

## THE USE OF GLUTAMINE SUPPLEMENTATION IN THE PARENTERAL NUTRITION SUPPORT IN A THIRD LEVEL HOSPITAL

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### BACKGROUND

Assesment of the use of glutamine-supplemented parenteral nutrition (PN) according to last ESPEN and ASPEN recommendations.

Glutamine is the most abundant amino acid (AA) in the human body. It is classified as a nonessential AA, however in some situations may become essential and it is needed an exogenous supplementation. Glutamine plasma levels decrease in stress situations which is associated with alterations in protein turnover, intestinal barrier and immune function. Glutamine may be beneficial to critical ill patients due to it is associated with a decrease in infectious complications, decrease in hospital length of stay, and possibly a decrease in mortality. Dose recommended glutamine supplementation in PN is 0.35 g/Kg/d, no longer than nine consecutive days.

### MATERIAL AND METHOD

Retrospective, observational study of patients with PN support from January to March 2011. Data were collected from the PN software Multicomp 2006®: age, gender, ward, milligrams of glutamine and duration of PN support.

### RESULTS

192 patients received PN support (117 males, 75 females), 43 were prescribed glutamine-supplemented. The average age was 65 years. The allocation of patients by services was: ICU (34), surgery (7), Oncology (1), Gastroenterology (1). The prescription of the PN in this cases was: 23 postsurgical, 11 intestine diseases, 6 sepsis, 1 head injury, 1 posttraumatic and 1 pneumonia influenza A. Doses of glutamine were on average 13.2 total grams (range: 10-30g). Only 8 of the 43 patients received

glutamine supplemented with an appropriate amount to fulfill the guidelines recommendations. Glutamine supplementation was 9.8 days (range 2-42).

## CONCLUSIONS

- The diagnoses included in our study 97% met the guidelines recommendations.
- Only 18% of patients received a correct dose of glutamine (0.35g/kg/day)
- Glutamine supplementation was longer than the recommendation in a 23% of patients.
- Glutamine supplementation to critically ill patients has been attempted to improve patient outcome, but data remain inconclusive.