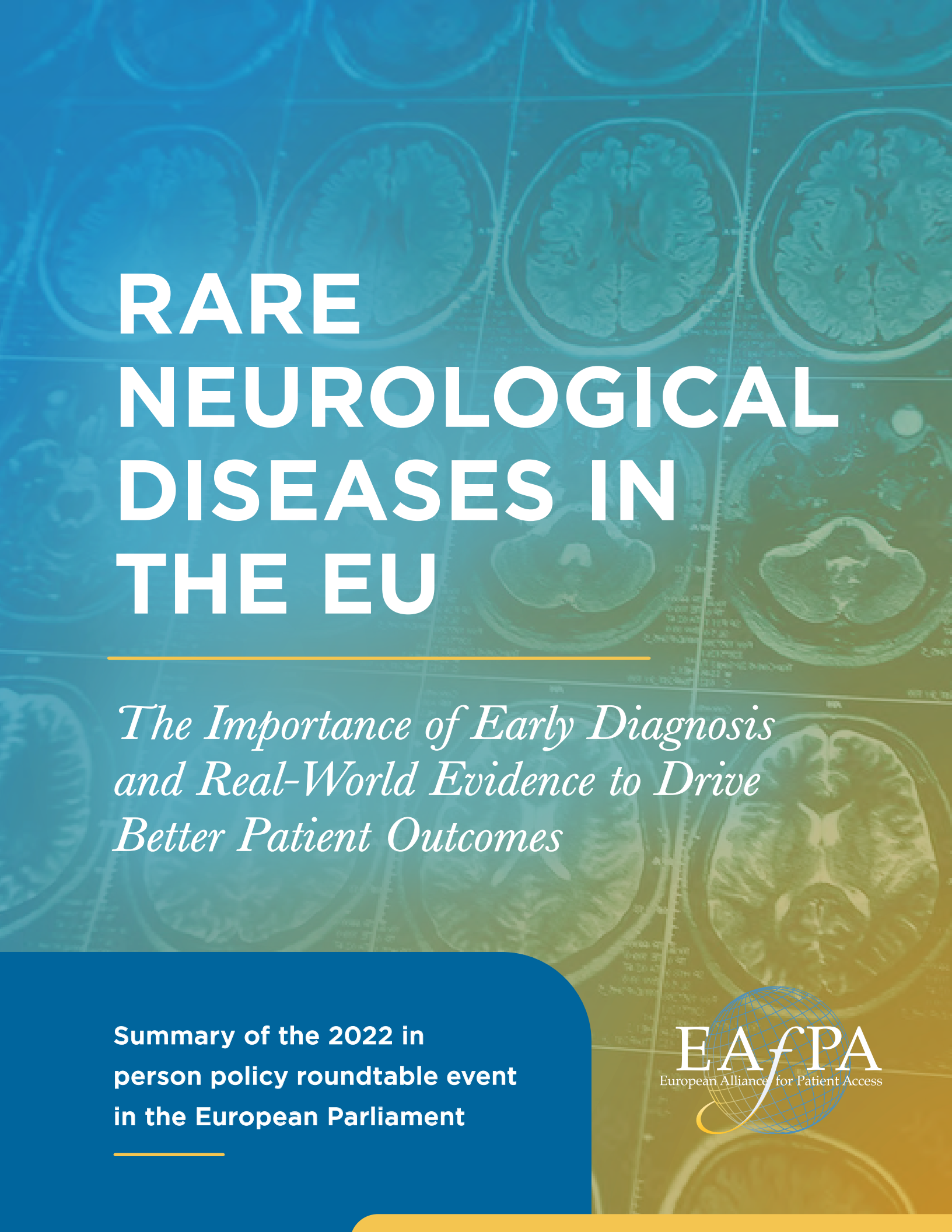

RARE NEUROLOGICAL DISEASES IN THE EU

The Importance of Early Diagnosis and Real-World Evidence to Drive Better Patient Outcomes

Summary of the 2022 in person policy roundtable event in the European Parliament

EAfPA
European Alliance for Patient Access

Overview

On December 7, 2022, the European Alliance for Patient Access (EAfPA) produced a policy roundtable event at the European Parliament entitled **Rare Neurological Diseases in the EU** - *The Importance of Early Diagnosis and Real-World Evidence to Drive Better Patient Outcomes*, focused on rare neurological conditions. Held in collaboration with the European Federation of Neurological Associations (EFNA) and the European Brain Council (EBC), EU stakeholders gathered to discuss the critical need for improved access to care, services, and treatment for people living with rare neurological diseases.

The roundtable event was hosted by *Member of the European Parliament (MEP)* **Tilly Metz** *(Luxembourg, Greens/EFA)* and gathered around 20 participants, comprising mainly EU policymakers and patient representatives.

MEP Metz opened the event by giving an overview of the situation of rare diseases and especially rare neurological diseases in Europe and how many rare disease patients experience long delays in getting a correct diagnosis. They often spend years in a 'diagnostic odyssey' before receiving the correct diagnosis.

