

R020: Prevalence & Risk factors of Congenital Heart Disease in NI – UU Jordanstown

Congenital Heart Disease (CHD) is the one of the most common causes of death in the first year of life due to a heart defect present at birth. CHD impacts on patients and their families, as well as health services due to the increased number of affected patients. Studies have shown conflicting results regarding CHD risk factors, therefore additional investigations are needed. As there is no birth defect registry in Northern Ireland (NI), this study will aim to describe the occurrence of babies born with CHD and death due to CHD within the first year of life in NI for the years 2005-2014, and to identify risk and protective factors for CHD in order to guide public health action for prevention and service planning.

The study will look at the following:

1. To determine the occurrence and trends of CHD in NI including the CHD clinical spectrum and infant mortality due to CHD, 2005-2014.
2. To investigate if there are socioeconomic and urban/rural differences in occurrence of CHD, 2005-2014.
3. To investigate the relationship between mental health medications taken in the preconceptional period and/or in the first trimester of pregnancy and CHD, 2010-2014.
4. To assess the feasibility and added value of using linked clinical and administrative databases for public health research.

This is a population longitudinal (cohort) study covering the period 2005-2014, involving secondary data analysis of linked datasets. Paediatric cardiology data from the HeartSuite database (HSD) at the Royal Belfast Hospital for Sick Children (RBHSC) will be linked to maternity records and drug prescribing databases by the Honest Broker Service (HBS) to produce an anonymised file for analysis.

The findings of the study will contribute to the understanding of risk and protective factors associated with CHD.