CLINICAL PERCEPTION OF THERAPEUTIC PROTEIN POWDER

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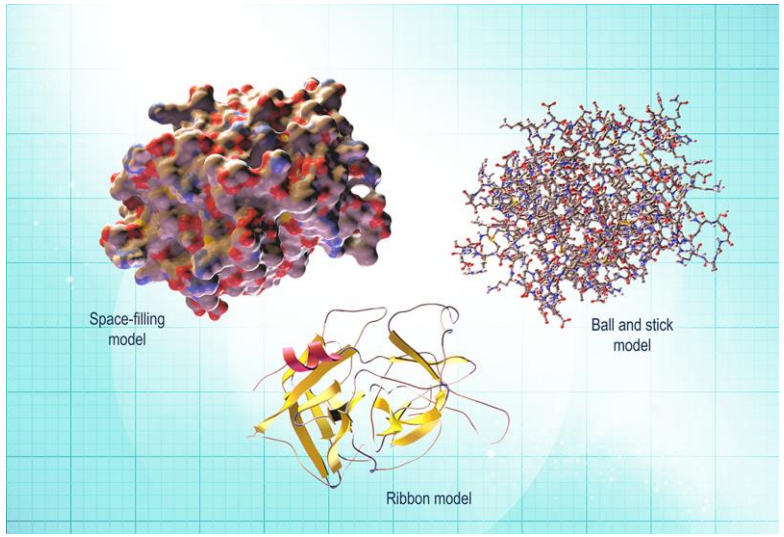
INTRODUCTION

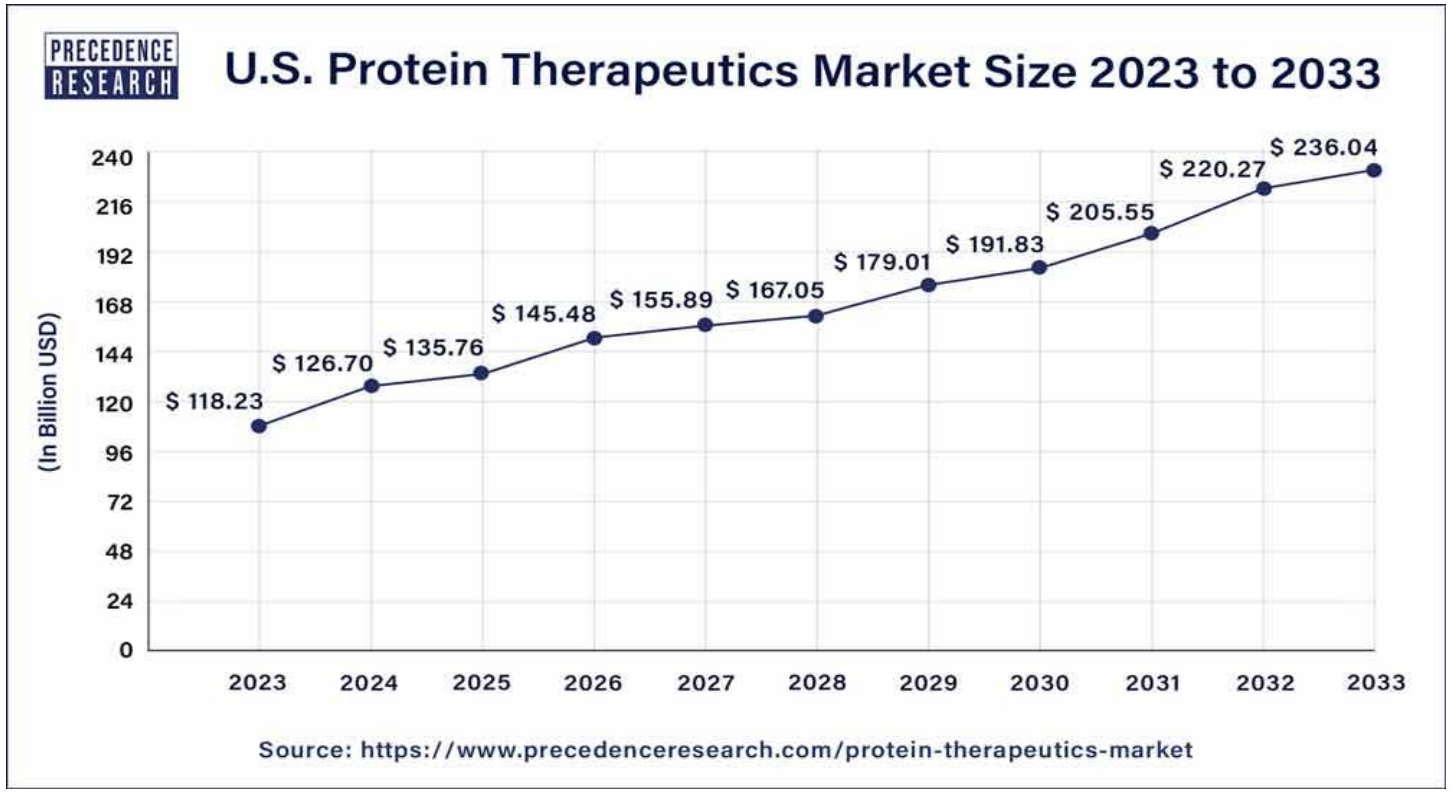
- Technically, any protein-based drug is a “therapeutic protein,” but the term was first used to describe medicines that are genetically engineered versions of naturally occurring human proteins.
- A protein is a large molecule comprised of a long chain of amino acids that is folded into a three-dimensional shape. The specific amino acid sequence and 3-D shape determines the biological function of the protein.
- Therapeutic proteins can be used to replace a protein that is abnormal or deficient in a particular disease. They can also augment the body’s supply of a beneficial protein to help reduce the impact of disease or chemotherapy. Genetically engineered proteins can closely resemble the natural proteins they replace, or they can be enhanced by adding sugars or other molecules that extend the protein’s duration of activity.



