Cost Comparison of Isatuximab Subcutaneous, Isatuximab Intravenous, and Daratumumab Subcutaneous in Multiple Myeloma in Japan

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Key Takeaways

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Subcutaneous isatuximab was associated with the lowest 1-year treatment-related cost across five treatment settings, with per-patient savings of ¥0.56–2.68 million vs intravenous isatuximab and ¥1.80–5.89 million versus subcutaneous daratumumab.

BACKGROUND

- Anti-CD38 monoclonal antibodies are important components of multiple myeloma (MM) treatment.[1]
- Subcutaneous administration may reduce administration-related resource use relative to intravenous infusion.[2,3]
- The treatment-related cost implications of administration route and anti-CD38 treatment choice across MM settings in Japan are not well characterized.

OBJECTIVE

To compare 1-year treatment-related costs of subcutaneous isatuximab (Isa SC), intravenous isatuximab (Isa IV), and subcutaneous daratumumab (Dara SC) across MM treatment settings in Japan.

METHODS

- A cost analysis was conducted from the Japanese public healthcare payer perspective, with results reported in 2026 JPY.
- Treatment exposure was estimated using regimen-specific dosing schedules and relative dose intensity (RDI), adjusted for weekly treatment persistence derived from median duration of treatment using an exponential distribution. Clinical inputs were informed by relevant clinical trials and treatment guides.[4–12]
- Costs included drug acquisition, administration, and management of grade ≥3 IRRs. Anti-CD38 unit costs were based on Sanofi data, and other costs were based on Japanese sources.[13–15]
- Deterministic sensitivity analyses varied key inputs, including the exclusion of RDI, vial sharing, and first-dose hospitalization costs.

Figure 1: Analysis framework

Populations and regimens

RRMM: Pd (≥2 prior therapies) or Kd (1–3 prior lines);

NDMM: VRd (ASCT-ineligible; ASCT-eligible ± maintenance)

Treatment strategies

Anti-CD38: Isa SC, Isa IV and Dara SC

Costs

Drug acquisition, drug administration, grade ≥3 IRR management

Time horizon

1 year

Outcomes

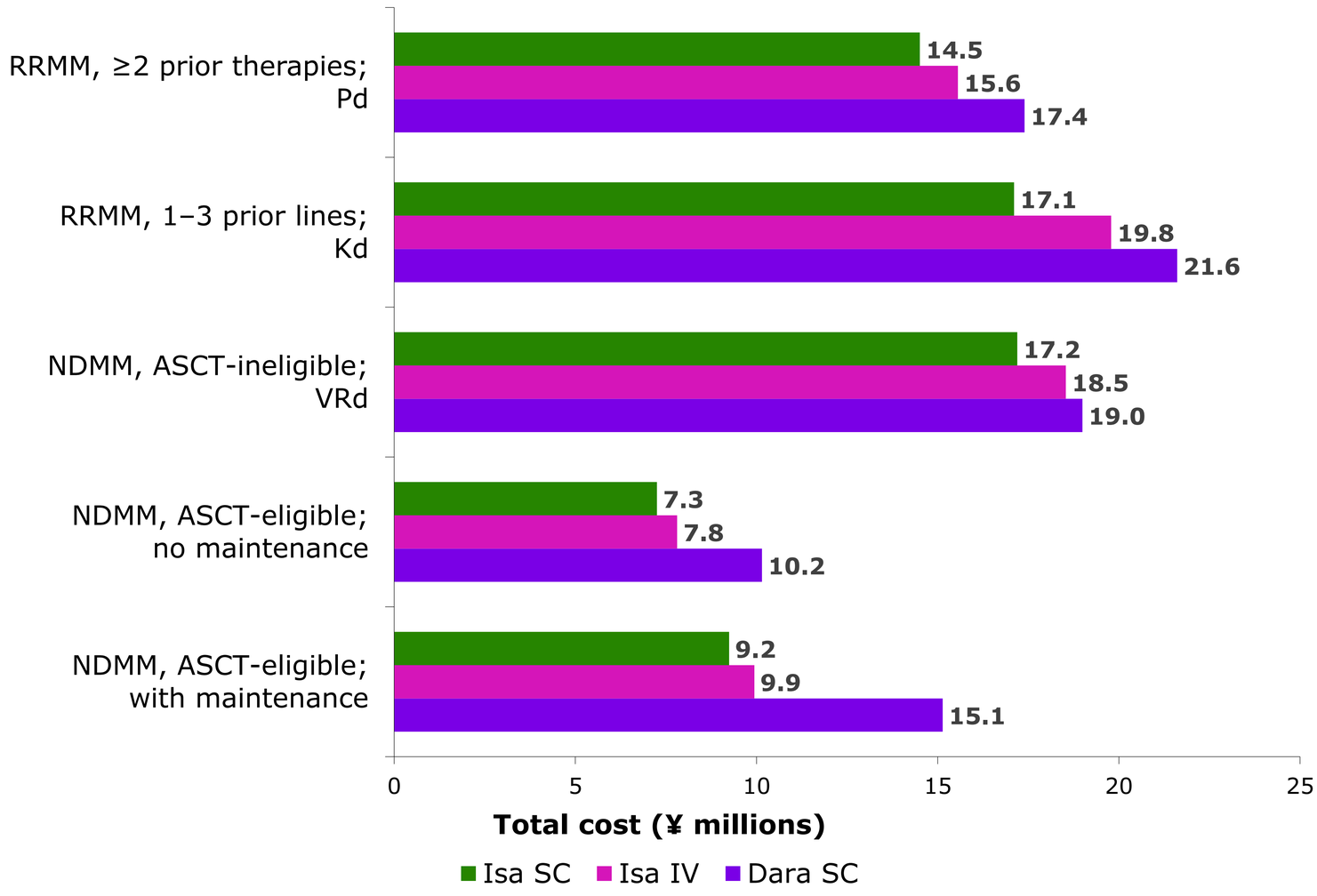
- 1-year total cost per treated patient
- Absolute and percentage cost differences

