

Intravenous Immunoglobulin as Adjunctive Therapy in Relapsing Remitting Multiple Sclerosis: A Novel Approach to Improving Quality of Life and Reducing Fatigue

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Background

Relapsing remitting multiple sclerosis is an autoimmune neurological condition, frequently associated with reduction in energy, mental clarity, and quality of life that may affect a patient's ability to work and live fulfilled lives. Approximately 80% of MS patients are affected by lack of energy; however, there are no approved therapies for fatigue in MS.

Introduction

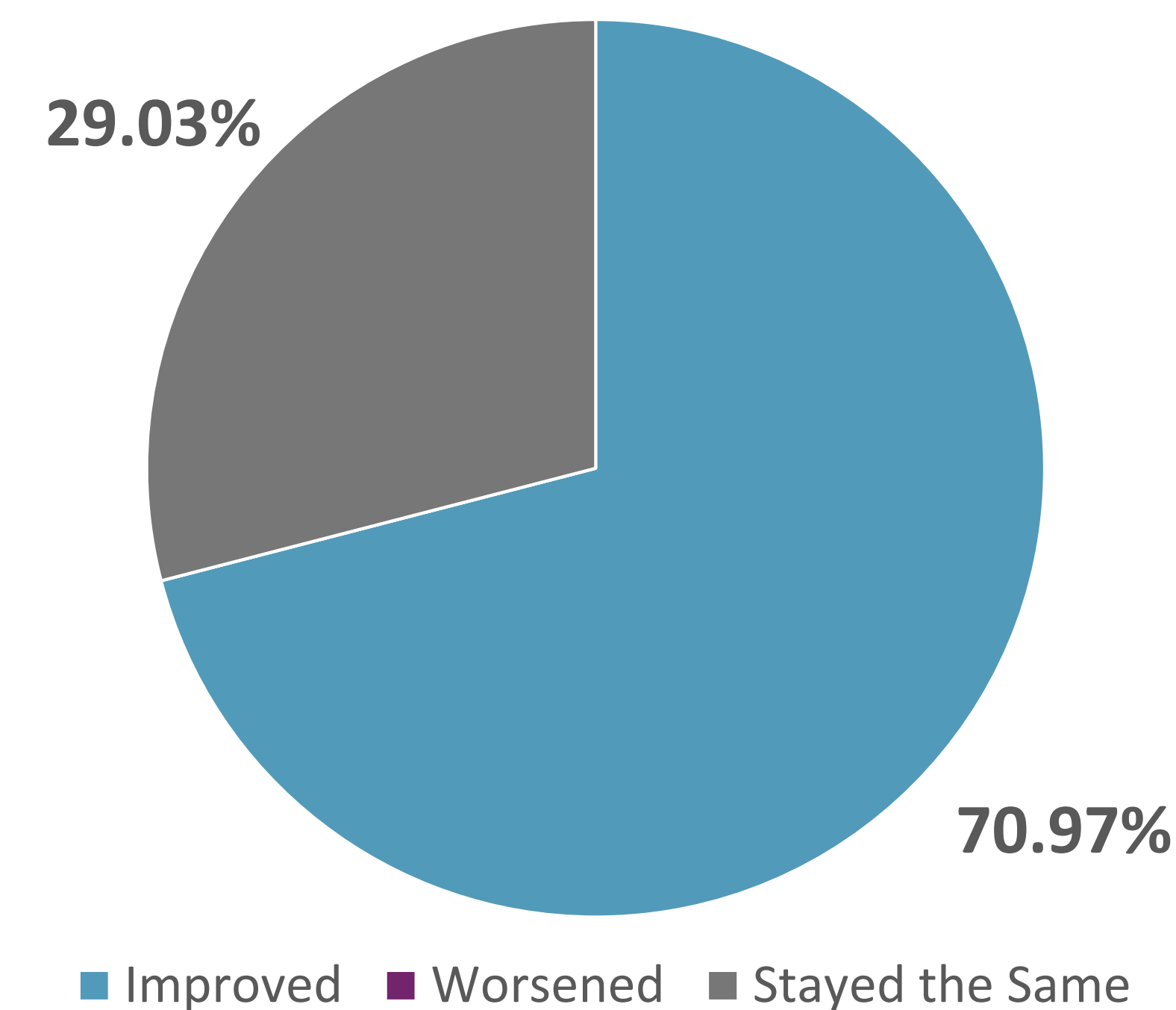
- Intravenous immunoglobulin (IVIG) monotherapy has shown inconsistent results and is inefficient to control disease activity but promising when used in conjunction with traditional disease modifying therapies (DMTs)
- A clear unmet need is a therapy used in a complementary manner with standard DMTs to increase energy and improve quality of life including: levels of fatigue, cognition, and gait disturbance frequently encountered by those living with MS

