ITALIAN JOURNAL OF PUBLIC HEALTH

Rare diseases and orphan drugs in Eastern European Countries

Rumen Stefanov[1], Domenica Taruscio[2]

[1]*Department of public health, Medical University of Plovdiv, Bulgaria;* [2]*National centre for rare diseases, ISS, Italy*

Correspondence to: Rumen Stefanov, Department of public health, Medical University of Plovdiv, Bulgaria. E-mail: stefanov@raredis.org

Abstract

Background: Rare diseases are a serious public health problem. The countries of Eastern Europe are republics in transition. Although many of them are already members of the EU and others could be further accepted, at this stage it is difficult for local governments to spend money on rare diseases. The aim of this article is to review current rare diseases and orphan drug activities in Eastern European countries (EEC).

Methods: An extensive review of published literature and conference proceedings was undertaken in order to ascertain the current status and ongoing activities in 10 Eastern European countries - Belarus, Bulgaria, Czech Republic, Hungary, Moldova, Poland, Romania, Russia, Slovakia, and Ukraine. Data were collected and aggregated in 5 directions – information and awareness; diagnosis and screening practices; clinical management and rehabilitation; patient organizations and national plans on rare diseases.

Results: The awareness and public health initiatives on rare diseases in Eastern European countries are generally low. EEC, which are also EU member states provide comparatively better healthcare services to people with rare diseases in respect to clinical management, rehabilitation and access to orphan drugs. Patient associations are becoming more and more active, thus pushing local governments to consider EU legislation and best practices on rare diseases. However, the gap between EEC and the rest EU member states require intensive attention and support by the European commission, especially on improving awareness by translation of available information sources in local languages, and facilitating networking projects among all European countries.

Key words: rare diseases, orphan drugs, Eastern Europe, health policy

Background

Rare diseases are a serious public health problem. These diseases are often life threatening or chronically disabling conditions. According to the European definition a specific disease is called rare when less than 5:10 000 inhabitants suffer from this disease.

Data about the impact of rare disease cases in Europe is not available. The generally accepted frequency of people with rare disease in the population (between 6% and 8%), and their impact on society, as declared in the Council Recommendation on an action in the field of rare diseases (2009) should be considered valid also for the EEC [1].

European national policy-makers broadly agree on the core objectives what their health care systems should pursue. The list includes universal access for all citizens, effective care for better health outcomes, efficient use of resources, high-quality services and responsiveness to patient concerns [2]. The transition economies of Eastern European countries (EEC) confront the same challenges as established market economies in health financing: how to mobilise and allocate resources equitably and efficiently to satisfy a growing need and demand for health services. The health-sector reforms have included reducing direct state involvement (including decentralisation, privatisation and organisational reform) and looking for alternative sources of funding with wider participation of the non-governmental sector. The Eastern European countries are republics in transition. Although many of them are already members of the EU and others could be further accepted, at this stage it is difficult for the local governments to spend money on the rare diseases issue. The topic of people with rare diseases, their human rights to receive information, contemporary medical services and social support are insufficiently discussed in these communities. In the EEC it is

often not recognised that people with rare diseases are experts due to their personal experience. People can improve their own situation by exchanging solutions for certain problems among themselves. The organisation of "advocacy groups" via patient organisations or a patient platform can improve such patient empowerment. Due to the rarity of rare diseases, affected people are few, geographically sparse and it is very difficult to meet with similar patients and organize themselves in groups or associations. All this makes people with rare diseases an isolated and discriminated group that urgently needs attention and support by the society [2,3].

The aim of this article is to review current rare diseases and orphan drug activities in Eastern European countries.

Methods

An extensive review of published literature and conference proceedings was undertaken in order to obtain information about the current status and ongoing activities in Eastern European countries. Several definitions of Eastern Europe exist, but they often lack precision or are extremely general. These definitions vary across cultures, experts and political scientists. Usually, the term „Eastern Europe" is agreed as the region between Central Europe and the Ural Mountains, or as European countries of the former "Eastern Bloc". The United Nations Statistics Division developed a selection of geographical regions and groupings of countries and areas [4]. For the current paper, we used the UN classification and the following 10 countries have been included in the study: Belarus, Bulgaria, Czech Republic, Hungary, Moldova, Poland, Romania, Russia, Slovakia, and Ukraine. Data were collected and aggregated in 5 directions – information and awareness; diagnosis and screening practices; clinical management and rehabilitation; patient organizations and national plans on rare diseases.

Results

Information and awareness

Information and awareness of rare diseases and orphan drugs is crucial for all of the patients, medical professionals and policy makers. Existing information services on rare diseases in Eastern Europe are still scarce [5-9]. The information available in other European countries is mainly in English, French or German languages that few people speak and understand in Eastern Europe. The language barrier appears to be an important issue for Eastern European citizens in search of information on rare diseases.

