

# **Cost-Consequences of Cladribine Tablets for the Treatment of Highly Active Relapsing-Remitting Multiple Sclerosis in Italy**

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**Supplementary Table 1 Switching rate of highly active relapsing remitting MS treatments included in the analysis**

| Switched to        | Switched from      |            |           |          |              |              |             |
|--------------------|--------------------|------------|-----------|----------|--------------|--------------|-------------|
|                    | cladribine tablets | fingolimod | ponesimod | ozanimod | ocrelizuma b | natalizuma b | ofatumum ab |
| cladribine tablets | -                  | 0.24%      | 0.52%     | 0.24%    | 4.07%        | 1.17%        | 4.07%       |
| fingolimod         | 0.03%              | -          | 0.00%     | 0.00%    | 0.33%        | 0.52%        | 0.33%       |
| ponesimod          | 0.03%              | 0.04%      | -         | 0.04%    | 0.05%        | 0.09%        | 0.05%       |
| ozanimod           | 0.03%              | 0.08%      | 0.00%     | -        | 0.33%        | 0.52%        | 0.33%       |
| ocrelizuma b       | 0.28%              | 0.77%      | 0.53%     | 0.77%    | -            | 6.84%        | 6.84%       |
| natalizuma b       | 0.07%              | 0.45%      | 0.29%     | 0.45%    | 1.87%        | -            | 1.87%       |
| ofatumum ab        | 0.18%              | 0.01%      | 0.03%     | 0.01%    | 1.32%        | 0.30%        | -           |
| Total Switches     | 0.62%              | 1.59%      | 1.37%     | 1.51%    | 7.97%        | 9.44%        | 13.49%      |

\*Treatment switching rates are sourced from the GLIMPSE study when available. For ozanimod and ponesimod, fingolimod values were used as a proxy in the absence of GLIMPSE study data. Ocrelizumab was used as a proxy for ofatumumab, and natalizumab values were used to estimate the switching rates between ofatumumab and ocrelizumab.

\*Switching rates are used to estimate patients' transitions from their index treatment (presented in columns) to subsequent treatments (presented in rows).

Supplementary Table 2. Healthcare Resource Utilization and per patient monitoring costs

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|                                  |          |        |     |       |     |       |     |       |     |       |     |       |     |       |     |       |     |       |
|----------------------------------|----------|--------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| Other biochemical tests          | 90.05.1  | 1.42   | 1.0 | 1.4   | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
|                                  | 90.25.5  | 1.13   | 1.0 | 1.1   | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
|                                  | 90.29.2  | 1.13   | 1.0 | 1.1   | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
|                                  | 90.75.4  | 2.85   | 1.0 | 2.9   | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
|                                  | 90.16.3. | 1.13   | 1.0 | 1.1   | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| Urine analysis (microscopic)     | 90.44.3  | 2.17   | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| HPV test                         | 91.11.5  | 63.52  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| Magnetic resonance imaging (MRI) | 88.91.2  | 247.50 | 2.0 | 495.0 | 1.0 | 247.5 | 2.0 | 495.0 | 1.0 | 247.5 | 2.0 | 495.0 | 1.0 | 247.5 | 2.0 | 495.0 | 1.0 | 247.5 |
| Ophthalmologic examination       | 89.7     | 20.66  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | 1.0 | 20.7  | -   | -     |
| Dermatologic examination         | 89.7     | 20.66  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| Thyroid function test            | 90.43.3  | 6.40   | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
|                                  | 90.42.3  | 6.36   | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
|                                  | 90.53.5  | 25.06  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
|                                  | 90.42.1  | 5.46   | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| Tuberculosis screening           | 90.83.5  | 34.09  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| JC virus test                    | 91.11.5  | 63.52  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| HCV test                         | 91.19.5  | 12.25  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| HBV test                         | 91.19.2  | 23.34  | 1.0 | 23.3  | -   | -     | -   | -     | -   | -     | 1.0 | 23.3  | -   | -     | -   | -     | -   | -     |
| VZV test                         | 91.11.5  | 63.52  | -   | -     | -   | -     | 1.0 | 63.5  | -   | -     | -   | -     | -   | -     | 1.0 | 63.5  | -   | -     |
| HIV test                         | 91.22.2  | 25.20  | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     | -   | -     |
| ECG (Electrocardiogram)          | 89.52    | 11.62  | -   | -     | -   | -     | 1.0 | 11.6  | -   | -     | -   | -     | -   | -     | 1.0 | 11.6  | -   | -     |

