**EV0861**
**ePoster Viewing**
**Intravascular catheter-related infections**

## Prevention of central line associated bloodstream infections by use of a checklist

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**Background:** Central venous line associated blood stream infections are a major concern in intensive care medicine. Using checklists to help with adherence to hygiene standards may reduce infections.

**Materials/Methods:** During the study period from October 2011 to September 2012, we investigated the effect of implementing a checklist for the placement of central venous lines (CVL) in the Department of Intensive Care Medicine at the University Medical Centre Hamburg-Eppendorf. Patients were allocated either to the checklist group or to the control group, roughly in a 1:2 ratio. The frequency of CVL associated blood stream infections was compared between the two groups.

**Results:** During the study period 4,416 CVLs were implanted; 1,518 in the checklist group and 2,898 in the control group. The use of the checklist during CVL placement reduced the frequency of line associated blood stream infections significantly. Using a strict definition for infections (evidence of bacteria in both catheter tip and blood culture) the incidence was reduced from 6.0 to 3.4 per 1.000 catheter days ($p = 0.003$). Even when applying a more liberal definition of CVL associated infections (evidence of bacteria on catheter tip) the incidence was significantly reduced from 35.9 to 21.2 per 1.00 catheter days ($p < 0.001$).

**Conclusions:** Introduction of a checklist to help with adherence to the hygiene standards while placement of central venous lines reduced the frequency of infections significantly.