



## **Practice of patient blood management in Japan**

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Patient Blood Management (PBM) is defined as an interdisciplinary approach based on scientific evidence to provide optimal medical benefits for patients in medical situations requiring blood transfusion. Allogeneic blood transfusion is infusion of non-self blood components for patients, and various side effects exist. As a result, unnecessary blood transfusions may adversely affect patients' healthy recovery, and approaches to avoid allogeneic blood transfusions are necessary as much as possible. The importance of reducing the side effects caused by blood transfusion, the necessity of efficient operation of transfusion resources due to the declining birthrate and aging population, the diversification of treatment contents including molecular target therapy, etc., The importance of PBM practice is getting more conscious.

Regarding the risk of allogeneic blood transfusion, the safety has been greatly increased as a result of the measures taken by pioneer related transfusion medicine. On the other hand, problems of new infectious microorganisms, immunological risks such as anaphylactic shock, special side effects such as TRALI and TACO occur at a certain frequency.

As a specific direction of PBM's efforts, for patients who are expected to require blood transfusion, it is necessary to set pretreatment settings of trigger value before blood transfusion, identify factors that affect blood loss volume, and approximate prediction of supposed bleeding volume etc. In order to realize those efforts, medical teams need to share transfusion plans. Basically, the plan of blood transfusion can be based on proper use of corresponding guidelines for blood transfusion products, but there are scenes that can not necessarily be implemented as guidelines. Depending on the extent of social activity of patients and the presence or absence of complications, transfusion plans appropriate for individual patients should be implemented according to the evidence of transfusion medical treatment based on each disease condition. Evaluation after implementation of each PBM is also important.

Although the history of transfusion medical treatment is long, the achievement of PBM in Japan is never abundant. It is necessary to evaluate whether the transfusion medical treatment carried out in the face of each scene of the PBM was indeed adequate. For that purpose, it is considered necessary to accumulate data prospectively in the future, and also to build evidence of PBM suitable for Japanese.