

R041: Investigating the relationship between dementia and cancer in Northern Ireland – QUB

Dementia is a term used to describe a broad group of conditions that affect the brain and causes a progressive cognitive decline in the ability to think, learn and remember. At present there is no cure for dementia, nor a way to slow down its progress. The occurrence of dementia, together with the major health and social care burden associated with it, is predicted to increase considerably with our ageing population. The relationship between cancer and dementia is complex, as people who are diagnosed with dementia, may not live long enough to receive a diagnosis of cancer and vice versa, an issue which has led numerous studies to conclude that there is a reduced risk of dementia in individuals with a cancer diagnosis. However, some studies have suggested the opposite, that people with dementia (PwD) have an increased risk of receiving a cancer diagnosis.

One particular area of concern regards oral health in PwD. Research has consistently shown that PwD have poor oral health and may be at an elevated risk of being diagnosed with oral cancer. Several reasons have been proposed for poorer oral health among PwD. For instance, medication with anticholinergic side effects, which are commonly prescribed to PwD can cause salivary dysfunction, leading to throat and mouth disorders. Additionally, older adults with dementia have older dentures which are significantly less clean compared to older adults without dementia.

Despite these research findings, we know very little about the relationship between dementia and cancer in Northern Ireland. In the study we are proposing, we aim to use linked data from the Honest Broker Service and the Cancer Registry, Northern Ireland, to firstly, determine the number of people with dementia who have a cancer diagnosis and secondly in a further sub study, we aim to estimate whether oral cancer (defined by ICD10 codes C00-C14) is more prevalent among people with dementia in Northern Ireland. The Northern Ireland Cancer Registry reports there are approximately 250 cases of oral cancer per year in Northern Ireland. These small numbers may restrict the analysis that can be undertaken in relation to oral cancer and dementia. If this is the case we can use the wider cancer dataset to identify other possible cancer sites which appear to have a higher prevalence amongst people with dementia.

Primary objective:

- To assess whether people with a diagnosis of dementia, are at an increased or decreased risk of having a cancer diagnosis.

Secondary objective:

- Estimate whether oral cancer is more prevalent among people with dementia in Northern Ireland and assess whether or not certain factors (such as age, gender, number of medications) can help predict whether an individual with dementia will receive a cancer diagnosis and whether oral cancer is more prevalent in PwD.