

Abstract #576 – Use of Arginine Supplemented Immunonutrition in the Intensive Care Unit: A Retrospective Analysis

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Objective:

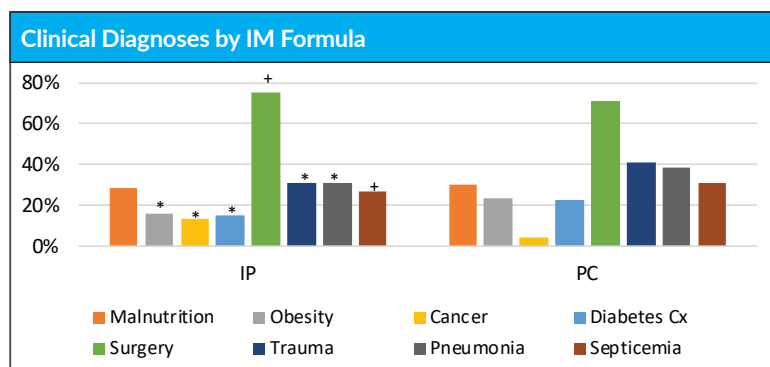
To observe adult ICU patients receiving different arginine supplemented enteral immunonutrition (IM) formulas for clinical characteristics, and unadjusted clinical and health economic outcomes.

Methods:

Retrospective, observational database analysis of billing records from the Premier Healthcare Database (PHD) included adults, 18 years or older (mean 57+/-18), hospitalized between October 2015 and February 2019 with a documented ICU charge. Patients were exclusively ordered IMPACT® Peptide 1.5 (IP) (n= 2525) or Pivot® 1.5 Cal (PC) (n=759) formulas for 3 or more consecutive days, or at least 3 of 5 consecutive days. Descriptive statistics computed for continuous measures as means, standard deviations, medians, interquartile range (IQR), and for categorical measures as counts and percentages.

Results:

- Three times more patients met inclusion criteria being ordered IP vs. PC in Premier hospitals.
- Most patients underwent surgery and received mechanical ventilation.
- Both formulas were ordered for a median of 7 days, whereas IP patients were ordered a median 1 L more nutrition per stay than PC patients.
- The diagnosis of malnutrition did not differ between groups, but many other co-morbidities did.
- Average cost per stay was observed lower for IP vs PC (\$71,196 vs. \$80,616; $p < 0.001$).



* $p < 0.001$ + $p < 0.05$

Clinical Characteristics	IP	PC	p value
Formula/stay (L)	9	8	0.0017
Formula use (days)	7	7	0.0927
C. difficile (%)	4.6	5.9	0.1353
Antibiotics (days)	19	19	0.2938
Rectal catheterization (%)	9	19	<0.001
30-d Readmission (%)	11.6	15.3	0.01
Mechanical ventilation (%)	76	85	<0.001
ICU LOS (days)	10	12	<0.001
Hosp LOS (days)	17	18	0.0763
Mortality (%)	19.2	20	0.5999

Conclusions:

- Fewer rectal catheterizations, shorter ICU LOS, fewer 30-day readmissions and lower cost per stay were observed for the IP vs. PC group.
- Multivariable regression analyses are called for to control for potential confounders between patient groups.

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The abstract can be accessed online at:

https://journals.lww.com/ccmjournals/Citation/2021/01001/50TH_CRITICAL_CARE_CONGRESS.3.aspx

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