



# Challenge **accepted**

## **HPB surgeons know to expect the unexpected.**

At Ethicon, we've developed a portfolio of products supported by comprehensive educational programs that prepare OR teams to face the twists and turns of complex HPB procedures, including bleeding complications.<sup>1</sup>

Because in the heat of the moment, the way you respond to challenges—and the tools you reach for to do it—can make all the difference.



**Keep reading** to learn how Ethicon can support you in reducing bleeding complications during liver surgery.

# Reducing the incidence and burden of bleeding complications in liver surgery



**Bleeding complications are common during liver surgery.** Up to 28% of U.S. patients receive a blood transfusion during their hospital stay and >13% will experience a bleeding complication, including intraoperative and post-procedural hemorrhage.<sup>2,3</sup>



#### Bleeding risk factors

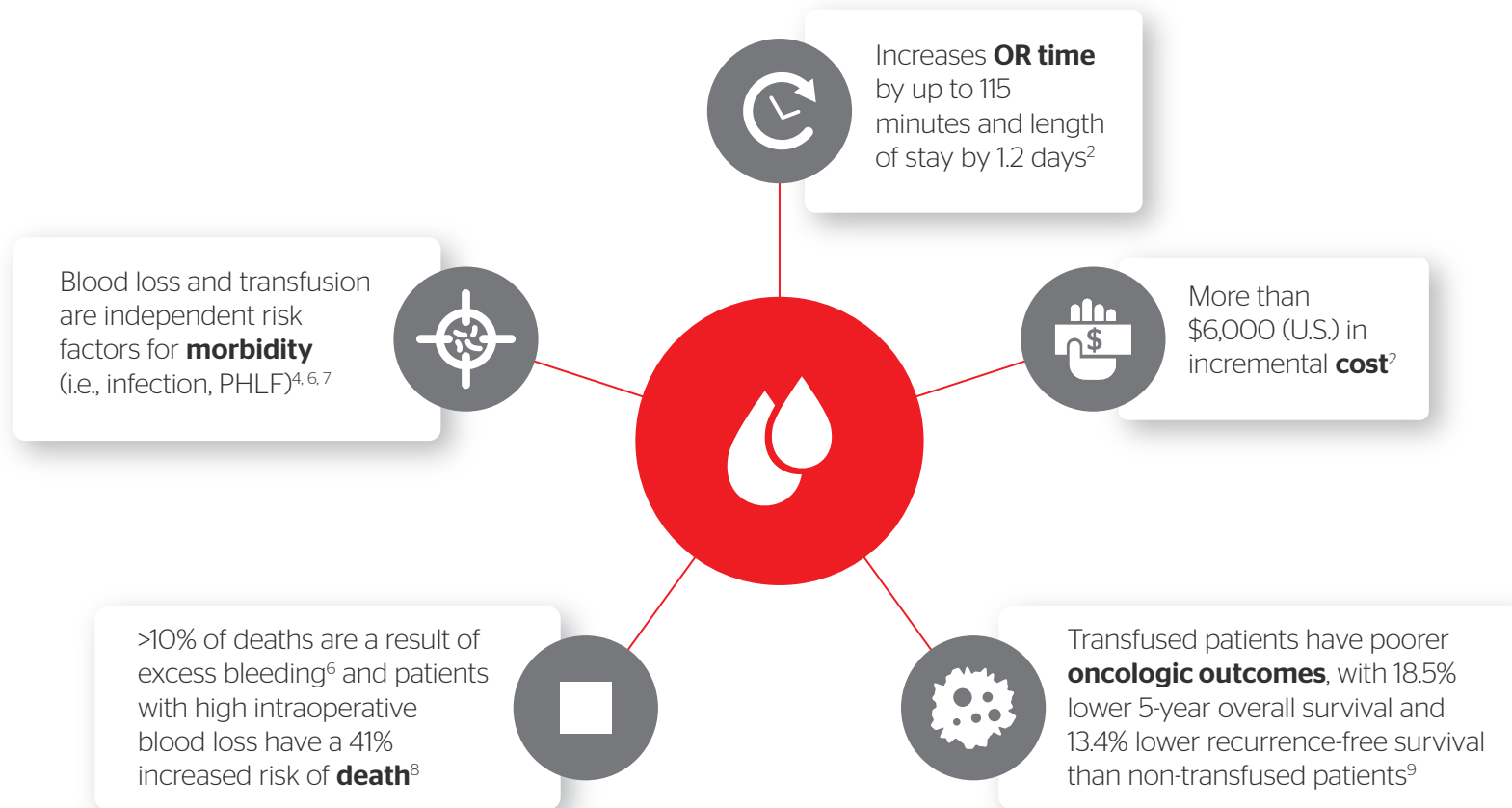
- Most bleeding occurs during parenchymal transection<sup>4</sup>
- Large lesion size, diseased liver tissue (i.e., cirrhotic or fatty) and major hepatectomy are all associated with increased bleeding risk<sup>5</sup>

With **education for all levels of experience** and the most comprehensive portfolio in HPB, Ethicon can **help you protect patients from serious complications** such as bleeding.



