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Abstract (eposter session)

Effect of socioeconomic position on mortality after bacteraemia in working-age patients. A Danish population-based cohort study

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Objectives: To examine the effect of socioeconomic position (SEP) on mortality after bacteraemia, and to examine which underlying factors that may mediate disparities in mortality. **Methods:** We conducted a population-based cohort study in two Danish regions to examine the association between SEP and 30-day mortality after bacteraemia. All patients 30 to 65 years of age with first time bacteraemia from 2000 through 2008 were identified in a population-based bacteraemia database (n=8653). Data on patients' SEP was obtained from public registries and inferred on the basis of educational attainment, personal income and employment status. We used Cox regression to examine mortality within 30 days after bacteraemia with and without cumulative adjustment for potential mediators. **Results:** Patients with bacteraemia and low SEP were more likely to live alone, being unmarried and had more pre-existing comorbidities, more substance abuse, more *Staphylococcus aureus* and hospital-acquired infections, and more admissions to small nonteaching hospitals than patients of high SEP. Overall, 1374 patients (15.9 %) died within 30 days of follow-up. Patients with low SEP had consistently higher mortality after bacteraemia than those of high SEP, regardless of which socioeconomic indicator we used: crude hazard ratio for short vs. long education, 1.38 [95% CI, 1.18-1.61]; low-income vs. high-income tertile, 1.58 [CI, 1.39-1.80]; early retirement pension vs. employed, 2.13 [CI, 1.88-2.41]. Adjustment for differences in social support, pre-existing comorbidities, substance abuse, and place of acquisition and microbial agent of infection substantially attenuated the effect of SEP on mortality (adjusted hazard ratio for short vs. long education, 1.15 [95% CI, 0.98-1.36]; low-income vs. high-income tertile, 1.29 [CI, 1.12-1.49]; early retirement pension vs. employed, 1.48 [CI, 1.28-1.71]). Further adjustment for size and teaching status of the admitting hospital had minimal influence on observed mortality differences. **Conclusions:** Socioeconomic position was strongly and inversely associated with 30-day mortality after bacteraemia. Differences in social support, pre-existing comorbidities, substance abuse, and characteristics of the infection seemed to mediate more than half of the observed differences in mortality.