

# ABSTRACT

## BACK GROUND

Despite the well recognised importance of magnesium, its most common under diagnosed electrolyte abnormality in current medical practice even though hypomagnesemia is found in 7-11% of general hospital admission, its incidence is too high in critically ill patients ranging from 20-65% in different studies. this study was carried out in critically ill patients admitted under institute of internal medicine, in imcu of RGGGH, madras medical college, chennai apex tertiary care centre in tamil nadu.

## AIMS AND OBJECTIVE

To study the prevalence of magnesium deficiency in critically ill patients and its correlation with need and duration of mechanical ventilation,icu stay,APACHEII and mortality.

## STUDY DESIGN

It was a prospective observational study.

## SUBJECT

A total of 50 critically ill patient admitted to icu of RGGGH, chennai under institute of internal medicine fulfilling inclusion and exclusion criteria.

## **MATERIAL AND METHODS**

Serum magnesium level along with other relevant investigation were sent within first 24 hours of hospital admission. The hospital detail and progress of patients followed till end points. Statistical analysis done using SPSS version 16.0 microsoft window.

## **RESULT**

On admission 32 out of 50 ie 64% had hypomagnesemia when compared with other arm of patients with normo and hypermagnesemia increased ventilatory support 60% vs 40% p value .047, increased APACHE II SCORE 19.22 vs 18.56 with p value 0.0303..In these study duration of stay, ionotropic support as end point has no significant correlation.

## **CONCLUSION**

This study shows a higher prevalence of hypomagnesemia in critically ill patients. Hypomagnesemia was associated with higher APACHE II score on admission, need of ventilatory support.