RWD48

DARWIN EU® – Characterising Clinically Recognised Hypertrophic Cardiomyopathy in six European Countries: A Descriptive Analysis Using Real-World Data

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BACKGROUND

Hypertrophic cardiomyopathy (HCM) is the most common inherited cardiomyopathy. Despite its clinical significance, large-scale epidemiological evidence in Europe remains limited, probably due to challenges in real-world disease recognition

OBJECTIVES

1. To estimate the **annual prevalence** of clinically recognised HCM and obstructive HCM (oHCM) in six European countries

2. To characterise patients with HCM and oHCM in terms of **demographics, selected HCM-related comorbidities, diagnostic measurements, medications and treatment procedures** existing before, at the time of, and after the first recorded HCM or oHCM diagnosis

METHODS

Study design

A retrospective cohort study using routinely collected healthcare data, conducted as a federated network study within the **Data Analysis and Real-World Interrogation Network (DARWIN EU®)**

Data sources

CPRD-GOLD (UK)	DK-DHR (Denmark)	InGef RDB (Germany)	NAJS (Croatia)	NLHR (Norway)	SIDIAP (Spain)
National	National	National	National	National	Regional
Primary care data	Registry data	Claims data (dx only from hospital data)	Claims data	Registry data	Primary care data

(All mapped to the **OMOP Common Data Model**)

Study population and study period

- ≥18 years
- first recorded diagnosis of HCM or oHCM (**index date**)
- ≥365 days of medical records history
- Study period: between 2010 (or the earliest available data) and end of available data in each database

Analyses

- Annual period prevalence (**objective 1**)
- Frequency of predefined comorbidities, diagnostic tests, and treatments recorded in different time windows before, at, and after diagnosis, stratified by age and sex (**objective 2**)

RESULTS

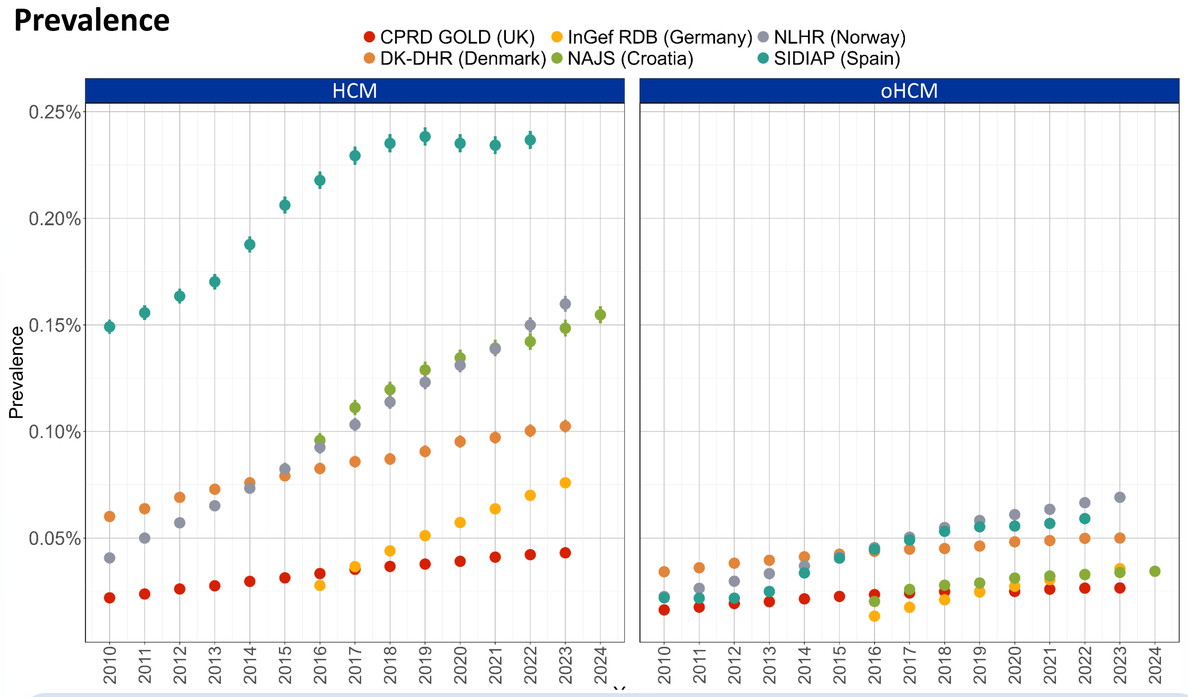
All results are available at:

Study participants

Total of 40,277
(12,363 with oHCM)

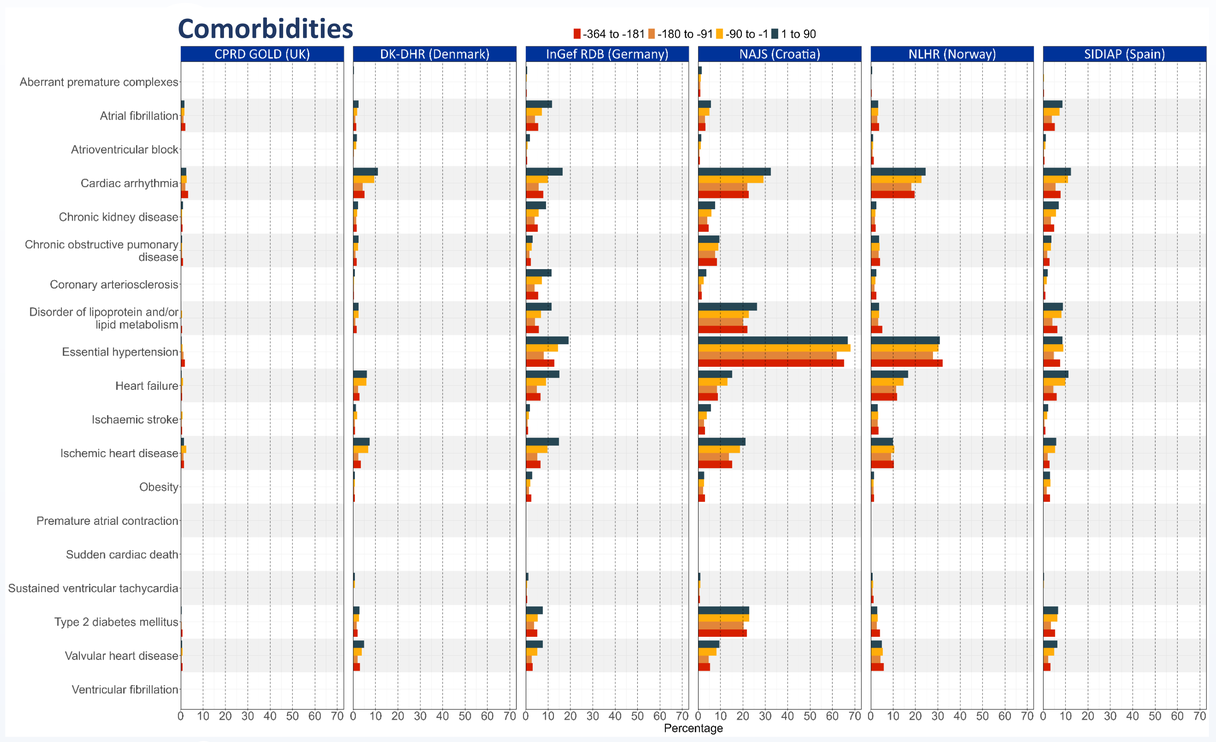
	CPRD-GOLD	DK-DHR	InGef RDB	NAJS	NLHR	SIDIAP
	HCM					
N	1780	4826	6311	6653	7114	13593
Age (median (IRQ)	61 (50-71)	67 (56-77)	66 (54-78)	71 (60-79)	66 (54-75)	73 (61-82)
Male (N (%))	1117 (64%)	2554 (53%)	3880 (61%)	3483 (52%)	4253 (60%)	7434 (55%)
	oHCM					
N (% of HCM)	1062 (60%)	1934 (40%)	2551 (40%)	1559 (23%)	2413 (34%)	2844 (21%)
Age (median (IRQ))	61 (50-71)	69 (60-77)	66 (55-78)	72(63-80)	67 (58-75)	72 (61-81)
Male (N (%))	645 (61%)	857 (44%)	1384 (54%)	787 (50%)	1250 (52%)	1224 (43%)