|                                                                   |         |        |     |       |   |       |     |       |     |       |     |       |   |       |     |       |     |       |
|-------------------------------------------------------------------|---------|--------|-----|-------|---|-------|-----|-------|-----|-------|-----|-------|---|-------|-----|-------|-----|-------|
| Blood pressure test                                               | 89.61.1 | 41.32  | -   | -     | - | -     | 4.0 | 165.3 | 4.0 | 165.3 | -   | -     | - | -     | 4.0 | 165.3 | 4.0 | 165.3 |
| Pregnancy test                                                    | 90.27.3 | 6.02   | 1.0 | 6.0   | - | -     | 1.0 | 6.0   |     | -     | 1.0 | 6.0   | - | -     | 1.0 | 6.0   | -   | -     |
| Monitoring of<br>Progressive<br>Multifocal<br>Leukoencephalopathy | 88.91.2 | 247.50 | -   | -     | - | -     | -   | -     | -   | -     | -   | -     | - | -     | -   | -     | -   | -     |
| <b>Per patent total monitoring cost (€)</b>                       |         |        | -   | 535.2 | - | 247.5 | -   | 763.6 | -   | 429.5 | -   | 527.5 | - | 247.5 | -   | 793.8 | -   | 425.5 |

**Supplementary Table 3.**  
**3-month relapse costs - Direct costs**

| Direct costs       | Cost Value (€) |
|--------------------|----------------|
| Inpatient Care     | 711.6          |
| Day admission      | 395.3          |
| Consultations      | 131.8          |
| Tests              | 92.2           |
| Total Direct Costs | 1,330.9        |

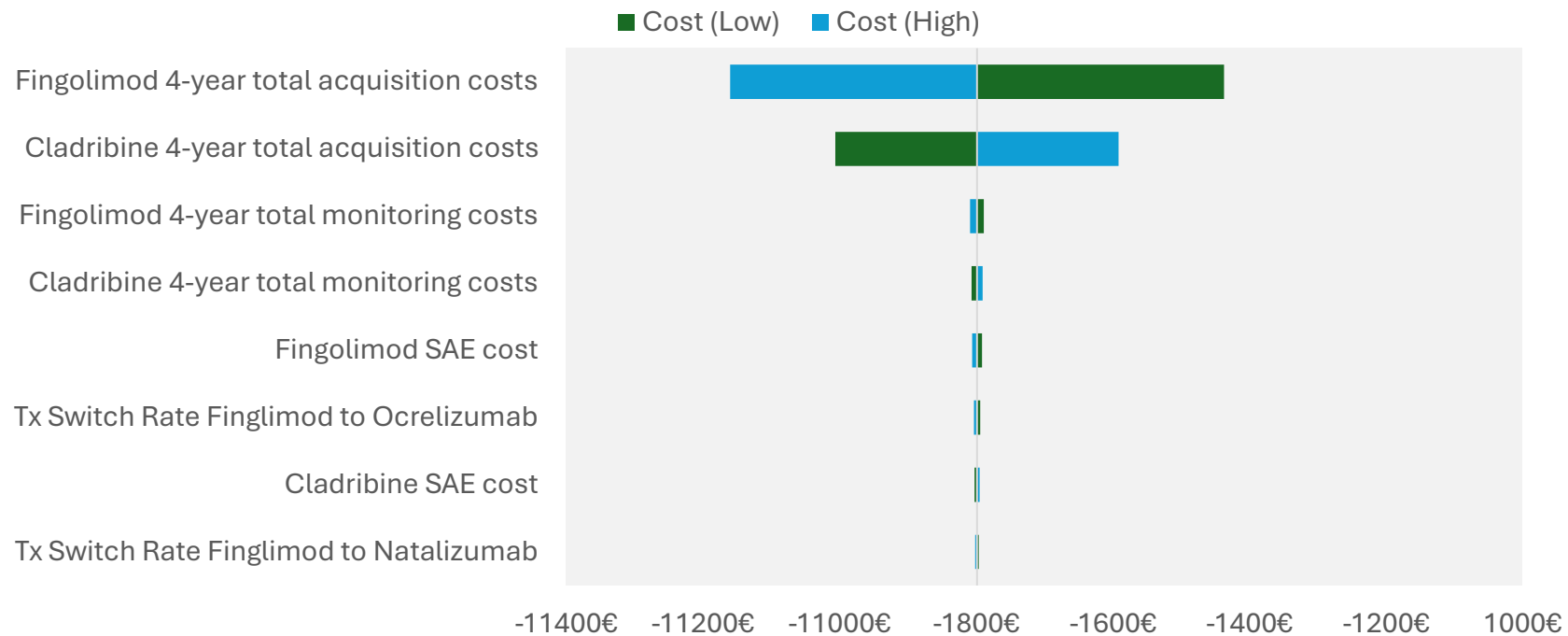
**Supplementary Table 4.**  
**Adverse events costs**

