OBJECTIVES: To understand the current extent of anemia in HIV/AIDS patients and its impact on health-related quality of life (HRQL). **METHODS:** HIV/AIDS patients >18 years of age were recruited from STD/HIV clinics across the US throughout 2003 to complete self-administered questionnaires. Clinical status was assessed with questions on medical history and HIV disease and treatment, while HRQL was quantified using the SF-8. **RESULTS:** In total, 2044 patients were recruited; 498 (24%) reported that they experienced anemia (as indicated by a health care provider) as a side effect of medication within the previous month. Although anemic and non-anemic individuals were similar in age, gender, HIV viral load, and use of AZT, NRTI and NNRTI treatment, anemic patients were more likely to be non-Caucasian, have a lower CD4 count, and more likely to be on PIs. Similarly, anemic patients were significantly more likely to have anxiety, depression, and cardiovascular comorbidities (p < 0.0001). Further, anemic patients had significantly lower scores vs. non-anemic patients on the mental and physical component summary scores of the SF-8 (mental: 38.2 + 11.6 anemic vs. 42.9 + 11.9 non-anemic p < 0.0001; physical: 40.1 + 10.0 anemic vs. 45.5 + 10.4 non-anemic p < 0.0001). There was a significantly higher prevalence of great difficulty or inability to perform daily work among the anemic patients (33% anemic vs. 19% non-anemic, p < 0.0001). In a multivariate logistic regression model controlling for relevant demographic, disease and treatment characteristics, anemic patients experienced significantly lower levels of mental (–4.1 SF-8 MCS score, p < 0.001) and physical (–4.9 SF-8 PCS score, p < 0.001) well-being than non-anemic patients. **CONCLUSION:** Independent of AZT use, anemia is prevalent in the HIV/AIDS population in the HAART era. Controlling for relevant confounders, anemia is independently associated with a diminished HRQL.

USE OF THE SYMPTOMS DISTRESS MODULE IN AN INTERNATIONAL STUDY

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OBJECTIVES: Prior to use in an international study involving HIV patients, the original 20-item Symptoms Distress Module (SDM), underwent linguistic validation in 25 languages. The original scale was developed in US English by the Adult AIDS Clinical Trials Group to assess the impact of common HIV-related symptoms (either due to HIV disease or its treatments). A rigorous methodology was required to ensure conceptual equivalence and cultural relevance across different languages. **METHODS:** The translation process was conducted by a specialist in each target country using the following standardized methodology: 1) two forward translations by professional translators who were native speakers of the target language and fluent in English; 2) comparison and reconciliation of the translations by the specialist in the target country and the translators; 3) back-translation by a native English speaker; 4) comparison of source and backward version; 5) review by a clinician; and 6) comprehension test on five individuals with HIV/AIDS. **RESULTS:** The translation process revealed two major challenges. First, for items which contain two different terms to describe one single concept, some languages only have one word that suitably conveys the concept. Second, the comprehension tests revealed that in countries where people are less used to completing questionnaires, the instructions "The questionnaire . . . should take no more than five minutes to complete" were perceived as stressful. This required alternative wording. **CON-**CLUSION: The 25 language versions of the SDM were established according to a rigorous standardized translation methodology. The process aims to ensure conceptual equivalence across language versions to facilitate international comparison and pooling of data. The linguistic validation process as a whole supports the integration of international feedback on concepts and wording during the development of questionnaires.

NEUROLOGICAL DISORDERS—Alzheimer's Disease

ASSESSMENT OF COMORBIDITY AND INCIDENCE RATE OF ALZHEIMER'S DISEASE IN THE CALIFORNIA MEDICAID (MEDI-CAL) PROGRAM

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OBJECTIVES: First, to investigate comorbidities associated with Alzheimer's disease (AD) and second, to report eligibility and the yearly trend of incidence rate of AD in Medi-Cal from 1995 to 2002. **METHODS:** A retrospective case-control study was conducted using 20% sample of Medi-Cal administrative claims data from 1995 to 2002. The cases were patients with a diagnosis of AD, and were 1:10 matched to a cohort without AD based on age and gender. Eligibility was measured by the number of eligible months. Relative risk (RR) was calculated to estimate the risk of AD patients developing a profile of 24 common comorbidities set forth by AHRQ. **RESULTS:** In total, 6,494 cases and 64,940 controls were identified. The average age was 84 and 69% were female. During the eight-year study period, both groups had around 50 eligible months with no significant difference. Hispanics and other minorities (primarily Asians) had lower risk of having AD (p < 0.0001). In addition to depression (RR = 1.67) and psychoses (RR = 2.63), which are the known comorbidities of AD, peripheral vascular disorder (RR = 1.49) and other neurological disorders (RR = 1.82) were associated with the AD diagnosis. Interestingly, AD patients had significantly lower risk for many other chronic diseases such as CHF (RR = 0.82), valvular disease (RR = 0.85), hypertension (RR = 0.84), COPD (RR = 0.85), diabetes (RR = 0.85), renal failure (RR = 0.86), peptic ulcer (RR = 0.86), cancer (RR = 0.69), and rheumatoid arthritis (RR = 0.80). The yearly incidence rate for AD slightly declined from 5.8 per 10,000 person-years in 1995 to 4.8 per 10,000 person-years in 2002. Average annual incidence rate was 5.3 per 10,000 person-years. **CONCLUSIONS:** The present study demonstrated that patients with AD had increased risk of some diseases, yet were less likely to experience many chronic disorders common to elderly patients.

THE COST-EFFECTIVENESS OF DONEPEZIL AND RIVASTIGMINE IN THE TREATMENT OF ALZHEIMER'S DISEASE IN THAILAND PRIVATE HOSPITAL

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OBJECTIVES: To evaluate the cost-effectiveness of donepezil 10 mg per day, rivastigmine 6–12 mg per day (high dose), and rivastigmine 1–4 mg per day (low dose) compared with no treatment in the management of mild to moderate Alzheimer's Disease in Thailand. **METHODS:** Using the decision tree analysis, the cost-effectiveness model was developed to compare donepezil, low dose-rivastigmine and high dose-rivastigmine with no treatment in patients with mild to moderate Alzheimer's Disease. Direct medical costs (i.e., the costs of drugs) and direct