Poster EE284

Cost-per-remission of vedolizumab versus risankizumab in CD

Elizabeth Brook, MSc[1], Chloë Hardern, MSc[1], Jakob Langer, MSc[2], Raffaella Viti, MSc[3], Arnaud Nucit, PhD[2], Cinira Lefevre, PhD[4], Jun Yu Zhou, PharmD[5]
[1]Putnam, London, United Kingdom, [2]Takeda Pharmaceuticals International AG, Glattpark, Switzerland, [3]Takeda Italia S.p.A., Rome, Italy, [4]Takeda France SAS, Paris, France, [5]Takeda Canada Inc., Toronto, ON, Canada

OBJECTIVES

- Crohn's disease (CD) is a chronic disease that causes inflammation and irritation in digestive tract.[1] Incidence rates of CD range from 12.7 per 100,000 person-years in Europe and 20.2 per 100,000 person-years in North America.[2]
- Vedolizumab and risankizumab are both treatments authorised for use in adult patients with moderately-to-severely active CD across the globe.
- This economic analysis evaluated the cost-per-remission at 1-year for vedolizumab versus risankizumab for adult patients with moderately-to-severely active CD in Italy, France, and Canada.
- Cost-per-remission provides a transparent, short-term measure of value for decision-makers. Clinical remission was selected as the key endpoint, as it reflects sustained and meaningful disease control.

METHODS

Cost-per-remission for each treatment was calculated as the total active treatment cost over 1-year divided by the proportion of patients achieving clinical remission.
The delta cost-per-remission (%) was calculated using the following equation:

$$Delta\ CPR = \frac{Vedolizumab\ CPR\ - Risankizumab\ CPR}{Risankizumab\ CPR} \times 100$$

CPR, cost-per-remission

Clinical remission rates

- Clinical remission was defined as a CD activity index (CDAI) score ≤150, with 1-year clinical remission rates sourced from a published matching-adjusted indirect comparison (MAIC).[3]
- The MAIC was conducted using individual patient-level data from 2 phase 3 placebo-controlled clinical trials of vedolizumab (GEMINI 2[4] and VISIBLE 2[5]) and aggregated data from 3 placebo-controlled clinical trials of risankizumab (ADVANCE, MOTIVATE and FORTIFY).[6, 7]
- The MAIC reported placebo-adjusted remission rates for risankizumab 360mg versus a weighted vedolizumab arm that comprised of the vedolizumab intravenous (IV) regimen (43%) and the vedolizumab subcutaneous (SC) regimen (57%).
- The 52-week remission rate reported in the MAIC was **17.0%** (95%CI: 6.3%, 27.7%) for vedolizumab and **11.6%** (95% CI: 0.5%, 22.8%) for risankizumab.

Treatment costs

Treatment costs included drug acquisition and administration costs of vedolizumab and risankizumab based on the number of administrations over 1-year.

- Dosing schedules (**Table 1**) were sourced from the Summary of Product Characteristics (SmPC) for Italy and France[8,10,11] and Product Monographs for Canada[9,12], in accordance with the respective recommended dosing schedules for each country.
- Patients were assumed to receive induction therapy followed by maintenance therapy.

Table 1: Drug dosing schedules

Treatment	Dosing schedule	Doses (1-year)
Vedolizumab IV	Induction: 300 mg IV at 0, 2 and 6 weeks Maintenance: 300 mg IV Q8W	Induction: 3 (IV) Maintenance: 5 (IV)
Vedolizumab SC	Induction: 300 mg IV at weeks 0, 2 Maintenance: 108 mg SC at week 6, Q2W	Induction: 2 (IV) Maintenance: 24 (SC)
Risankizumab	Induction: 600 mg IV at weeks 0, 4 and 8 Maintenance: 360 mg SC at week 12, Q8W	Induction: 3 (IV) Maintenance: 6 (IV)

IV, intravenous; SC, subcutaneous; Q2W, every 2 weeks; Q8W, every 8 weeks.

