Title: Spanish Rare Diseases Research Network
Acronyms: SpainRDR
Funding agency: Institute of Health Carlos III (ISCIII)
Call for proposals: Spanish call of the International Rare Diseases Research Consortium (IRDiRC).
Years: 2012-2014
Code: RDR-IRDiRC-01

Executive Summary

Background

Rare diseases (RD) registries have received particular attention in recent years among RD stakeholders, including patient advocacy groups, professional associations and government agencies. The creation of the International Rare Diseases Research Consortium (IRDiRC) in October 2010 has led to common aims being defined and the launch of a preliminary strategic plan targeted at improving RD diagnosis and treatment. Furthermore, this consortium's principal objectives have also been drawn up to include horizontal actions, such as registries and biobanks, natural history of diseases and the use of -omics for developing biomarkers for RD.

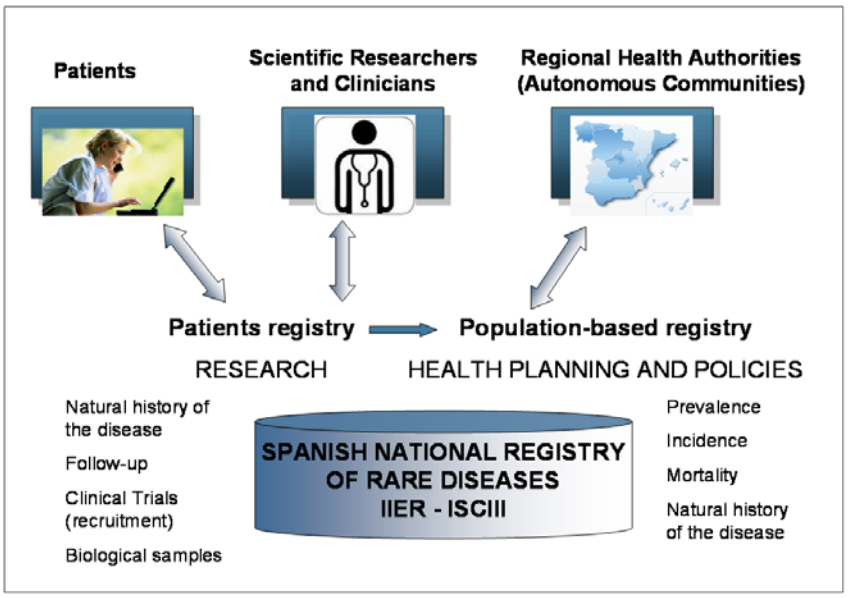
Registries are key instruments for developing RD centred clinical research, enhancing patient care and health planning, and improving social, economic and quality-of-life outcomes. Indeed, they serve as a recruitment tool for the launch of studies focusing on disease aetiology, pathogenesis, diagnosis or therapy. Registries are the best way of pooling data to achieve a sufficient sample size for epidemiological and/or clinical research. In Spain, there is a need to share standard data in a comparable and useful way for local, regional and national level with the purpose of monitoring, updating and disseminating RD situation. The origin of that need is the existence of barriers to use health information, such as:

- insufficient utilization of information systems by clinicians and policy makers
- limited application of statistical routines in the health reports
- inadequacy of software available in the public domain
- insufficient use of medical records due to increasing privacy concerns
- lack of standardized approaches for secure data transmission

The *Spanish Rare Diseases Registries Research Network*-**SpainRDR** is a project financed by the Institute of Health Carlos III (ISCIIII) within the scope of the IRDiRC for the years 2012 to 2014 with 2.4 M€. This project involves all Health Departments of the Autonomous Communities (regions) of Spain, the Institute of Rare Diseases Research (IIER) which acts as a coordinator and leader of the network, the Spanish Ministry of Health, the Spanish Centre of Reference of People and Families affected by RD (CREER), six Spanish Medical Societies, four research networks, pharmaceutical and biotechnological organizations (ASEBIO and FARMAINDUSTRIA), the Spanish Federation of RD (FEDER) and its foundation (FEDER TELETHON FOUNDATION). **SpainRDR** aims to build the National Rare Diseases Registry in Spain based on the input of two different strategies: patient registries addressed to patient outcome research and population-based registries addressed to epidemiologic research and social-health planning.

