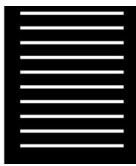


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The Transfusion Committee: Justification and Functions

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THE PRACTICE OF reviewing blood use is not new, nor is the concept of establishing a hospital committee to fulfill that responsibility. Hospitals have been conducting blood utilization reviews for decades, and the history of prospective auditing of transfusion practices dates back to the 17th century, when the first

human transfusion was performed.¹ In the beginning, the practice of conducting reviews of blood usage was voluntary. However, in 1961 it became one of The Joint Commission's requirements for hospital accreditation.² A proposal to appoint a designated team to accomplish this function was also introduced at about the same time. It was recommended as early as

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1962 that a hospital transfusion board be established to review blood transfusion practices.^{3,4} Professional societies such as the AABB have also promoted the creation of hospital transfusion committees (TCs).⁵ These efforts have motivated many hospitals to create TCs, but the committees' effectiveness and the roles they play are often unclear and variable. The sparsity of articles published on the hospital TC during the 1990s suggests that its role was on the decline during that period. Currently, hospital TCs are having a resurgence due to the focus on cost-cutting measures, patient safety, and the shortage of blood components, particularly Red Blood Cells (RBCs) and platelets.

With this resurgence in hospital-based TCs, the role is also expanding beyond the traditional focus on blood usage practices.⁶ In addition to examining overall blood component usage, TCs also play an important role in improving the safety of each step of the transfusion process: ordering components for transfusion, collecting samples and labeling, administering blood, monitoring patients for adverse reactions and near-miss events, outdating of products, discard of products, appropriateness of transfusion, and compliance. To help with appropriate use of blood components and compliance with best practice recommendations, many hospitals have set up order alerts

for blood components, which help to educate physicians and other practitioners ordering components regarding best practice for usage, as well as provide notification regarding ordering outside of recommended guidelines.

Hospital TCs are also helping in the development of patient blood management (PBM) programs.⁷ In PBM, the importance is placed on the patient's own blood and anemia, and other issues are addressed long before the patient has a surgery or procedure. Thus, blood usage is reduced, as the patient will require very little or no blood for many procedures/surgeries. Studies have shown that PBM programs are associated with improved outcomes such as decreased mortality and morbidity, decreased length of hospital stay, decreased stay in the intensive care unit, decreased complications, and improved patient experience.⁸⁻²⁰ PBM is discussed in great detail in Chapters 9 through 12.

Justification

Why should hospitals have TCs? Blood transfusion is the most commonly performed procedure in US hospitals.²¹ As of 2018, ~3.8% of hospitalizations in the United States included an RBC transfusion.²¹ Notably, ~11 million allogeneic RBC units are transfused yearly,

with an estimated cost of more than \$2.3 billion.²² In addition to being the most commonly performed procedure, blood transfusion is also one of the most overused procedures. Thus, hospital TCs can help to decrease inappropriate blood component usage, focus on patient safety, and optimize correct blood usage. By eliminating inappropriate usage, more blood components become available for patients that need them. This has become even more important in the postpandemic period.

During the COVID-19 pandemic, blood collections decreased when many blood drives could not continue because workplaces and schools were closed. Even after schools and businesses opened, blood collections were not able to resume in many instances. Many people now work from home, and blood drives have not been allowed back in many schools. In the current postpandemic era, blood components are almost always in short supply, and in some cases, extreme shortages exist. Management of the blood supply is even more crucial. Moreover, before COVID, many large hospitals and academic centers were developing strong TCs that effectively monitored transfusion practices and were starting PBM programs. After the pandemic, TCs that monitor blood component usage and wastage are now important to all hospitals no matter how

small, because components are in short supply.

Not all hospitals have TCs, because laws and regulations for setting up a TC vary globally. For example, the World Health Organization (WHO) recommends that hospitals establish a TC²³; in the United Kingdom and Italy, it is a regulatory requirement to set up hospital TCs,²⁴ while in the United States, licensing and accrediting agencies require hospitals to review their blood utilization practices, but they do not mandate that a committee be formed to perform this function.¹ The absence of a TC is more prevalent in developing countries. According to WHO, in 2018, 73% of reporting countries had a national blood policy, and 66% of reporting countries had specific legislation covering the safety and quality of blood transfusion.²⁵ Chapter 13 describes some of the different practices throughout the world in managing blood utilization.

