Assessing VYVGART™ Social Media Data in generalized Myasthenia Gravis to Understand Patient, Caregiver, and HCP Sentiment

PCR203

Tom Hughes[1], Albert Whangbo[2], Swati Shukla[3], Aditya Batra[3], Kaushik Bhattacharya[4], Anshul Sharma[3], Shreyas Jarmale[4]

[1]argenx, Boston, MA, USA; [2]ZS Associates, Durham, NC, USA; [3]ZS Associates, Gurgaon, Haryana, India; [4]ZS Associates, Bengaluru, Karnataka, India
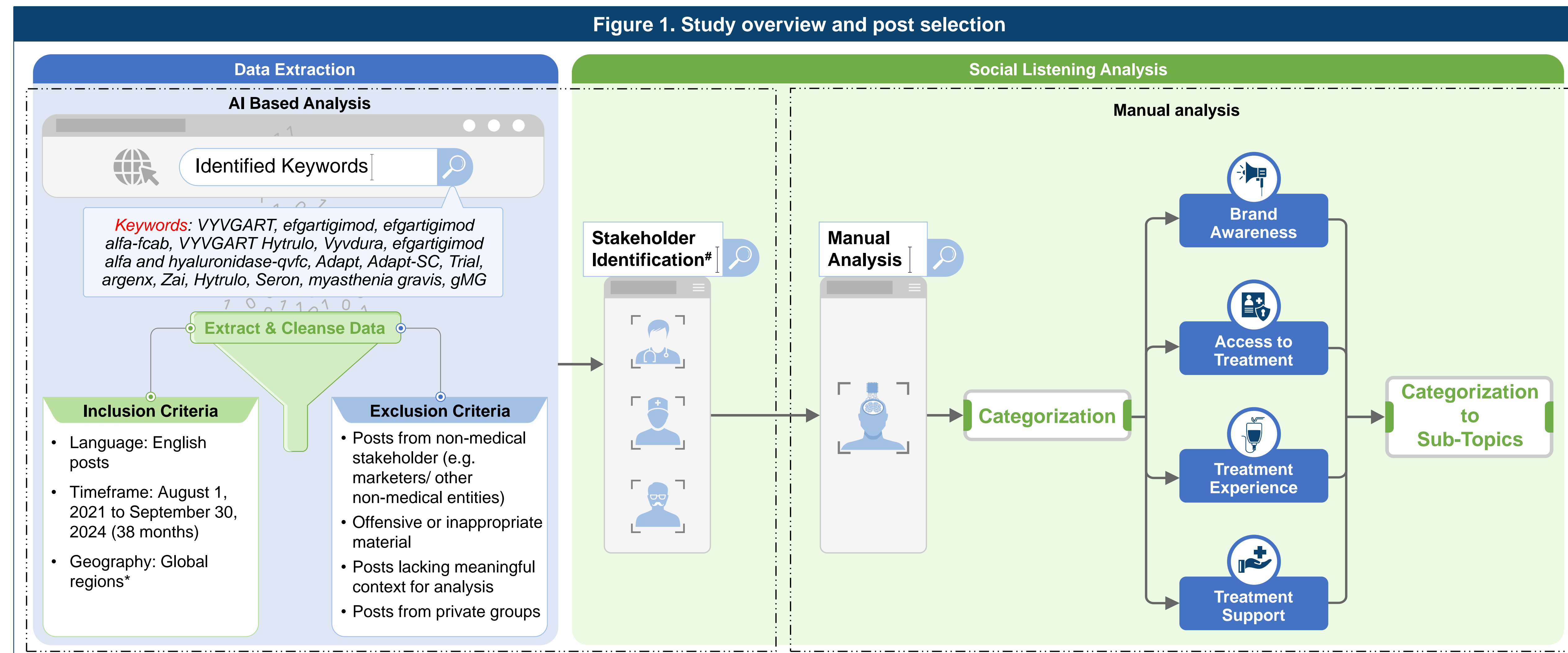
INTRODUCTION

- VYVGART™ (efgartigimod), approved in 2021, is a first-in-class intravenous neonatal fragment crystallizable receptor antagonist for the treatment of generalized Myasthenia Gravis (gMG), offering an alternative for patients beyond corticosteroids and broad immunosuppressants.[1,2]
- Social media serves as a valuable complement to traditional data sources, capturing unfiltered and unprompted patient experiences and sentiments about treatments, quality of life (QoL), steroid use reduction, cost burdens, and insurance challenges.[3,4]
- Evaluating social media content is crucial to gain deeper insights into the discussions, sentiments, and challenges expressed by patients, caregivers, and healthcare professionals (HCPs).
- This information regarding VYVGART and VYVGART Hytrulo would help improve care strategies for gMG patients and guide future research of gMG therapies.