General objective

The national RD registry's general objective is to set up a comprehensive platform where patient - and population-based registries can be harmonised. Population-based registries in Spain are developed by the country's Regional Health Authorities (Autonomous Communities). Such registries will share common, previously harmonised data and will provide the necessary information to facilitate the implementation of RD-oriented health and social policies and the promotion of translational research.



Specific and strategic objectives

1. To align actions and procedures with the international RD registry strategy to be implemented by the IRDiRC.
2. To develop an epidemiological rare-disease information system to support Spanish official Rare Disease Strategy and health-policy decision making.
3. To generate standardised criteria, including a minimum data set (MDS), common definitions of their components (common data elements-CDE), a list of standard operating procedures (SOPs) and quality assessment indicators and procedures.
4. To improve knowledge of RD classification and coding systems at the Spanish national health and social services level.
5. To define criteria for selecting a priority RD list for promoting the inclusion of rare disease patient registries within the National RD Registry structure.

A descriptive observational epidemiological study design will be used to implement this registry. A comprehensive list of RD classified according ICD-CM-10, and its relationships with some other RD classifications, will be used in order to proceed with data extraction from the different Information Health and Social Systems. A minimum common data set will be defined, harmonized and implemented in both regional population-based registries and those patient registries adhered to this National RD registry. There is a need to share methods and criteria designed to achieve the best, most comprehensive information that each of the different methods is capable of supplying to policy makers, researchers, patients and their families.

In order to perform this work, **SpainRDR** project is organised in six work packages (WP) and their leaders. The following list also includes all work packages tasks (T) :

WP1 Co-ordination and management (*Manuel Posada. IIER*)
T1. Project monitoring and progress evaluation (coordination activities)
T2. Implementing management boards (Steering Committee, Ethics Committee, Advisory Committee and associated partners)
T3. Establishing a network Project Management Team (WP and task leaders) and planning meetings
T4. Issuing financial and follow-up reports (interim and final reports, financial statements, etc.)

WP2 Registering activity-related methods (*Mario Margolles. Principado de Asturias*)
T5. Analysing the state of the art of ongoing population-based RD registries in Spain's Autonomous Regions
T6. Undertaking an inventory of existing patient RD registries in Spain along with their main characteristics and external collaborations (funding, sponsors, sustainability, project participation, etc.)

T7. Defining a core of standardised methods to be applied in the population-based RD registries developed by the respective Autonomous Regions, including:
- **T7.1**. the drawing-up of an operational list of RDs based on several classifications and coding systems (ICD10-CM, ICD11 revisions, Orphanet database and SNOMED-CT clinical reference terminology)
- **T7.2**. analyses of data sources (i.e., social and health sources)
- **T7.3**. building the MDS and CDE in line with international strategies (NIH GRDR)

T8. Training (coding and SOPs)

WP3 Data-analysis and outcomes research (*Óscar Zurriaga. Comunitat Valenciana*)
T9. Undertaking data-extraction, -processing, -cleaning and duplicate-data detection
T10. Developing "use cases"1 that can be used for data-extraction technology, information sharing and data-analysis
T11. Adopting a common set of epidemiological estimators for routine RD monitoring
T12. Designing and implementing statistical methods for the production of rare disease health reports
- **T12.1**. Selecting a Spanish minimum dataset for regional, national and international comparisons and analysis
- **T13**. Developing a purpose-designed report template and user-friendly reporting facility

T14. Defining patient-specific outcome registries (i.e., pharmacovigilance of certain marketed orphan drugs)

WP4 Quality assessment and ethical and legal issues (*Josep Jiménez. Cataluña*)
T15. Developing SOPs for data-collection and -validation