Despite the success of EU laws, there are significant differences in member states' access to these medications. The need for an updated framework of EU actions and support for national plans and strategies on rare diseases persists notwithstanding the significant progress shown by the measures currently put in place and the significant investments in addressing the difficulties of rare illnesses.

She highlighted the potential benefits of European Reference Networks (ERNs), which are virtual networks that link healthcare professionals with expertise in rare diseases across Europe. ERNs can raise public and professional awareness of rare diseases and complex illness presentations. The ERNs may promote research and development, early diagnosis, and treatment access even more in the future.

MEP Metz concluded that patients with rare neurological conditions should have access to accurate, early diagnoses and effective treatments.

The next speaker, **Christina Kyriakopoulou** from the ***Directorate-General for Research and Innovation (DG RTD) at the European Commission***, provided an overview about ongoing and upcoming initiatives of the European Commission in rare diseases.

Over the last 15 years the European Commission has provided support to research efforts through its European framework programmes for research and innovation. These are collaborative programmes, supporting several consortia addressing research needs in rare diseases. There is a long tradition of programmes focused on rare disease such as the European Joint Programme for Rare Diseases (EJP RD), a flagship programme that enabled hundreds of multinational projects on cross-disciplinary research in the area of rare diseases.

She also mentioned two other programmes, Solve RD that is meant to speed up and accelerate the diagnosis of rare diseases; and the European Rare Diseases Research Coordination and support Action (ERICA) which brings together 24 ERNs and is a networking coordination on how to facilitate and make a roadmap for more effective clinical research.

Christina also mentioned the Innovative Medicines Initiative (IMI), a public-private partnership aiming to speed up the development of better and safer medicines. Here she identified three characteristic projects on rare diseases, among which, the Screen4Care programme which aims at shortening the path to rare disease diagnosis by using new-born genetic screening and digital technologies.

She also presented the European partnerships that have been a part of a new generation of partnerships in Horizon Europe. One of the ambitions of the European Partnership on Rare Diseases (RDP) is to consolidate a European research and innovation ecosystem for rare diseases to reduce fragmentation and to make Europe a leader in development of health innovation for rare diseases.

Christina concluded by saying that a lot of unmet needs remain in rare diseases. 95% of rare diseases are disregarded in terms of research and lack effective treatment options. 50% of patients do not have a confirmed molecular diagnosis and wait for several years to be diagnosed even if the disease is known. For more than a half, living with rare diseases has a severe impact on their daily life. The RDP proposes to take a significant step forward to fill the gaps and overcome the remaining obstacles. Today one of the major challenges is how to translate all these existing achievements and expertise into innovation and effective development of treatments.

Next, **Els Roelandt** from the ***Sumaira Foundation*** gave a personal testimony on the urgency of early diagnosis from a patient perspective, living with a rare neurological disease, Neuromyelitis Optica Spectrum Disorders (NMOSD).

She provided an overview of the situation patients face without a proper diagnosis on the one hand, which included not having access to approved treatments, being prescribed inappropriate medication that can worsen the disease, increasing relapses and decreasing recovery and, on the other hand, the ideal situation of receiving early diagnosis. With a diagnosis, a patient has an adjusted treatment and in case of a relapse, the correct care and medication. The patient also has more knowledge about what is going on with them and receives personalised support that enables a better quality of life.

Els also disclosed how she had to pay for the blood test that eventually led to her NMOSD diagnosis, a situation that is not the case everywhere. This point was later picked up by several speakers who pointed out that people should not have to pay to obtain a diagnosis.

Orla Galvin from ***European Federation of Neurological Associations (EFNA)*** then presented data from an EFNA survey, the findings of which related to the need for learning from patients and caregivers through the generation of real-world data to support a timelier diagnosis.

Some of the findings related to the fact that the majority of survey respondents had symptoms prior to their diagnosis and many patients with rare neurological conditions did not receive much encouragement to contact a doctor. The majority of respondents required an appointment with a condition specific specialist and the majority of respondents had to see more than 5 specialists, and some even up to 20. Similarly, for clinical site visits some respondents had to travel across Europe to get a correct diagnosis. When it comes to time to diagnosis, 40% of respondents indicated that it took them more than a year, with some respondents even having to wait 10-15 years for their diagnosis.

Orla emphasised that learning from patients and caregivers through the generation of Real-World Data is important. It is imperative that people can have their diagnosis, independent of the availability of treatment or clinical trials. One way of expediting diagnosis is to understand rare neurological conditions better, and can be achieved in part through natural history studies. This gives information to people living with rare diseases to prepare for their future but also educates healthcare professions to make a timelier diagnosis. This in turn expedites access to support services, care pathways and therapeutic innovation. When it comes to ERNs, Orla suggested awareness campaigns are needed as people do not know about them.

