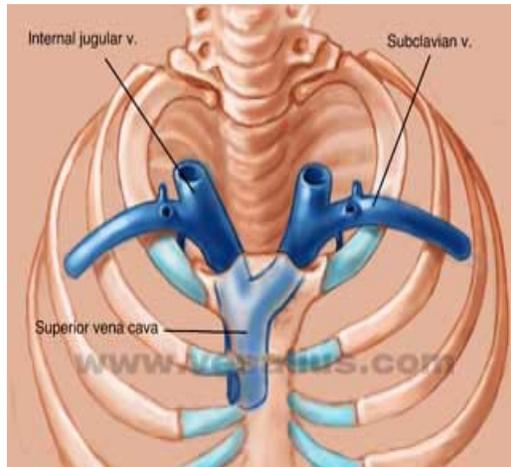




DIAGNOSIS, PREVENTION AND TREATMENT OF HAEMODIALYSIS CATHETER-RELATED BLOOD STREAM INFECTIONS (CRBSI): A POSITION STATEMENT OF EUROPEAN RENAL BEST PRACTICE (ERBP)



How should a Central Venous Catheter be managed?

- Maximal effort should be done to convince the patient to have an AV fistula rather than a catheter, whenever possible.
- Tunneled catheters should be preferred over non-tunneled catheters
- The most important principle for preventing infection is to adopt a meticulous approach to the manipulation of catheters in a reliable and sterile fashion, especially at connection and disconnection.
- Good fixation of the catheter will lead to good healing of the exit site and a decreased risk of exit site infection.

Preventive (antimicrobial) catheter locks

- When a solution is used to "fill" the lumen of the catheter in the interdialytic interval, this is called a "catheter lock"
- Catheter locks are used to avoid clotting, but they can also have antimicrobial or bio-film reducing properties. Avoiding biofilm is important, as bacteria can grow in these biofilms, out of the reach of antibiotics.
- Adding antibiotics, either to heparin or to citrate solutions used for locking catheters, has an extra beneficial effect compared to heparin or citrate alone.

However, they can lead to toxicity and resistance

- The use of antimicrobial locks should not be used as an excuse to be less vigilant in applying strict hygienic precautions.

Diagnosis of catheter related infection (CRI)

- An exit site infection will present as local redness, pain and eventually discharge of pus
- A tunnel infection can present as local inflammation and pain over the trajectory of the catheter.
- a CRI should be suspected in all patients with a catheter in place and fever or chills. Other sources of infection should be explored. When no clear source is present, a CRI should be withheld as diagnosis
- When a CRI is suspected, blood cultures should be taken via the catheter. Although peripheral blood cultures can be useful, their use should be carefully balanced against the need to preserve venous integrity for later creation of a native fistula.
- Except some clearly defined conditions (see flowchart), catheter removal should always be considered when no response to systemic antibiotic treatment is observed after 48-72 hours.

