

# CENTER FOR KLINISKE RETNINGSLINJER

- CLEARINGHOUSE

## English Summary:

### **Title: Cannulation technique in patients with arteriovenous fistula on haemodialysis**

**Background:** In patients with arteriovenous fistula (AVF) on haemodialysis, cannulation of the AVF can be performed by either rope-ladder or buttonhole technique, but the effect on patient reported pain, local and systemic infection, formation of hematoma, formation of aneurism, time to hemostasis and AVF survival and interventions are unclear for the two techniques.

**Objectives:** To evidence base the choice of cannulation techniques in patients with an AVF for haemodialysis in order to reduce the complications associated with cannulation of the AVF.

**Participants:** Adults (>18 yrs) with end stage renal disease and with an arteriovenous fistula on center or home haemodialysis.

**Types of intervention(s):** Rope-ladder and buttonhole technique.

**Types of studies:** One systematic review and one observational study.

**Types of outcomes:** Patient reported pain, local and systemic infection, formation of hematoma, formation of aneurism, time to hemostasis, AVF survival and interventions.

**Search strategy:** The following databases were used to search for systematic reviews and primary studies: PubMed, The Cochrane library, CINAHL, Embase, JBI Library from 2006-2016. Studies in other languages than English, Danish, Norwegian and Swedish were excluded.

**Methodological quality:** The systematic review is assessed using AMSTAR and the observational study is assessed by the CfKR checkliste for Cohortestudies.

**Data synthesis:** A Summary of Findings table

**Recommendation for clinical practice:** Buttonhole technique or rope-ladder technique can equally be applied to patients with an AVF on haemodialysis in close collaboration with the patient.

### **A short elaboration of the recommendation**

The available evidence is inconclusive in order to recommend buttonhole technique instead of rope-ladder technique in relation to outcomes. The choice of cannulation technique must therefore be based on patients' preferences and health assessment.

patientens præferencer og en sundhedsfaglig vurdering