RESULTS

Base-case results

Isa SC had the lowest 1-year treatment-related cost across all five settings (Figure 2). Relative **savings were 6.7%–13.6% versus Isa IV and 9.5%–38.9% versus Dara SC**. Drug acquisition represented more than 99.8% of total costs, while administration and IRR-management costs were minor cost components.

Figure 2: One-Year Treatment-Related Cost per Treated Patient



Deterministic Sensitivity Analyses

Sensitivity analyses supported the base-case findings (Table 1). Isa SC remained cost-saving across all tested assumptions versus Dara SC and in the Kd comparison versus Isa IV; in the remaining Isa IV comparisons, cost savings were maintained in all but 1–2 sensitivity analyses. Key drivers were anti-CD38 unit costs, patient body weight, treatment duration, and RDI.

Table 1: Robustness of Cost Savings in Deterministic Sensitivity Analyses

Treatment setting	Isa SC vs Isa IV	Isa SC vs Dara SC
RRMM, ≥2 prior therapies; Pd	Cost-saving in all but 2 analyses*	Cost-saving in all analyses
RRMM, 1–3 prior lines; Kd	Cost-saving in all analyses	Cost-saving in all analyses
NDMM, ASCT-ineligible; VRd	Cost-saving in all but 1 analysis†	Cost-saving in all analyses
NDMM, ASCT-eligible; no maintenance	Cost-saving in all but 2 analyses‡	Cost-saving in all analyses
NDMM, ASCT-eligible; with maintenance	Cost-saving in all but 2 analyses‡	Cost-saving in all analyses

*Exceptions: 20% lower Isa IV unit cost or 20% shorter Isa IV treatment duration. †Exception: 20% lower Isa IV unit cost. ‡Exceptions: 20% lower Isa IV unit cost or 20% lower RDI.

CONCLUSIONS

- Isa SC was associated with lower 1-year treatment-related costs than Isa IV and Dara SC across all five assessed MM treatment settings in Japan, in addition to shorter administration and reduced IRR risk versus Isa IV.
- Savings were greatest versus Dara SC, particularly in ASCT-eligible NDMM when the maintenance phase was included.
- These findings support the potential of Isa SC to reduce treatment-related expenditure for the Japanese public healthcare payer.

REFERENCES: 1. Iida S, et al. Int J Hematol. 2025;122:465–509; **2.** Slavcev M, et al. Clinicoecon Outcomes Res. 2021;13:465–473; **3.** Soefje SA, et al. JCO Oncol Pract. 2023;19:e542–e549; **4.** Richardson PG, et al. Haematologica. 2024;109:2239–2249; **5.** Dimopoulos MA, et al. Lancet Haematol. 2023;10:e813–e824; **6.** Yong K, et al. Lancet Haematol. 2024;11:e741–e750; **7.** Usmani SZ, et al. Blood Adv. 2023;7:3739–3748; **8.** Facon T, et al. N Engl J Med. 2024;391:1597–1609; **9.** Usmani SZ, et al. Nat Med. 2025;31:1195–1202; **10.** Mai EK, et al. J Clin Oncol. 2025;43:1279–1288; **11.** Sonneveld P, et al. N Engl J Med. 2024;390:301–313; **12**. Sanofi. IRAKLIA, IZALCO, IsaSoCut, and GMMG-HD8 key-results memos; GMMG-HD7 clinical study report. Data on file. 2024–2025; **13**. Sanofi. Data on file. 2026; **14**. KEGG MEDICUS. Prescription drug information. 2026; **15**. Ministry of Health, Labour and Welfare. Medical Fee Information Service and drug-price standard. 2026.

ABBREVIATIONS: ASCT, autologous stem cell transplantation; Dara SC, subcutaneous daratumumab; IRR, infusion-related reaction; Isa IV, intravenous isatuximab; Isa SC, manual-push subcutaneous isatuximab; Kd, carfilzomib and dexamethasone; MM, multiple myeloma; NDMM, newly diagnosed multiple myeloma; Pd, pomalidomide and dexamethasone; PI, proteasome inhibitor; RDI, relative dose intensity; RRMM, relapsed or refractory multiple myeloma; VRd, bortezomib, lenalidomide, and dexamethasone.

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