| Direct costs       | Cost Value (€) |
|--------------------|----------------|
| cladribine tablets | 224.4          |
| fingolimod         | 436.9          |
| ponesimod          | 274.6          |
| ozanimod           | 173.2          |
| ocrelizumab        | 229.2          |
| natalizumab        | 405.4          |
| ofatumumab         | 364.7          |

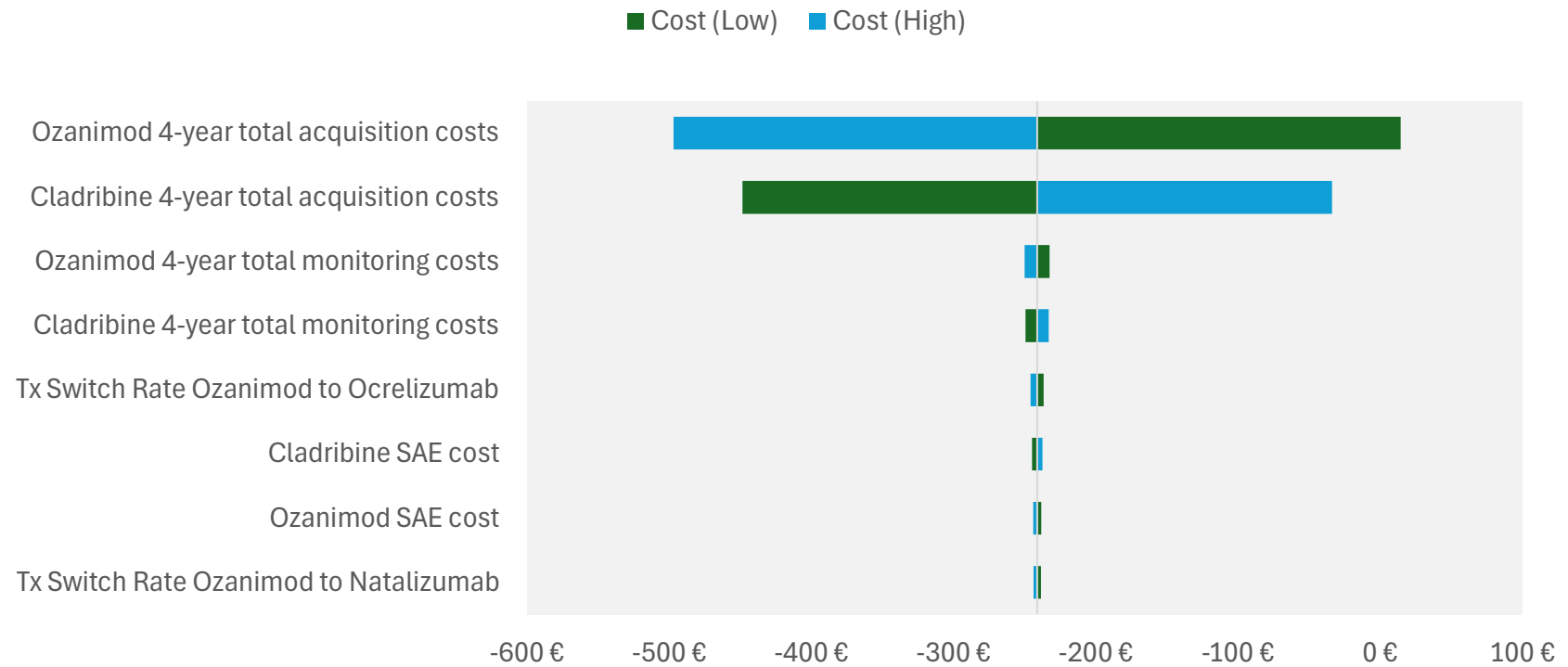
**Supplementary Table 5.**  
**Indirect costs**

