Addressing the clinical burden of *Clostridium difficile* infection (CDI): Evaluation of the burden, current practices and set up of a European Research Platform

Clarisse Demont
27.04.2016 • IMI webinar
Need for public-private collaboration

A collaborative approach to develop a robust assessment of the burden of CDI, various stakeholders are key.

- To understand current practices and to make gap analysis on existing data in Europe
- To generate evidence to support effective control and prevention strategies.
- To ensure that different perspectives and a broad range of diverse evidence sources are gathered and synthesised.
Objectives of the full project

To develop a detailed understanding of the epidemiology and clinical impact of CDI

- Align and understand the unmet public health needs relating to CDI
- Identify the direct and long term burden on healthcare systems
- Set up a EU research platform that will provide support for potential proof of concept studies of new prevention and treatment strategies
Pre-competitive nature

Need combined expertise, sharing of knowledge

- **Public Health**: Establish priority and burden associated with CDI, identify data sources to track epidemiology and surveillance.
- **Industry**: Conduct research to identifying patients and populations at risk of CDI and develop new preventive and treatment approaches.
- **Clinical societies**: Provide the clinical description of the need for surveillance, diagnostic, prevention and treatment of CDI.
- **Government and payers**: Assess preventative and curative approaches and establish the burden of CDI.
- **Patients/Society**: Develop and communicate the societal impact of CDI.
Expected impact on the R&D process

- Synthesize all efforts made at EU level so far to understand the epidemiology and clinical impact of CDI
  - at multinational, national and local level

- Identify and fill key remaining gaps that are key to support effective control and prevention strategies

- Develop a research platform to help the development of alternative prevention and treatment approaches
Suggested architecture of the project

Work Package 1: Epidemiology of C. difficile

Work Package 2: Disease detection and management

Work Package 3: Build a Research Network and Platform

Work Package 4: Coordination and project management
Expected contributions of the applicants

- Access to healthcare databases and surveillance data (including molecular data);
- Understanding of the limitations of historical datasets and approaches to minimise these issues;
- Experience of handling and analysing complex and large data sets from multiple sources;
- Infectious disease modelling expertise;
- Expertise on cost analysis;
- Expertise on testing practice, treatment approach;
- Public health program evaluation expertise;
Expected contributions of the applicants

- Experience with **prospective data collection**;
- Experience in **developing proof of concept** for new prevention and treatment approach;
- Ability to **attract external funding**;

- Ability to **coordinate large research initiatives and to create a scientific network**;
- Proven **project management** skills;
- Ability to **assemble and coordinate multi-stakeholder discussions** form both the public and the private sector and resolve blocks;
- Experience with **public health issue management** and communication of key public health messages.
Expected contributions of the applicants

- The applicant should include in their proposal their suggestions for creating the full proposal architecture.

- To avoid any duplicate work the applicants should take into consideration existing projects/initiatives and establish potential collaboration.

- To translate project outputs into regulatory, clinical and healthcare practices interactions with Regulatory Agencies/health technology assessment bodies should be proposed.

- A plan for aspects related to sustainability and facilitating continuation beyond the duration of the project should also be proposed.
Expected contributions of EFPIA members

- Expertise from pharmaceutical partners:
  - Epidemiology
  - Health Economics
  - Data collection methodology
  - Statistical analysis
  - Disease transmission model
  - Healthcare database analysis
  - Data and project management

- Indicative in-kind budget: EUR 3.0 MM
What’s in it for you?

- To be **actor** in a pan-European multidisciplinary based research platform.
- To improve **knowledge** and to **disseminate** evidence based data on *Clostridium difficile* in Europe.
- To develop **interaction** between public and private sectors and to improve **transparency** and **communication**.
- To answer *Clostridium difficile* unmet medical needs in Europe.
Key deliverables of the full project

- Create and communicate a multifaceted understanding of CDI epidemiology across the European region.
- Provide insights in the differences in incidence, strain prevalence, reporting and testing practices, current control measures, diagnosis and treatment variations within and between countries.
- Quantify the burden of disease and outcomes related to the disease in different settings.
- Identify potential reservoirs of CDI spread (community paediatrics, food/agriculture, and environment) and the drivers for transmission between and within community and healthcare setting.
- Identify opportunities for innovative prevention and treatment strategies.
Questions?

Contact the IMI Programme Office
infodesk@imi.europa.eu • www.imi.europa.eu