- Drug acquisition costs for 1-year of active treatment were calculated using list prices for Italy (including mandatory visible discounts)[13], France[14], and Canada[15].
- IV administration costs were based on published cost data for Italy [16], France [17], and Canada[18], respectively.
- The cost of SC administration was assumed to be zero for all country perspectives.
- A weighted cost of treatment for vedolizumab was calculated based on the vedolizumab IV regimen (43%) and vedolizumab SC regimen (57%) in alignment with the MAIC.

Sensitivity analysis

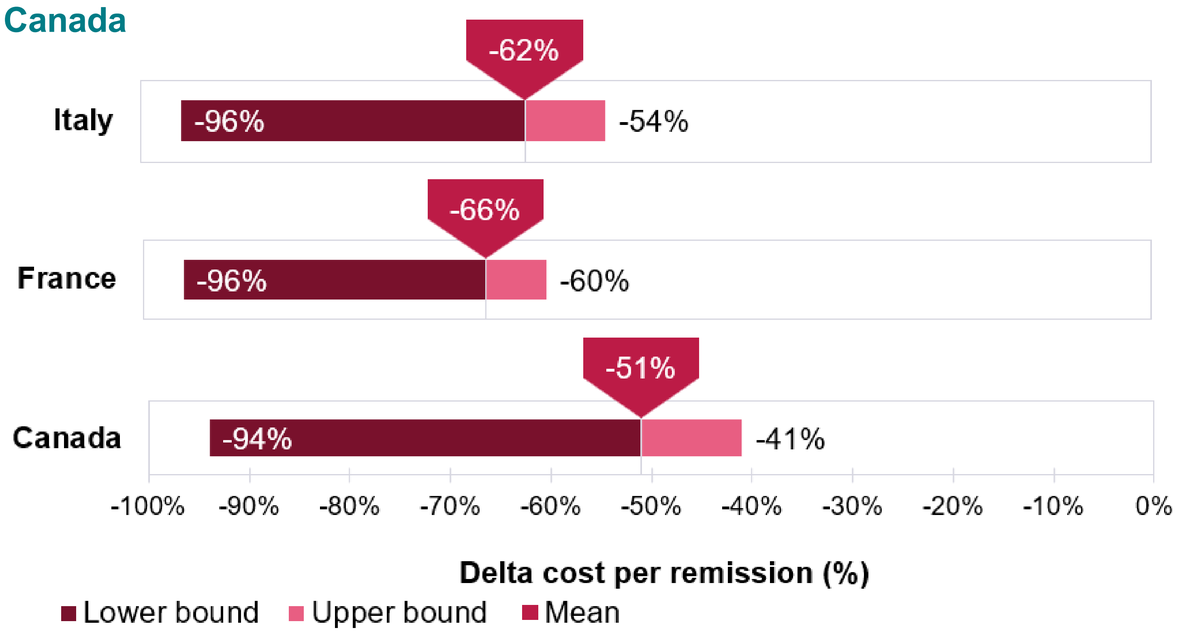
- Scenario analysis was conducted to explore the impact of using the 95% confidence intervals of the MAIC to inform the 52-week remission rates on the delta cost-per-remission.
- The delta cost-per-remission was explored over a range of arbitrary price discounts for both drugs, ranging from 0% (list price) to 50%. Results are presented in a price-discount heatmap.

RESULTS

In all countries assessed, vedolizumab had a lower cost-per-remission at 1-year than risankizumab in CD (**Figure 1**).

- At 1-year, the cost-per-remission was 62%, 66%, and 51% lower for vedolizumab relative to risankizumab for Italy, France, and Canada, respectively.

