

## **【Symposium 10-4】**

### **Ultrasound in Dialysis Access**

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#### Applications of Upper Limb Peripheral Vascular Ultrasound

Preoperative assessment and vascular mapping for arteriovenous fistula

Placement of double-lumen and tunnel-cuffed central venous catheters under ultrasound guidance

Assessment of arteriovenous fistula maturity and causes of immaturity

Planning for needle access of arteriovenous fistula

Assisting dialysis nurses in puncturing arteriovenous fistulas

Regular follow-up of asymptomatic patients with arteriovenous fistulas

Identification of complications related to arteriovenous fistulas

Reducing contrast agent exposure with ultrasound-guided balloon dilation procedures

#### Complications of AVA

1. Stenosis & occlusion

2. Aneurysm & pseudoaneurysm

3. Infected & non-infected collections

4. Arterial steal syndrome

5. High output cardiac failure

