# WavelinQ<sup>™</sup> EndoAVF Cannulation Frequently Asked Questions

1. Should I use a tourniquet when cannulating an endovascular AV fistula (endoAVF)? Yes. Always use a tourniquet when cannulating an endoAVF.

### 2. What needle gauge should I use when cannulating an endoAVF?

Follow your clinic's protocol for needle size progression just as you would for a surgically-created AV fistula. No changes are needed for an endoAVF. For example, some clinics initiate with a single, smaller (17 Ga) needle for arterial access, return through the catheter (if present), and use slower pump rates before progressing to higher pump speeds and larger gauge needles, as tolerated by the patient; eventually achieving dual-needle cannulation.

#### 3. What length needle should I use?

A proper assessment of the fistula arm should guide your choice of needle length. Usually, your clinic's standard needle length will be acceptable; however, a shorter needle may be beneficial for superficial cannulation zones and certain body habitus.

### 4. How should I direct the dialysis needles?

Venous needle tip should point towards the venous return and the arterial needle tip can point retrograde or antegrade, depending on unit protocol.

### 5. Are there any specific techniques for cannulating an endoAVF?

For successful needle placement, it is recommended that a cannulation guide be made prior to cannulation. This should provide detail on cannulation zones, blood flow direction, and vessel depth from the skin. Other techniques to consider include:

- Be gentle in order to not sidewall or backwall the needle tip. The endoAVF feels softer than an upper arm surgical AVF when the needle tip enters the vessel. The blood flashback will occur but may be less vigorous than a surgical AVF.
- Needle angle will vary with patient body habitus.
- Per KDOQI guidelines, rope ladder technique is preferred over the buttonhole technique.

#### 6. Can the dialyzer be run at the same speed as with a surgical AVF?

Lower pump speeds (~300-350 ml/min) may be required for multiple sessions until optimal flow rates are achieved (similar to surgical AVFs). Of note, if two outflow veins develop well, cannulation of these may result in improved dialysis adequacy, given the lack of recirculation.

#### 7. What do I do if infiltration occurs?

Follow your clinic's protocol for management of the infiltration.

#### 8. Does the pulse augmentation test still work in endoAVFs?

Yes. Keep in mind that endoAVFs often have multiple outflow vessels so findings may differ from surgically-created, single-outflow AV fistula.

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### **EndoAVF System**

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