

T400 Series Technical Note

Silicone Wrap for Perivascular Flowprobes

Purpose

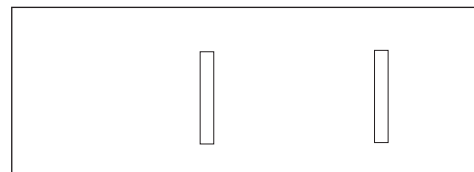
Wrapping a Transonic® Perivascular Flowprobe with silicone sheeting is recommended when a Flowprobe is implanted amidst fatty deposits. When fat deposits are present within the ultrasonic field of a Probe, the Transonic® Meter will not meet its stated accuracy specifications and may even show an "Ac. Er." (Acoustic Error) message. The silicone wrap keeps fat globules from being pushed into the ultrasonic sensing area after a chronic preparation is closed up.

In some instances, use of the silicone wrap facilitates chronic implantation by offering the surgeon additional Probe anchoring points. In acute preparations, the wrap may improve signal stability by keeping the ultrasonic couplant (coagulated blood, saline, ultrasonic gel) in place.

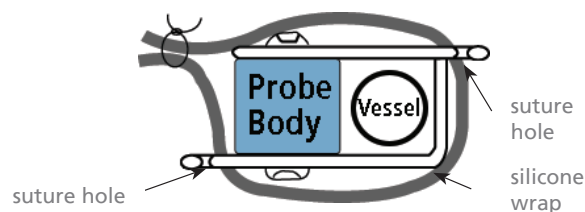
Method

The silicone sheeting (precut according to the attached dimensions) is applied during Probe implantation, after the Probe's sliding cover plate is closed around the vessel and before the Probe is sutured in place. Wrap the silicone around the Probe in such a manner that both suturing ends of the Probe bracket assembly stick through the small rectangular cutouts in the sheet. The ends of the sheeting are then sutured together to hold the wrap around the Probe.

The Probe may then be secured in place using its regular suturing points (the two suture holes in the Probe bracket assembly, and a suture around the Probe cable). Alternately, one may suture the silicone wrap to surrounding tissues, or to the artery wall, if appropriate.



Silicone wrapping sheet schematic for 4PR Probe.



Silicone wrap applied around a PR-Series Probe, leaving the Probe suture holes exposed.



Silicone wrap applied around a PS-Series Probe.