HIPS/16/26 – A natural experiment using Scottish clinical data to estimate the real world effectiveness of adjuvant chemotherapy in breast cancer patients

This project seeks to answer three important questions using anonymised Scottish healthcare data, the first of which is of direct clinical relevance: What benefit is gained from chemotherapy after surgical removal of early breast cancer in patients with characteristics such as advanced age or co-morbidities that have not been studied in clinical trials? The second component will assess the validity of existing decision tools commonly used to help Scottish patients and clinicians whether chemotherapy is worthwhile. The third will evaluate the feasibility and validity of regression discontinuity, a new data analysis method from econometrics that we believe can use existing healthcare records to estimate the effectiveness of chemotherapy in situations where randomised trials are not possible.