UNIVERSITÀ CATTOLICA del Sacro Cuore

GAVeCeLT
Gli Accessi Venosi Centrali a Lungo Termine

The GAVeCeLT bundle for prevention of catheter-related upper extremities and central venous thrombosis

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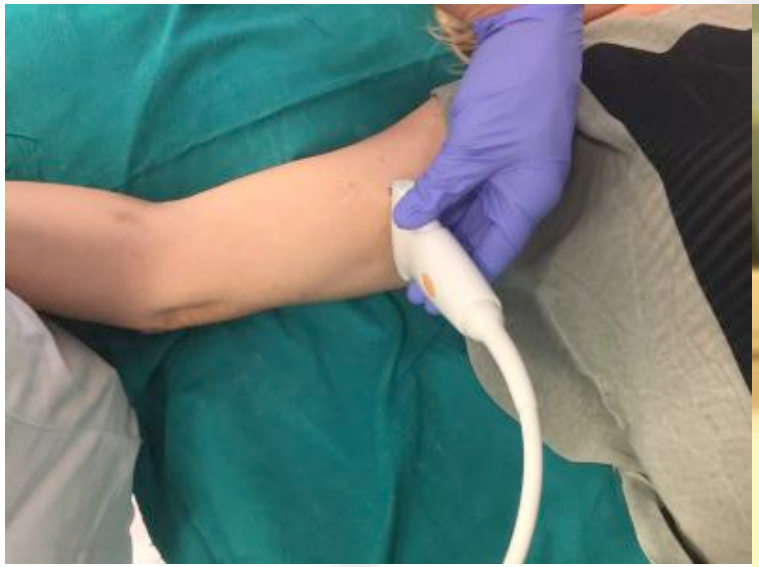
Insertion-bundle to prevent CRT

PICC/CICC insertion

1) Proper choice of the vein

Consider vein diameter according to catheter size: catheter diameter should not exceed 1/3 of vein diameter should be equal or inferior to the vein diameter (in mm)

Nifong 2011

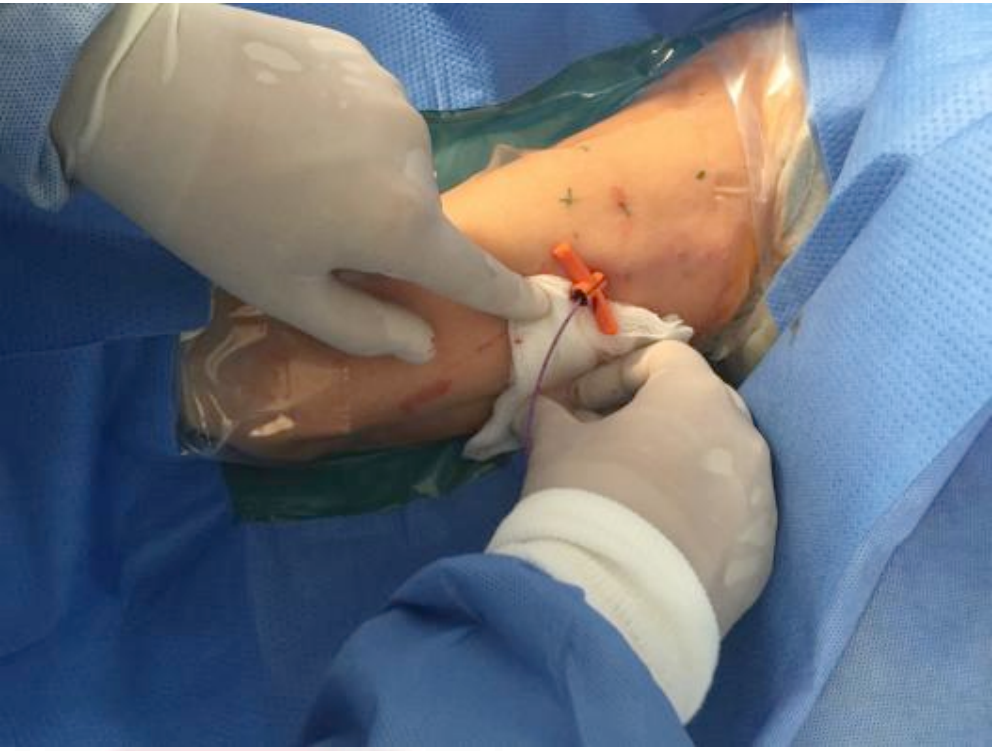


Practical point:
Catheter diameter (in Fr) should be equal or inferior to the vein diameter (in mm)

2) US-guided venipuncture + microintroducer kit

Reduced endothelial damage is associated with a lower thrombosis rate

3) Intracavitary EKG for intraprocedural tip location



Avoids suboptimal or definitively wrong tip positions; tip malposition is one of the strongest risk factor for thrombosis

4) Glue + sutureless device + transparent dressing + tunnel/exit site

Optimal stabilization of the device avoids in-out catheter movements and associated endothelial damage and thrombosis

CONCLUSIONS

Conclusions

1) Catheter-related thrombosis should not be seen as a 'heaven-sent', inevitable complication: most of the times, CRT is due to 'bad choices' of the clinician (inappropriate choice of the VAD and/or inappropriate insertion/maintenance technique and/or inappropriate use of the VAD)

Conclusions

2) The philosophy of ‘targeting zero’ should be applied to ALL COMPLICATIONS: not only to infective complications, but also to insertion-related complications, lumen occlusion, VAD dislodgement, and – last but not least – catheter related thrombosis.

Conclusions

3) Prevention of CRT may be harder than infection prevention in some respects (we cannot control the patient's predisposing factors; we might need pharmacological prevention) but it may be easier, too (as most of the iatrogenic factors favoring CRT can be prevented by a proper insertion bundle).

Take home message

This is the GAVeCeLT bundle for CRT prevention:

1. Proper choice of the vein
2. Minimal trauma during venipuncture
3. Appropriate tip location
4. Proper securement

PLEASE, TRY THIS AT HOME …