

# Does Body Mass Index impact mortality in hospitalized critically ill patients in the ICU?

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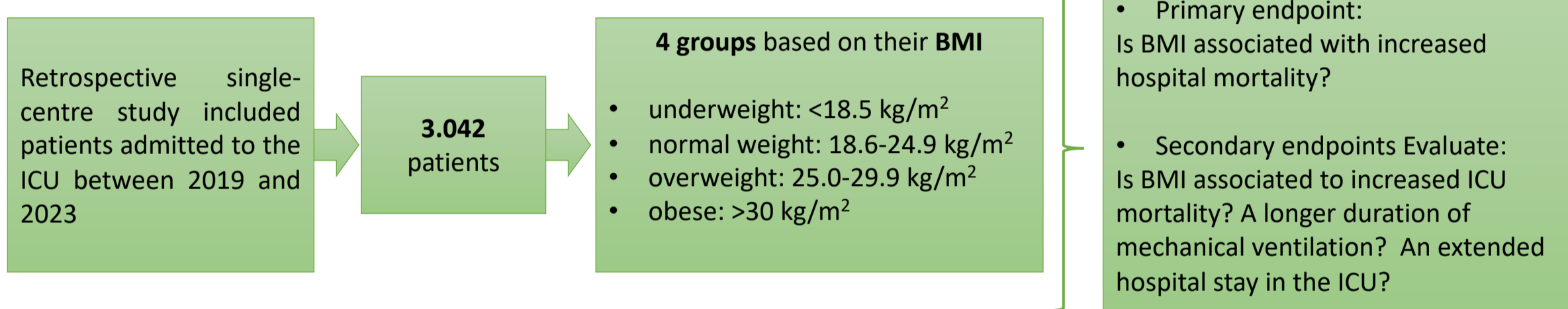
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## BACKGROUND

Obesity is a chronic disease and a significant health problem that is associated with serious medical conditions, increased morbidity and mortality. The influence of obesity on outcomes in critically ill patients is being debated, as some studies have shown increased mortality and morbidity, while others have suggested a decrease in these rates or no association.

**OBJECTIVE:** Evaluate the impact of Body Mass Index on the outcome of critically ill patients.

## METHODS



## RESULTS

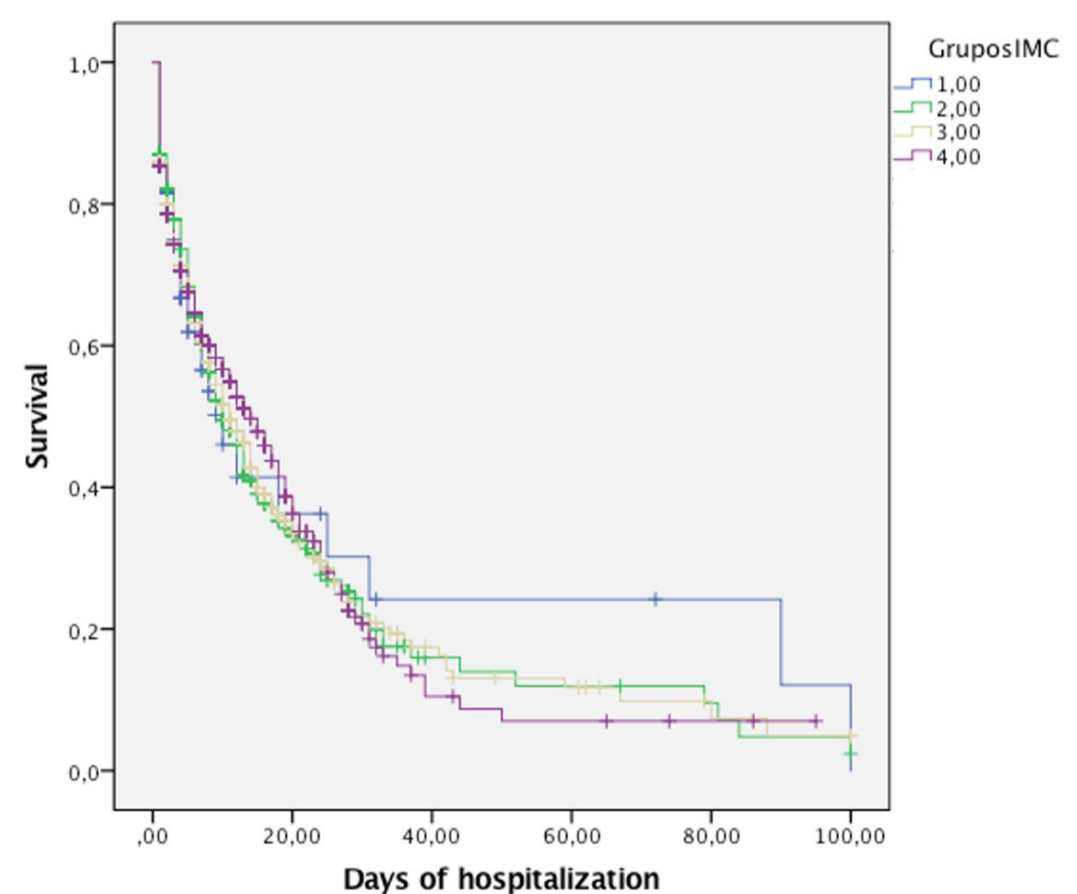
The sample description is shown in table 1.

No significant difference in hospital mortality among the four BMI groups (p=0.606) (Graph 1).

BMI was not associated with increased ICU mortality (p=0.091), length of hospital stay (p=0.474), or duration of mechanical ventilation (p=0.805).

We did find that higher BMI was associated with a longer duration of ICU stay (p=0.023).

	Results
Age (years)	66.0 (55.0-75.0) years
Sex (male)	62.0%
BMI (kg/m <sup>2</sup> )	26.0 (23.0-31.0)
Underweight	2.7%
Normal weight	30.2%
Overweight	38.6%
Obese	28.4%
Mortality	
• Underweight	42.8%
• Normal weight	40.0%
• Overweight	41.6%
• Obese	41.6%
Overall hospital mortality	41.2%.



## CONCLUSION

Although obesity has been considered a risk factor for mortality in critically ill patients, this increased risk was not evident in our study population. Nevertheless, higher BMI appears to be associated with an extended duration of ICU hospitalization.

### References:

- Dickerson, R. N. The obesity paradox in the ICU: real or not? *Critical Care*, v. 17, n. 3, p. 154–154, 1 jan. 2013.
- Anderson, M. R.; Shashaty, M. G. S. Impact of Obesity in Critical Illness. *CHEST*, v. 160, n. 6, p. 2135–2145, 1 dez. 2021.