Methods

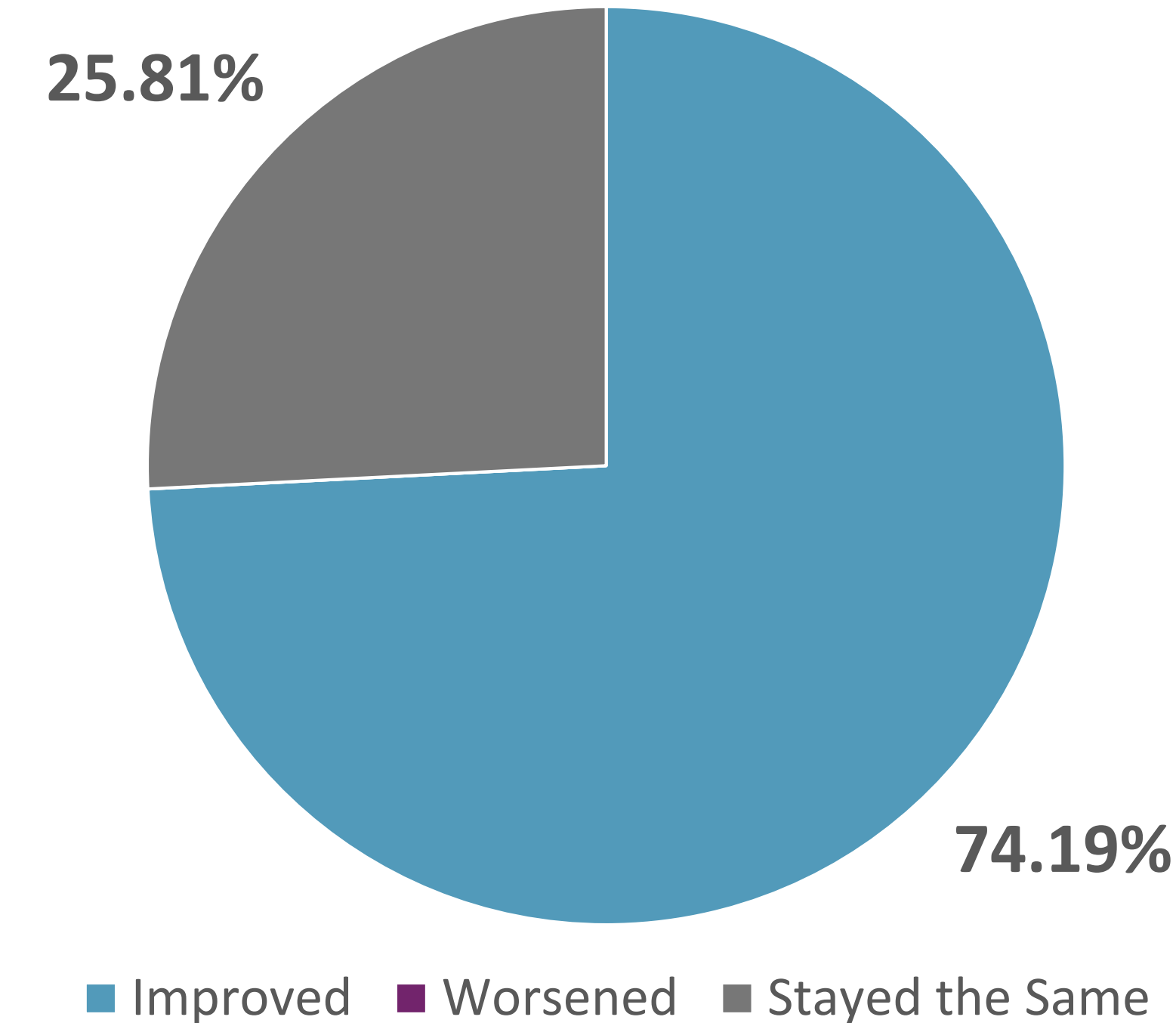
- Retrospective chart reviews were conducted for all patients treated with IVIG in addition to their standard DMT due to disease progression, worsening of activity and/or reduction of quality of life
- Patient reported outcomes were collected standard of care including: whether or not they have seen an improvement or worsening in: energy levels, cognition, relapse frequency, gait, and overall disease activity
- Analyzed data to determine effects of IVIG when used as an adjunctive therapy

