

**2018 ANNA NATIONAL SYMPOSIUM**  
APRIL 15-18 ~ WESTGATE LAS VEGAS RESORT, LAS VEGAS, NV

**Cannulation Technique Influences Arteriovenous Fistula and Graft Survival**

*Maria-Teresa Parisotto, Fresenius Medical Care, Germany*

**Aim of the study**

To investigate the impact of cannulation technique on the survival of the arteriovenous fistula and grafts.

**Methods**

In April 2009, a cross sectional survey was conducted in 171 dialysis units located in Europe, Middle East and Africa to collect details on vascular access cannulation practices.

Access survival was analyzed using the Cox regression model defining as events the need for first surgical access intervention.

**Results**

Out of the 10,807 patients enrolled for the original survey, access survival data was available for 7,058 (65%) of patients.

Mean age was 63.5±15.0 years; 38.5% were female; 27.1% were diabetics; 90.6% had a native fistula and 9.4% had a graft. Access location was distal for 51.2% of patients.

Prevalent needle sizes were 15 G and 16 G for 63.7% and 32.2% of the patients, respectively (14 G: 2.7%, 17 G: 1.4%).

Cannulation technique was area for 65.8% and rope-ladder for 28.2%, and the direction of puncture was antegrade for 57.3%.

**Conclusions**

The study revealed that area cannulation technique, despite being the most commonly used, was inferior to both rope-ladder and buttonhole for the maintenance of Vascular Access functionality.

There was an increased risk of access failure for graft versus fistula, proximal vs distal location, right arm vs left arm, and the presence of a venous pressure greater than 150 mmHg. The higher HR associated with a venous pressure greater than 150 mmHg should open a discussion on currently accepted limits.

*Abstract selected for presentation at ANNA National Symposium, Las Vegas, 2018*