

Proposal

Mortality in Incident Dementia Cases – Results of the German Study on Ageing, Cognition and Dementia in Primary Care Patients (AgeCoDe)

Author:

Erstautorin: Susanne Röhr (Institut für Sozialmedizin, Arbeitsmedizin und Public Health, Universität Leipzig)

Letztautor: Bonn/Leipzig (geteilte Letztautorenschaft)

Das Exposé wurde in der AgeCoDe/AgeQualiDe TK 6 2014 am 07.04.2014 genehmigt.

Background and Aims:

The estimated survival time with dementia has been shown to range widely from 3 to 9 years (e.g. Helzner et al. 2008; Xie et al. 2008; Ganguli et al. 2005). Dementia patients' survival is highly variable across individuals depending on several factors (Lee et al. 2009). Information on the prognosis of survival with reference to contributing factors is one of the most important issues for persons involved. Knowing about the estimated duration of a disease until death might be helpful for patients, relatives and caregivers to decide for treatment strategies, such as drug treatment, palliative care or nursing home admission (Delva et al. 2013). Thus, this study aims (I) to evaluate the time to death in incident dementia cases and (II) to identify predictors of the time to death under consideration of subjects' characteristics at incident dementia diagnosis. A multivariate Cox proportional hazard regression model will be developed to determine predictors of time to death. Kaplan-Meier survival analysis will be used to determine time to death, and Log Rank tests resp. Breslow-Tests to detect differences in survival curves of subgroups.

Sample:

All interviewed AgeCoDe patients with a diagnosis of incident dementia in FUI-V.

Outcome:

- Time to death in incident dementia cases
- Predictors of time to death in incident dementia cases

Analysis:

a) Analysis of Group Differences (Mann-Whitney-U-test, T-Test, and χ^2 -Test as appropriate)

What are sociodemographic and clinical characteristics of deceased and not deceased individuals with a diagnosis of incident dementia (characteristics by survival status)? Characteristics will be assessed referring to the point of incident dementia diagnosis, specifically:

- Age
- Gender
- Level of Education
- Marital Status
- Degree of Cognitive Impairment (MMSE score)

- Comorbidity (diabetes, hypertension, stroke, CHD, TIA, PAOD, TBI, cardiac arrhythmias, hyperlipidaemia, myocardial infarction, hyperthyroidism, hypothyroidism, hypercholesterolemia, stenosis of afferent cerebral vessels)
- Depression (GDS score)
- Accommodation/Institutionalisation
- Etiology of dementia (AD, VaD, others)
- Basic Activities of Daily Living (ADL)
- Instrumental Activities of Daily Living (IADL)

b) Cox Regression

What are significant and independent predictors of mortality in incident dementia? Calculation of hazard ratios and 95% confidence intervals for:

- Age
- Gender
- Level of Education
- Marital Status
- Degree of Cognitive Impairment (MMSE score)
- Comorbidity (diabetes, hypertension, stroke, CHD, TIA, PAOD, TBI, cardiac arrhythmias, hyperlipidaemia, myocardial infarction, hyperthyroidism, hypothyroidism, hypercholesterolemia, stenosis of afferent cerebral vessels)
- Depression (GDS score)
- Accommodation/Institutionalisation
- Etiology of dementia (AD, VaD, others)
- Basic Activities of Daily Living (ADL)
- Instrumental Activities of Daily Living (IADL)

c) Kaplan-Meier-Survival Analysis

This method is to determine time to death in incident dementia. Further, Log Rank tests resp. Breslow-Tests will be conducted to detect differences in survival curves of significant subgroups.

d) Development of a Risk Score to Predict Survival after Incident Dementia Diagnosis

Based on prognostic factors evaluated through the Cox Regression Analysis, a risk score will be developed to predict the survival after incident dementia diagnosis.