# Budget Impact of Subcutaneous Immunoglobulin, Intravenous Immunoglobulin, and Efgartigimod Alfa in Patients With Chronic Inflammatory Demyelinating Polyneuropathy in the United States

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## Introduction

- Chronic inflammatory demyelinating polyneuropathy (CIDP) is a rare, progressive autoimmune disease causing peripheral nervous system dysfunction.[1]
- Subcutaneous immunoglobulin (SCIG) or intravenous immunoglobulin (IVIG) therapy are recommended as an immunomodulatory agent in CIDP.
- Efgartigimod alfa, a novel Fc receptor antagonist, is expected to become available as an additional option for CIDP patients.

## Objective

**To estimate the budget impact of efgartigimod alfa in a proportion of CIDP patients currently receiving SCIG and IVIG.**

## Methods

- A budget impact model was developed to project, from a US integrated delivery network perspective, the costs expected with introducing efgartigimod alfa for CIDP maintenance therapy, in relation to the current standard of care consisting of IVIG and SCIG (IgPro20) treatment.
- Cost inputs included drug acquisition (pharmacy) costs, administration costs by site of care, infusion-related complications, systemic side effects, and indirect costs.[2-6]
- Pharmacy costs were based on a payment mix of average sales price (ASP) (73%), wholesale acquisition cost (WAC) (2%), and average wholesale price (AWP) (25%).[7]
- The PATH clinical study of IgPro20 (Hizentra) maintenance was the basis for input on relapse rates at initial assessment (24 weeks) and at 52 weeks for each of its 2 doses – high dose (0.4 g/kg/bodyweight (bw) and low dose (0.2 g/kg/bw).[8,9]
- The ICE clinical study of IVIG maintenance therapy was the basis for input relapse rates for IVIGs
- The recent ADHERE clinical study was used to obtain relapse rates of efgartigimod.[10,11]

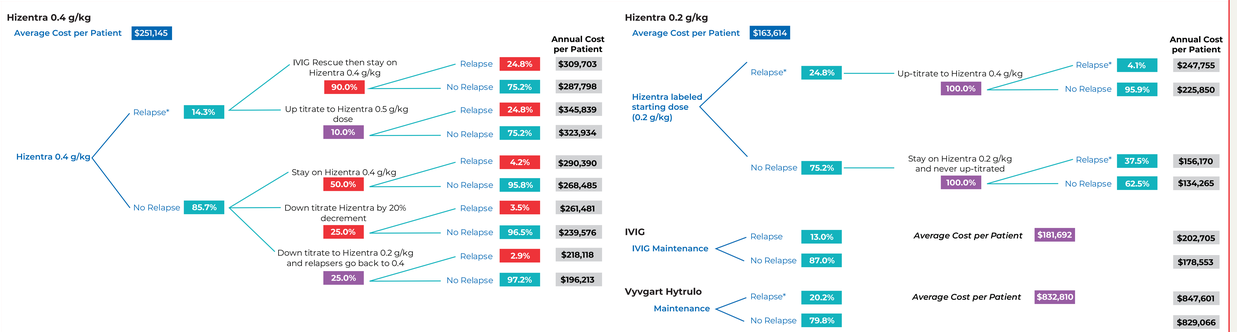
**Table 1. Pharmacy costs**

| | Hizentra | IVIG | Vyvgart Hytrulo |
|---|---|---|---|
| Reimbursed average sales price (ASP) | $12.73 (100 mg) | $48.35 (500 mg) | $16,050.00 (1 g) |
| Wholesale acquisition cost (WAC) | $227.42 (1 g) | $165.94 (1 g) | $16,586.69 (1 g) |
| Average wholesale price (AWP) | $211.12 (1 g) | $154.04 (1 g) | $15,397.45 (1 g) |
| **Average price per gram** | **$150.24** | **$112.42** | **$15,897.60** |

## Results

- For a hypothetical 25-million-member health plan, the analysis estimated, based on the prevalence of disease and IG treatment, an expected 708 CIDP patients treated with IG.
- **Figure 1** presents:
  - Patient flow for each of the treatment options for CIDP maintenance therapy
  - Associated relapse rates based on respective clinical studies and subsequent patient management, as relevant
  - Expected costs for each treatment option

**Figure 1. Model structure and cost per patient**




*Rates have been adjusted using a relative risk reduction approach to account for study heterogeneity between the PATH/ICE studies.
Key: IVIG – intravenous immunoglobulin.