Figure 1. Delta cost-per-remission (%) at 1-year for Italy, France and Canada

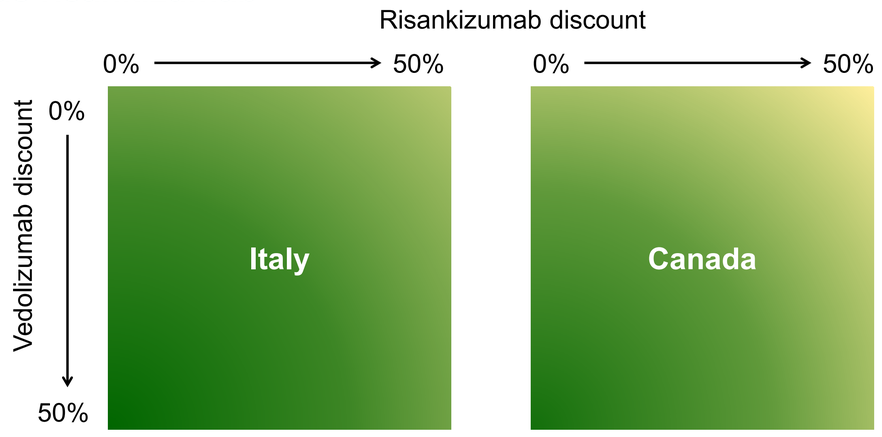


Sensitivity analysis results

- Scenario analysis showed that using the upper and lower bounds of the MAIC remission rates, vedolizumab still had a lower cost-per-remission at 1-year than risankizumab for all three countries (**Figure 1**). The lower bound remission rate for risankizumab (0.50%) resulted in an extremely high cost-per-remission for risankizumab and consequently a very low delta cost-per-remission for each country.
- The price-sensitivity analysis showed that even with a high discount applied to the risankizumab acquisition cost and vedolizumab at list price, vedolizumab maintained a lower cost-per-remission for all three country perspectives (**Figure 2**).
- The results for France were strongly in favour of vedolizumab for all discounts, resulting in a wholly green heat map. Therefore, this graph is not presented.

Figure 2. Price-discount heatmap: Delta cost-per-remission (%) for vedolizumab versus risankizumab

Dark green indicates improved CPR for vedolizumab. As the colour lightens from green to yellow, the CPR between vedolizumab and risankizumab approaches equivalence. Vedolizumab maintained a lower CPR for all countries for all price discounts between 0%-50%.



Conclusions

- Across Italy, France, and Canada, **vedolizumab (IV and SC) was associated with a lower cost-per-remission at 1-year compared with risankizumab** in adult patients with moderate-to-severely active CD.
- These cost-per-remission results were **based on remission rates from a published indirect treatment comparison (including 5 clinical trials)** which were **robust to sensitivity analyses**, including remission rate variation and potential substantial price discounts applied to risankizumab and vedolizumab at list price.
- These findings suggest that **vedolizumab may represent a more efficient use of healthcare resources to achieve clinical remission,** offering decision-makers a transparent and short-term measure of value across different multiple healthcare settings.
- Future studies could explore the impact of treatment **optimisation** on the delta cost-per-remission.

References

1. National Institute of Diabetes and Digestive and Kidney Disease. 2024; **2.** Molodecky NA, et al. Gastroenterology. 2012;142(1):46-54.e42; **3.** Jairath V, et al. J Crohn's Colitis. 2025;19(Suppl_1):i1956-i1958; **4.** Sandborn WJ, et al. N Engl J Med. 2013;369(8):711-721; **5.** Vermeire S, et al. J Crohn's Colitis. 2021;16(1):27-38; **6.** D'Haens G, et al. Lancet. 2022;399(10340):2015-2030; **7.** Ferrante M, et al. Lancet. 2022;399(10340):2031-2046; **8.** Takeda 2025; 9. Takeda 2016; **10.** Takeda 2025; **11.** AbbVie 2025; **12.** AbbVie 2025; **13.** Gazzetta Ufficiale della Repubblica Italiana 2025; **14.** l'Assurance Maladie 2025; **15.** IQVIA DeltaPA List Prices 2025; **16.** Ravasio R, Viti R, Roscini AS. AboutOpen. 2023;10(1):13-21; **17.** ATIH MCO 2025; **18.** Job Bank 2024.

Disclosures

Authors EB and CH are all employees of Putnam, UK, which received funding from Takeda to conduct this research.
Authors JL, RV, AN, CL, YZ are employees of Takeda and may own stock or stock options in the company.

Copies of this poster obtained through Quick Response (QR) Code are for personal use only and may not be reproduced without permission from ISPOR and the authors of this poster. Scan this QR code to download a copy of the poster.

Poster presented at ISPOR Europe 2025; 9-12 November 2025; Glasgow, Scotland.