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## SUN-LB640: Omega-3 Fatty-Acid Enriched Parenteral Nutrition Regimens in Hospitalized Patients in EU5 Countries: A Pharmacoeconomic Analysis









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### Abstract

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## SUN-LB640

## OMEGA-3 FATTY-ACID ENRICHED PARENTERAL NUTRITION REGIMENS IN HOSPITALIZED PATIENTS IN EU5 COUNTRIES: A PHARMACOECONOMIC ANALYSIS

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**Rationale:** The aim of this study is to perform a cost-consequence analysis of the use of omega-3 ( $\omega$ -3) fatty-acid enriched parenteral nutrition (PN) in the EU5 countries, from the hospital perspective.

**Methods:** A cost-consequence analysis was performed using a probabilistic discrete event simulation model with country-specific inputs derived from published sources. The relative  $\omega$ -3 supplementation effect estimates were from our recent meta-analysis [1]. The model estimates and compares costs and clinical impact associated with  $\omega$ -3 fatty-acid enriched PN vs. PN containing standard lipid emulsions (without omega-3 fatty acids; std-PN). Data captured were cost of PN, cost of infection, cost of hospital length of stay and total cost per patient; clinical events were infections avoided and hospital length of stay. Inputs uncertainty is evaluated via both deterministic (DSA) and probabilistic (PSA) sensitivity analyses.

**Results:** Avoided infections and shortened length of stay due to  $\omega$ -3 fatty-acid enriched PN, as compared with std-PN, in the EU5s have an expected impact on total costs per patient as shown in Table 1. Both the PSA and DSA analyses confirmed the robustness of the outputs of the model to all tested changes in the inputs.

Table 1  
Results

	Impact of $\omega$ -3 PN on total cost/patient compared to std-PN (Mean $\pm$ SD)
UK	-2,528 $\pm$ 942 € (-2,853 $\pm$ 1,063 €)
Germany	-2,228 $\pm$ 1,389 €
Italy	-1,766 $\pm$ 1,275 €
France	-2,244 $\pm$ 848 €
Spain	-1,782 $\pm$ 1,307 €

**Conclusion:**  $\omega$ -3 fatty-acid enriched PN is likely a dominant alternative to std-PN from the point of view of a hospital in any of the EU5 countries as it is associated with significantly improved patient outcomes and cost savings.

## Reference

Pradelli L et al. Omega-3 fatty-acid enriched parenteral nutrition in hospitalized patients: systematic review with meta-analysis and trial sequential analysis. JPEN 2019 (Accepted).

**Disclosure of Interest:** L. Pradelli Grant/Research Support from: Fresenius Kabi, K. Mayer Consultant for: Fresenius Kabi, S. Klek Consultant for: Fresenius Kabi, A. J. Omar Alsaleh: None declared, M. Rosenthal Consultant for: Fresenius Kabi, A. Heller Consultant for: Fresenius Kabi, M. Muscaritoli Consultant for: Fresenius Kabi.

## SUN-LB641

## SURVEY OF SARCOPENIA IN OUTPATIENTS WITH TYPE 2 DIABETES

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**Rationale:** Prevalence of sarcopenia is considered high among patients with type 2 diabetes, but there are few reports. We investigated the prevalence of sarcopenia in outpatients with type 2 diabetes.

**Methods:** Subjects comprised 551 outpatients with type 2 diabetes (males 355, aged range 20 to 88, mean 63.7 yrs old, mean BMI 26.1 kg/m<sup>2</sup>, mean HbA1c 7.4%), baseline measurements were taken for muscle mass using the bioelectrical impedance analysis method (InBody720), grip strength and gait speed. Sarcopenia was determined using Asian Working Group for Sarcopenia diagnostic criteria. The relationship between diabetes index and diabetes drugs was examined.

**Results:** Seventy-one cases (mean, age 74.7 yrs old BMI 21.6 kg/m<sup>2</sup>) (prevalence 12.9%) were judged as sarcopenia, and of 298 cases aged over 65 yrs old 67 were judged as having sarcopenia. Sarcopenia and obesity complications were found in 2.0% of patients aged 20 to 88, and 3.35% aged  $\geq$  65 yrs old, sarcopenia and obesity complications were more frequently observed in the elderly. HbA1c did not significantly differ by presence or absence of sarcopenia. Associations with diabetic drugs were: biguanide 47.8%, insulin 20.6% in the sarcopenia-free group, and 26.8% biguanide in the sarcopenia group, insulin 38.0% in the group with obesity, 45.5% biguanide in the group with obesity, insulin 54.5% and insulin usage rate association with biguanide ( $P=0.004$ ) and insulin ( $p=0.02$ ) was high, sarcopenia-free and judged groups.

**Conclusion:** The prevalence of sarcopenia in outpatients with type 2 diabetes was 12.9%, and 22.5% among patients aged  $\geq$  65 yrs old. It is considered that risk of sarcopenia is increased in patients  $\geq$  65 yrs old, including lean patients, high BMI, and insulin users.

## Reference

Chen LK, et al. Sarcopenia in Asia: consensus report of the Asian Working Group for Sarcopenia, *J Am Med Dir Assoc* 2014;15:95–101.

**Disclosure of Interest:** None declared.

## SUN-LB642

## BENEFICIAL EFFECT OF OLIVE OIL BASED PARENTERAL NUTRITION COMPARED TO FISH OIL IN CRITICALLY ILL PATIENTS

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