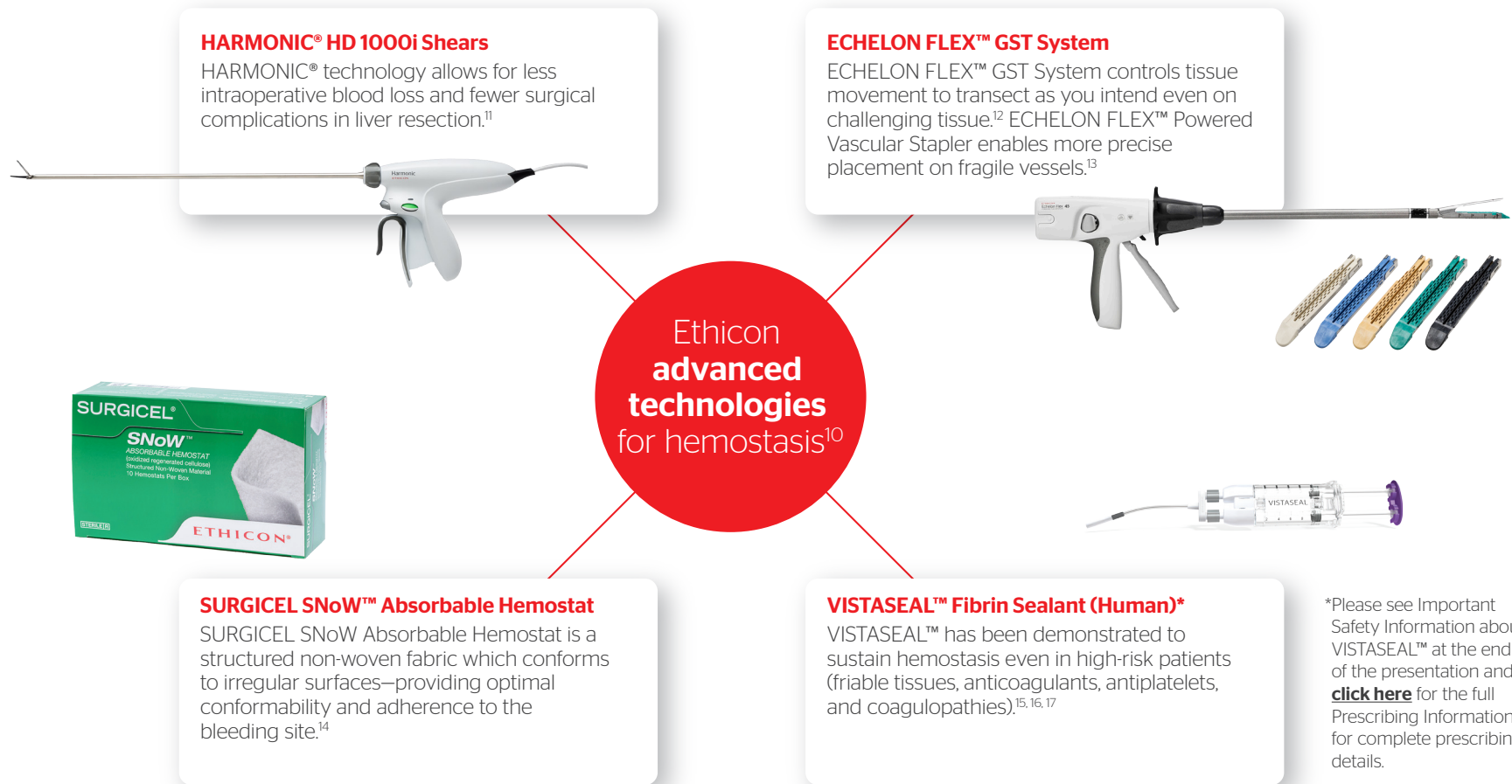
**Next:** The impact of bleeding in HPB

# The impact of bleeding complications in liver surgery



**Next:** Learn about Ethicon advanced technologies for hemostasis

# The right tools for bleeding challenges

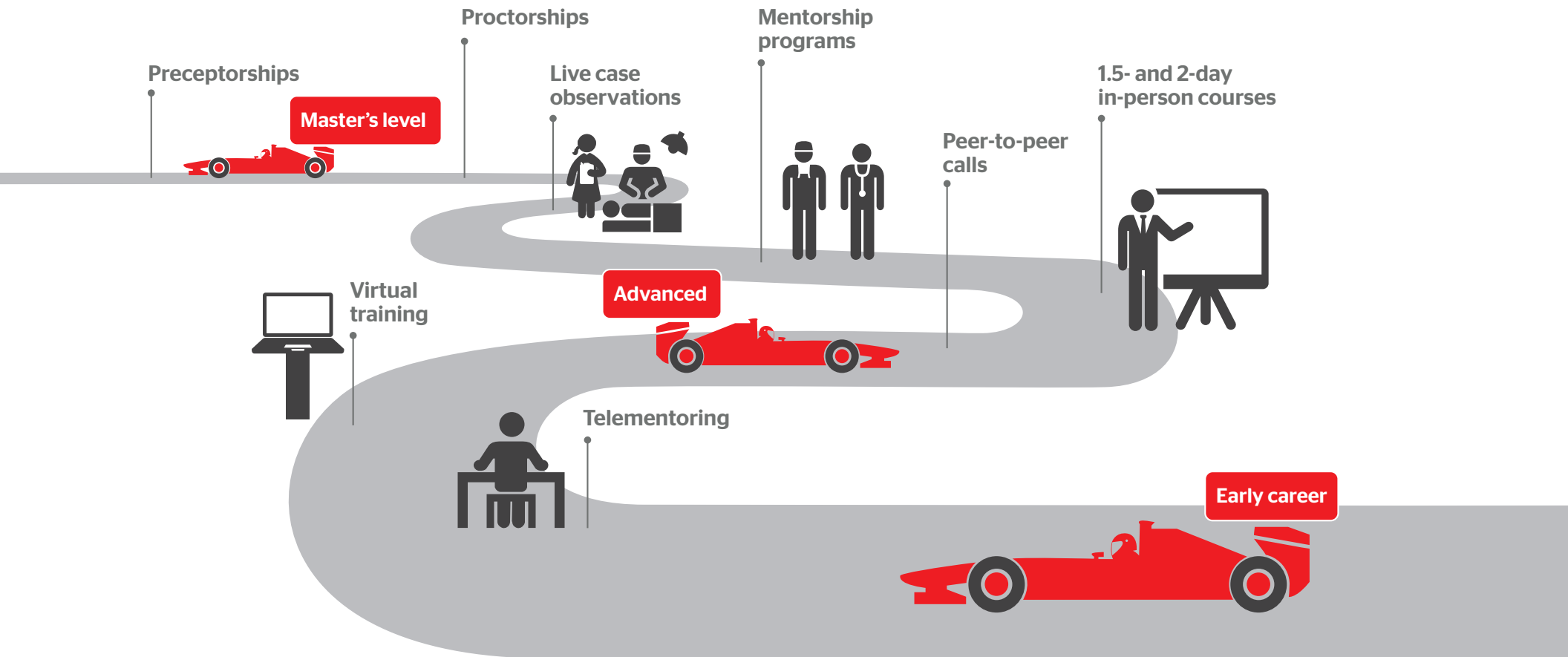


**Next:** Get information on Ethicon professional education for HPB

<sup>10</sup> Refer to page 6 for full Important Safety Information <sup>11</sup> vs. Pringle Maneuver in a prospective randomized controlled trial comparing Pringle Maneuver (n=80) vs. liver resection with Harmonic scalpel (n=80). Hanyong S et al. A prospective randomized controlled trial: comparison of two different methods of hepatectomy. EJSO 2015; 41:243-248. (C2070) <sup>12</sup> Challenging tissue—thick, fragile and varying thickness and density <sup>13</sup> Compared to the Endo GIA™ Curved Tip Reload with Tri-Staple™ technology. PVE35A, EGIA30CTAVM, and PSE45A articulation data from IFUs of each device <sup>14</sup> Compared to SURGICEL Original <sup>15</sup> Bjelovic M, Ayguasonosa J, Kim RD, et al. A prospective, randomized, phase III study to evaluate the efficacy and safety of fibrin sealant Grifols as an adjunct to hemostasis as compared to cellulose sheets in hepatic surgery resections. J Gastrointest Surg. 2018. 22:1939-1949. <sup>16</sup> Chetter I, Stansby G, Sarralde JA, et al. A prospective, randomized, multicenter clinical trial on the safety and efficacy of a ready-to-use fibrin sealant as an adjunct to hemostasis during vascular surgery. Ann Vasc Surg. 2017;45:127-137. <sup>17</sup> Hunt BJ. Bleeding and coagulopathies in critical care. N Engl J Med. 2014;370:847-859.

