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Media Contact

Beth Mueller, (224) 948-5353
media@baxter.com

Investor Contact

Clare Trachtman, (224) 948-3085

NEW DATA INDICATES USE OF BAXTER'S FLOSEAL IN CARDIAC AND SPINAL SURGERIES MAY BE ASSOCIATED WITH LOWER HOSPITAL COSTS

- *Two new economic analyses quantify findings of previously published retrospective studies that observed improved clinical outcomes associated with FLOSEAL use compared to another flowable hemostatic matrix*
- *Based on average surgical volumes, avoiding surgical complications may save a U.S. hospital \$1.5 million annually during cardiac surgery, and \$151 per major and \$574 per severe spinal surgery*

DEERFIELD, Ill., MARCH 14, 2017 – Baxter International Inc. (NYSE: BAX)

announced publication of the results of two health economic analyses in the *Journal of Medical Economics* supporting FLOSEAL Hemostatic Matrix as a cost-effective tool for controlling bleeding during cardiac and spinal surgeries that may contribute to significant cost savings for hospitals.^{1,2} The analyses are based on previously published retrospective studies of a large U.S. hospital billing database that observed fewer complications in surgeries that used FLOSEAL compared to another flowable hemostatic matrix.^{3,4,5}

Complications during surgery, such as the need for blood transfusions or longer times in the operating room, can increase costs for a hospital and impact patient care. In the [cardiac surgery analysis](#), researchers calculated the potential cost savings of using FLOSEAL when compared to SURGIFLO® to be \$1.5 million annually for an

average U.S. hospital, assuming FLOSEAL use would result in improved clinical outcomes similar to those observed in the prior retrospective study.³ Savings would come from fewer major and minor complications, surgical revisions, blood product transfusions and hours of operating time.

“Based on the real-world outcomes observed in the earlier study, this new health economics analysis identifies a substantial opportunity for hospitals to realize potential cost savings on cardiac surgery operations, which are among the surgical specialties the most susceptible to the occurrence of intra-operative and post-operative bleeding,” said Domenico Calcaterra, M.D., Ph.D., Minneapolis Heart Institute at Abbott Northwestern Hospital, Minn. Dr. Calcaterra co-authored the original retrospective study.

In the [second study](#), researchers identified potential cost savings of \$151 per major and \$574 per severe spinal surgery when compared to SURGIFLO® for hospitals with average surgical volume by improving surgical outcomes and efficiencies.² The savings would come from a combination of resource use factors, including shorter operative room time, a lower blood transfusion rate and lower product volume use.^{4,5}

In addition to reducing a hospital's costs, addressing bleeding effectively and quickly is critical to avoiding major and minor complications for patients. As a leader in hemostasis, Baxter is committed to providing innovative solutions for surgeons. Conventional methods of controlling bleeding, such as suture, cautery or ligature, may be ineffective or impractical in certain surgery settings. In these cases, surgeons may use hemostatic agents such as glues, adhesives and sealants to help address bleeding.

FLOSEAL is an indicated and approved adjunct hemostatic agent proven effective in a wide-range of bleeding scenarios.⁶

About the Studies

The new economic analyses quantify the potential cost savings to hospitals associated with FLOSEAL use, assuming the real-world outcomes observed in earlier studies are attributable to FLOSEAL use. Both economic analyses are based on previously published retrospective analyses which observed certain improved outcomes associated with surgical cases in which FLOSEAL rather than SURGIFLO® was used. By nature of their design, these retrospective studies could not conclusively determine whether FLOSEAL use was causally related to the observed improved clinical outcomes. The studies include assessments of a large number of cases with data extracted from Premier's United States (U.S.) Perspective Database, which contains more than 490 million hospital encounters and captures approximately 25 percent of U.S. hospital discharges. Detailed explanations of the methodologies and study limitations are available in the [cardiac surgery analysis](#) and [spinal surgery analysis](#).

