

## **The main complication of central venous catheter (CVC) in hemodialysis is infection. Identifying CVC related infection (CVC-RI) risk factors and causative micro-organisms is important for setting prevention policies” Sahli et al (2016).**

### Abstract:

The main complication of central venous catheter (CVC) in hemodialysis is infection. Identifying CVC related infection (CVC-RI) risk factors and causative micro-organisms is important for setting prevention policies. There were no data regarding CVC-RI in hemodialysis in Algeria. To determine rates of CVC-RI in hemodialysis in Setif university hospital, risk factors and causative microorganisms, we conducted a prospective study from November 2014 to May 2015 involving patients with CVC in hemodialysis. Micro-organisms isolated from semi quantitative culture of CVC and blood culture were identified and tested for antibiotic susceptibility using the automated MicroScan system (DADE Behring, Sacramento, CA, USA). Chi-square test was performed to compare demographic and clinical variables (age, sex, comorbidities, duration of CVC, insertion site) in the groups of patients with and without CVC-RI.  $P < 0.05$  was considered statistically significant.

ReTweet if useful... Hemodialysis catheter-related infection risk factors [#ivteam](http://ctt.ec/C0df0+@ivteam)

Click To Tweet

All analyses were performed using SPSS V17 for Windows statistical package (SPSS Inc., Chicago, IL, USA). 94 patients and 152 CVC procedures were analyzed. 34 CVC-RI were documented with an incidence of 16.6 per 1000 CVC-days. Incidence of CVC related bloodstream infection (CVC-RBI) was 10.8 per 1000 CVC-days. Independent risk factors associated with CVC-RI were diabetes ( $P=0.01$ ) and duration of catheterization ( $P= 0.01$ ). Causative micro-organisms were: *Klebsiella pneumoniae* 26.5%, coagulase-negative staphylococci 23.5% and *Staphylococcus aureus* 23.5%. Micro-organisms were multidrug-resistant (MDR). Mortality was statistically associated to inadequate antibiotic therapy. The duration of CVC should be reduced by creation of fistulas. More compliance to hygiene measure is needed for decreasing CVC-RI and resistance rate.

Reference:

Sahli, F., Feidjel, R. and Laalaoui, R. (2016) Hemodialysis catheter-related infection: rates, risk factors and pathogens. Journal of Infection and Public Health. July 13th. .

doi: 10.1016/j.jiph.2016.06.008.

**Thank you to our partners for supporting IVTEAM**