

### **R033: Evaluation of outcomes of patients with elevated tTG antibodies and Gluten-free food prescription utilisation in Northern Ireland – QUB**

Northern Ireland has the highest incidence of coeliac disease (CD) in the United Kingdom. Lifelong adherence to a gluten-free (GF) diet is advisable to avoid/reduce symptoms and improve prognosis in addition to improving health-related quality of life.

The research team propose to undertake a data linkage study to establish a Northern Ireland population-based cohort of patients who have had a transglutaminase (tTG) and/or endomysial antibodies (EMA) blood test and linkage to the General Registrar Office Death files to assess prognosis and the Electronic (GP) Prescribing Database to evaluate utilisation of prescription gluten-free food. The team will also investigate the occurrence of malignancy in patients with raised tTG/ positive EMA through linkage with cancer registration data from the Northern Ireland Cancer Registry (NICR), assessment of the number of patients with co-morbidities and the impact of repeat prescriptions for other conditions on gluten-free prescription utilisation.

#### Objectives:

1. Investigate cancer incidence and mortality in patients with elevated tTG/positive EMA.
2. Investigate cancer incidence and overall and cause-specific mortality by continuous tTG result level.
3. Investigate potential links between patient morbidity and mortality and deprivation index with prescribed GF foods.
4. Investigate prescription drug utilisation including GF foods and other medications to identify comorbidity prevalence in patients with tTG antibodies.
5. Determine the proportion of duodenal biopsies confirming coeliac disease and the proportion of patients with biopsy confirmed coeliac disease who do not have any tTG or EMA antibodies.
6. Determine the tTG levels leading to duodenal biopsies in clinical practice in Northern Ireland.