# Train for the challenges of HPB

**Ethicon Professional Education:** Optimize your skills in the rapidly evolving world of HPB<sup>18</sup>



**Find out:** Ethicon products and training programs can help you optimize your performance during HPB procedures.

Visit [ethicon.com/ChallengeAccepted](https://ethicon.com/ChallengeAccepted)

# VISTASEAL™ Fibrin Sealant (Human)

## IMPORTANT SAFETY INFORMATION

### Indication

VISTASEAL™ is indicated as an adjunct to hemostasis for mild to moderate bleeding in adults undergoing surgery when control of bleeding by standard surgical techniques (such as suture, ligature, and cautery) is ineffective or impractical. VISTASEAL is effective in heparinized patients.

### Contraindications

- Do not inject directly into the circulatory system.
- Do not use for the treatment of severe or brisk arterial bleeding.
- Do not use in patients with history of anaphylaxis or severe systemic reactions to human blood products.
- Do not use VISTASEAL for spraying unless the minimum recommended distance from the applicator tip to the bleeding site can be achieved.

### Warnings and precautions

- Thromboembolic events may occur if VISTASEAL is administered intravascularly.
- Only spray VISTASEAL if it is possible to accurately judge the distance from the spray tip to the tissue surface.
- Hypersensitivity reactions can occur.
- May carry a risk of transmitting infectious agents, e.g., viruses, the variant Creutzfeldt-Jakob disease (vCJD) agent and, theoretically, the Creutzfeldt-Jakob disease (CJD) agent.

### Adverse reactions

- The most common adverse reactions (reported in >1% of clinical trial subjects) were nausea and procedural pain.

**For complete indications, contraindications, warnings, precautions, and adverse reactions, please reference full package insert.**

115517-190529

# SURGICEL® Absorbable Hemostat

## ESSENTIAL PRODUCT INFORMATION

### Indications

SURGICEL® Absorbable Hemostat (oxidized regenerated cellulose) is used adjunctively in surgical procedures to assist in the control of capillary, venous, and small arterial hemorrhage when ligation or other conventional methods of control are impractical or ineffective. SURGICEL® ORIGINAL, SURGICEL® FIBRILLAR™, SURGICEL® NU-KNIT®, and SURGICEL® SNoW™ Absorbable Hemostats can be cut to size for use in endoscopic procedures.

### Precautions

- Use only as much SURGICEL® Absorbable Hemostat as is necessary for hemostasis, holding it firmly in place until bleeding stops. Remove any excess before surgical closure in order to facilitate absorption and minimize the possibility of foreign body reaction.
- In urological procedures, minimal amounts of SURGICEL® Absorbable Hemostat should be used and care must be exercised to prevent plugging of the urethra, ureter, or a catheter by dislodged portions of the product.
- Since absorption of SURGICEL® Absorbable Hemostat could be prevented in chemically cauterized areas, its use should not be preceded by application of silver nitrate or any other escharotic chemicals.
- If SURGICEL® Absorbable Hemostat is used temporarily to line the cavity of large open wounds, it should be placed so as not to overlap the skin edges. It should also be removed from open wounds by forceps or by irrigation with sterile water or saline solution after bleeding has stopped.
- Precautions should be taken in otorhinolaryngologic surgery to assure that none of the material is aspirated by the patient. (Examples: controlling hemorrhage after tonsillectomy and controlling epistaxis.)
- Care should be taken not to apply SURGICEL® Absorbable Hemostat too tightly when it is used as a wrap during vascular surgery (see Adverse Reactions section of the complete product package insert).

### Adverse events

- “Encapsulation” of fluid and foreign body reactions have been reported.
- There have been reports of stenotic effect when SURGICEL® Absorbable Hemostat has been applied as a wrap during vascular surgery.
- Paralysis and nerve damage have been reported when SURGICEL® Absorbable Hemostat was used around, in, or in proximity to foramina in bone, areas of bony confine, the spinal cord, and/or the optic nerve and chiasm.
- Blindness has been reported in connection with surgical repair of a lacerated left frontal lobe when SURGICEL® Absorbable Hemostat was placed in the anterior cranial fossa.
- Possible prolongation of drainage in cholecystectomies and difficulty passing urine per urethra after prostatectomy have been reported.

**For more information, please consult your doctor or for product quality and technical questions, call 1-800-795-0012. For complete product information including indications, contraindications, warnings, precautions, and adverse reactions, please reference the individual product package inserts.**