| Direct costs       | Cost Value (€) |
|--------------------|----------------|
| Community Services | 137.0          |
| Informal Care      | 208.0          |
| Short term absence | 100.0          |
| Total              | 445.0          |

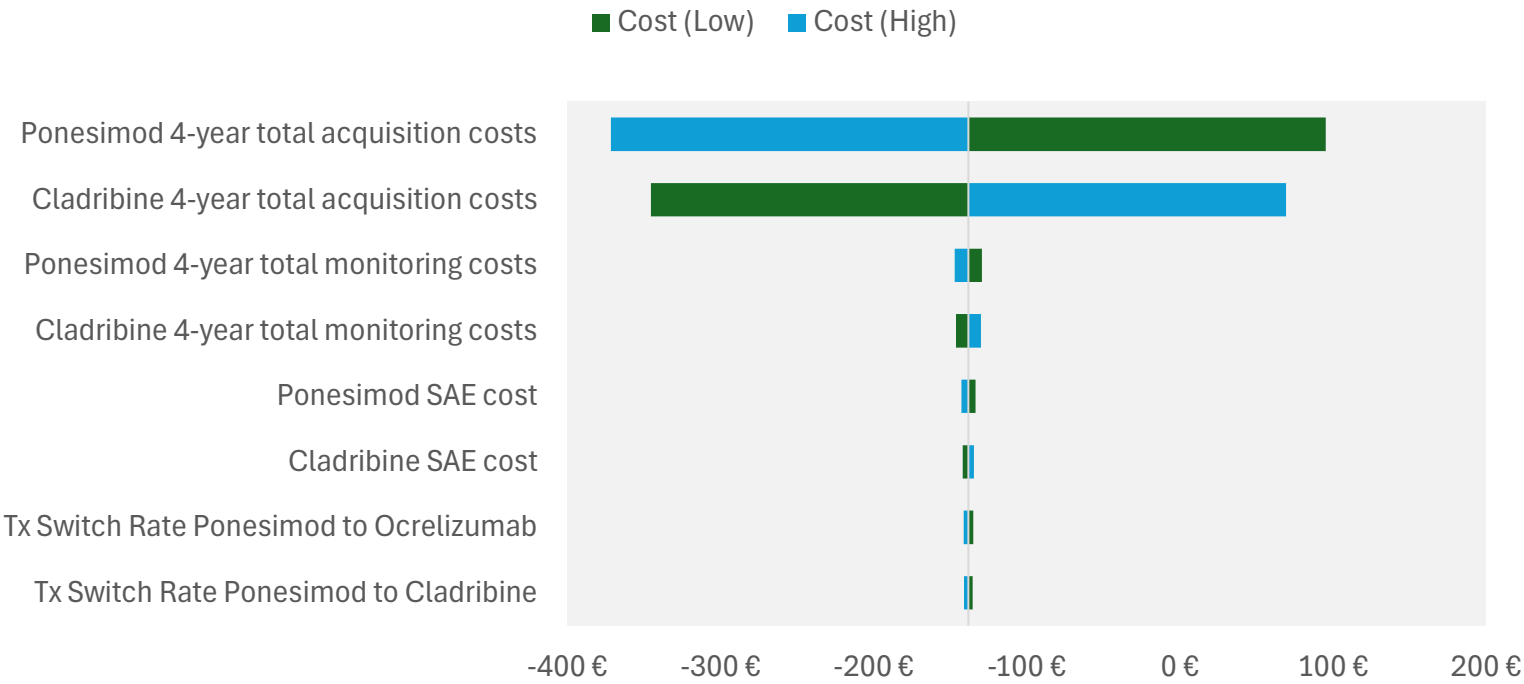
Supplementary Figure 1. Deterministic Sensitivity Analysis for the top 8 parameters for Cladribine vs Fingolimod:  
Incremental difference in total cost per year of Index Treatment



