple myeloma who have received at least three prior therapies, including an immunomodulatory drug, a proteasome inhibitor, and an anti-CD38 monoclonal antibody. The scope of the evaluation agreed upon at the first session of the Expert Committee of Cost-Effectiveness Evaluation (ECCEE) is described below:

Target population	Patients with relapsed or refractory multiple myeloma who have received at least three prior therapies, including an immunomodulatory drug, a proteasome inhibitor, and an anti-CD38 monoclonal antibody, with no prior exposure to B-cell maturation antigen-directed therapies
Comparator	Elotuzumab plus Pomalidomide and dexamethasone (EPd)

4. Evaluation of additional benefits

The manufacturer conducted a systematic review (SR) and found no randomized controlled trials (RCTs) directly comparing elranatamab with EPd. Instead, the pivotal single-arm trial of elranatamab (MagnetisMM-3) and non-RCT studies involving EPd among physician's choice of treatment (PCT) were identified. The manufacturer regarded the PCT observational study population (LocoMMotion) as representative of patients demonstrating EPd efficacy. The manufacturer conducted an unanchored matching-adjusted indirect comparison (MAIC) using individual patient data from the MagnetisMM-3 trial and aggregate data from the LocoMMotion study. According to the results of this indirect comparison, elranatamab significantly prolonged overall survival (OS) and progression-free survival (PFS) compared with EPd. The manufacturer concluded that elranatamab provides additional benefits compared with EPd. The academic group noted concerns about substituting PCT outcomes for EPd efficacy because the comparator in the analysis framework was EPd. However, the academic group accepted the unanchored MAIC-based findings of the manufacturer and considered elranatamab as providing additional benefits compared with EPd for the target population given the limited and fragmented evidence available and the difficulty of conducting alternative reanalyses.

5. Results of the cost-effectiveness analysis

The manufacturer conducted a cost-effectiveness analysis using a partitioned survival model with three health states—progression-free, progressed disease, and death. The manufacturer estimated the time to discontinuation of elranatamab based on the median treatment duration in the MagnetisMM-3 trial using a constant-hazard model. However, this approach diverged from the observed treatment duration and was inconsistent with the PFS curve. The academic group evaluated alternative parametric curves and selected a log-normal distribution based on model fit and consistency with follow-up data from the MagnetisMM-3 trial. In addition, the manufacturer did not consider hypogammaglobulinemia that is a clinically important adverse outcome of elranatamab therapy. The academic group added the costs of intravenous immunoglobulin (IVIG) therapy for patients treated with elranatamab. The ECCEE accepted the following results:

Population	Comparator	Additional benefits	ICER (JPY/QALY)
Patients with relapsed or refractory multiple myeloma who have received at least three prior therapies, including an immunomodulatory drug, a proteasome inhibitor, and an anti-CD38 monoclonal antibody, with no prior exposure to B-cell maturation antigen-directed therapies	Elotuzumab plus Pomalidomide and dexamethasone	Proven	6,419,472