

Success is the Sum of Small Efforts!

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Indian Journal of Critical Care Medicine (2019): 10.5005/jp-journals-10071-23245

Big things have small beginnings!

—Prometheus

It is with great joy that we present to you, the second issue of *Frontiers in Critical Care Medicine*, the special issue of *Indian Journal of Critical Care Medicine*. We have received an excellent feedback about the first issue of the *Frontiers in Neurocritical Care*. Dr Srinivas Samavedam and Dr Hegde must be congratulated for their hard work in putting this issue together. We hope that this issue will be equally popular among our readers.

Transfusion of blood and its components is one of the most common interventions in the critically ill patients. The ICON study found that the mean lowest admission hemoglobin was 10.7 ± 2.4 g/dL; while more than 25% patients had hemoglobin concentration lower than 9 g/dL.¹ Patients transfused during ICU stay had higher ICU and hospital mortality (21.5% vs 14.3% and 30.0% vs 19.6%, both $p < 0.001$). In sicker (admission SOFA >8), higher SAPS II (52–119), medical and anemic patients, however, transfusion was associated with lower likelihood of death. The chances of survival increased step-wise with transfusion, in patients with increasing admission severity scores.

A recent worldwide survey reported that the transfusion threshold for RBCs transfusion was 7 g/dL in general critically ill patients, while it ranged between 7 g/dL and 9 g/dL in patients with brain injury and those undergoing extracorporeal membrane oxygenation.² Only one third of respondents used ICU specific guidelines for transfusion blood and blood products. The transfusion threshold for patients with acute coronary syndrome was highest at 9 g/dL. The threshold for transfusion of platelets was 20×10^9 , (being higher if invasive procedure was planned); while around 50% respondents would infuse FFP if the INR was 3 or greater, if there was an intervention planned.

Various coagulation disorders are seen in critically ill and trauma patients, acute traumatic coagulopathy and disseminated intravascular coagulation, being the most common disorders.³ A variety of tests have now become available to diagnose coagulation disorders.⁴

In this issue, we deal with discussions ranging from physiology of oxygen transport, various tests used for diagnosis and management of coagulation disorders, to topics such as auditing

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How to cite this article: Kulkarni AP, Samavedam S, Hegde A. Success is the Sum of Small Efforts! *Indian J Crit Care Med* 2019;23(Suppl 3):S171.

Source of support: Nil

Conflict of interest: None

transfusion practice, guidelines for infusion of blood products, etc. We have also included one article on landmark trials in transfusion in critically ill and an article on statistics. There are articles on point-of-care testing for coagulation to hemostatic agents used in the ICU. We hope you enjoy reading this issue, as much as we enjoyed putting it together.

Happy reading!

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