By Ellen P.B. de Waal

Hematology and Big Data: Enabling Better and Faster Treatment

The European Hematology Association (EHA) is a partner in the HARMONY Alliance, a European Network of Excellence for Big Data in Hematology, consisting of 51 public and private partners from 11 European countries.

Big data analysis can improve health outcomes

Europe's healthcare systems face significant challenges, such as ageing populations, an increase in the prevalence of chronic diseases, and budgetary pressures. It is also estimated that around one-fifth of healthcare expenditures make minimal to no contributions to health outcomes for patients. Patient health outcomes vary widely within and across healthcare systems, regions, and countries, raising questions about which therapies work best for patients and how improvements in health care can lead to better and more sustainable patient outcomes. Part of the challenge is to understand and optimize the contribution of the increasing levels of data to the improvement of healthcare. It is in the context of these developments that the realization has grown that Big Data has a crucial role to play in enhancing patient care.

The role of big data

Big data related to healthcare allows us to find better responses to these questions and challenges. There is already a considerable amount of patient and healthcare data available, with much more on the horizon. This data, especially when different datasets are linked together, can make healthcare delivery more efficient and improve health outcomes. The collection and analysis of this data will also lead to a better understanding of human biology which, in turn, can facilitate research and the development towards more effective and personalized therapies for patients. Ultimately, this can lead to better quality of life and more affordable healthcare.

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Funding/support: XXX

Disclosure: The authors have indicated they have no potential conflicts of interest to disclose.

European Hematology Association, HARMONY Alliance, The Hague, The Netherlands

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Published by Wolters Kluwer Health, Inc. on behalf of the European Hematology Association.

HemaSphere (2017) 1:1(e17)

[http://dx.doi.org/10.1097/](http://dx.doi.org/10.1097/HS9.000000000000017)

HS9.000000000000017

A unique 5-year project connecting big data and hematology

EHA advocates for the interests of hematology and hematologists in Europe by engaging with the right stakeholders and by establishing and participating in innovative European initiatives. One example is the HARMONY Alliance, established in January 2017. HARMONY is an unparalleled medicine offensive to battle hematologic malignancies (HMs) by using Big Data analyses. The 51 public and private partners are bringing together their best people, data, and knowledge to solve key questions on hematological cancers. HARMONY's short-term focus is 3-fold: offering an ethical and legal framework on the use of medical data, analyzing the first data on the platform, and defining standard sets of outcomes. The project has received funding through the Innovative Medicines Initiative (IMI), Europe's largest public-private initiative aiming to speed up the development of better and safer medicines for patients.

EHA has played a major role in designing HARMONY and is eager to raise awareness about this ground-breaking initiative, connect stakeholders, and support all partners in the project by leading the Work Package on Communication, Dissemination, and Training. In addition, EHA is responsible for delivering a segment of a clinical and evidence-based framework on outcomes.

HARMONY has a deadline of 60 months to accomplish its goal of assembling, analyzing, harmonizing, and communicating comprehensive datasets (incorporated into a Big Data platform) on the treatment of HMs. Read more at: www.harmony-alliance.eu and follow HARMONY at @HarmonyEUNet.

- Interested in subscribing to the HARMONY Alliance Newsletter? Send an email to: communications@harmony-alliance.eu.
- [Click here](#) to learn about more EU projects in which EHA has an active role.