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Healthcare

## BLOOD SUPPLY MANAGEMENT AND UTILIZATION DURING THE COVID-19 PANDEMIC

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### BACKGROUND

In March 2020, Government of India began issuing social distancing guidelines. These measures also caused cancellation of blood drives and reduced the number of blood donors which severely affected the availability of blood products.

Since the introduction of blood transfusion into a clinical practice, its appropriate use has always been the subject of debate. Excessive cross matching in addition to being wasteful of resources has adverse consequences on the management of blood inventory and blood quality. Today, the crossmatch/ to transfusion (C/T) ratio is an important National Quality Indicator in many developed countries. In these countries it is used to assess the appropriate use of services offered by the transfusion laboratory service to the Clinicians/Surgeons. A C:T ratio of > 2 indicates excessive ordering of crossmatched blood.

$$\text{C:T ratio} = \frac{\text{Total Number of crossmatched Red blood cell (RBC) units}}{\text{Actual Number of RBC units transfused}}$$

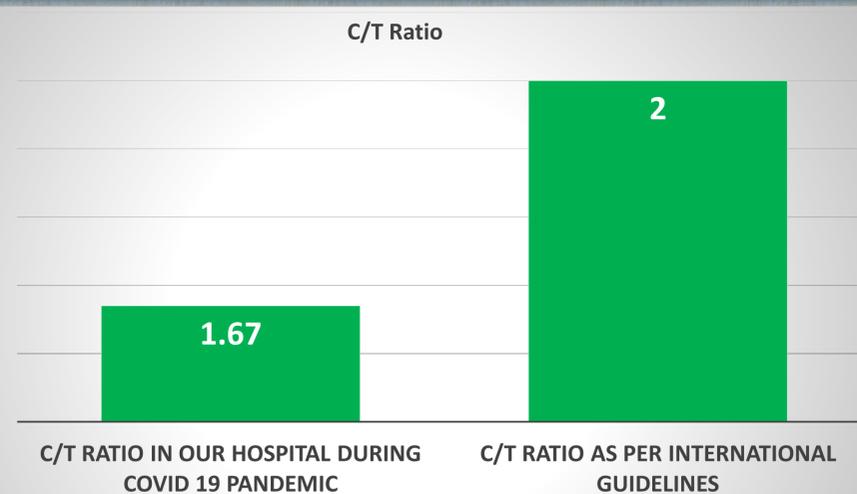
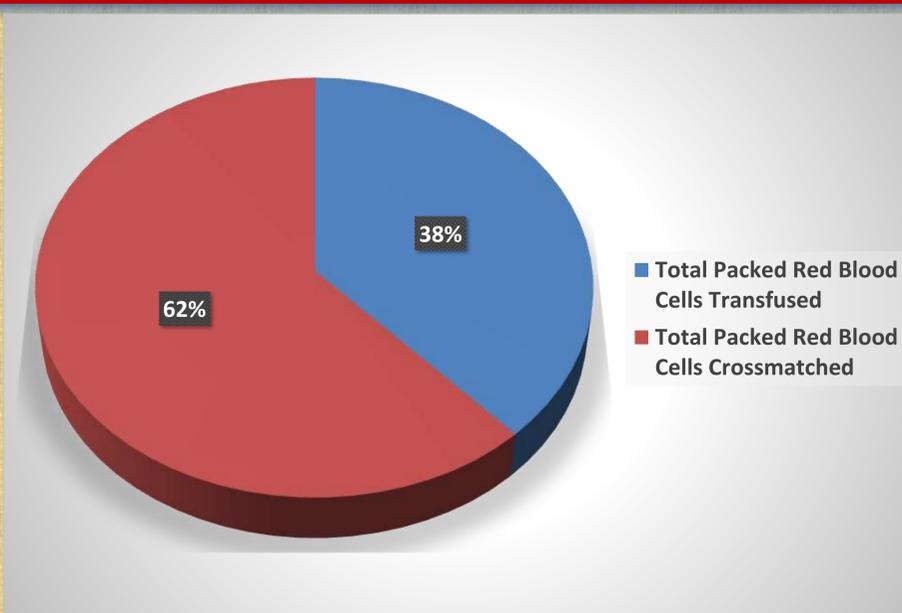
### AIMS

The main aim of this study is to highlight the importance of Blood Supply management And Utilization During The COVID-19 Pandemic

### METHODS

6 months of retrospective data during the COVID-19 pandemic from March 2020 to August 2020 was collected which included RBC crossmatch requirements requests and all RBC units transfused. We made multiple synchronous efforts like calling voluntary blood donors to increase blood collection and alignment among various clinical departments. Enhanced monitoring and triage of blood product was used by activating MTP (Massive Blood Transfusion Protocol) and MS-BOS (Maximum Surgical Blood Ordering Schedule) for appropriate blood utilization.

### RESULTS



A total of 3854 units of packed red blood cells were crossmatched and 2379 units were transfused. The overall C/T ratio was 1.62. The outcome of the study was compliance of overall C/T ratio with the international guidelines.

### CONCLUSIONS

To conclude the duration of the pandemic is still unknown and the knowledge of the COVID-19 is evolving every day. Challenges for blood availability will remain present for an unknown duration. So the efforts to increase blood donation in the general population including an efficient communication strategy with the voluntary blood donors as well as implementation of safe blood drive protocols will help go a long way into the blood supply management and utilization during this pandemic.

### REFERENCES

1. AABB Technical Manual
2. Rossi's Principles of Transfusion Medicine
3. WHO Technical Manual
4. Accreditation Standards on blood banks/Blood centres and Transfusion Services