

# CLINICAL AND ECONOMIC IMPACT OF INAPPROPRIATE USE OF TOTAL PARENTERAL NUTRITION IN ADULTS



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S/HJ23 Hospital Joan XXIII

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## BACKGROUND AND IMPORTANCE



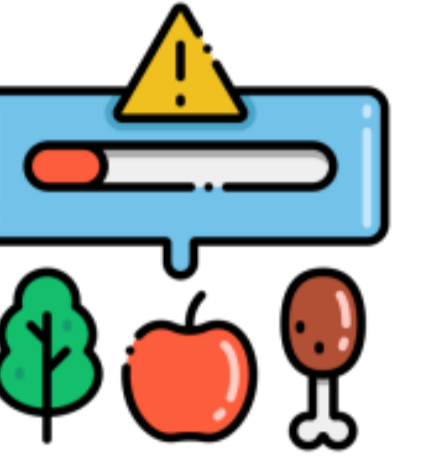
Recommendation for total parenteral nutrition (TPN) according to the latest clinical nutrition guidelines.

Hospitalized patients at high risk of malnutrition when nutrient intake via the digestive tract is expected to be impossible or insufficient for more than 5–7 days.



## AIM AND OBJECTIVES

To evaluate the appropriateness of TPN use in a tertiary care hospital and the economic impact resulting from its improper indication.



