

Evidence Insight Spotlight

Fibrin Sealants

Overview

Available as liquids, powders or patches, fibrin sealants are used as hemostats, sealants and adhesives across a range of surgical procedures. Manufacturers include Baxter, Ethicon, Mallinckrodt and Stryker, and while FDA-approved indications for use are limited for many of these vendors' products, off-label use is prevalent.

Has any fibrin sealant demonstrated clear superiority?

Lumere's review of the few low-quality studies that have compared fibrin sealants found that no individual product has demonstrated clear superiority for any use. However, there is some evidence to suggest that particular products may confer marginal, procedure-specific benefits, though the clinical significance is often debatable.

The following table highlights these initial, limited findings.

Use	Procedural Application	Baxter			Ethicon	
		ARTISS	TachoSil	TISSEEL	EVARREST	EVICEL
Hemostasis	Coronary artery bypass grafting					Fewer bleeding complications, transfusions
	Spleen and kidney bleeding				Improved hemostasis	
	Spleen, liver and vascular bleeding		Improved hemostasis			
Sealing	Gastrointestinal anastomoses			Higher leakage pressure		
	Lung surgery		Higher burst pressure			
	Dural closure					
Adhesion	Rhytidectomy					
	Hernia mesh fixation					
	Pterygium surgery			Fewer recurrences, complications		

Legend

- Demonstrated benefit over comparator(s)
- No demonstrated benefit over comparator(s)
- Not comparatively evaluated

Conclusion

Baxter and Ethicon both offer similar coverage of fibrin sealant forms, and none of their products have shown clinical superiority for hemostasis, sealing or adhesion. Health systems should review their current procedural utilization and consider standardizing to a single vendor.

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