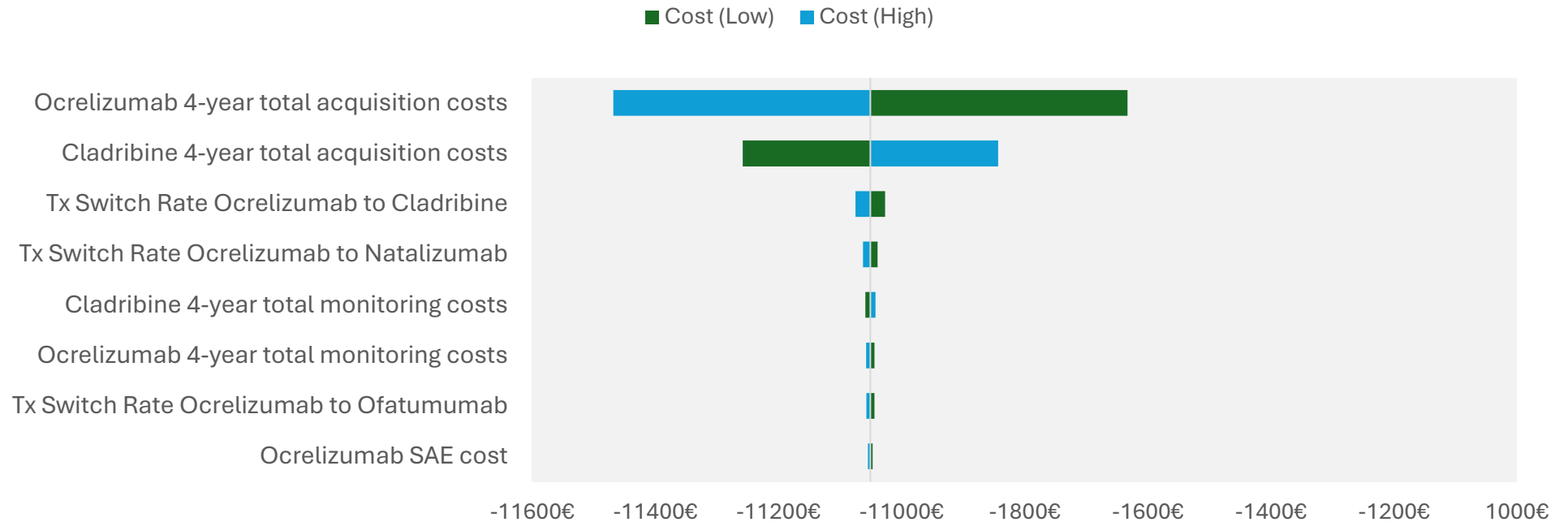
Supplementary Figure 2. Deterministic Sensitivity Analysis for the top 8 parameters for Cladribine vs Ozanimod:  
Incremental difference in total cost per year of Index Treatment



