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## **Glutamine as a supplemental treatment in pediatric and adult oncology patients.**

Stachowicz-Stencel T, Synakiewicz A.

### **Source**

Medical University of Gdansk, Department of Pediatrics, Hematology, Oncology and Endocrinology, 7 Debinki Street, 80-211 Gdansk, Poland. tsten@gumed.edu.pl

### **Abstract**

#### **INTRODUCTION:**

This review summarizes the achievement and role of supplemental therapy in prevention of severe complications following anticancer treatment.

#### **AREAS COVERED:**

A promising supplemental therapy agent in the field is glutamine. Glutamine (Gln) is an amino acid that is produced in physiological conditions in human cells. However, in pathological states, glutamine production is often insufficient. In the clinical setting, glutamine has been shown to decrease metabolic side effects resulting from cancer treatment and to improve patient outcome. In clinical trials, the administration of glutamine was shown to benefit specific groups of patients, including oncology patients. The MEDLINE database PubMed search in English using the key words 'glutamine supplementation', 'parenteral and oral glutamine', 'glutamine in cancer' was performed. Only prospective randomized studies on cancer patients between 2005 and 2011 and ongoing researches from the US National Institute of Health trial database and EU Clinical Trials Register were taken into consideration.

#### **EXPERT OPINION:**

In the opinion of authors, the optimal dose and route of administration of glutamine needs to be determined in future studies. This review provides an overview of the use of glutamine as supplemental therapy in patients with cancer, including its use in pediatric patients.