1)https://www.amgen.com/stories/2018/08/the-shape-of-drugs-to-come/therapeutic-protein

MARKET SIZE AND GROWTH

- The global protein therapeutics market size reached USD 350.31 billion in 2023 and is predicted to hit USD 696.89 billion by 2033, growing at a CAGR of 7.12% from 2024 to 2033.
- **Asia Pacific is expected to witness the fastest growth in the protein therapeutics market during the forecast period.** The growth of the market is attributed to the rising geriatric population in countries like China and India, and the increasing ratio of chronic diseases is fuelling the growth of the market in the region.



CAGR 7.12%

2)https://www.precedenceresearch.com/protein-therapeutics-market

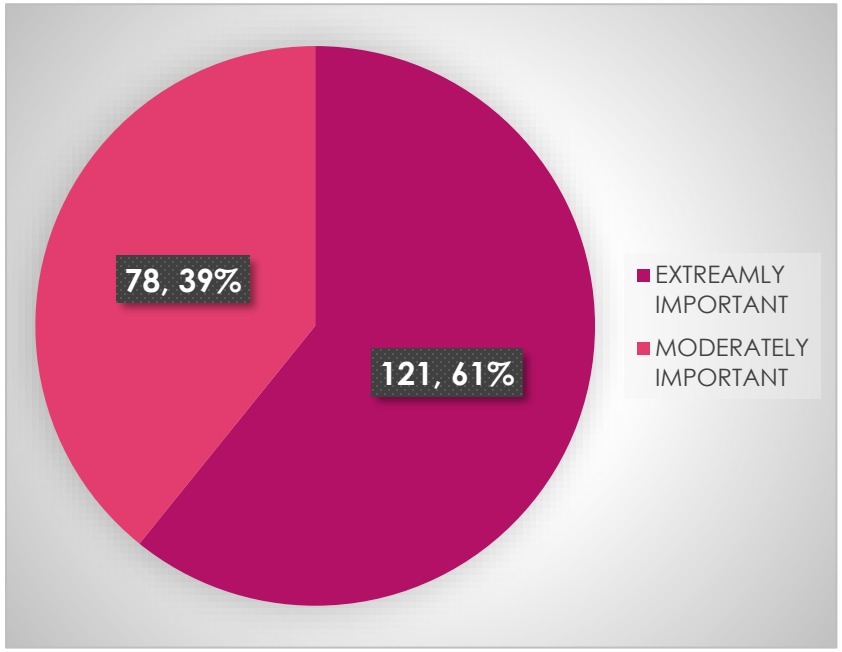
AIM OBJECTIVE OF THE STUDY

- AIM
  - To explore and understand the perceptions of clinicians regarding the factors that influence their usage and recommendation of therapeutic nutritional powders in clinical practice.
- OBJECTIVE
  - **Identify Key Factors**: To identify the key factors that clinicians consider when choosing therapeutic nutritional powders for their patients.
  - **Evaluate Perception**: To evaluate clinicians' perceptions of the efficacy, safety, and patient acceptance of therapeutic nutritional powders.
  - **Analyse Usage Patterns**: To analyse the patterns of usage of therapeutic nutritional powders among different specialties and clinical settings.
  - **Understand Decision-Making**: To understand the decision-making process of clinicians when prescribing therapeutic nutritional powders to their patients.

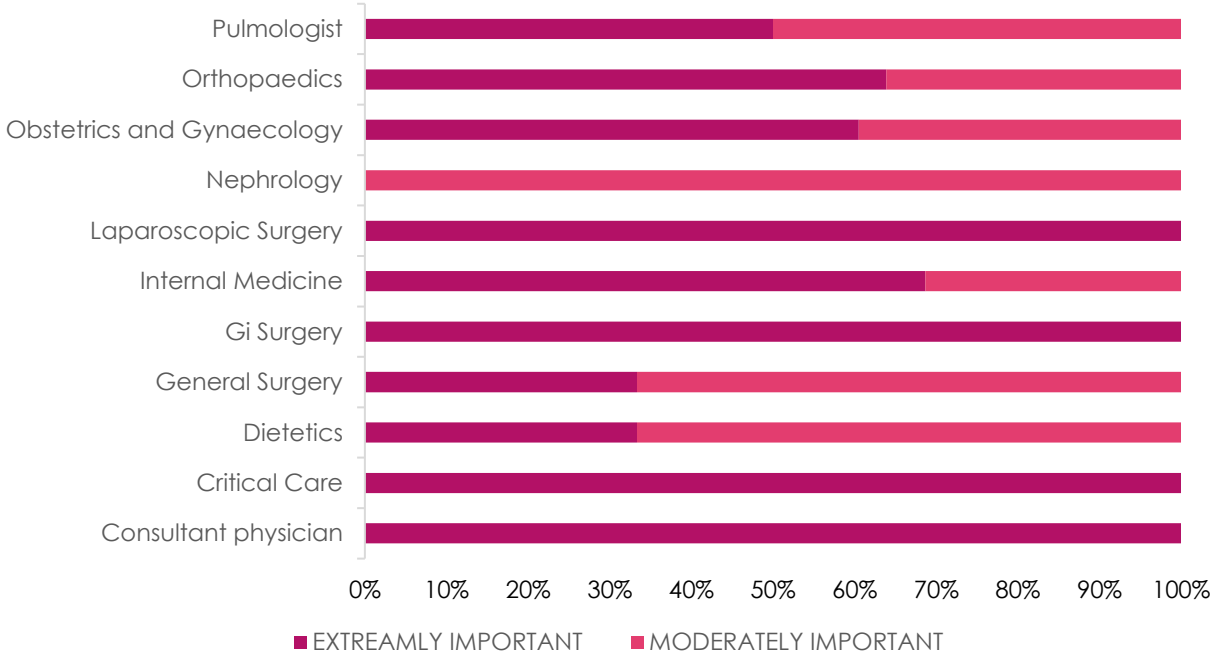
MARKET SURVEY ANALYSIS

NUMBER OF DOCTORS DURING THE SURVEY - 201

How important is PDCAAS (Protein digestibility-corrected amino acid score) while choosing high-protein formula?