OBJECTIVE

- To categorize and quantify the distribution of discussions and sentiment regarding VYVGART and VYVGART Hytrulo across patients, caregivers, and HCPs.
- To explore subtopics within these discussions and analyze their associated sentiments to understand the varied experiences and opinions across the three groups.

METHODS

- VYVGART, VYVGART Hytrulo, and gMG posts were identified from social media platforms including Reddit, Facebook, Instagram, and YouTube (**Figure 1**).
- Data was collected using Brandwatch over a 38-month period removing irrelevant content to retain meaningful discussions (**Figure 1**).
- All posts with keywords "VYVGART", "VYVGART Hytrulo", "VYVGART Vyvdura", or "efgartigimod", were in English language, related to clinical trials and were specific to gMG.
- Posts were analyzed with ZS GenAI algorithms, removing irrelevant data and applying exclusion criteria to filter out inappropriate content, advertisements, or non-specific discussions.
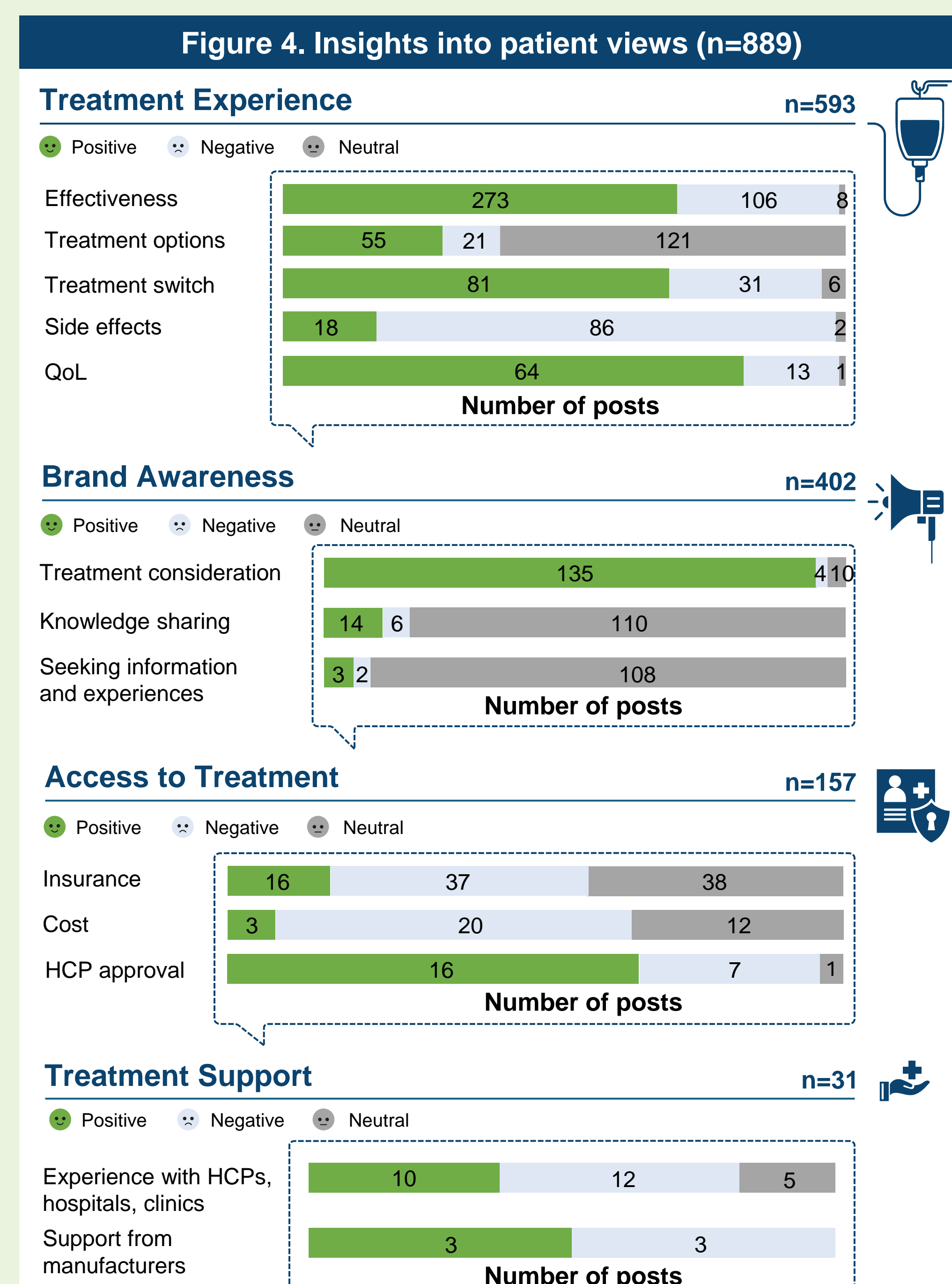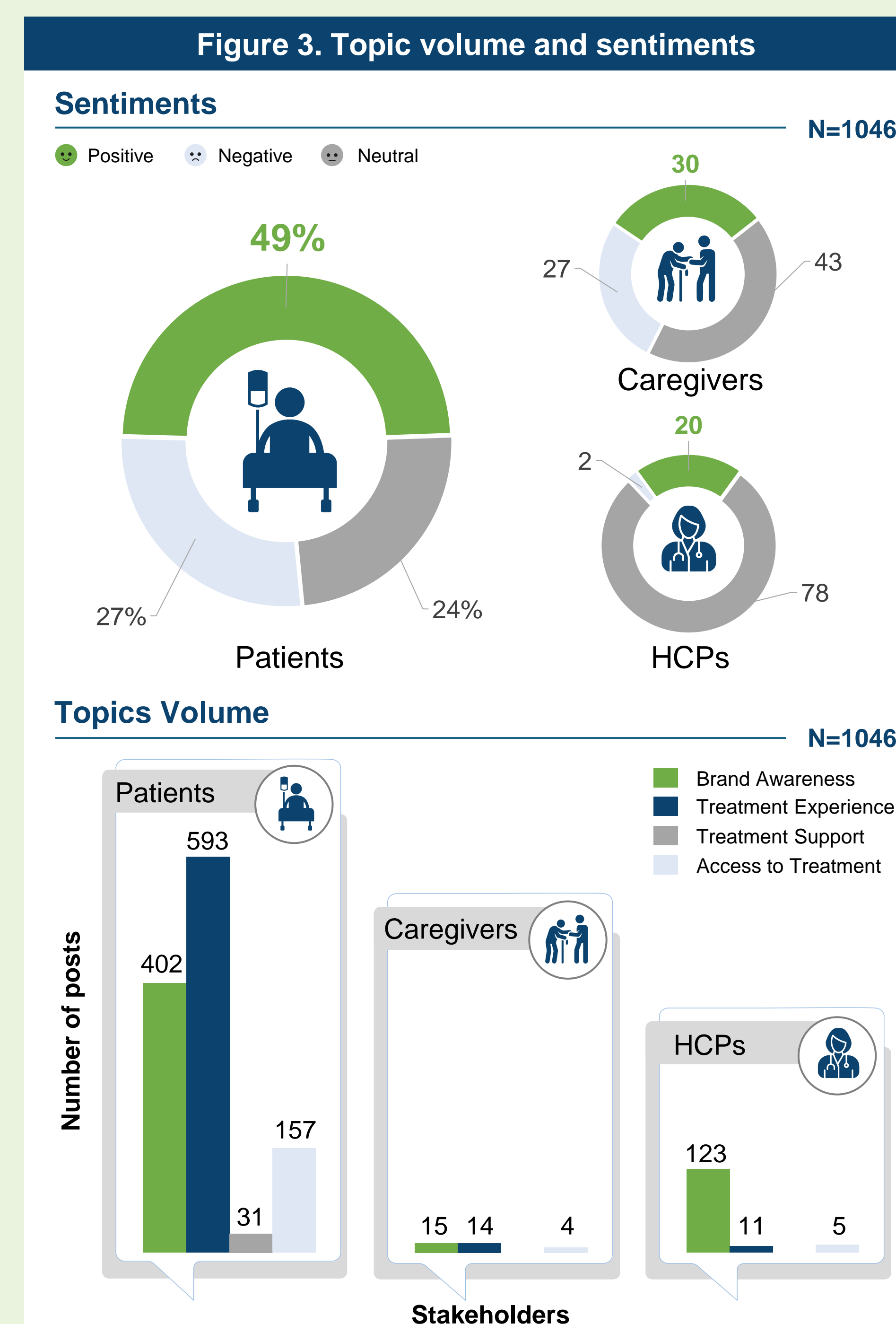
- Relevant posts were classified into four distinct topics: brand awareness, access to treatment, treatment experience, and treatment support (**Figure 1**).
- A total of 4214 global social media posts were identified. Of these 1046 were found to be relevant: Patients (n=889 posts; 85%), Caregivers (n=29 posts; 3%), and HCPs (n=128 posts; 12%) (**Figure 2**).
- The majority of posts were for VYVGART (1015 posts) with a smaller number of posts for VYVGART Hytrulo (55 posts).