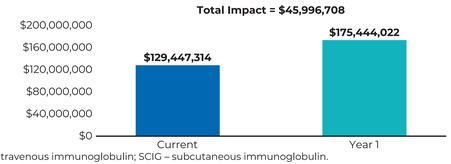
- Based on its publicly available US pricing for myasthenia gravis as translated to CIDP dosing, Vyvgart is expected to cost $832,810 for annual cost of CIDP treatment compared to $251,790 for the Hizentra high dose (0.4 g/kg/bw) and $163,929 for the Hizentra low dose (0.2 g/kg/bw).
- Assuming a 10% uptake of efgartigimod alfa in year 1, (drawing patient share proportionally from IVIG and SCIG) yielded a total projected budget impact of $45,996,708, a 35.5% increase.

**Table 2. Total cost increase, assuming assuming a 10% uptake of efgartigimod alfa in year 1, drawing patient share proportionally from IVIG and SCIG**

| | Current | Year 1 | Budget Impact | Percentage Change |
|---|---|---|---|---|
| **Drug costs** | $106,636,966 | $154,714,897 | **$48,077,931** | **45.1%** |
| **Non-drug costs** | $22,791,732 | $20,712,281 | **-$2,079,450** | **-9.1%** |
| **Total costs** | $129,447,314 | $175,444,022 | **$45,996,708** | **35.5%** |

Key: IVIG – intravenous immunoglobulin; SCIG – subcutaneous immunoglobulin.

**Figure 2. Budget impact assuming a 10% uptake of efgartigimod alfa in year 1, drawing patient share proportionally from IVIG and SCIG**




Key: IVIG – intravenous immunoglobulin; SCIG – subcutaneous immunoglobulin.

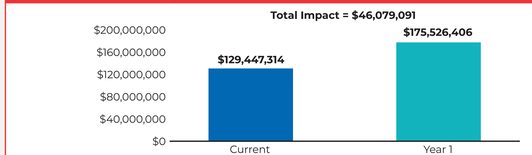
## Results *cont.*

- Assuming a 10% uptake of efgartigimod alfa in year 1 (drawing patient share exclusively from IVIG) led to a projected total budget impact of $46,079,091, a 35.6% increase.

**Table 3. Total cost increase, assuming a 10% uptake of efgartigimod alfa in year 1 drawing patient share exclusively from IVIG**

| | Current | Year 1 | Budget impact | Percentage change |
|---|---|---|---|---|
| **Drug costs** | $106,636,966 | $154,938,938 | **$48,301,972** | **45.3%** |
| **Non-drug costs** | $22,791,732 | $20,568,851 | **-$2,222,881** | **-9.8%** |
| **Total costs** | $129,447,314 | $175,526,406 | **$46,079,091** | **35.6%** |

**Figure 3. Budget impact assuming a 10% uptake of efgartigimod alfa in year 1 drawing patient share exclusively from IVIG**




Key: IVIG – intravenous immunoglobulin.

## Conclusions

- **This analysis suggests that efgartigimod alfa is expected to result in substantially increased spending in treatment of CIDP. This conclusion follows from:**
  - **Substantially higher publicly known price of efgartigimod alfa, as translated via dose adjustment from myasthenia gravis pricing to CIDP pricing.**
  - **The absence of a documented relapse management approach with efgartigimod alfa, as opposed to known relapse management outcomes documented in the PATH open-label extension study, and incorporating the cost of untreated relapses.**

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## Disclosures

Mallick R and Hubsch A are employees of CSL Behring; Carlton R and van Stiphout are employees of Cencora; Lahue B is an employee of Alkemi
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