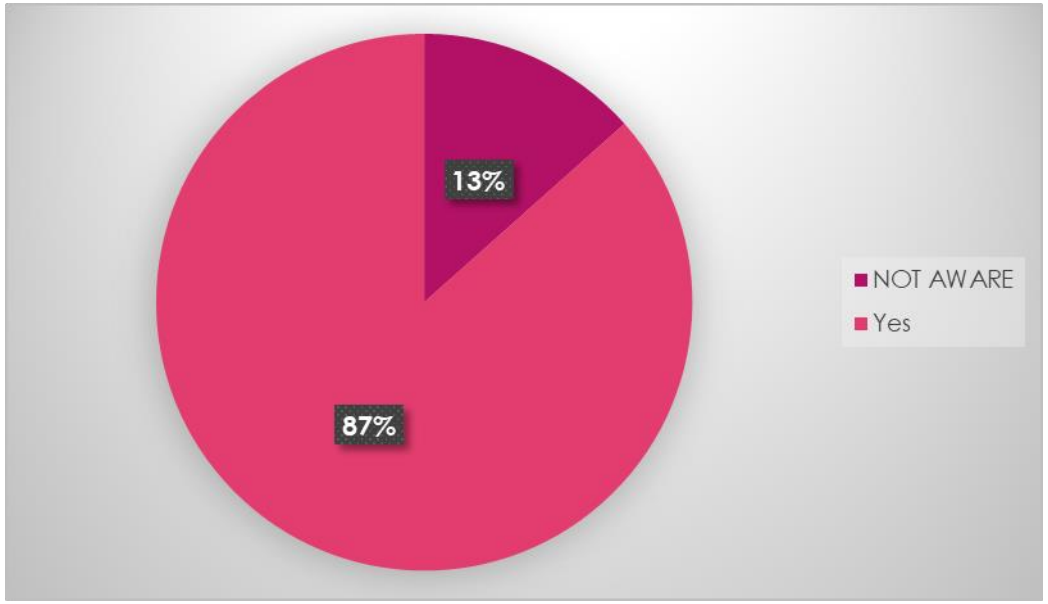


61% of doctors believe that the PDCAAS score is extremely important when choosing a protein formula, while 39% feel that it is moderately important.



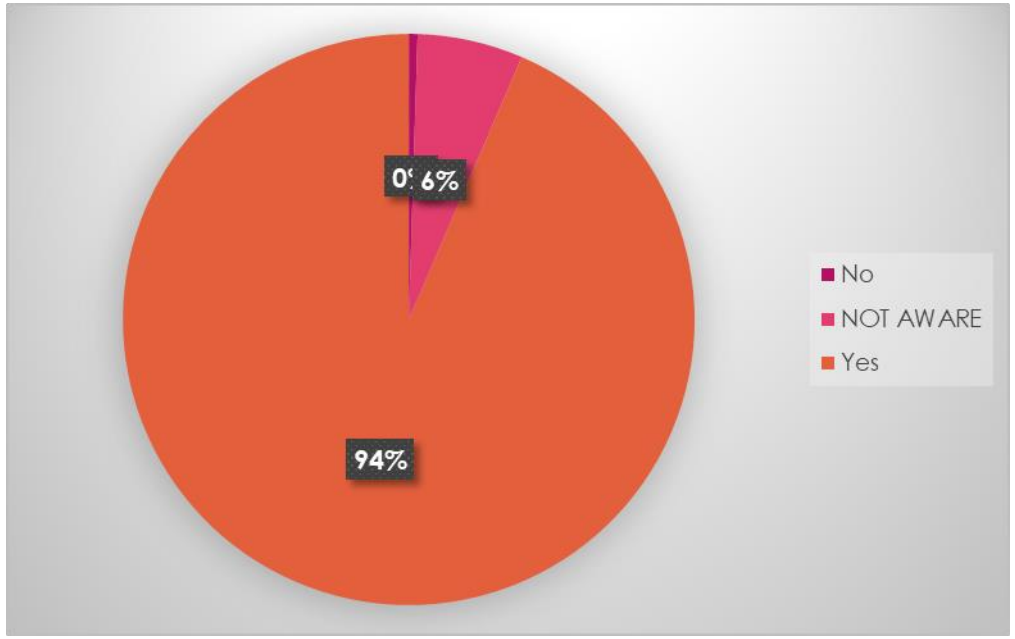
General surgery, Dietetics and Nephrology specialities are the only specialities who choose more than 50% moderately importance of PDCAAS score

