



# Achieving Thrombus Reduction with Hydromer<sup>®</sup> Medical Device Coatings

## BASED ON INDEPENDENT RESEARCH STUDY

In Vivo Study Conducted by Thrombodyne, Inc. • Test results submitted 2/25/2019

### OBJECTIVE

To compare thrombus accumulation on 3 catheters (Uncoated v Hydromer 2018-20M, EF50L)

### PROCESS

Polyurethane Hemodialysis Catheters coated with Hydromer 2018-20 M and others with Hydromer EF50L were tested for 30 minutes in a dialysis loop. Hydromer coated catheters were pre-hydrated prior to testing as per IFU instructions.

### METHODS

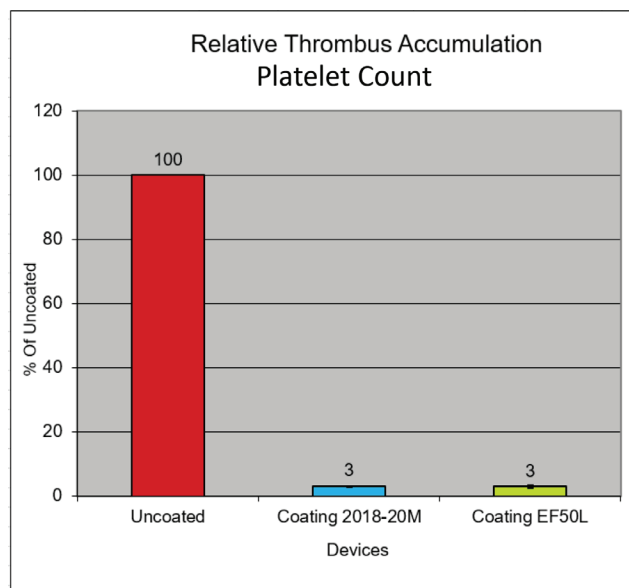
- Fresh heparinized bovine blood with autologous <sup>111</sup>In-labeled platelets was divided into 3 portions to simultaneously compare the 3 catheters.
- The catheters (external surface and lumens) were hydrated in saline for 10 minutes.
- The blood was recirculated in tubing segments in which the devices were deployed.
- The test circuit consisted of an outer loop into which the catheter was inserted and sealed and an inner (“dialysis”) loop.
- Blood flow in the outer loop and inner loop was maintained for 30 minutes.
- Blood flow in the inner loop was terminated and the lumens were flushed and locked with saline.
- Blood flow in the outer loop was continued for an additional 30-90 minutes (for a total duration up to 2 hours).
- At the end of the experiment, the devices were explanted from the tubing, gently rinsed with saline, photographed (pg 2).
- Thrombus was quantified in a gamma counter.

### RESULTS

Based on the test conditions outlined above, catheters coated with Hydromer 2018-20M and EF50L each showed a greater than 95% reduction in thrombus accumulation compared to the untreated catheters.

#### Experiment Parameters

Outer loop tubing diameter	12.5 mm (1/2")
Inner loop tubing diameter	6.4 mm (1/4")
Blood flow rate (outer loop)	1.2 L/min
Blood flow rate (inner loop)	300 ml/min



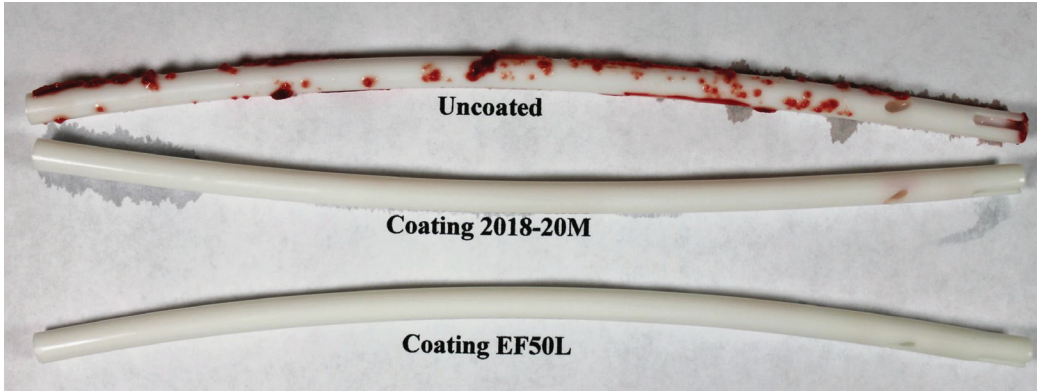


**Hydromer**

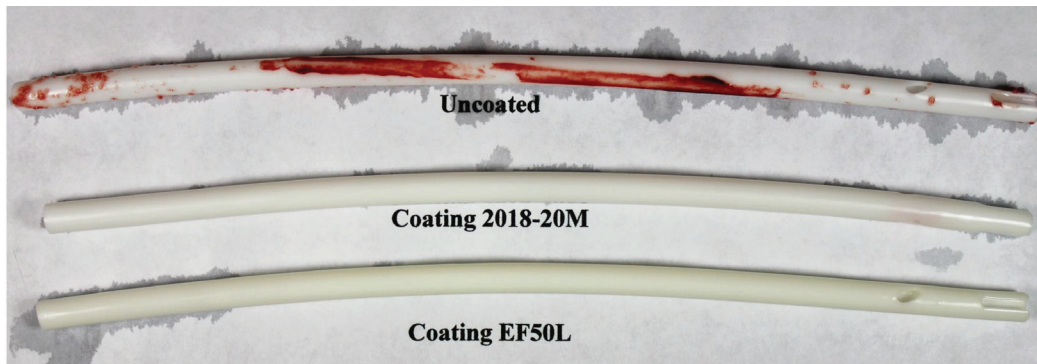
Let Our Legendary Technologies Empower Yours™

**VISUAL RESULTS**

**Experiment 1**



**Experiment 2**



**Experiment 3**

