

April 20, 2020

Dear Healthcare Provider:

SARS-CoV-2 has affected all in the US either directly or indirectly, and we certainly appreciate the tremendous efforts exerted by healthcare providers at this unprecedented time. Your efforts to selflessly care for those affected by this pandemic and those with other medical conditions has not gone unnoticed.

As you know, the CDC and some surgical societies have recommended the postponement of elective surgeries. A consequence of this is that the actual surgeries performed during this pandemic may be biased toward more severe urgent and emergent cases; more severe cases tend to be associated with higher blood loss.^{1,2}

One of the consequences of the efforts to contain this pandemic by isolation is a decrease in donors for blood products. The Society for the Advancement of Blood Management (SABM) has recently issued a Position Statement regarding this issue. To reduce reliance on the need for blood product utilization, the implementation of some key Patient Blood Management strategies would allow necessary care to continue. These include:³

1. Identify and treat anemia
2. Identify and address coagulation issues prior to surgery
3. Use all known and effective blood conservation methods during and after a procedure, including eliminating excessive blood testing
4. Carefully monitor patients' condition after surgery, quickly intervening for unexpected bleeding
5. Support patients postoperatively with therapies to support blood production
6. Thoroughly educate patients letting them know they are part of a global effort.

One of the strategies available to reduce bleeding and promote blood conservation (strategy 3, above) is the use of appropriate hemostatic agents.^{4,5,6} In addition to the urgent/emergent nature of cases that preclude the ability to properly "reverse" anticoagulant medications that many people are prescribed, there are also many over-the-counter and herbal 'remedies' used by patients that have the potential to alter the coagulation system;^{7,8} these issues can become relevant in the current state of events.

After primary modes of hemostasis (i.e. energy devices and sutures/clips) are used to treat intraoperative bleeding, there are two main categories of hemostatic products available as adjuncts to treat intraoperative bleeding: active hemostatic products and passive hemostatic products. Efficacy of these products may be impacted by a patient's coagulation status. Passive, or mechanical hemostatic agents, assist with platelet activation and aggregation and help to form a matrix at the site of bleeding, allowing clotting to occur; these products are only appropriate for patients who have an intact coagulation system.^{5,6} Active hemostatic products function independently of the patient's ability to generate clotting factors to achieve hemostasis. Therefore, active products are effective regardless of patient's coagulation status.^{5,9,10}

Selection of the appropriate hemostatic agent for a particular surgery can make a significant difference regarding patient outcomes. In cardiac surgery, use of an active hemostatic product compared to a passive hemostatic product has resulted in a significant reduction of resource utilization (i.e. returns to surgery for bleeding, transfusion requirements, time from decannulation to closure, minor complications)¹¹ as well as a decrease in bleeding complications in patients needing to resume anticoagulation. When an active hemostatic product was used in a cohort of gynecology-oncology patients despite more prevalent coagulopathy (e.g. due to anticoagulant use) versus controls who did not use the active hemostatic product, the group using the active hemostatic product needed less frequent transfusions of packed red blood cells and fresh frozen plasma. The need for surgical revisions and intensive-care unit admissions was also lower in patients treated with the active hemostatic product in comparison to controls.¹²

There are several resources available to our operating room staff partners to assist in providing more clarity with regards to transfusion reduction strategies. Both CME and CEU education options are available at the following websites:

CME

Clinical and Economic Impact of Bleeding and the Use of Hemostatic Agents

<http://pfiedler.net/1373>

CEU

Intraoperative Transfusion Reduction Strategies

<https://www.pfiedlereducation.com/diweb/catalog/item/eid/1403-2020>

Active & Passive Hemostatic Agents Meet the Coagulation Cascade

<https://www.pfiedlereducation.com/diweb/catalog/item/eid/1402-2020>

Understanding Hemostatic, Sealant and Adhesive Agents

<https://www.pfiedlereducation.com/diweb/catalog/item/eid/1405-2020>

Overview of Active and Passive Hemostatic Products

www.activehemostasis.com

We hope that in some small way we can facilitate the reduction of reliance on blood product utilization. Furthermore, we acknowledge your efforts during this trying time and extend our sincerest gratitude for your selfless service.

Sincerely,



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