

Implementation of patient blood management strategies in an Israeli hospital: caught between hope and despair

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DEAR EDITOR:

"Thoughtless prescription of blood transfusion is playing Russian roulette with bottles of blood instead of a revolver." Crosby WH. Misuse of blood transfusion. *Blood* 1958; 13 (12): 1198-200.

Blood transfusion (BT) is widely overused. For many physicians and clinicians across various specialties, blood transfusion is still considered the first line of treatment when facing anemia and/or blood loss. BT decisions are often made in the absence of adequate training and often associated with the exaggerated anxiety of the physicians. Shander and his colleagues [1] emphasized the dilemma when they questioned what was really dangerous: anemia or transfusion.

BT is the most common and the fastest growing procedure performed in U.S. hospitals. In fact, one unit of packed red blood cells (PRBCs) is transfused every half second [2]. BT is in a list of the five most overused therapeutic procedures in the United States. In 1942 Adams and Lundy [3] recommended preoperative blood transfusion for all patients when the Hb level was less than 10 g/dl and the he-

matocrit was less than 30% (the historical 10/30 rule). However they failed to provide corroborative scientific support for this recommendation.

In 1999 the *New England Journal of Medicine* published the results of the first large study about transfusion requirement in critical care investigators for the Canadian Critical Care Trials Group (TRICC), which supported the restrictive blood transfusion (RBT) policy as being evidence-based [4]. TRICC was a breakthrough, demonstrating that RBT is at least as effective, if not superior, to a liberal policy of blood transfusion.

Giguère and colleagues [5] suggested that Hb target values of 7–8 g/dl for BT were associated with equivalent or better outcomes. According to the World Health Organization (WHO), patient blood management (PBM) is a patient-focused, evidence based, systematic approach for optimizing the management of patients and transfusion of blood products to ensure high quality and effective patient care [6].

At our 728-bed tertiary care medical center, which serves a population of 600,000, we identified effective strategies to implement a PBM policy to translate theory to practice. Implementation can be challenging for a heterogeneous medical staff because many believe that blood is equivalent to an elixir. Methods for implementing a patient blood management program into a health system are still not well understood.

In 2009, based on the medical literature and our own experience we developed a PBM strategy, which resulted in a 35% reduction of blood transfusion, a savings of NIS 1 million (approximately US\$250,000) per year. In all six internal

medicine departments a dramatic 56% reduction was achieved. In one department a 75% reduction was noted. The reduction of the total supply of PRBC units by 35% (post-implementation) is comparable to that of other large medical centers in the world. It seems that not enough attention is paid to PBM implementation in internal medicine departments. In our medical center, a dramatic reduction in BT was noted.

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The absence of flaw in beauty is itself a flaw.

Havelock Ellis (1859–1939), English physician, eugenicist, writer, progressive intellectual, and social reformer

The greatest glory in living lies not in never falling, but in rising every time we fall.

Nelson Mandela (1918–2013), South African anti-apartheid revolutionary, political leader and philanthropist who served as president of South Africa from 1994 to 1999

When you reach the end of your rope, tie a knot in it and hang on.

Franklin D. Roosevelt (1882–1945), American politician who served as the 32nd president of the United States from 1933 until his death in 1945