und Jugendalter ist nur im Rehabilitationsbereich, nicht aber im Krankenhaussektor festzustellen. Die gegensätzlichen Kostentrends könnten ein Indikator für die Umsetzung von Adipositasleitlinien und Präventionsprogrammen in Deutschland sein. Eine Herausforderung für die Gesundheitspolitik ist es, die effektivsten und effizientesten Präventionsmaßnahmen zu identifizieren, um eine weitere Verschärfung der Finanzierungsprobleme des deutschen Gesundheitswesens zu vermeiden.

Referenzen: Ausgewählte Literatur:Kalies H, Lenz L, von Kries R (): Prevalence of overweight and obesity and trends in body mass index in German pre-school children, 1982-1997. International Journal of Obesity 2002; 26: 1211-1217

Keywords: juvenile Adipositas, Krankheitskostenanalyse, Krankenhaussektor, stationäre Rehabilitation

#675

Biomass Smoke, Cooking and Severe Malaria in Nouna, Burkina Faso

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Introduction: Forty percent of the world's population is at risk for malaria; however, most of the risk is borne by sub-Saharan Africa [1]. Biomass smoke may offer some protection from malaria by creating environments that are inhospitable for mosquitoes and therefore interrupting the transmission of malaria [2, 3]. **Methods and Materials:** A retrospective, matched case-control study was carried out to examine the biomass smoke concentrations and cooking practices in the homes of women (15-45 years) and/or children (≤9 years) together with the occurrence of severe malaria in Nouna, Burkina Faso. Cases were matched to controls on age, sex, ethnicity and geographic location. Real-time measurements of fine particulate matter and carbon monoxide concentrations were assessed and an extensive survey of the kitchen characteristics and cooking practices of participating households was conducted. Conditional logistic regression for a matched case-control study was used in the analyses with SAS 9.1 [4]. **Results:** Mean area PM2.5 concentration for cases was 2069μg/m3 and 2387μg/m3 for controls. Mean personal CO concentrations for cases and controls

were 1.95ppm and 2.71ppm, respectively. The PM2.5 and CO case and control concentrations were not significantly different (OR=0.95, p=0.36, 95%CL=0.85-1.06, OR=0.93, p=0.35, 95%CL=0.81-1.08, respectively). In terms of cooking practices, use of an improved stove was associated with an increase in the risk of severe malaria (OR=3.39, p=0.004, 95%CL=1.49-7.75) as was an average cooking time less than three hours per day (OR=2.18, p=0.02, 95%CL=1.14-4.18). ConclusionsOur results indicate that there was no statistically significant difference between cases and controls in terms of mean area PM2.5 and mean personal CO concentrations. Interestingly, the use of an improved stove and average cooking time of less than three hours per day were associated with an increased risk. These results suggest that biomass smoke could be protective; however, further follow-up is necessary.

Referenzen: [1] World Health Organization (2004a), Roll Back Malaria Information Sheet, Geneva: World Health Organization, http://www.rbm.who.int/cmc_upload/0/000/015/372/RBMInfosheet_1.htm

Keywords: biomass smoke, cooking, severe malaria

#816

Association of Blood Pressure Variability and Stroke Outcomes

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Background and Purpose: Highly variable blood pressure (BP) profiles are commonly observed in acute ischemic stroke patients. Management of BP is based mainly on baseline or average level, within-patient variability is rarely addressed. The aim of the study is to find out the association of long-term functional outcome and mortality with blood pressure variability in the acute phase. **Materials and Methods:** We studied 793 patients with acute ischemic hemispheric stroke in the second European Cooperative Acute Stroke Study (ECASS). After randomization, BP was measured regularly during the first 24 hours. Successive variation, which takes the serial variation on the time sequence into account, was adopted to measure the within-patient BP variability. The endpoints were favorable outcome (modified Rankin Scale [mRS]

score of 0 or 1) and all-cause mortality at day 90. Logistic regression models were used to adjust for the baseline characteristics. **Results:** Favorable outcome was inversely associated with variability of systolic BP profiles (adjusted odds ratio [OR]: 0.57; 95% CI: 0.35 - 0.92, and OR: 0.41; 95% CI: 0.22 - 0.76, per 10 mmHg) respectively in rt-PA and placebo treated patients. Higher variability of diastolic BP profiles implied unfavorable outcome (OR: 0.54; 95% CI: 0.30 – 0.98) and higher mortality (OR: 2.87; 95% CI: 1.30 – 6.32) in rt-PA treated patients. **Conclusions:** Association of favorable outcome with lower variability of BP during the first 24 hours may give new hint for the BP management in the acute ischemic stroke.

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Nonparametric test for multiple crossing survival curves

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Log-rank and Wilcoxon tests are most commonly used tests for testing the overall homogeneity of survival curves, but in certain situation it appears that they have a significant loss of statistical testing power. One such case is the more than one time crossing of survival curves. The problem considered often occurs in medical research. To overcome this problem, in this article, we present and study a nonparametric test procedure based on a new weight. The proposed new weighted test has greater power to detect overall differences between more than one time crossing survival curves. Simulation studies are performed to compare the proposed method with existing methods. Furthermore, the advantage of the new test is finally exemplified in the analysis of a ß-thalassaemia major data.

Keywords: Log-rank test, Wilcoxon test, Survival analysis, Failure Time, Statistical power