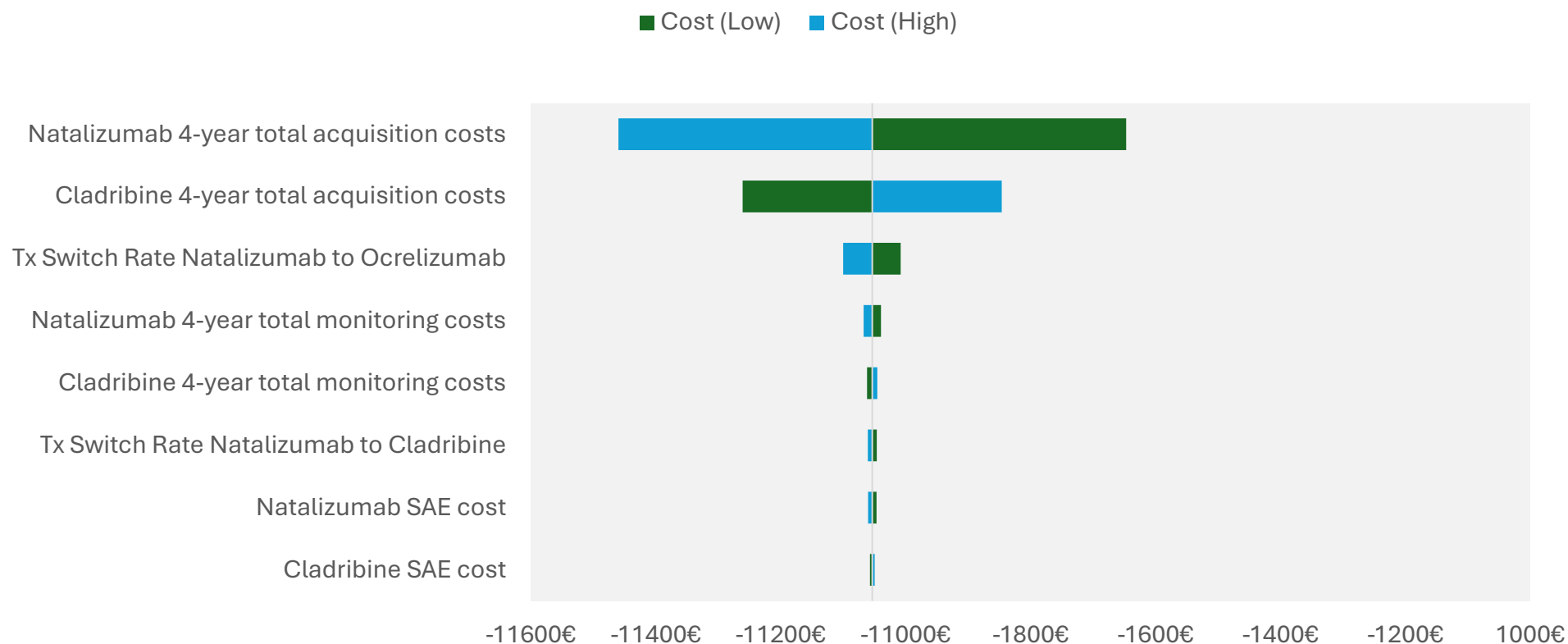
Supplementary Figure 3. Deterministic Sensitivity Analysis for the top 8 parameters for Cladribine vs Ponesimod:  
Incremental difference in total cost per year of Index Treatment



