MTRCC 25 POSTERS

A08

Clinical Outcomes of Massive Transfusion Protocols (MTP): A Comparison of MTP and Targeted MTP

Chun Chiat Y[1], Kiranjit Kaur JS[1], Shah Jahan MY[1], Rossman H[1], Sarojini M[2]

[1]*Emergency Department, Hospital Sungai Buloh, Selangor, Malaysia*
[2]*Blood Transfusion Unit, Hospital Sungai Buloh, Selangor, Malaysia*

POSTER ABSTRACT

INTRODUCTION

This study aimed to compare the effectiveness of two massive transfusion protocols, Massive Transfusion Protocol (MTP) and Targeted MTP, by analyzing patient characteristics, outcomes, and complications.

METHODOLOGY

A retrospective study was conducted on a cohort of patients receiving either MTP (n=20) or Targeted MTP (n=13) in year 2022 in Hospital Sungai Buloh. Patient's characteristics, including age, gender, mechanism of injury and Injury Severity Score (ISS), were evaluated. Data was collected from Malaysian Trauma Registry. The primary outcomes were the survival status and length of hospital stay. Secondary outcomes included the prevalence of complications across different organ systems.

RESULTS

The mean ISS was comparable between the MTP (38.70) and Targeted MTP (39.31) groups, suggesting a similar level of injury severity. Despite this, a significant difference in survival was observed: the MTP group is associated with higher mortality as compared to Targeted MTP group. The average length of hospital stay was longer in the Targeted MTP group (29.23 days) compared to the MTP group (20.60 days).

DISCUSSION

TMTP significantly reduced blood product use and improved survival outcomes ($p = 0.041$), consistent with prior studies. Patients had shorter ICU and hospital stays, though not statistically significant. Higher transfusion volumes were linked to more complications. Further research is needed to explore TMTP's cost-effectiveness, long-term outcomes, and blood product wastage.

CONCLUSION AND IMPLICATIONS

The findings indicate that the Targeted MTP approach was associated with a markedly higher survival rate than the standard MTP, even among patients with comparable injury severity. While the Targeted MTP group experienced a higher rate of certain complications and a longer hospital stay, its superior survival outcome suggests it may be a more effective strategy for managing massive transfusion requirements.

CORRESPONDENCE

Yeoh Chun Chiat
Hospital Sungai Buloh,
Jalan Hospital,
47000 Sungai Buloh,
Selangor, Malaysia
+6019-9316939
Email: ccyeoh@moh.gov.my