Protein formula with PDCAAS (Protein digestibility-corrected amino acid score) of 0.96 is good formula in your clinical practice & aids in faster recovery?



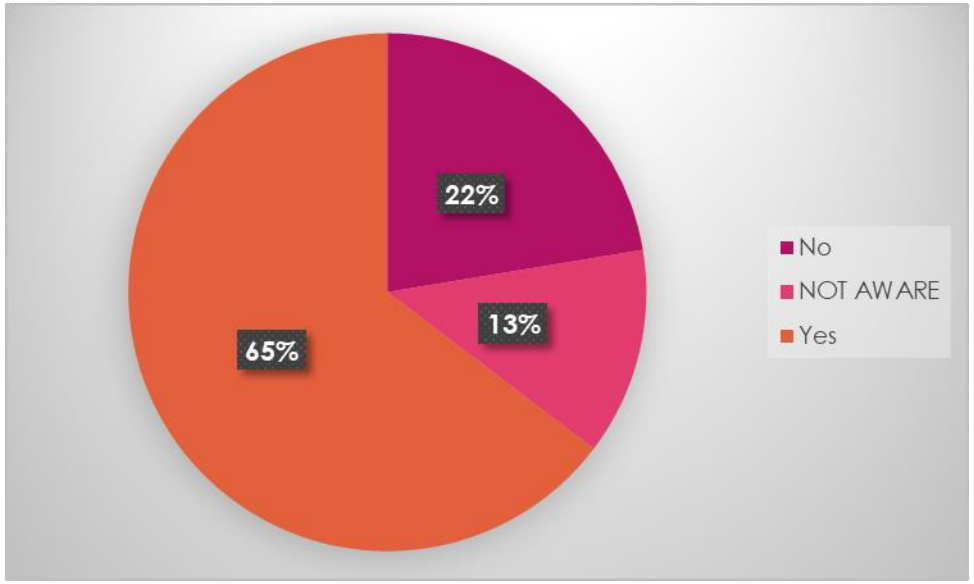
Approximately 87% of doctors believe that a PDCAAS score of 0.96 is good. This indicates strong support for this score among medical professionals.

Do you agree protein formula with glycaemic index of 33 is good formula in your clinical practice?

