

# Protein delivery in the post-acute phase of critical illness:adequate tot the guidelines in routine clinical practice?

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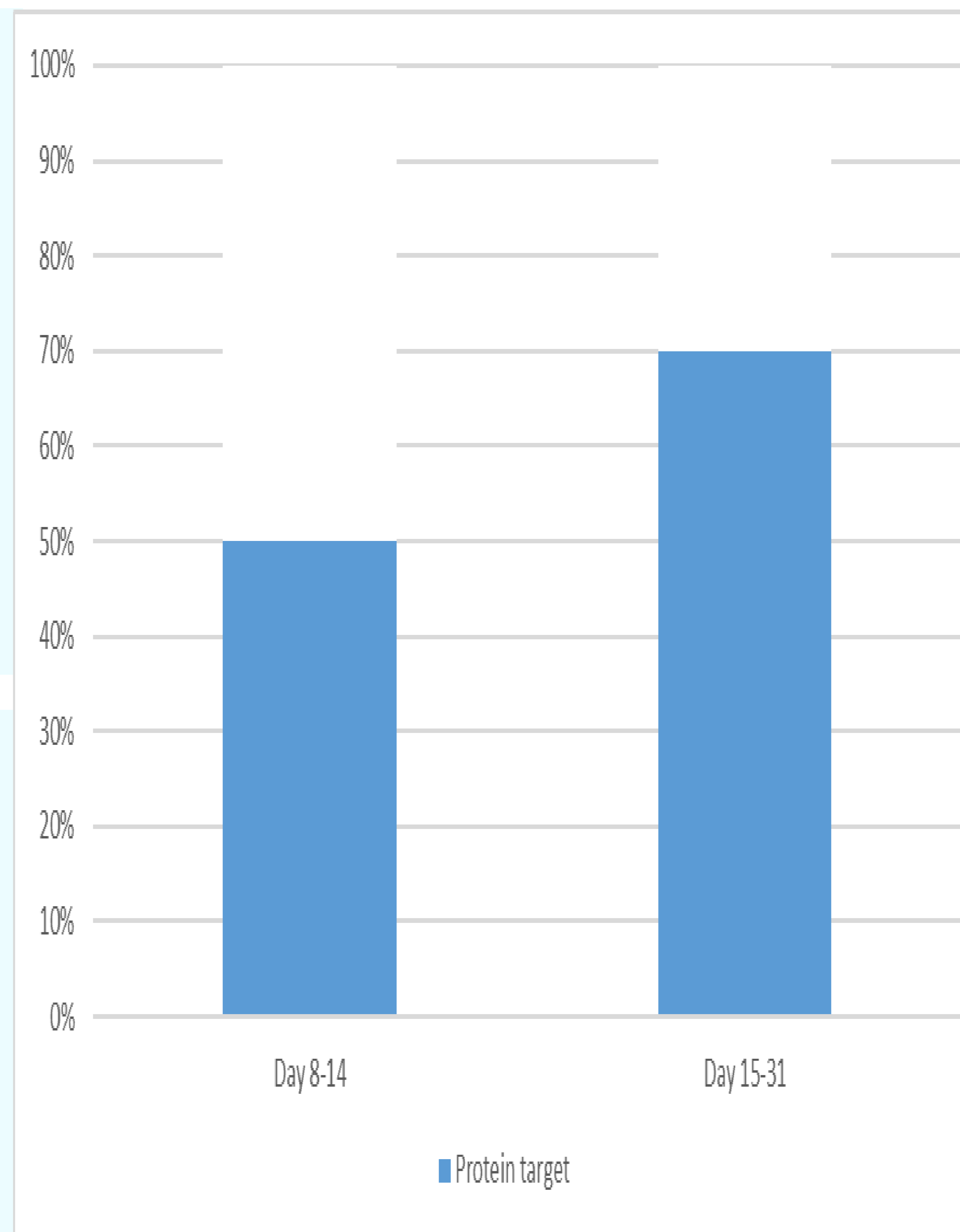
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## Introduction

In the acute phase of critical illness, a restrictive feeding approach that includes tolerating a caloric deficit is accepted nowadays. However, in the further course of stay on ICU, full feeding, defined as a caloric target of 25 kcal/kg/day and a protein target of 1.3 g/kg/day, is strongly advised. Although most of our ICU staff was convinced that the caloric needs of long-stay patients in our ICU were fulfilled, they admitted that less attention was given to whether the protein target was reached. We, therefore, wanted to assess the adherence to our own nutritional ICU protocol that includes full feeding from day 8 onwards after ICU admission, aiming for a caloric target of 25 kcal/kg/day and a protein target of 1.3 g/kg/day.

## Methods

We conducted a retrospective study in which all patients of the Jessa Hospital, Hasselt with an ICU stay > 7 days were included. The collected data included baseline patient characteristics and comorbidities, caloric and protein intake from day 8 to day 31 of the ICU stay and outcome parameters.



## Results

From 01/01/2022 to 31/12/2022, 221 patients were admitted to our ICU with an ICU stay of > 7days. The median age was 69 years (61.00-75.50), with a median BMI of 25.15 kg/m<sup>2</sup> (22.71-28.49). SOFA and APACHE II admission scores were 10 (7.00-11.00) and 21 (17.00-26.00) respectively. The median number of calories delivered was never equal to or higher than the predefined target of 25 kcal/kg/day. In addition, predefined protein targets were not met either: the delivered amount of proteins was 50% of target from day 8 to day 14 and increased to 70% of target afterwards, meaning that over 90% of patients never met the predefined protein target of 1.3 g/kg/day in the post-acute ICU phase.

## Conclusion

Caloric and protein targets are not met in routine clinical care in long-stay critically ill patients on ICU in our institution. Actions to improve nutritional intake are mandatory and have been undertaken in a protocolized approach.