About Baxter

Baxter provides a broad portfolio of essential renal and hospital products, including home, acute and in-center dialysis; sterile IV solutions; infusion systems and devices; parenteral nutrition; biosurgery products and anesthetics; and pharmacy automation, software and services. The company's global footprint and the critical nature of its products and services play a key role in expanding access to healthcare in

emerging and developed countries. Baxter's employees worldwide are building upon the company's rich heritage of medical breakthroughs to advance the next generation of healthcare innovations that enable patient care.

FLOSEAL Hemostatic Matrix Indication

FLOSEAL Matrix is indicated in surgical procedures (other than ophthalmic) as an adjunct to hemostasis when control of bleeding by ligature or conventional procedure is ineffective or impractical.

Important Risk Information for FLOSEAL Matrix

Do not inject or compress FLOSEAL Matrix into blood vessels. Do not apply FLOSEAL Matrix in the absence of active blood flow, e.g., while the vessel is clamped or bypassed, as extensive intravascular clotting and even death may result.

Do not use FLOSEAL Matrix in patients with known allergies to materials of bovine origin. Do not use FLOSEAL Matrix in the closure of skin incisions because it may interfere with the healing of the skin edges.

FLOSEAL Matrix contains Thrombin made from human plasma. It may carry a risk of transmitting infectious agents, e.g., viruses, and theoretically, the Creutzfeldt-Jakob disease (CJD) agent.

FLOSEAL Matrix is not intended as a substitute for meticulous surgical technique and the proper application of ligatures or other conventional procedures for hemostasis.

Excess FLOSEAL Matrix (material not incorporated in the hemostatic clot) should always be removed by gentle irrigation from the site of application.

FLOSEAL Matrix swells by approximately 10% to 20% after product is applied. Maximum swell volume is achieved within about 10 minutes.

The safety and effectiveness of FLOSEAL Matrix has not been established in children under 2 years of age and pregnant women.

Do not use air to remove residual FLOSEAL Matrix from Applicator tip. The Applicator tips should not be cut. Do not use FLOSEAL Matrix on bone surfaces where adhesives, such as methylmethacrylate or other acrylic adhesives, will be required to attach a prosthetic device.

Rx Only. For safe and proper use of this device, refer to the full Instructions for Use.

This release includes forward-looking statements concerning FLOSEAL, including anticipated benefits associated with its use. The statements are based on assumptions about many important factors, including the following, which could cause actual results to differ materially from those in the forward-looking statements: the applicability of the studies to related cost savings estimates (as described above in “About the Studies”); satisfaction of regulatory and other requirements; actions of regulatory bodies and other governmental authorities; product quality, manufacturing or supply, or patient safety issues; changes in law and regulations; and other risks identified in Baxter's most recent filing on Form 10-K and other SEC filings, all of which are available on Baxter's website. Baxter does not undertake to update its forward-looking statements.

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¹ Makhija, D., et al. Cost-consequence analysis of different active flowable hemostatic matrices in cardiac surgical procedures. *J Med Econ.* 2017 Feb 3:1-9. doi: 10.1080/13696998.2017.1284079. [Epub ahead of print] <https://www.ncbi.nlm.nih.gov/pubmed/28097913>

² Makhija, D., et al. Cost-Consequence Analysis of Two Different Active Flowable Hemostatic Matrices in Spine Surgery Patients. *J Med Econ.* 2017 Feb: 8:1-19 [Epub ahead of print]

³ Tackett S, Calcaterra D, Magee G, Lattouf OM. Real world outcomes of hemostatic matrices in cardiac surgery. *J Cardiothorac Vasc Anesth.* 2014;28(6):1558-1565.

⁴ Price JS. Observational evaluation of outcomes and resource utilization from hemostatic matrices in spine surgery. *J Med Econ.* 2015 Oct;18(10):777-86.

⁵ Price JS, Tackett S, Patel V. Observational evaluation of outcomes and resource utilization from hemostatic matrices in spine surgery. *J Med Econ* 2015: 1-10 (Addendum).

⁶ FLOSEAL Hemostatic Matrix Instructions For Use. Hayward, CA: Baxter Healthcare Corporation.

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SURGIFLO® is a registered trademark of Ethicon US, LLC.