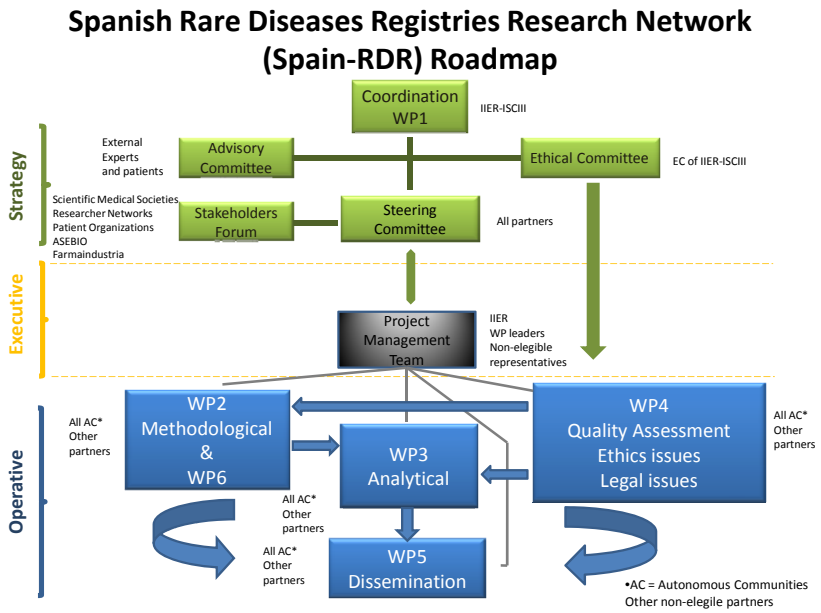
T16. Defining a quality-assessment framework to improve data accuracy and completeness. A set of indicators to assess quality of registries will be drawn up in accordance with the EPIRARE quality indicator project
T17. Analysing the legal framework of health registries and translating this to RD registries
T18. Establishing the appropriateness of and degree of agreement between ethical principles and the issues raised by the development of the National RD Registry, under the overall supervision of the Institute of Rare Diseases Research-Ethics Committee, taking its ethical guidelines for RD registry reporting as reference

WP5 Dissemination and impact (*Manuel Posada. IIER*)
T19. Dissemination (periodic official reports, minutes of network meetings, etc.)
T20. Overseeing the network website (ISCIII and Spanish Ministry of Health, Social Services and Equality)
T21. Monitoring the websites of the country's Autonomous Regions
T22. Designing a dedicated platform containing epidemiological data on RDs for which there is no available treatment, so as to increase the possibility of attracting new research-related and industrial interest
T23. Using e-news and other dissemination materials
T24. ICORD/European conferences, RD Euroconferences and Spanish Conferences

WP6 Patient registries (*Manuel Posada. IIER*)
T25. Agreement and collaboration with existing patient RD registries in Spain
T26. Implementation of patient registries in the national RD registry

Governance and network organization

The organizational chart of the SpainRDR project is shown in the next figure.



List of the first patient registries already committed with SpainRDR

The list of patient registries initially involved in this project is,

- Prader-Willi and Differentiation Sexual Disorders (DSD)
- Bradikinin mediated angoiaedema
- Alveolar proteinosis; Alpha-1 antitrypsin deficiency; Histiocytosis X; lymphangiomatosis
- National Registry of Fragile X Syndrome (FXS)
- All rare diseases included in the neonatal screening national program
- Spinocerebellar ataxias and Parkinson Familiar disease
- Congenital and rare anemias
- Epidermolysis Bullosa
- All rare Congenital Malformations
- Spastic Degenerative Paraparesia
- Adrenocortical tumor (Cushing)
- McArdle disease

The overall gain of the **SpainRDR** will provide the necessary information to contribute to improve prevention, diagnosis, prognosis and new treatments as well as a better quality of life of patients and their families.