Background: Comorbidity is an important controlling factor in health services research using administrative data. Our aim was to improve the performance of various claims-based comorbidity measures in predicting in-hospital mortality.
Methods: Five different comorbidity measures, including three different adaptations of the Charlson comorbidity index (CCI), one method developed by Elixhauser et al., and the Chronic Disease Score (CDS), were selected for investigation in this retrospective cohort study. New empirical weights were derived from Cox's regression models of all inpatients in 2001. The performance of comorbidity methods with new weights was validated and compared using the c-statistics derived from multiple logistic regression models among each of the following inpatients in 2002: AMI (n=8,961), type 2 DM (n=32,687), and CHF (n=15,972).
Results: We derived new weights for five comorbidity measures from 1,214,014 inpatients in 2001. For all the adaptations of CCI, some comorbid conditions had smaller weights than the original weights, such as rheumatologic disease, ulcer disease, hemiplegia or paraplegia, and AIDS, while dementia had larger weight than the original. The empirically derived weights of the CCI and the Elixhauser method outperformed than the methods with the original definition among each of study populations in 2002.
Conclusions: The findings of this study have indicated that CCI should be reassessed in cohorts with larger sample size. The empirically derived weights of CCI performed better than the original one, and suggest that the new weights should be used in further researches.

SP-019

The Association of Weight Status and Sedentary Time with Diagnosed Asthma and Respiratory Symptoms in Taiwan

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Objectives: The study aimed to evaluate the association of weight status and sedentary status with asthma and respiratory symptoms (RS) in schoolchildren in Kaohsiung, Taiwan.
Method: A questionnaire study elicited episodes of RS and data on lifestyle and anthropometric parameters in 1329 5th grade schoolchildren.
Results: Results showed that 12.4% of boys and 9.5% of girls had physician-diagnosed asthma whereas 15.1% of boys and 12.4% of girls had suspected asthma. Boys experienced more non-exercise-induced RS than girls (P<0.05). The number of RS was positively correlated with TV-watching time per day and self-reported sedentary time per weekend-day in girls (P<0.05). Underweight was positively associated with one of the seven RS in girls (P<0.05). At risk of overweight was positively associated with two of the seven RS in boys and one of the seven RS in girls (all P<0.05). The risk of having physician-diagnosed asthma and suspected asthma increased 93% and 72%, respectively, in schoolchildren at risk of overweight (P<0.05). Overweight was associated with a 78% increase in physician-diagnosed asthma (P<0.05). Higher sedentary time was significantly associated with more occurrences of one of the seven RS in girls (P<0.05). Higher body mass index was significantly correlated with longer TV-watching time per day in girls and longer self-reported sedentary time per weekday in boys (P<0.05).
Conclusion: Schoolchildren who are at risk of overweight or overweight and/or have more sedentary time have increased risk of RS and asthma. Weight and sedentary statuses of schoolchildren can impact on their respiratory health.

SP-020

Survival Analysis of Different Treatments in Patients with Advanced Oral Cavity Cancer from Administration Database in Taiwan

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Background: Oral cavity cancer has become one of the main causes of cancer-related deaths in Taiwan. Most cases of oral cavity cancer are squamous cell carcinoma, diagnosed at stage Ⅲ/Ⅳ. Besides of operation, "radiation therapy (RT)" or "concurrent chemoradiotherapy (CCRT)" are usually performed after surgical treatment. Several studies have discussed the prognosis of the patients under different treatments in western countries. However, there are few studies concerning the territory in Taiwan. This study is to explore this issue further by using the secondary databases of government.
Objective: To explore the RT or CCRT effect on the survival condition among patients with advanced oral squamous cell carcinoma.
Methods: A historical cohort method is adopted to conduct the study. After identification of newly operated advanced oral cavity squamous cell carcinoma from Taiwan Cancer Database (TCDB), the information will connect with the census registry, mortality registry and databases of the Bureau of National Health Insurance (BNHI) in 2004. The Cox' s proportional hazard regression was used to analysis the survival rate after adjusting the patient and hospital characteristics.
Results: The study will show the utilization and survival of patients with oral cavity squamous cell carcinoma after receiving post-operational radiotherapy or concurrent chemo radiotherapy in Taiwan.

SP-021

The Association of Obesity, Hs-CRP and Gene with Adult Asthma and Prognosis in A Hospital-Based Case-Control Study