## RESULTS

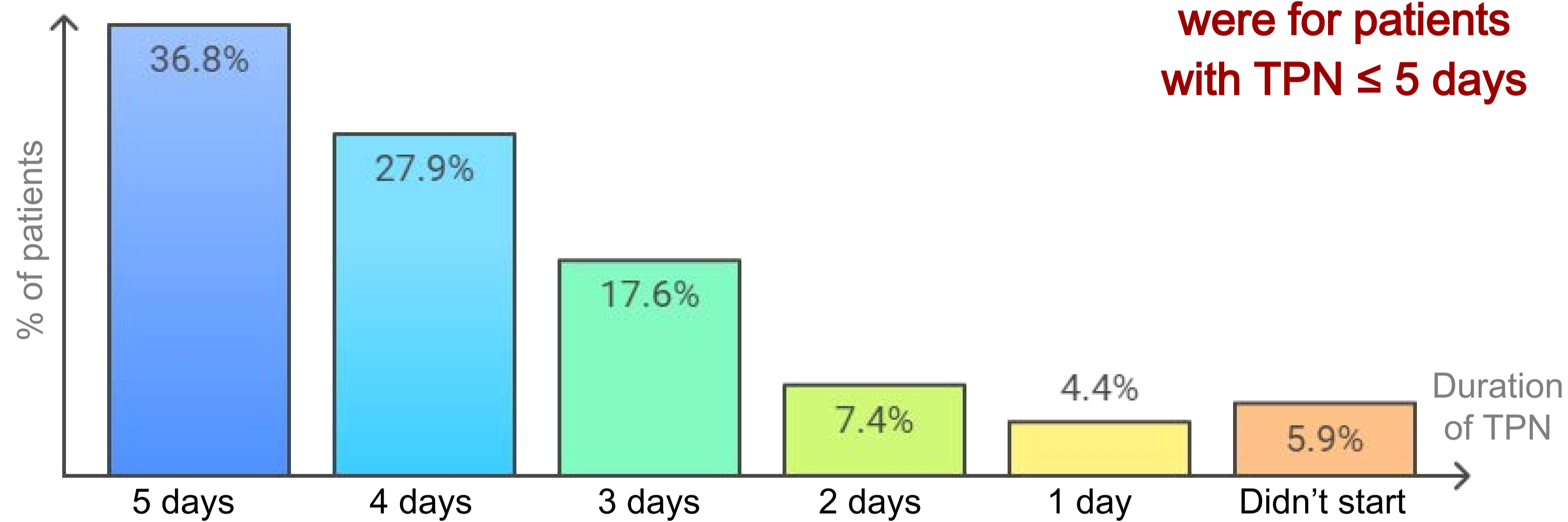


401 patients were included

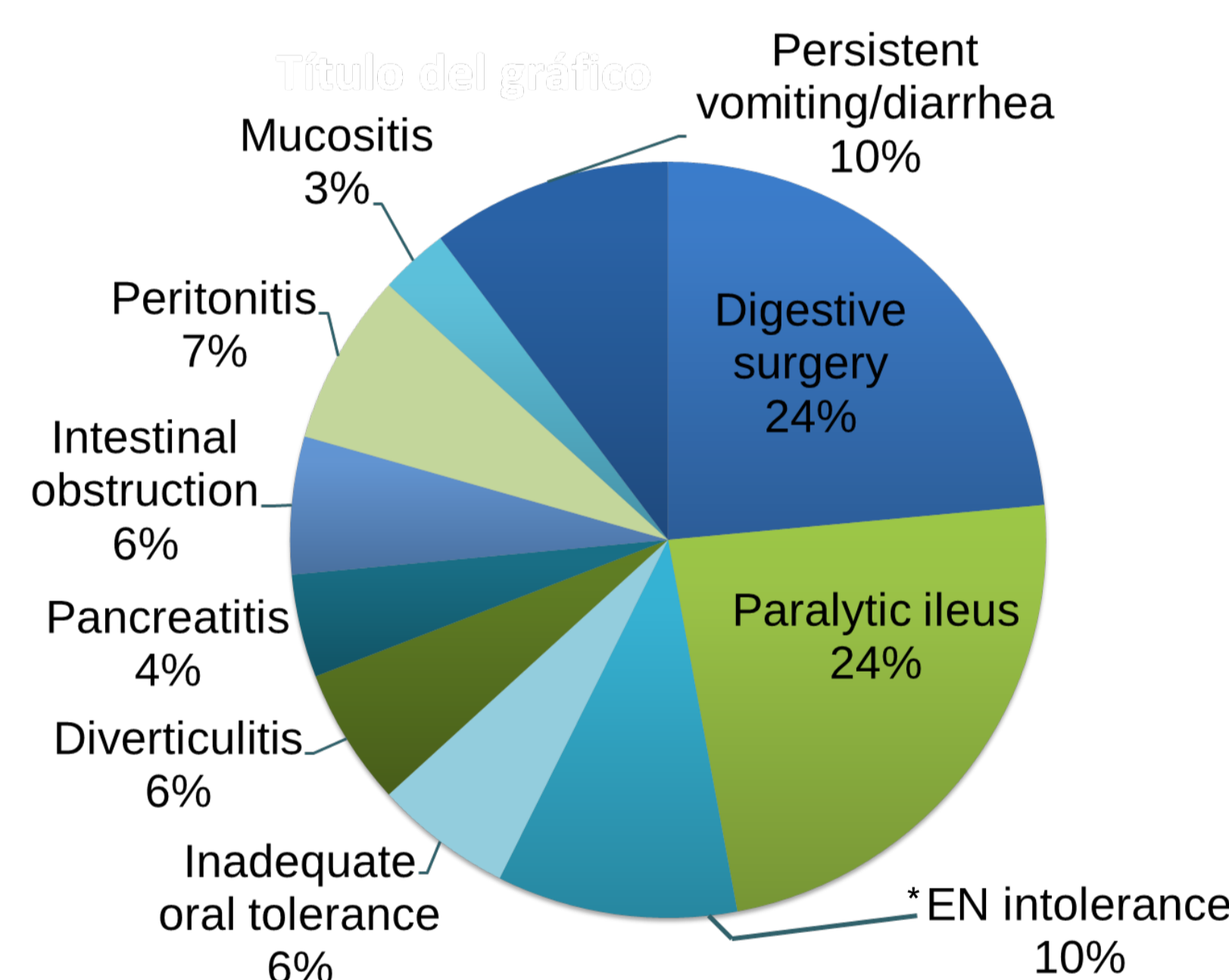


5653 TPN bags were prepared

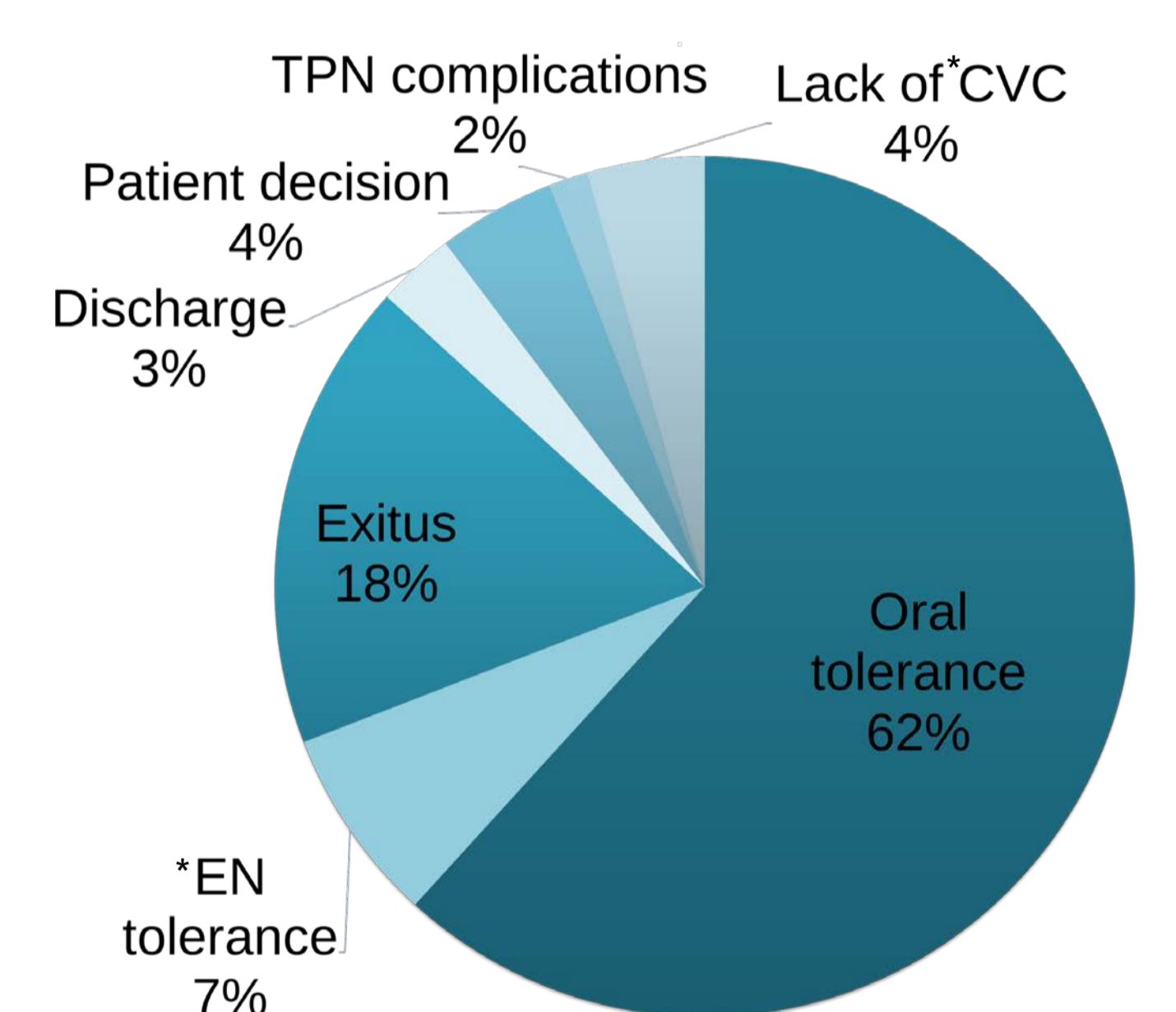
5.2% of which were for patients with TPN ≤ 5 days