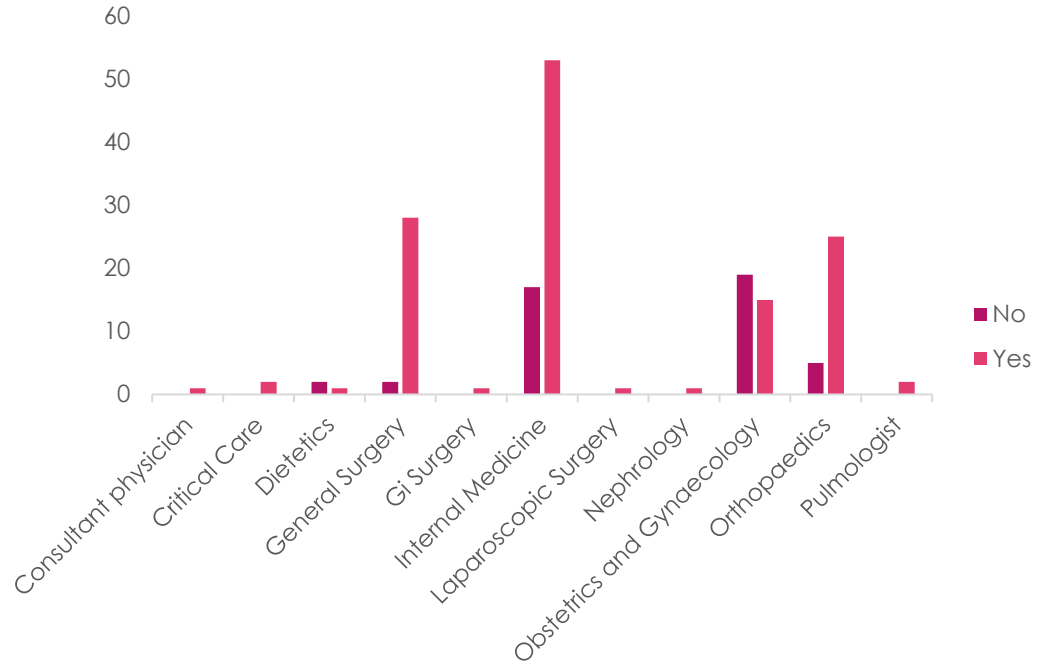


About 94% doctors believe that glycaemic index of 0.33 is good formula for clinical practice

Does arginine & glutamine help in faster recovery in your patients?