Figure 1. Study overview and post selection

*For platforms lacking location data, (Reddit, Facebook, Instagram, YouTube) posts are assumed to be US-based unless geographic details suggest otherwise. #using ZS GenAI algorithms with manual validation. gMG, generalized Myasthenia Gravis.

Figure 2. Data extraction and filtration methodology
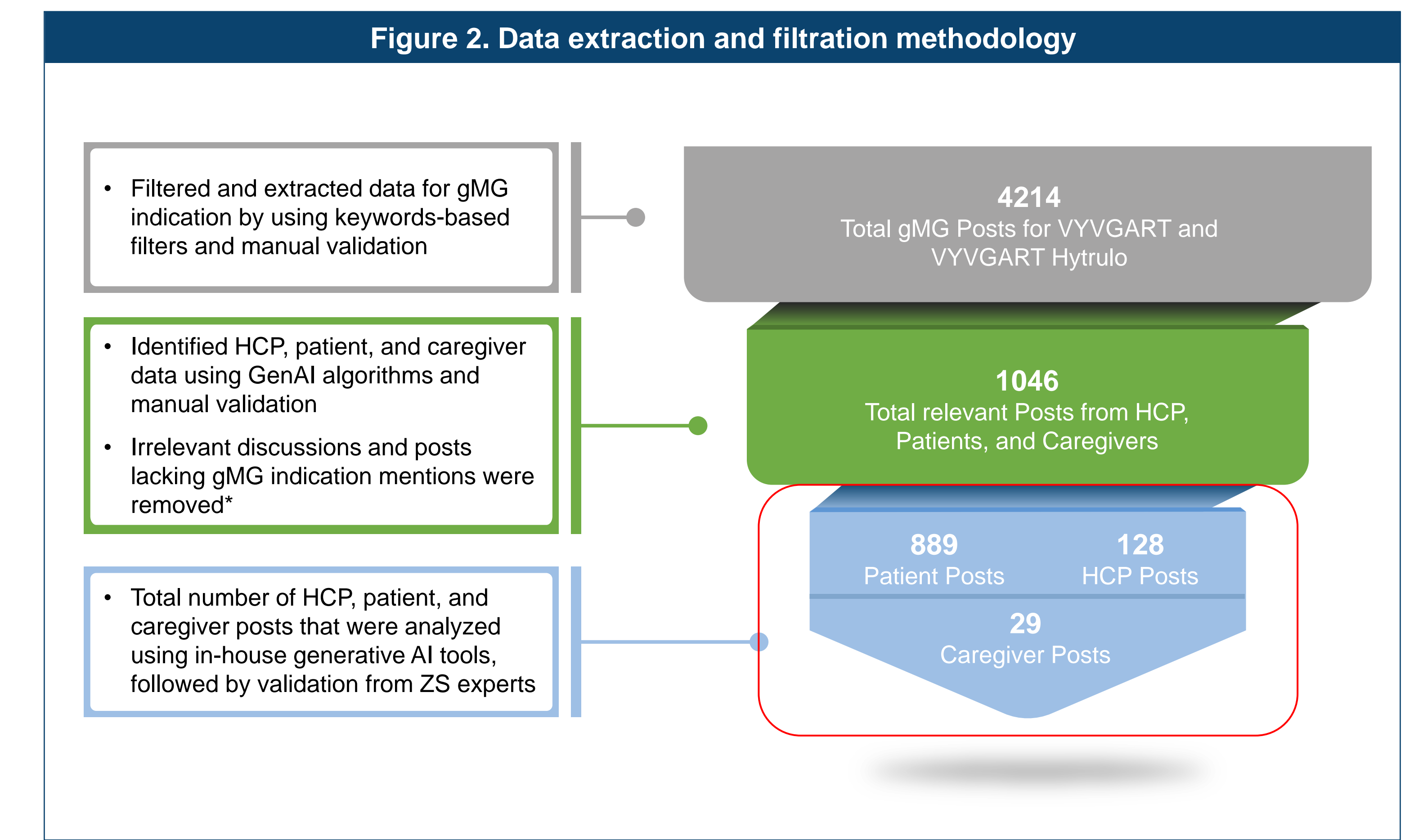
*Posts lacking sufficient information, and containing stock-related content, news coverage, non-indication topics were removed.
A post can be tagged under multiple topics, subtopics and may carry multiple sentiments, leading to total counts exceeding 100%. Therefore, topics and subtopics are not mutually exclusive.
gMG, generalized Myasthenia Gravis; GenAI, Generative artificial intelligence; HCPs, Healthcare professionals.