### Main reasons START TPN:



### Reasons for discontinuation:



Direct cost associated with TPN for ≤ 5 days was **€12,102.14** with an average cost of **€177.97 ± 61.18** per patient

\*EN: enteral nutrition; CVC: central venous catheter

## CONCLUSIONS

- 1/6 of TPN prescriptions did not align with clinical guidelines, causing a significant economic impact.
- Early initiation of oral diet was a key factor in TPN ≤ 5 days.
- Proper planning of fasting duration and transition to oral intake is crucial to reduce costs, complications, and logistical burdens.

## MATERIALS AND METHODS

Retrospective review of medical records from adult patients who received TPN at a tertiary care hospital in 2023

### Report results

Qualitative variables: %  
Quantitative variables: mean ± SD

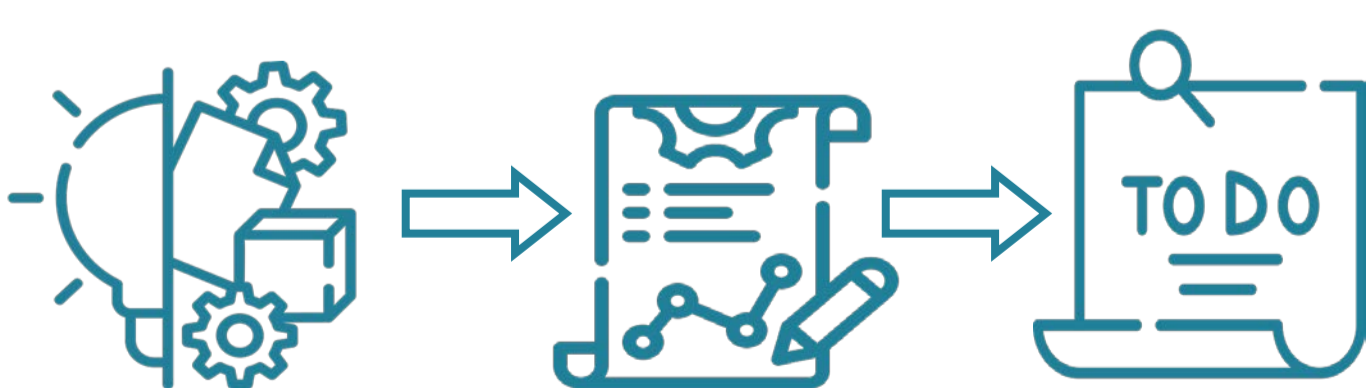
Collect and analyze  
Data collected in Excel®  
Use SPSS-Statistics® for analysis

Patients TPN ≤5 days  
Record TPN type and calculate costs

Extract data  
TPN duration, bags prepared, reasons for initiating and discontinuing TPN

Access software  
Use SAP® and Pharmasuite® for data extraction

Identify patients  
Select adult patients receiving TPN



## BIBLIOGRAPHY

1. Worthington P. et al. When is Parenteral nutrition appropriate? *JPEN J Parenter Enteral Nutr.* 2017;41(3):324–77.
2. Thibault R. et al. ESPEN guideline on hospital nutrition. *Clinical Nutrition.* 2021;40(12):5684–709.