

The impact of Rotarix™ vaccine in reducing disease burden, hospitalisations and inpatient bed days in HSE Mid-West Ireland, a 10-year study.

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Under Infectious Disease Regulations; Rotavirus is a notifiable disease in Ireland. In 2016, the Rotarix™ vaccine was introduced as part of the Irish primary immunisation schedule and is available for all babies born from 1st October 2016. This study examined the impact of the rotavirus vaccine on disease burden, hospitalisations and inpatient bed days among the HSE Midwest (MW) population.

Data on MW rotavirus cases was extracted from the Computerised Infectious Disease Reporting system. ICNet (Clinical Surveillance Software) was used to gather admission/discharge dates for hospitalised cases in University of Limerick Hospital Group (ULHG). Hospitals were contacted for admission/discharge data for MW cases hospitalised outside ULHG. MW Public Health Records were used to gather vaccination information on eligible cases.

Pre-vaccination (2011-2015) there were approximately 180 rotavirus cases per year in the MW. From 2016 (post vaccination), there was a reduction in the number of rotavirus cases notified per year, with only 38 cases notified in 2018. The majority of cases that contracted rotavirus after 2016 were among those not eligible for vaccination. In a number of cases vaccination status was not complete or unknown. A small proportion were fully/age appropriately vaccinated. Some cases in 2022 were diagnosed <28 days post vaccination. Whole-genome sequencing identified these as a vaccine strain of Rotavirus. Following vaccination the utilisation of bed days decreased, this reduction was evident across all age categories.

The introduction of the Rotarix™ vaccine into the primary immunisation schedule has reduced disease burden, hospitalisations and bed days among the MW population.