



The use of a restrictive strategy is associated with a reduction in transfusion prior to central venous catheterization and costs in critically ill cirrhosis patients. No effect on bleeding was found among the groups” Rocha et al (2019).

Abstract:

BACKGROUND: Transfusion of blood components prior to invasive procedures in cirrhosis patients is high and associated with adverse events.

OBJECTIVES: We compared three transfusion strategies prior to central venous catheterization in cirrhosis patients.

PATIENTS/METHODS: Single center randomized trial that included critically ill cirrhosis patients with indication for central venous line in a tertiary private hospital in Brazil.

INTERVENTIONS: Restrictive protocol, thromboelastometry-guided protocol, or usual care (based on coagulogram). The primary endpoint was the proportion of patients transfused with any blood component (i.e. fresh frozen plasma, platelets or cryoprecipitate). The secondary endpoints included incidence of bleeding and transfusion-related adverse events.

RESULTS: A total of 57 patients (19 per group; 64.9% male; mean age, 53.4 ± 11.3 years) were enrolled. Prior to catheterization, 3/19 (15.8%) in the restrictive arm, 13/19 (68.4%) in

the thromboelastometry-guided arm and 14/19 (73.7%) in the coagulogram-guided arm received blood transfusion (OR, 0.07; 95% CI, 0.01 - 0.45; $p = 0.002$ for restrictive vs. coagulogram-guided arm; OR, 0.09; 95% CI, 0.01 - 0.56; $p = 0.006$ for restrictive vs. thromboelastometry-guided arm; and OR, 0.77; 95% CI, 0.14 - 4.15; $p = 0.931$ for thromboelastometry-guided vs. coagulogram-guided arm). The restrictive protocol was cost saving. No difference in bleeding, length of stay, mortality, and transfusion-related adverse events was found.

CONCLUSIONS: The use of a restrictive strategy is associated with a reduction in transfusion prior to central venous catheterization and costs in critically ill cirrhosis patients. No effect on bleeding was found among the groups.

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Reference:

Rocha, L.L., Neto, A.S., Pessoa, C.M.S., Almeida, M.D., Juffermans, N.P., Crochemore, T., Rodrigues, R.R., Filho, R.R., Chaves, R.C.F., Cavalheiro, A.M., Prado, R.R., Assunção, M.S.C., Guardia, B.D., Silva, E. and Corrêa, T.D. (2019) Comparison of three transfusion protocols prior to central venous catheterization in patients with cirrhosis: A randomized controlled trial. *Journal of Thrombosis and Haemostasis*. October 31st. doi: 10.1111/jth.14672. .

