EDITORIAL

ENDO-ERN ON RARE ENDOCRINE CONDITIONS

Endo-ERN in its fifth year: a pinch of care, science, curiosity and new horizons

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This paper forms part of a special series collated by the European Reference Network on Rare Endocrine Conditions, celebrating its fifth year. The guest editors for this section are Violeta Iotova, Jérôme Berherat, and George Mastorakos.

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Rare diseases are complex health entities with low prevalence (by the European definition less than 1 in 2000 people); some are so rare that only a few patients suffer from the condition in a whole region. In Europe, it is estimated that more than 7000 distinct rare diseases affect 6–8% of the population. Thus, only specially constructed and nationally endorsed combined efforts could address the challenges regarding that type of special health care management. During the past years, with the active involvement of clinical scientists as well as that of patients' advocates, the European Commission (EC) has recognized the unmet long-term needs of patients with rare diseases. The EC adopted the 2011/24/EU directive on cross-border health care and launched large-scope programs aiming at standardized care and improvement in research and education (1).

These programs started with the active participation of health care providers (HCPs) endorsed in national expert reference centers for different types of rare diseases. HCPs with national endorsement for expertise in specific rare conditions were candidates to join a new initiative for virtual European Union (EU) networks of reference centers, the European Reference Networks (ERNs). Following a rigorous selection process, the first 24 ERNs were launched in 2017, involving more than 900 highly specialized healthcare units from over 300 HCPs situated in 26 EU member states. Their structure, mission and scope varied primarily according to the nature, the unmet needs, the targeted age groups of patients and other features of the disease/group of diseases.

Endo-ERN initially included 78 HCPs from 26 countries, and after Brexit and the last enlargement in Jan 2022 – 97 HCP members, 13 associated national centers and 1 national coordination hub, to cover all 27 EU member states and Norway. To achieve the best representation of a great variety of endocrine pediatric or adult conditions, which affect various endocrine glands and often need lifelong care and special attention during the transition, Endo-ERN was founded on an apparently best working and democratic construction. It has a unique structure with eight main thematic groups (MTGs) according to the features best presenting the included group of conditions, and five work packages (WP) which cover all MTGs horizontally on five universal areas: education and training; quality of patient care; registries; research; alignment of laboratory methods. Every MTG and every WP is led by three chair persons (one adult and one pediatric endocrinologist), and an European Patient Advocacy Group (ePAG) representative. This provides the most equitable and effective representation of the European rare endocrine condition patients and their health care professionals. Another feature sincerely valued by the members is the endorsement of Endo-ERN from

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the very beginning by both adult and pediatric scientific endocrine societies – European Society of Endocrinology (ESE) and European Society of Pediatric Endocrinology (ESPE), resulting in collaborative efforts mainly in educational programs and development of guidelines.

The integration of all these diverse needs, potential and resources under one umbrella was a challenge by itself but it was very clear that failure was not an option in the effort to reduce inequalities through improved health care of patients and to meet the expectations of the European citizens. The network operates in a very democratic and transparent way having achieved a lot since its establishment. More details on its scope and mission can be found in a previous editorial by its chairs (2). The collective effort for evaluation of education, training and research needs with special attention to patients (3, 4), development of registries and of diagnostic collaborative platforms was followed by more mature achievements such as organized symposia at the annual scientific meetings of ESE and ESPE, the establishment of ESE and ESPE Rare Disease Clinical Committees, Endo-ERN Clinical Practice Guideline developments, the Endo-ERN Academy with a specific webinar program, launching of participation in clinical exchange and research programs. A great and innovative achievement was the acceptance of ePAGs as full conference participants, not only as listeners but as laymen experts adding specific expertise from the patient's perspective.

The COVID-19 pandemic severely disrupted the Endo-ERN face-to-face meetings that were running regularly since 2017 and jeopardized acceleration for the fulfillment of the well-defined deliverables, which was already in motion by the end of 2019. On the other hand, it brought us closer and strengthened the members' solidarity to each other when, during virtual meetings, participants shared personal, professional and social experiences resulting from the pandemic-created challenges. These meetings strengthened the conviction of the Network members to collectively and individually advise patients for early vaccination to save lives while sharing scientific expertise regarding pandemic-related endocrine ailments.

The fact that all was done with a small grant just for coordination purposes, and without any additional financing at both European and, in most of the case scenarios, at a national level, makes all participating HCPs, patients' representatives and patients deservedly proud.

The opportunity to continue this challenging endeavor for the next 5 years is fascinating for all Endo-ERN members who feel they belong to a large European family and embrace the same humanistic ideals. The EC closely monitors the annual deliverables and progress setting new goals for the Network. Of paramount importance are improvements of health care for patients with rare endocrine conditions in regard to better and faster diagnosis which includes genetic tools, and is facilitated by access to cross-border consultation and expertise to avoid patients' traveling. The foundation of these consultations is already laid down by the implementation of the Clinical Patient Management System, CPMS (https://endo-ern.eu/activities/clinical-activities-ehealth/cpms/). Availability of therapy including innovative and experimental drugs and procedures, improvement of care during the transition of the pediatric patient to adult life, value-based care, filling of identified gaps in knowledge and competences, alignment of best available care through network-provided guidelines as well as the widest possible outreach to patients suffering from rare endocrine diseases and their health care supporters in European Union and beyond, are just a small part of all expected developments.

On its fifth birthday, Endo-ERN upgrades its scientific contribution by issuing the current Supplement to Endocrine Connections. This effort would not have been possible without the support of Endocrine Connections and its publishing and editorial team. By September 2022, the Network community will offer contemporary readers reviews, original studies, expert statements, educational and patient care analyses and future perspectives as well as critical appraisal of some still unfulfilled promises. This effort is launched on Rare Diseases Day and it is to be continued with additional papers upon the ESE Annual Meeting in May 2022 and to be completed upon the ESPE Meeting in September 2022. Papers presenting unmet needs and long-term follow-up insights would be as interesting as novel topics such as bone health in transgender youth and genetic approach for the personalized management of growth disorders. Data about the usefulness of new markers such as INSL3 for the differences in sex development and maturation diagnosis will come along with analyses of the achievements of the knowledge generation group so far, the implementation of registries activities and many others.

The ultimate goal of the Endo-ERN existence is that every rare endocrine patient in Europe benefits from granted access to the best possible contemporary care with all due respect and proper attitude. All members of Endo-ERN are determined to collectively work in that direction in the next 5-year term as a network and would be happy to receive any support along the way.

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