

## Microbial cell preparation in enteral feeding in critically ill patients: A randomized, double-blind, placebo-controlled clinical trials

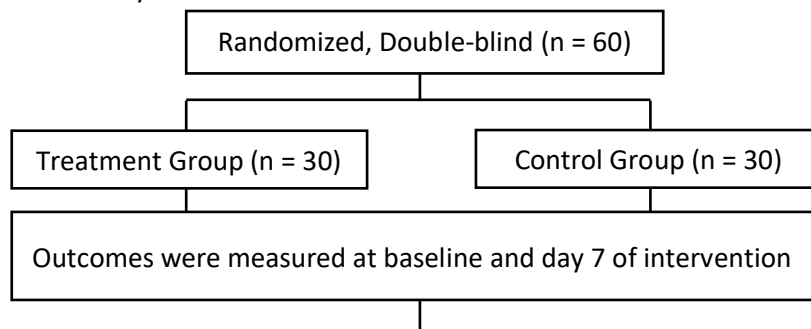
### Objectives

To investigate the effect of HEXBIO® on the return of gut function, white blood cell count, C-reactive protein levels, number of days on mechanical ventilation, and length of stay in ICU.

Up to 60% of the patients on enteral feeding in the ICU tends to develop feed intolerance (Seron-Arbeloa, 2013). Patients with feed intolerance may associated with poor clinical outcome and may indicated the lack of gut function (Argawal and Mayer, 2013). This often have impeding effects on patient's health recovery, resulting in longer stay in the hospital.

### Methods

This was a randomized, double-blind, placebo-controlled clinical trials. A total of 60 admitted to the ICU requiring enteral feeding were randomized to receive either treatment or placebo for a period of 7 days.



#### **Measured outcome:**

Primary outcome – The duration to return of normal gut function. The duration to return of normal gut function was defined as the time (in hours) taken to achieve a minimum of 80% of the calculated caloric requirement for a consecutive 48-hour period.

Secondary outcome – The duration of mechanical ventilation and length of stay in intensive care unit (ICU).

## Outcome

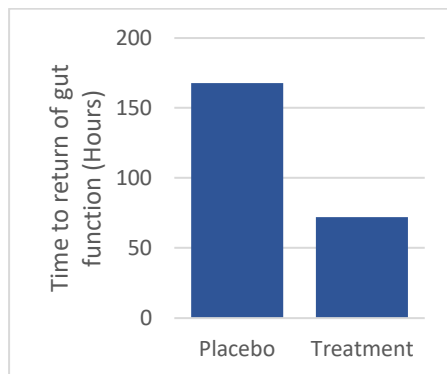


Figure 1. Duration of time to return of gut function (hours) between Placebo group and Treatment group. Treatment group significantly different from the placebo group using Mann-Whitney test ( $p < 0.05$ ).

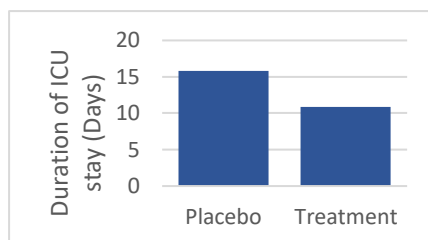


Figure 2. Duration of ICU stay (days) between Placebo group and Treatment group. Treatment group significantly different from the placebo group using Mann-Whitney test ( $p < 0.05$ ).

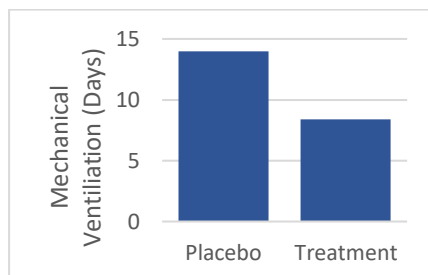


Figure 3. Duration of mechanical ventilation (days) between Placebo group and Treatment group. Treatment group significantly different from the placebo group using Mann-Whitney test ( $p < 0.05$ ).

## Conclusion

This study concludes that HEXBIO® can improve tolerance and promotes a faster return of gut function for critically ill patients in enteral feeding. This improves on overall clinical outcome and recovery of the patients in enteral feeding.

## Reference

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