Transfusion of blood components is a complex process (Fig 1-1). A single order for transfusion consists of numerous steps, and each step is subject to multiple standards and regulations. Additionally, it is often difficult for the laboratory to single-handedly maintain control of the entire process, because it oversees only certain steps. Many steps in the transfusion process are initiated/completed by staff who are not part of the laboratory or blood

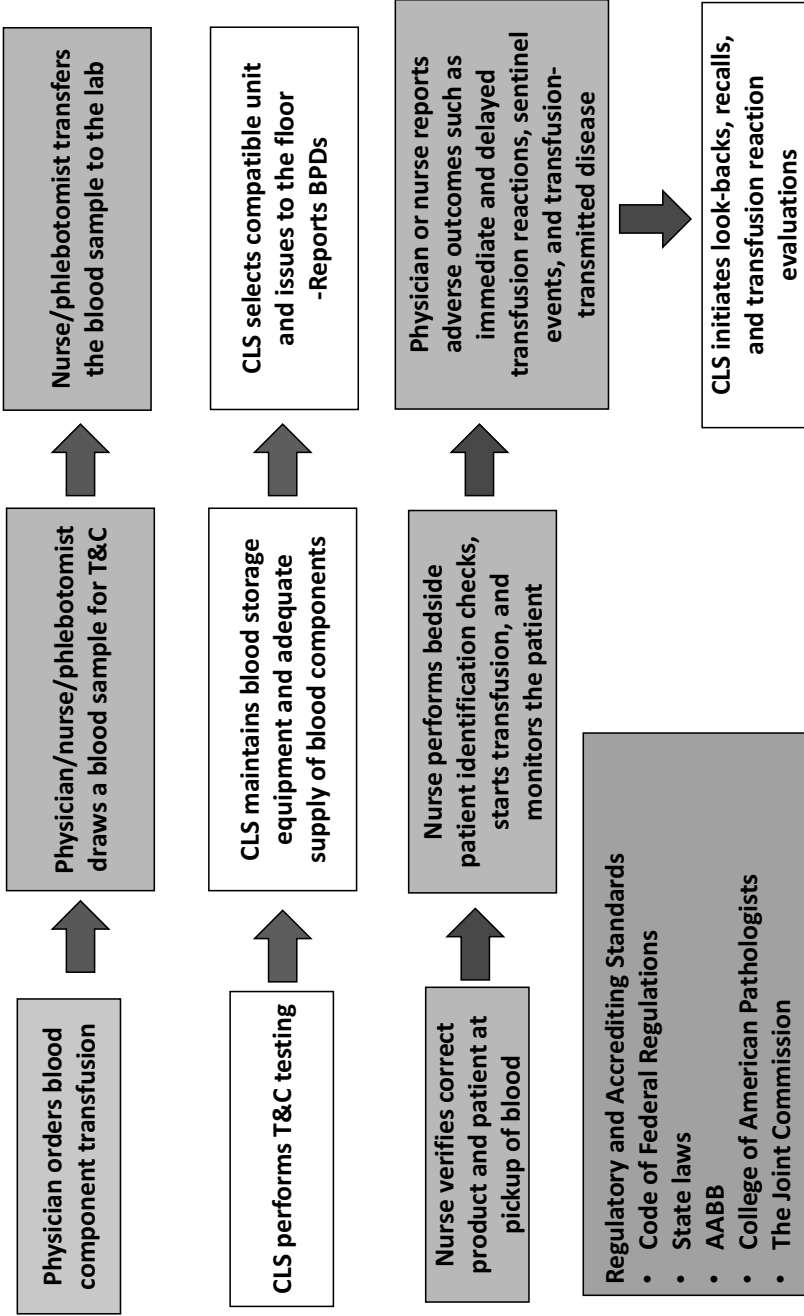


Figure 1-1. Blood transfusion: A complex and highly regulated process. Shaded steps are performed by non-CLS staff. BPD = biological product deviation; CLS = clinical laboratory scientist; T&C = type and crossmatch.