Results

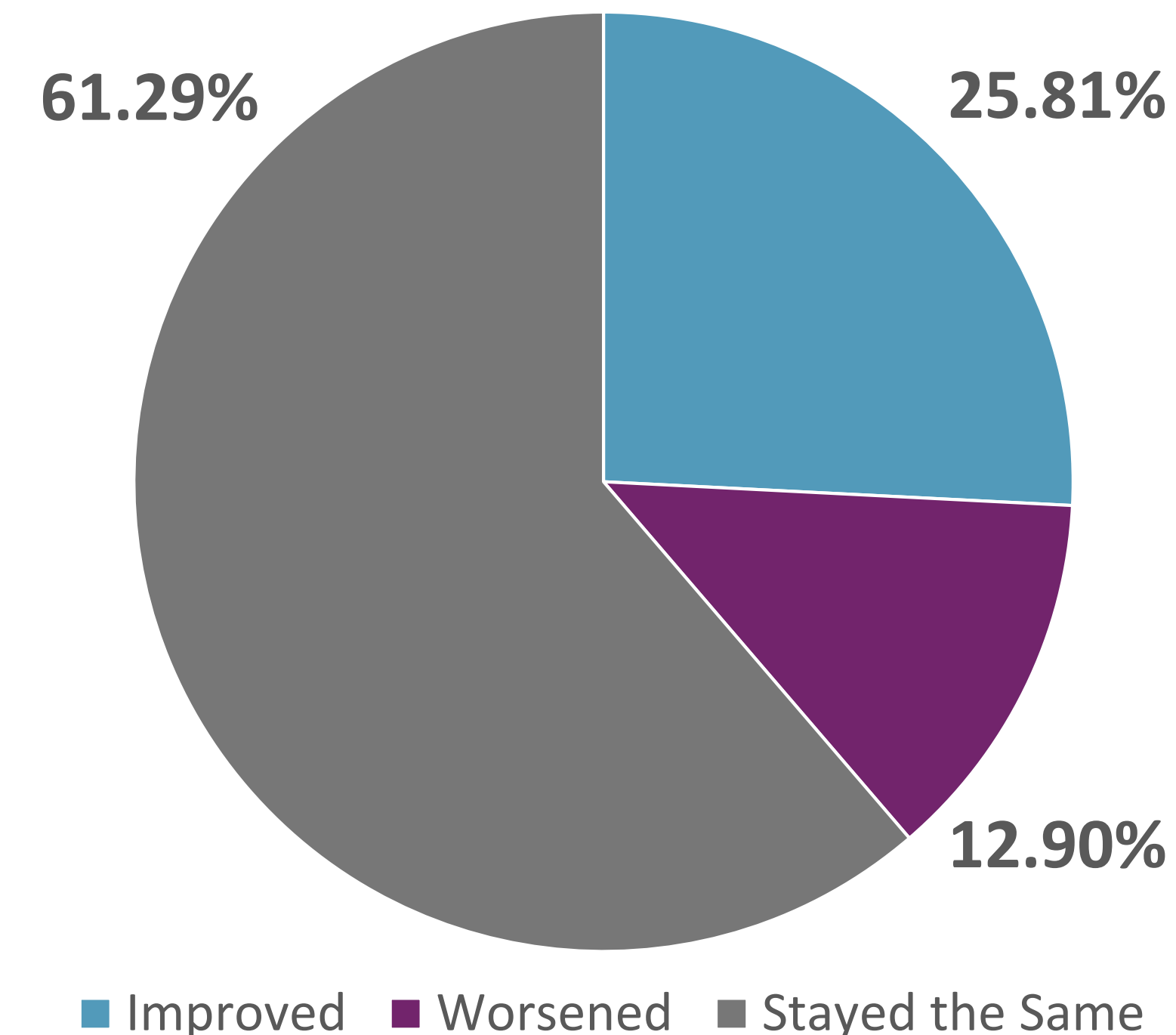
Since Starting IVIG, Energy Levels Have:



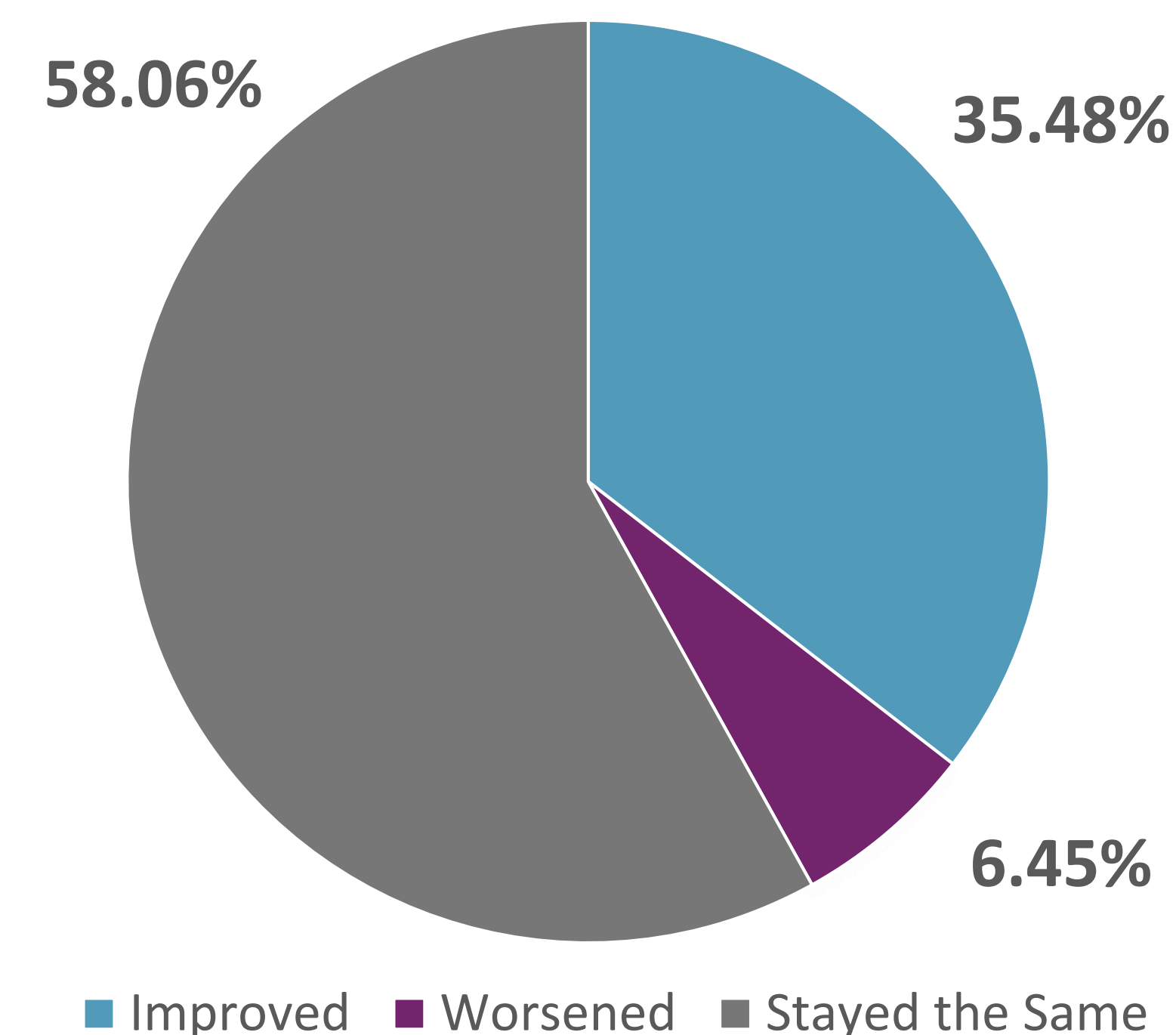
Since Starting IVIG, Overall Sense of Well-Being Has:



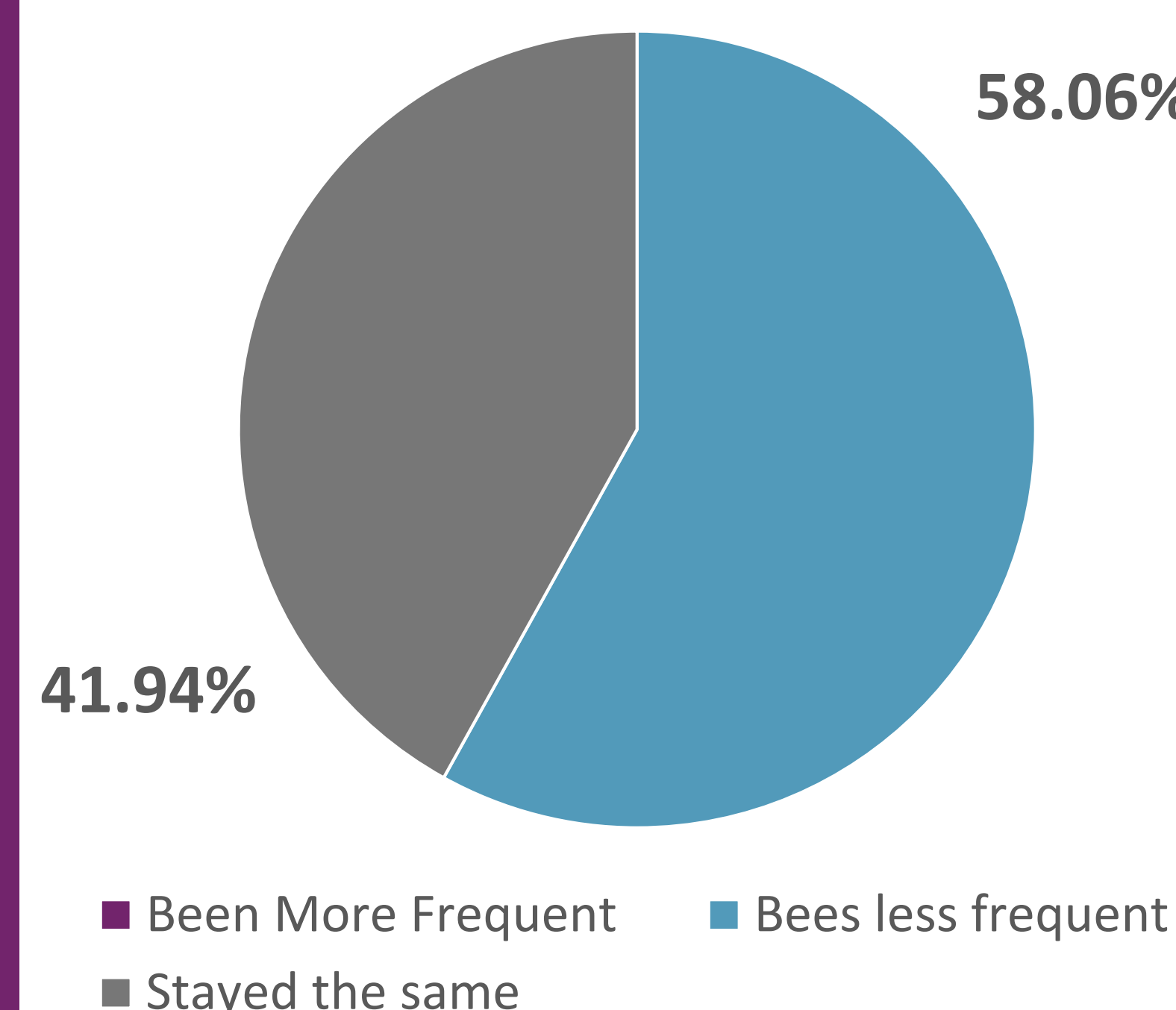
Since Starting IVIG, gait/walking has:



Since Starting IVIG, ability to think/mental clarity has:



Since Starting IVIG, MS Attacks/ Exacerbations/Flares Have:



Discussion

- There is a substantial increase in energy levels and overall sense of well-being, and significant improvement in gait, cognition and other key aspects of multiple sclerosis including quality of life with the addition of adjunctive IVIG to standard DMTs
- Patients received IVIG for a wide duration of time from one month to 10 years, suggesting onset of action is rapid and response is durable
- Patients were prescribed IVIG with DMTs including: Copaxone, Gilenya, Tysabri, Aubagio, Tecfidera, Rebif, Lemtrada and Rituxumab
- When asked how they felt regarding the overall impact of IVIG, patients reported:
 - "IVIG is like my charging station"
 - "I always feel better after my IVIG. I feel that I'm more awake, my brain works faster, and my energy levels takes a big increase. The IVIG has really made my life better. I can't imagine what it would be like without IVIG."
 - "I feel like I have my life back"
 - "IVIG gives me mental clarity and energy which gives me the ability to work out and take better care of myself"
 - "IVIG has allowed me to work 13 hour shifts as an RN, as well as the energy I need on my days off to run errands and enjoy day to day life"
- Data supports adding IVIG to the standard MS treatment protocol in a complementary manner to reduce MS fatigue

Acknowledgements

National MS Society. (n.d.). Fatigue. Retrieved March 13, 2018, from <https://www.nationalmssociety.org/>