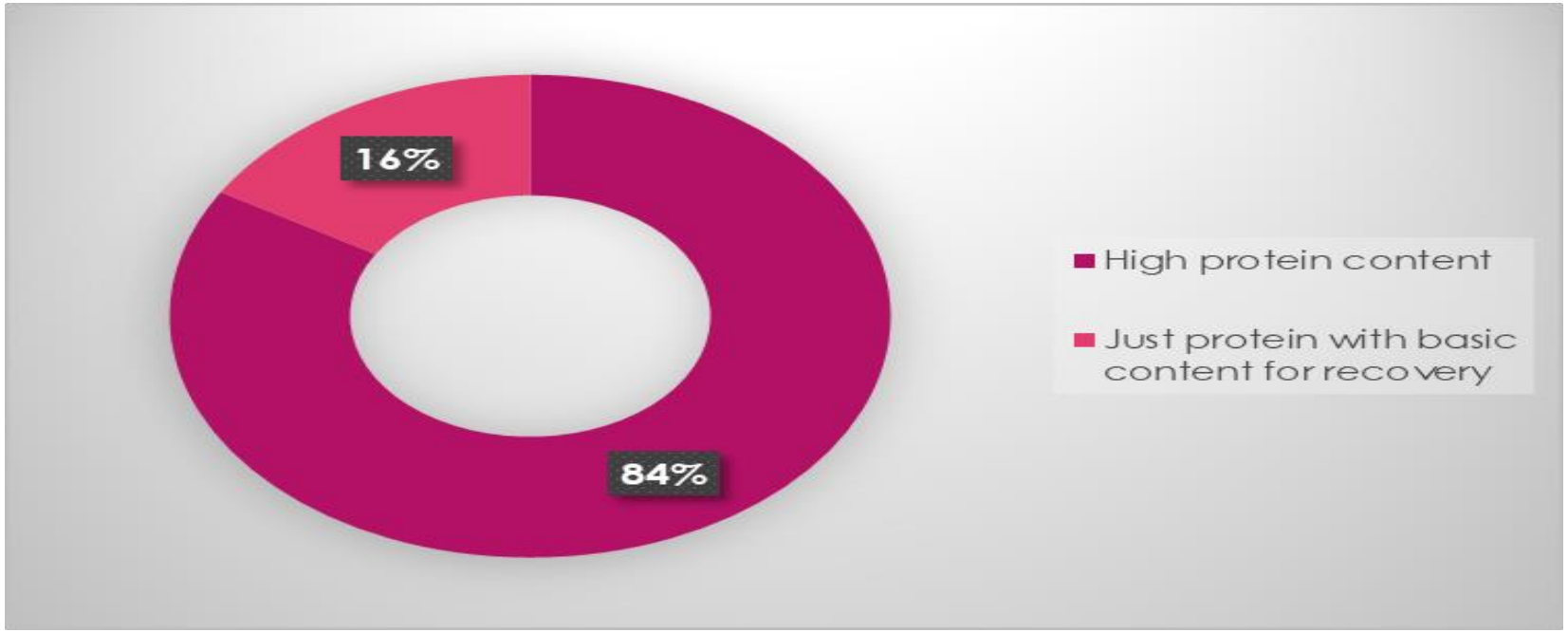


65% doctors believe that arginine and glutamine helps in faster recovery in their patients



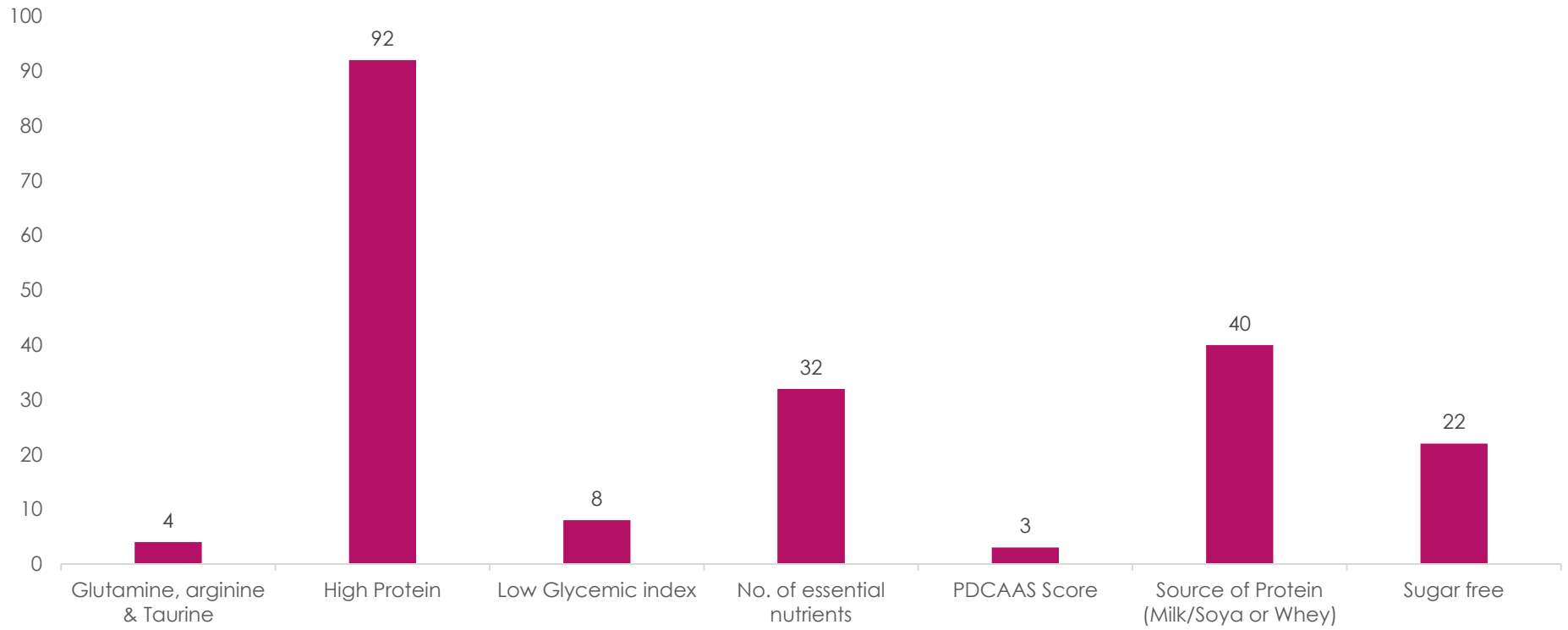
Obstetrics and Gynaecology is the only specialty where 55% of doctors didn't observe the effects of arginine and glutamine in patient recovery. This is followed by Internal Medicine, where 33% of doctors hold the same belief.