RESULTS

- Patient sentiment overall for VYVGART was positive (49%).
- Treatment experience was the most discussed topic among patients, while brand awareness was the predominant topic among HCPs (**Figure 3**).

- Patients report positive experiences with VYVGART and VYVGART Hytrulo, emphasizing their high effectiveness, enhanced QoL, and enthusiasm about beginning treatment (**Figure 4**).
- Patients were enthusiastic about VYVGART as a promising new treatment for gMG (**Figure 4**).

- Caregivers noted substantial improvements in symptoms and QoL with VYVGART, though some expressed concerns about side effects like pain. They actively shared treatment experiences and opinions on its cost (**Figure 5**).

- HCPs maintained a neutral opinion on VYVGART and VYVGART Hytrulo, recognizing them as effective treatment options for gMG and discussing their FDA approvals (**Figure 6**).

Figure 3. Topic volume and sentiments

This analysis has posts by patients in excessive majority, as gMG is a disease with lower caregiver dependency.
HCPs, Healthcare professionals; gMG, generalized Myasthenia Gravis.

Figure 4. Insights into patient views (n=889)

A post can be tagged under multiple topics, subtopics and may carry multiple sentiments, leading to total counts exceeding 100%. Therefore, topics and subtopics are not mutually exclusive.
HCPs, Healthcare professionals; QoL, Quality of life.
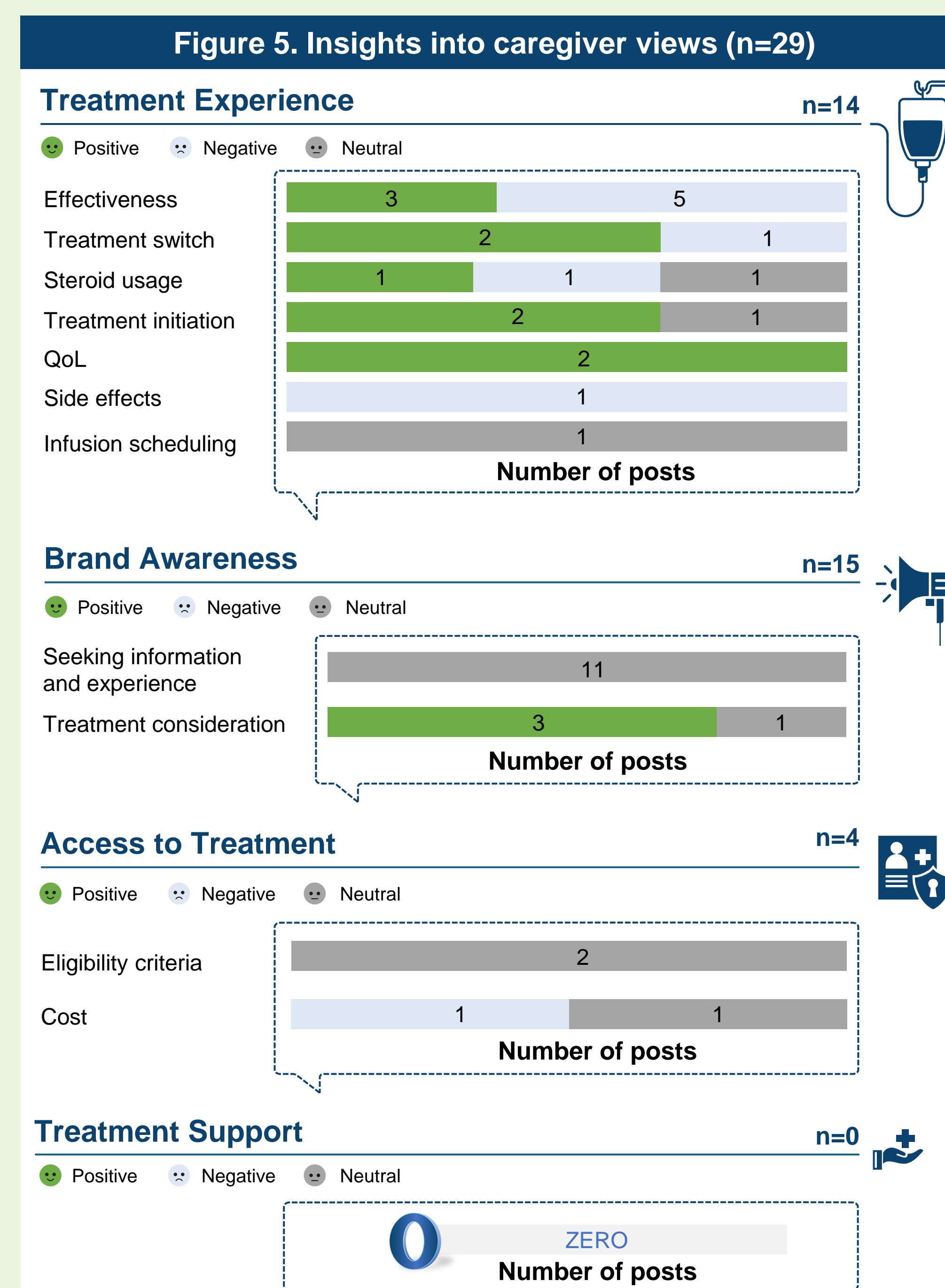
Figure 5. Insights into caregiver views (n=29)

