

R-012 Commonly prescribed drugs and association with cancer progression - QUB

In the UK, there are, on average, 300,000 individuals diagnosed with cancer each year and over 150,000 deaths from cancer. Cancer patients are increasingly exposed to a wide range of prescription medications but the effect of these medications on the progression of their cancer is largely unknown. The aim of this study is to conduct a series of robust evaluations of the effect of specific medications to identify whether they could inhibit cancer progression or promote cancer progression in patients with cancer (including breast, ovarian, prostate, lung and gastrointestinal cancer). The drug types of interest, because of their mechanism or empirical evidence for their effect on cancer include: ACE-inhibitors, antiplatelets, NSAIDs, statins and diabetes medications. Anonymised patient data will be used from linkages between the cancer registry, oncology unit patient records and prescription records. Cohorts of patients with cancers (including breast, ovarian, prostate, lung and gastrointestinal cancer) will be identified. The risk of death from cancer and the risk of cancer recurrence will be compared between individuals taking specific medications to a suitable non-user comparison group. Advanced statistical methods will be applied to produce the best estimates of treatment effect. This research has the potential to identify new uses for existing medications in the prevention of cancer progression which could then be tested in clinical trials. It could also identify medications which accelerate cancer progression which could result in the amendment of clinical guidelines leading to restricted use of these drugs in cancer patients.