Do Doctors look for high protein content or just protein with basic content for the recovery of patients?



84% of doctors prefer high-protein formulations, with the majority being from Internal Medicine and Orthopaedics. In contrast, 16% opt for basic protein content for recovery, mainly from Obstetrics and Gynaecology.

Which important element you look for while prescribing the protein supplement?



When prescribing protein supplements, doctors prioritize high protein content, followed by the source of the protein and the number of essential nutrients.

SWOT ANALYSIS

STRENGTH

Growing Health Awareness: Increasing awareness about the importance of nutrition and health among the Indian population.

Expanding Healthcare Infrastructure: Rapid growth in healthcare facilities and services across the country.

Diverse Product Range: Availability of a wide variety of therapeutic nutritional powders catering to different medical conditions.

High Demand: Rising prevalence of chronic diseases and conditions that necessitate nutritional supplementation.

OPPORTUNITY

Untapped Rural Markets: Potential to expand into rural areas with tailored products and awareness campaigns..

Aging Population: Increasing elderly population in need of specialized nutritional support.

Partnerships with Healthcare Providers: Collaborations with hospitals, clinics, and health professionals to drive product adoption.

Educational Campaigns: Programs to educate both healthcare providers and consumers about the benefits and proper use of therapeutic nutritional powders..

WEAKNESS

High Cost: Therapeutic nutritional powders can be expensive, limiting accessibility for lower-income groups.

Lack of Awareness in Rural Areas: Limited awareness and education about the benefits of nutritional supplements in rural regions.

Supply Chain Issues: Distribution challenges, particularly in remote and rural areas, can affect product availability.

THREATS

Intense Competition: High competition from both domestic and international brands.

Cultural Preferences: Strong cultural preferences for traditional dietary practices over supplemental nutrition.

Market Saturation: Potential oversupply and market saturation leading to price wars and reduced profitability.

3)https://www.researchgate.net/publication/329912793_Dietary_supplements_market_in_India_is_rapidly_growing-An_Overview

Key Points

- **Low Carbohydrate Content:**
  - Emphasize the importance of choosing protein powders with minimal carbohydrate content, especially for patients with specific dietary needs (e.g., diabetes, low-carb diets).
- **Low Sugar Content:**
  - Stress the need for protein powders with low sugar content to avoid unnecessary calorie intake and potential blood sugar spikes.
- **Cost-Effectiveness:**
  - Highlight the need for affordable options to ensure that patients can maintain consistent use without financial strain.
- **PDCAAS Score:**
  - Explain the significance of the PDCAAS score, which measures the protein quality based on the amino acid requirements of humans and their ability to digest it. A higher PDCAAS score indicates a higher-quality protein source.

Suggestions to educate Doctors on PDCAAS

- **Educational Sessions and Materials:**
  - Organize seminars or webinars to explain the importance of protein quality, carbohydrate, and sugar content in protein powders.
  - Provide educational pamphlets or digital resources that summarize key points about PDCAAS and its relevance to patient health.
- **Comparison Charts:**
  - Create comparison charts that showcase various protein powders, highlighting their carbohydrate and sugar content, cost, and PDCAAS scores. This visual aid can help doctors make informed choices quickly.
- **Case Studies and Examples:**
  - Share case studies demonstrating the positive outcomes of prescribing high-quality, low-carb, and low-sugar protein powders.
  - Include examples where patients benefited from protein powders with high PDCAAS scores, illustrating the practical benefits.

References

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THANK YOU!