

# Visualize:Vascular Medical Necessity



*Visualize:Vascular*<sup>™</sup> has been shown to be effective in situations where Doppler readings can be compromised such as turbulent flow, shadowing and tortuosity. Since Visualize uses the B-mode image to find the residual lumen, the technology is not affected by the situations that affect Doppler readings. Research has been underway on the *Visualize:Vascular* Technology for 5 years. Several white papers have been written as a result of this research. These white papers propose the medical necessity criteria, as follows:

- Visible plaque
  - Where the concern is the potential for readings to be impacted by turbulent flow
- Shadowing
  - Where the concern is the potential for obscured data in the shadowed region
- Tortuosity
  - Where the concern is turbulent flow
- Higher grade Stenosis (Stenosis >50% or PSV >135)
  - Where the concern is turbulent flow
- Follow-up to a surgical procedure
  - Where the concern is that turbulence caused by a stent, angioplasty or endarterectomy could impact readings

White papers which identify concerns with Doppler measurements:

- Grant, E.G., Benson, C.B., Moneta G.L., Alexandrov, A.V., Baker, J.D., Bluth E.I., et al. (2003). Carotid Artery Stenosis: Gray-Scale and Doppler US Diagnosis—Society of Radiologists in Ultrasound Consensus Conference. *Radiology*, 340-346
- Lal, B. K. (2007). Sonographic Evaluation in Carotid Artery Stenosis. In B. Schaller, *Imaging of Carotid Artery Stenosis* (pp. 35-40). Austria: Springer Wein New York.
- Mackenzie, K. s., French-Sherry, E., Burns, K., & Pooley, T. (2002). B-Mode Ultrasound Measurement of Carotid Bifurcation Stenoses: Is It Reliable? *Vasc Endovasc Surg* , 123-135.
- Bluth, E.I., Arger P.H, Benson, C.B., Ralls P.W., Siegel, M.J. (2005). *Ultrasound: A practical approach to clinical problems*. New York: Thieme

**Salient Imaging**

One Elm Street  
Milford, NH 03055, USA  
603-272-6066  
www.salientimaging.com