



“CLABSI is associated with a significantly increased risk of death supporting the use of extensive efforts to reduce these infections.” Ziegler et al (2014).

Reference:

Ziegler, M.J., Pellegrini, D.C. and Safdar, N. (2014) Attributable mortality of central line associated bloodstream infection: systematic review and meta-analysis. Infection. October 21st. .

Mortality associated with central line bloodstream infection [@ivteam](http://ctt.ec/9docW+) #ivteam

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Abstract:

**PURPOSE:** To identify the attributable mortality of central line associated blood stream infections (CLABSI) through meta-analysis.

**METHODS:** Meta-analysis of case control and cohort studies, matched and unmatched, that reported on mortality of patients with and without CLABSI was performed. MEDLINE, CENTRAL, CINAHL were searched. Non-interventional studies of all languages that reported mortality in patients with CLABSI were included. Data were extracted on patient population, study setting, design, diagnostic criteria for CLABSI, and mortality. Results from studies

comparing mortality due to CLABSI were pooled using a random effects model with assessment of heterogeneity. Heterogeneity of studies was assessed with an I<sup>2</sup> statistic and a funnel plot was generated to assess for publication bias.

**RESULTS:** Eighteen studies were included with 1,976 CLABSI cases. Of the included studies, 17 took place in intensive care unit settings, most involved a mixed population of medical and surgical patients, and ten were matched using an illness severity index. Our findings show an odds ratio of in hospital death associated with CLABSI as 2.75 (CI 1.86-4.07) and 1.51 (CI 1.08-2.09) in the subgroup of the ten matched studies. Those studies where greater than 30 % of CLABSI were attributed to coagulase-negative Staphylococcus had an odds ratio of death of 1.64 (95 % CI 1.02-2.65) compared with 4.71 (95 % CI 1.54-14.39).

**CONCLUSIONS:** CLABSI is associated with a significantly increased risk of death supporting the use of extensive efforts to reduce these infections.

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