

Accepted Manuscript

Title: Stability and assessment of amino acids in parenteral nutrition solutions

Authors: Nina Unger, Ulrike Holzgrabe

PII: S0731-7085(17)31968-4
DOI: <http://dx.doi.org/doi:10.1016/j.jpba.2017.07.064>
Reference: PBA 11444

To appear in: *Journal of Pharmaceutical and Biomedical Analysis*

Received date: 30-5-2017
Revised date: 12-7-2017
Accepted date: 15-7-2017

Please cite this article as: Nina Unger, Ulrike Holzgrabe, Stability and assessment of amino acids in parenteral nutrition solutions, *Journal of Pharmaceutical and Biomedical Analysis* <http://dx.doi.org/10.1016/j.jpba.2017.07.064>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Stability and assessment of amino acids in parenteral nutrition solutions

Nina Unger, Ulrike Holzgrabe*

*Pharmaceutical and Medicinal Chemistry, Institute of Pharmacy and Food Chemistry,
University of Würzburg, Am Hubland, 97074 Würzburg, Germany*

Author information

*Corresponding author: e-mail address: ulrike.holzgrabe@uni-wuerzburg.de (Prof. Dr. Ulrike Holzgrabe); phone: +49 931 31 85460

Highlights

- Review of the degradation of amino acids in parenteral nutrition solutions.
- Analytical methods for the determination of amino acids and their related substances are summarized.
- Interaction of amino acids and the components of parenteral nutrition solutions are discussed.

Abstract

Sterile amino acid solutions are applied in medical care as part of Total Parenteral Nutrition systems. Typical formulations consist of variable admixtures of essential and non-essential amino acids together with carbohydrates, electrolytes, vitamins, trace element solutions and lipid emulsions. The complexity of these formulations gives rise to stability and compatibility reflections. This review focuses on amino acid stability in pure amino acid solution and name methods of assessment. Incompatibilities of amino acids with the other ingredients are matter of concern in clinical practice and evaluated for relevance.

Download English Version:

<https://daneshyari.com/en/article/7627565>

Download Persian Version:

<https://daneshyari.com/article/7627565>

[Daneshyari.com](https://daneshyari.com)