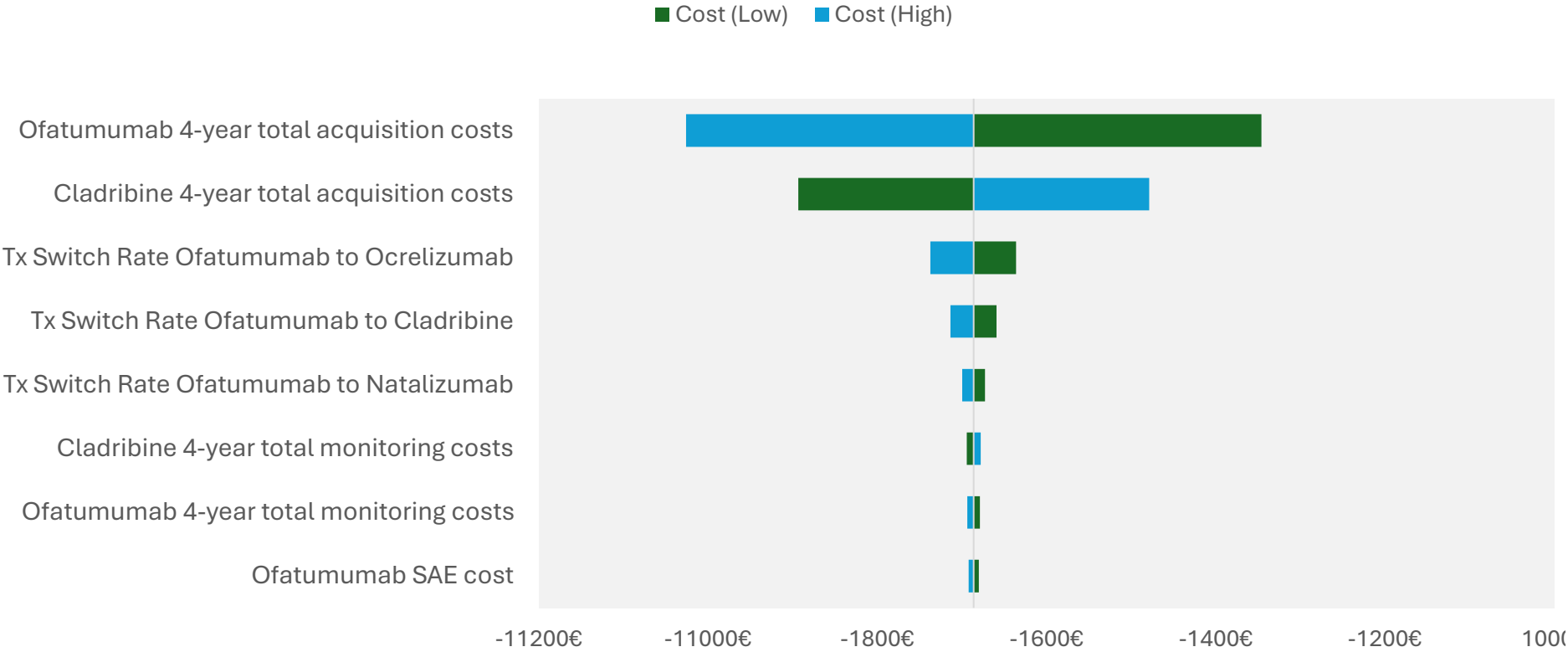
Supplementary Figure 4. Deterministic Sensitivity Analysis for the top 8 parameters for Cladribine vs Ocrelizumab: Incremental difference in total cost per year of Index Treatment



Supplementary Figure 5. Deterministic Sensitivity Analysis for the top 8 parameters for Cladribine vs Natalizumab: Incremental difference in total cost per year of Index Treatment



Supplementary Figure 6. Deterministic Sensitivity Analysis for the top 8 parameters for Cladribine vs Ofatumumab: Incremental difference in total cost per year of Index Treatment



Supplementary Figure 7. Economic and clinical treatment comparison