A post can be tagged under multiple topics, subtopics and may carry multiple sentiments, leading to total counts exceeding 100%. Therefore, topics and subtopics are not mutually exclusive.
QoL, Quality of life.
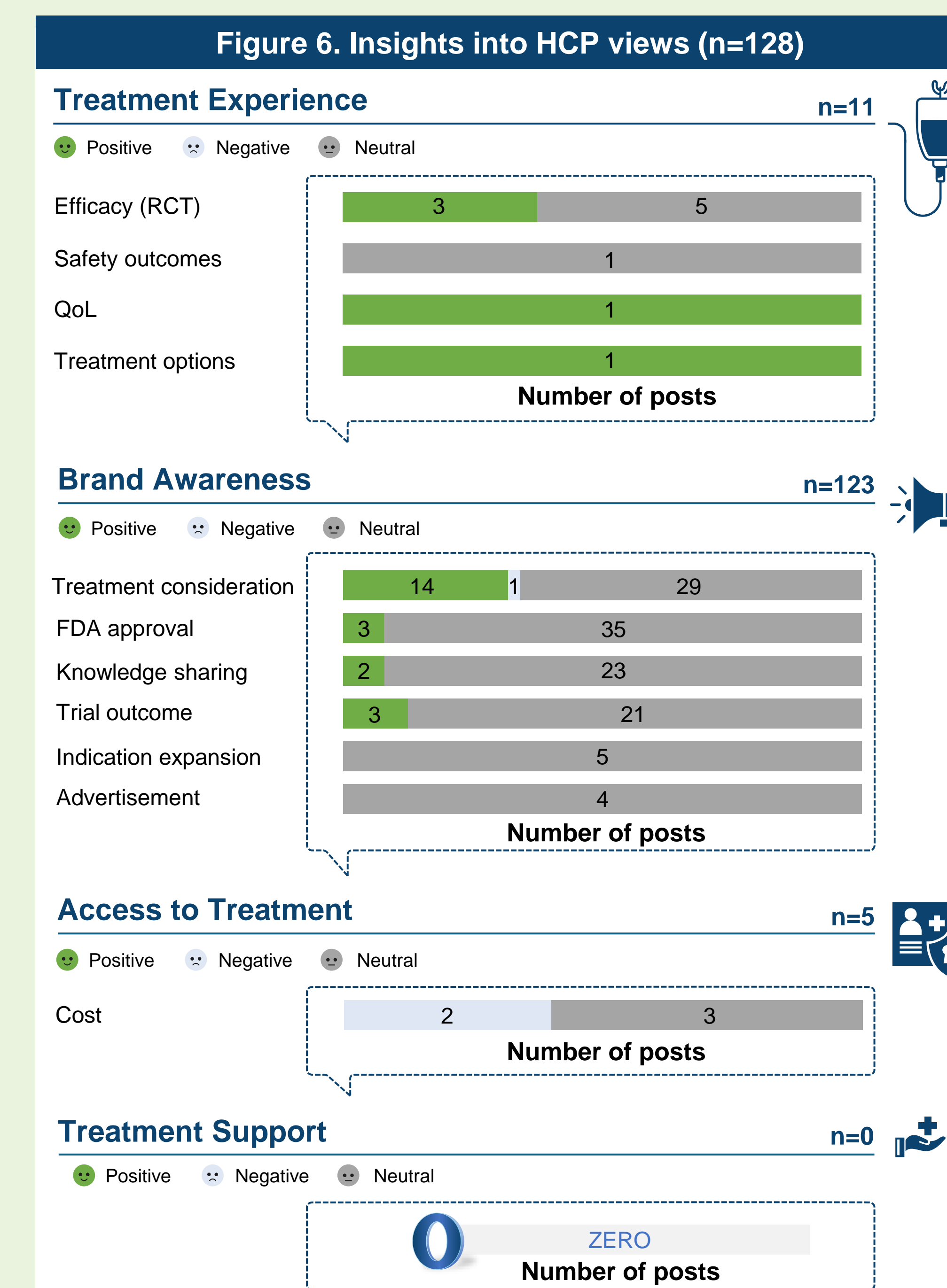
Figure 6. Insights into HCP views (n=128)

A post can be tagged under multiple topics, subtopics and may carry multiple sentiments, leading to total counts exceeding 100%. Therefore, topics and subtopics are not mutually exclusive.
FDA, Food and Drug Administration; RCT, Randomized controlled trials; QoL, Quality of life.

SUMMARY

- A standardized process was used to extract and analyze relevant social media data through stakeholder tagging and topic classification.
- Of the 1046 posts analyzed, 889 (~85%) were from patients, making them the primary contributor group.
- Patients shared positive sentiment on treatment effectiveness and QoL, while raising concerns around access and cost.

Limitations

- The age, sex, and geography for majority of the patients, HCPs, and caregivers were unknown, thus the findings cannot be interpreted from a demographic perspective.
- This study was confined to analyzing social media posts in English only, excluding posts in other languages, which limits the findings to English-language interactions.

REFERENCES:
1. Blair HA. *Drugs*. 2024;84(11):1463–74.
2. VYVGART ™ injection. Highlights of Prescribing Information. https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/761195s000lbl.pdf
3. Murray C, et al. *Digit Health*. 2024;10:20552076241251715.
4. Kanchan S, et al. *Cureus*. 2023;15(1):e33737.

argenx