Frédéric Destrebecq from the *European Brain Council (EBC)* presented two models based on two projects by EBC with key findings setting the case for renewed European action on rare diseases and a call to action providing a practical model to enable an ecosystem for optimising care and research.

The first model was based on the European Brian Research Area (EBRA) project that was aiming to overcome fragmentation and duplication, and aimed for better coordination of brain research across Europe. The project envisages a collaborative model to see the emergence of a brain community at a societal level. On the basis of this model EBC would like to promote results that should serve the greater community.

The second element was based on another EBC project, the Value of Treatment for Brain Disorders in Europe. The project was building on an economic study that demonstrated that the cost of investing in healthcare system needs to be seen as an investment from which society yields a return. This study demonstrated that inaction and lack of investments is hurting society and that there is value in fostering and improving care pathways, also thereby fostering outcomes for people living with brain conditions. For the latest phase of the project a few rare disease case studies such as on phenylketonuria, ataxia and dystonia were selected. The recommendations and focus of these case studies was to shed light on the key features such as the low insight into pathological mechanisms, delayed detection and diagnosis, the access barriers to specialised care and treatment options, the uncoordinated care, discontinuity, drop outs, lack of reimbursement and the limited sharing of best practice and expertise.

Frédéric also mentioned that EBC has launched a call to action proposing a renewed EU action plan on rare diseases as there is a need to prioritise rare diseases once again and to look at areas of unmet need. There is need to look at the revision of the EU orphan medicines legislation and to consider the emergence of new therapies such as gene therapies.

On the basis of these projects, EBC would like to see the emergence of a rare brain disease ecosystem as a collaborative model for the future. This event was the first time EBC had presented their work piece for 2023 and called for a coalition of the willing to join EBC to collaborate in this effort.

Kumaran Deiva from the *European Reference Network for Immunodeficiency, Autoinflammatory, Autoimmune and Paediatric Rheumatic diseases (ERN-RITA)* provided a clinician's perspective on the importance of aligning research and the importance of real-world evidence for rare diseases and how European Reference Networks (ERNs) can be of use. He stated that avoiding delay to diagnosis and greater clinical expertise are fundamental. To provide appropriate treatment, one needs to know about the physiopathology of the disease and once it is known, about the availability and access to the treatment. In terms of care, the quality of life for patients needs to be considered as well.

Kumaran also provided two examples of natural history studies in MOGAD (Myelin oligodendrocyte glycoprotein antibody disease) and NMOSD with patients from across Europe and Brazil. These studies helped to better understand the severity of the diseases, how to help patients, and how to establish treatment recommendations. These examples clearly highlighted the importance of collaborative studies in rare diseases. Clinical or fundamental research can be very useful as some information might be missed in mostly medically focused studies.

He also highlighted the ERNs' usefulness in providing a clinical patient management system which would allow doctors from collaborating centres to submit a case study and to ask for expertise from other doctors. This is especially useful in countries where the networks are not well developed as sometimes doctors can feel left alone with a rare disease.

In conclusion, Kumaran stated that rare diseases need expertise, understanding of the disease physiopathology, and funding for research and treatment. But all this cannot be complete without the patients' input.

Following the speakers' presentations, there were a few interventions from external participants. **Debianka Mukherjee** from the *European Multiple Sclerosis Platform (EMSP)* stated that next to general practitioners, it is also important to sensitise nurses about rare neurological diseases. EMSP are organising an educational curriculum to create awareness among nurses about NMO and MOGAD and are happy to work with other organisations who can work on the education of general practitioners.

Alexandra Tamas from the *European Federation of Pharmaceutical Industries and Associations (EFPIA)* mentioned that EFPIA members are heavily investing in R&D in rare diseases. EFPIA and partners have therefore launched a public private partnership to foster more development in rare diseases called "Moonshot for rare diseases".

Moderator **Neil Betteridge** from the *European Alliance for Patient Access* thanked participants for their input and said that EAfPA would consider the various policy recommendations made during the meeting and how it could support stakeholders to achieve these going forward.

Closing Remarks

MEP Metz concluded the meeting by noting that more action in rare neurological conditions is needed, including highlighting the importance of early diagnosis and Real-World Data, listening to the patient's voice and cooperation through ERNs in Europe and beyond. She also mentioned that the upcoming revision of the Orphan and Paediatric Regulations and the proposal on European Health Data Space can prove important in this regard.

Speakers

Tilly Metz
Member of the European Parliament (MEP) (Luxembourg, Greens/EFA)

Christina Kyriakopoulou
Directorate-General for Research and Innovation (DG RTD) at the European Commission

Els Roelandt
Sumaira Foundation

Orla Gavin
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Neil Betteridge
European Alliance for Patient Access

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About the European Alliance for Patient Access

The European Alliance for Patient Access is a division of the Global Alliance for Patient Access, an international platform for health care providers and patient advocates to inform policy dialogue about patient-centered care.

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