

ENDOCLOT⁺

NEW GI THERAPEUTIC SOLUTIONS



NEW TOPICAL THERAPEUTIC SOLUTIONS
FOR GASTROINTESTINAL ENDOSCOPY

INNOVATIVE TECHNIQUE FOR SUCCESSFUL BLEEDING CONTROL IN ENDOSCOPY

EndoClot Plus, Inc. (EPI) is a privately founded company in Silicon Valley, California. In collaboration with endoscopists and biomaterial scientists, EPI developed a breakthrough product, EndoClot™ Polysaccharide Hemostatic System (EndoClot® PHS), to control bleeding in the gastrointestinal tract (GIT). EndoClot® PHS consists of an innovative hemostat powder with Absorbable Modified Polymers (AMP®) and a unique powder delivery system (applicator).

EndoClot® PHS works by spraying the hemostatic powder directly to the wound during endoscopy. The first generation of EndoClot® PHS will be introduced to the European Union and further on to other selected international markets.

EPI aims to provide new therapeutic solutions to the world market for gastrointestinal (GI) endoscopy.



NEW POSSIBILITIES

- + New drug delivery method in GIT
- + New hemostasis solutions in GIT
- + New topical therapeutic solutions via endoscope
- + Complementary therapy with conventional techniques



POLYMER SOLUTION FOR HEMOSTASIS

AMP® technology is a proprietary engineering process that modifies plant starch into biocompatible, absorbable hemostatic polysaccharides.

AMP® particles have a molecular structure that rapidly absorbs water from blood, causing a high concentration of platelets, red blood cells and coagulation proteins at the bleeding site which accelerates the physiologic clotting cascade. The interaction of AMP® particles with blood rapidly produces a gelled matrix that adheres to and seals the bleeding tissue. AMP® particles are readily dissolved by saline irrigation and are degraded rapidly by human enzymes.

AMP® particles have been widely used in open surgery and proved to be safe and effective in achieving hemostasis.

- + Efficacy
- + Safety
- + Ease of Use



APPLICATION SYSTEM

EPI provides an innovative powder delivery system to enable endoscopists to spray the powder-format agent directly to the designated site via endoscope. The innovative applicator includes a delivery catheter and a specially designed powder/gas mixing chamber that is connected to the powder container and an external gas source.

The delivery catheter is inserted into the endoscope and positioned towards the lesion in the gastrointestinal tract. Pressure coming from the gas compressor propels the powder through the catheter directly to the designated area. The unique anti-reflux design prevents occlusion.

TECHNOLOGY ADVANTAGES

- + Directly spray the powder to the designated area
- + Works for both gastroscopy and colonoscopy
- + Easy to deploy



ENDOCLOT[®] POLYSACCHARIDE HEMOSTATIC SYSTEM (ENDOCLOT[®] PHS)

EndoClot[®] PHS consists of Absorbable Modified Polymers (AMP[®]) and a powder delivery system. It is intended for use as an adjunct hemostat to control bleeding from capillary, venous or arteriolar vessels in the upper and lower GIT.



POWDER

AMP[®] particles are biocompatible, non-pyrogenic and starch derived. AMP[®] particles contain no human or animal components.

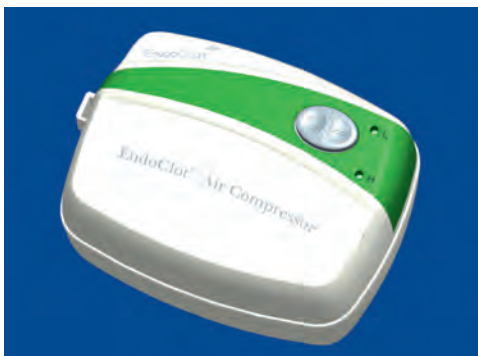
- + Adhesive
- + Ultra hydrophilic
- + Fast degradation



APPLICATOR

The applicator is composed of a powder/gas mixing chamber, a delivery catheter and connecting tube with a gas filter to external gas source.

- + Easy to control
- + Anti-reflux design to prevent occlusion
- + Effective for use in hard to reach areas



AIR SOURCE

EndoClot[®] Air Compressor is the recommended gas source for the powder delivery system.

- H (Anti-reflux gear):
Air Pressure at 18 ± 3 kPa
- L (Powder spraying gear):
Air Pressure at 12 ± 3 kPa

HEMOSTATIC SOLUTION IN UPPER AND LOWER GIT TO CONTROL BLEEDINGS

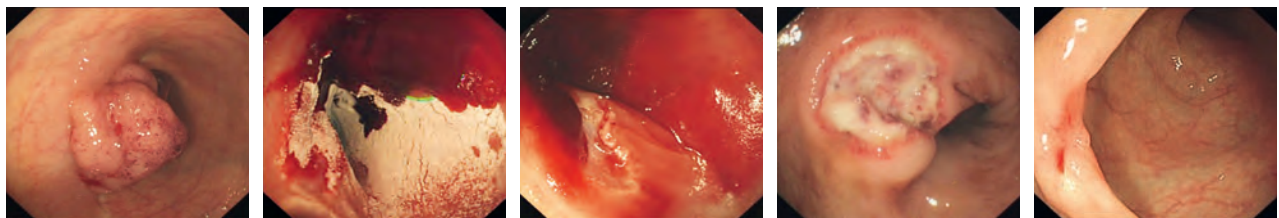
EndoClot® PHS is safe and effective for controlling bleeding in GIT. It works particularly well for large and oozing wounds. Additionally, it allows endoscopists to control bleeding when conventional hemostatic techniques are impractical to apply. EndoClot™ PHS can be used to prevent re-bleeding after endoscopic, invasive surgery.

Indications for use:

- + Peptic ulcer bleeding
- + Bleeding from minimally invasive surgery
 - + Biopsy
 - + Polypectomy
 - + EMR
 - + ESD

APPLICATION TECHNIQUES

- + Remove excess blood
- + Spray a liberal amount of AMP® particles on the wound site
- + Hold the dispenser and gas/powder chamber in an upright position to avoid spillage when inserting catheter into endoscope
- + Avoid direct contact of catheter tip with any fluid to prevent blockage
- + Avoid folding catheter
- + Apply quickly, deflation is required when EndoClot™ PHS is used in GIT for over more than one minute



A

B

C

D

E

- A** EMR was applied to remove the colon adenoma
- B** AMP® particles were applied to control heavy postoperative bleeding
- C** A gel-like barrier formed to "seal" the bleeding wound
- D** 48 hour reexamination – clean wound
- E** 1 month reexamination – wound healed completely

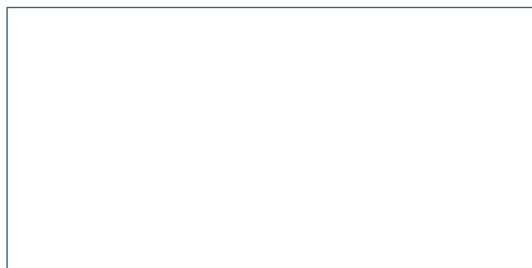


SPECIFICATIONS

ENDOCLOT® PHS

Ref No.	AMP® Particles	Catheter Length	Packaging
EPK1801	1g	1800 mm	1 set/box
EPK1802	2g	1800 mm	1 set/box
EPK1803	3g	1800 mm	1 set/box
EPK2301	1g	2300 mm	1 set/box
EPK2302	2g	2300 mm	1 set/box
EPK2303	3g	2300 mm	1 set/box
EndoClot® Catheter			
EPAA180	-	1800 mm	5 pcs/box
EPAA230	-	2300 mm	5 pcs/box

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