Marie Curie Cancer Care Research Programme - Project Grant

Project details

Dr Wei Gao and Professor Irene Higginson, King's College London (joint PIs)

Changing Patterns of Place of Cancer Deaths in Children and Young People, 1984-2010

Duration of project: 12 months
Start date: 01/05/2013 (TBC)
Budget: £60k (TBC)

Abstract

BACKGROUND
Knowledge about place of death in adults has advanced dramatically over the past thirty years. Cancer is one of the leading causes of death. However, limited evidence on place of cancer deaths is available for children and young people. Whether and how the patterns of place of cancer deaths in children and young people have changed over time, has never been evaluated at the national level.

AIMS
The study aims to provide evidence about how end-of-life cancer care in children and young people has changed over time. The specific objectives: a) to determine pattern changes in place of cancer deaths and the associated factors; b) to provide recommendations for service providers, NHS management and policy makers to improve end-of-life care.

METHODS
A whole population observational study. The data are extracted from the ONS Death registry database. All cancer related deaths (ICD-9: 140-209; ICD-10: C00-C97) in children and young people (=24 years), which occurred between 1984 and 2010 in England are included. Outcome variable is place of death; explanatory variables include socio-demographic, clinical, geographic and other variables. The analyses are performed for the whole period (1984-2010) and for the defined sub-periods separately. The sub-periods are defined in the context of the national programmes for end-of-life care improvement and the coding changes. The place of cancer deaths are described as count and relative frequency by selected explanatory variables. Modelling analyses are performed at the individual-level and population level. Factors associated with place of cancer death (modelled as binary or nominal variable) are investigated using the generalised linear models (GLM) at the individual-level; the clustering effects within geographical units are adjusted using the generalised estimating equation (GEE) technique. The pattern changes in place of cancer deaths and the associated factors are evaluated using three strategies: 1) population-level modelling: we will fit the data with a series of candidate models (eg. quadratic trend model, joinpoint regression model), the models are tested against the null hypothesis (no change across the defined periods); 2) in-depth exploration of interaction effects between periods and candidate variables; 3) comparing and contrasting individual-level modelling results across the defined periods.

HOW THE RESULTS WILL BE USED
Research findings about pattern changes in place of cancer deaths and the associated factors will be fed back nationally and regionally to service providers, NHS management and policy-makers through various methods (e.g. web pages, scientific publications, conferences, seminars and workshops).