In This Issue

Nearly twenty-five years ago, the Institute of Medicine published an historic report of medical error in the U.S., entitled *To Err is Human: Building a Safer Health System*. The effects of this landmark publication cannot be overstated; virtually all healthcare system safety programs, including our own, find their inspiration in this report and similar ones that have followed. The tendency to err has been substantially mitigated by such programs, and their activities have been lauded by all, including Edmund Pellegrino. The principles of beneficence and non-maleficence, to be sure, require attentiveness to error mitigation.

But Pellegrino contended that system-based error prevention “cannot erase the individual moral onus of preventable error . . . organizational conformity cannot take the place of [an individual physician’s] moral responsibility” (*Pellegrino, 2004*). Further, (citing the work of Charles Bosk), Pellegrino insisted that technical errors include those related to an individual physician’s lack of knowledge or proficiency. Individual physicians “are charged with the welfare of the sick, dependent, anxious, vulnerable, and exploitable human beings.” Underneath any system-based safety initiatives, he argued, “individual virtues are still the bedrock.” Even the enshrined principles, tainted as they are by fallibility and by deep-seated disparities, can only be sustained by a physician’s virtue.

In this issue of the *Pellegrino Report*, Dr. Kelly Johnson-Arbor, medical director, Hyperbaric Medicine at MedStar Georgetown, explores a case of medical error in a Bloodless Medicine patient, wherein the confluence of insufficient therapeutic knowledge, paternalism, and disparity conspire to place a marginalized and vulnerable patient at risk. The ethical nuances of caring for Jehovah’s Witnesses patients were all too familiar to Dr. Pellegrino, who was among the authors who reported on a very complicated Jehovah’s Witness patient some years ago during his time at Georgetown. We can only learn from Dr. Johnson-Arbor’s case report, as we can from Dr. Pellegrino’s. Both should inspire us to higher levels of technical, and moral, excellence.

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Ethics in the Management of a Severely Anemic Bloodless Medicine Patient

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A 70-year-old man developed progressive anemia, two years after receiving a kidney transplant. He was referred for hematolgy evaluation, as he was a Jehovah’s Witness and unable to receive blood transfusion. Despite outpatient administration of intravenous iron ordered by his hematologist, his hemoglobin concentration continued to decline. The patient’s hematologist then advised him to seek palliative care evaluation, as he believed that there were no other treatment options available.

When his condition deteriorated further, the patient sought care at a different medical facility. Upon admission, he was lethargic, and his hemoglobin concentration was 2.2 g/dL. His absolute reticulocyte count and reticulated hemoglobin concentration were both low, consistent with iron deficiency. A bloodless medicine specialist recommended administration of twice-daily recombinant erythropoietin and additional intravenous iron infusions. The patient was also referred for hyperbaric medicine evaluation, but he was initially unable to undergo treatments due to his severely altered mental status.

Five days after admission, the patient’s absolute reticulocyte count improved. Eleven days after admission, the patient’s hemoglobin increased to 3.0 g/dL. His mental status improved, and he was able to begin a series of hyperbaric treatments. When his hemoglobin reached 5.6 g/dL, the patient stated that he felt “better than ever” and was able to ambulate around the hospital unassisted. After a 3.5-week hospitalization, he was eventually discharged home, with a hemoglobin concentration of 6.9 g/dL.

The medical care of Jehovah’s Witnesses is often challenging for both patients and physicians. The reasons for such difficulty can range from being unfamiliar with treatment options to misunderstanding some of the ethical obligations and rights inherent in the physician-patient relationship. In this essay, I offer some suggestions for ensuring that patients who decline blood products and transfusions receive optimal care.
In some cases, physicians may advise anemic patients that blood transfusion is the only available treatment option. Some patients may trust this recommendation and forego further therapeutic options. Such cases could be seen as relying on an outdated, paternalistic physician-patient relationship which dictated that a doctor’s wisdom and expertise was a resource that should be accepted by patients without question (Bolcato, 2021). However, given recent advances in medical ethics which have emphasized the concept of shared decision-making, it may also be possible that physicians are unaware of the full scope of treatment options and of their ethical obligation to educate themselves and their patients about these options. It is also important that they recognize whether internal biases may be influencing the delivery of patient care.

When faced with a challenging medical case, physicians must consider facts, values, and norms (Layon, 1990). While facts are indisputable terms, values are beliefs that motivate decision choices, justify clinical practices, and support the development of accepted norms (Spranzi, 2013). In treating anemic patients, the value of “doing no harm” often translates into the norm of maintaining the hemoglobin concentration above the generally accepted threshold of 7 g/dL. Red blood cell transfusion is a well-recognized method of achieving this hemoglobin threshold. However, this does not mean that a severely anemic patient who cannot receive transfusion of blood products has no other treatment options available.

The pharmacologic treatments for bloodless medicine patients are often poorly understood. Standard recommendations for anemic bloodless medicine patients include treatment of iron deficiency with either oral or intravenous iron. Administration of erythropoiesis-stimulating agents (ESAs) can enhance erythropoiesis in patients with intact bone marrow function. Finally, hyperbaric oxygen therapy may be utilized to supersaturate the plasma with oxygen, a phenomenon that occurs independent of hemoglobin concentration.

The nuanced and complex relationship among facts, values, and norms may complicate the treatment of bloodless medicine patients, especially when a clinician’s values might diverge from those of the patient. The anemic Jehovah’s Witness patient, already vulnerable due to illness, may fear that his or her physicians may not respect the desire to avoid blood product transfusion. While both the physician and patient share the norm of healing the individual, the physician-patient relationship can become fractured when the values of either party are not respected.

Physicians aim to heal their patients, but the pathways to healing do not always coincide with patient values. In one survey of critical care physicians, 63% stated that they would order blood transfusion for an exsanguinating Jehovah’s Witness patient, even if the patient had clearly expressed a desire to avoid transfusion (Vincent, 1991). Decades later, similar beliefs still persisted: in 2010, an Italian physician ordered a blood transfusion for a patient who had expressly declined to receive blood products (Bolcato, 2021). That physician was subsequently charged with assaulting the patient and was ultimately convicted at trial.

To provide bloodless medicine patients with optimal care, we must remain aware of the differences among facts, values, and norms that impact clinical decision-making. Physicians should also maintain a knowledge of the pharmacologic techniques available for use in this patient population. The hemoglobin concentration required to sustain life has never been clearly defined, and many anemic bloodless medicine patients can survive and thrive after using other therapeutic options.