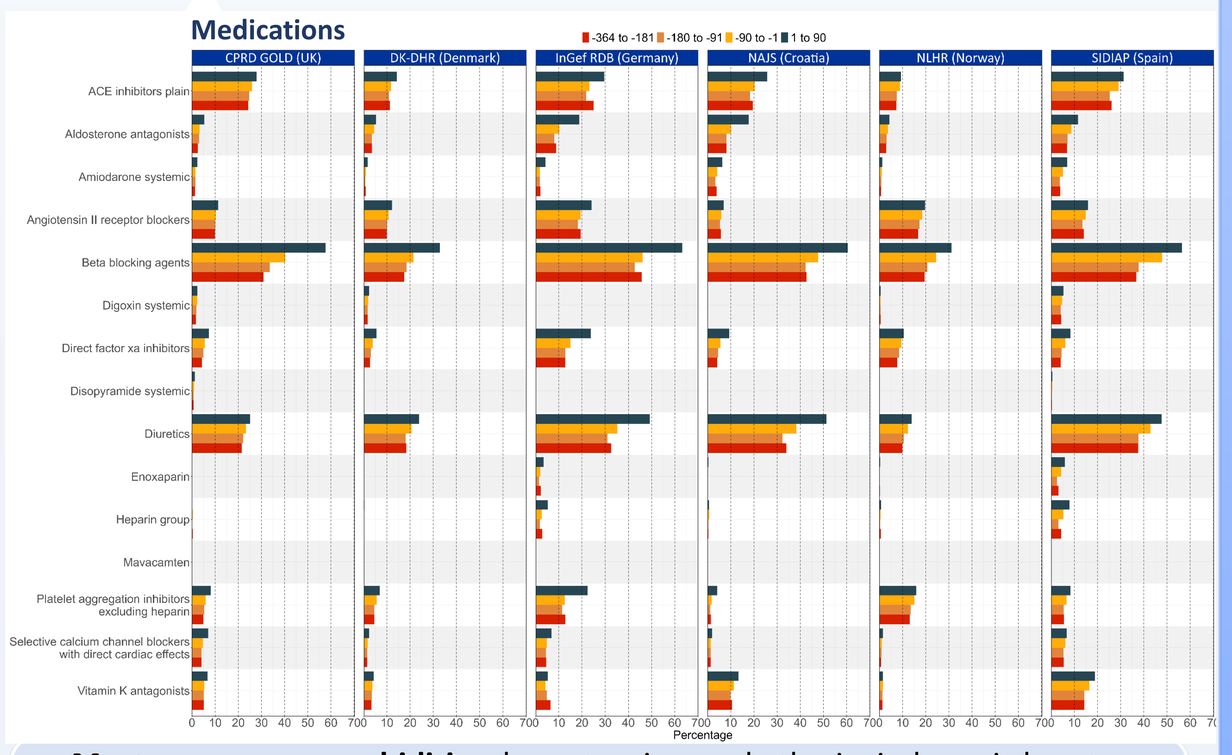
Prevalence



- HCM prevalence was higher in **men** and in **older age groups** (results not shown)
- However, sex differences were less pronounced among those aged ≥80 years and in the oHCM cohort (results not shown)

Characterisation *(we show here only two groups of variables for HCM and a few time windows)*





- **Most common comorbidities:** hypertension, arrhythmia, ischaemic heart disease, heart failure
- **Most frequent treatments**: beta-blockers, diuretics, ACE inhibitors
- Most recorded **>1 year before HCM diagnosis** (results not shown)

CONCLUSION

HCM prevalence varied across data sources but consistently increased over time. The frequent recording of cardiac comorbidities and treatments before diagnosis highlights the need for greater clinical awareness to mitigate disease burden

DISCLOSURE

This study was funded by EMA and performed via DARWIN EU®. The study funder was involved in revising the study protocol and the objectives and reviewing the study report including the results. Data partners' role is only to execute code at their data source. They do not have an investigator role. This communication represents the views of the DARWIN EU® Coordination Centre only and cannot be interpreted as reflecting those of the EMA or the European Medicines Regulatory Network

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