In November 2004, the Bulgarian Association for Promotion of Education and Science (BAPES) - a non-governmental and non-profit organization - established the "Information Centre for Rare Diseases and Orphan Drugs" (ICRDOD). ICRDOD was the first Eastern European free educational and information service, providing online information (www.raredis.org) and personalized replies to requests from patients, families and medical professionals [2]. The Centre established a successful model and highlighted the importance of working simultaneously in 6 main directions – information, education, awareness, support, networking and lobbying. This model was later used by Romanian (Information Center for Rare Genetic Diseases, established on 16 October 2005) and Russian (Information Centre for Rare Diseases, established on 24 September 2009) patient organizations, that started similar services in their own language [8,9].

Public awareness on rare diseases was slightly improved with the establishment of the Rare Disease Day on the last day of February since 2008. In the 2009 celebration, eight EEC took active participation and attracted media and public interest [10]. No data about any organized activities are available for Belarus and Moldova.

Diagnosis and screening

Diagnostic and screening practices vary greatly in Eastern European countries with respect to the availability of genetic tests, number of neonatal diseases screened and population covered. In all 10 EEC, there are established practices for neonatal screening of phenylketonuria (PKU) and congenital hypothyroidism (CH) [5,-9, 11]. In Romania and Ukraine there are still problems with population coverage for the above two conditions. Countries with the highest number of conditions screened are Russia (5 conditions within the National project «Health» - PKU, CH, galactosemia, adrenogenital syndrome, mucoviscidosis), Hungary (4 conditions) and Slovakia (4 conditions). The Czech Republic is expected to implement a nationwide screening program for cystic fibrosis soon [11].

The availability of genetic tests in the EEC is centralised in one or a few genetic laboratories in larger cities in most of the countries (Belarus, Bulgaria, Poland, Romania, Russia, Ukraine etc.). However contrarily, in Hungary at present there are many genetic laboratories with small capacities, without quality management programs and with limited reliability. A process toward aggregation is intended according to a recent proposal of the National Network of Medical

Genetics in Hungary [6]. Funding of genetic tests for diagnosis of rare diseases is done by the public health insurance in the Czech Republic and partly in the other countries [5-9].

Folic acid prevention in the EEC is not mandatory and a common practice for medical professionals is to subscribe folic acid supplementation of pregnant women after conception. Several trials for food fortification and awareness programs for pre-conceptional folic acid use have been carried out in Hungary [6].

Clinical management and rehabilitation

Clinical management and rehabilitation of patients with rare diseases is a serious challenge to the healthcare systems of Eastern European countries. Due to the many economic and political difficulties, low gross national product levels and ongoing healthcare reforms, provision with orphan drugs and funding highly specialized healthcare services are very limited. Those EEC, members of the European Union (EU) accept the common definition for a rare disease, affecting less than 5:10.000 inhabitants. The others do not have an officially recognized definition for a rare disease. The process of orphan drug registration, availability and reimbursement is again strongly dependent on EU membership. In most EEC there is an external price referencing for orphan drugs (international price comparisons), comparing their prices to those of the same products in other countries as a basis for their own pricing or reimbursement decisions. The reference countries are normally chosen due to their geographical position (neighbouring countries) and/or the price level (average or lowest price) [12]. A significant problem for smaller EEC countries is the lack of interest on the side of industry to register their orphan drugs locally, probably because of the few expected rare disease patients, non-transparent procedures and lower economic status of the country. Generally, patients in EEC, that are EU member states have better access to orphan drugs compared to the others.

Rehabilitation services are available in most of the EEC, because of the well developed tertiary healthcare services in these countries established during communism. Due to the similar pre-transition healthcare system of those countries, human and technical medical expertise is concentrated in larger cities (usually the capitals) and university hospitals [5-9]. However, public funding for specialized clinical management and rehabilitation of people with rare diseases is scarce. In March 2009, a specialized centre for rehabilitation and education of people with rare diseases was established in Bulgaria, thus becoming the first dedicated medical and social service for rare diseases in the region [13].

Patient associations

Patient organizations in the EEC are few and focused mainly on single rare diseases [14]. Associations of patients with comparatively more frequent diseases (e.g. neuromuscular dystrophies, cystic fibrosis, thalassemia etc.) run their own websites with information about specific issues, like treatment and care for the specific diseases, identification of doctors who are capable of treating the specific diseases in the country, encourage contacts between fellow-sufferers, sharing of information, etc. Patient alliances, especially in smaller countries, focus on general issues concerning rare diseases and provide the opportunity to establish bridges between patients with rare diseases, civil society, local authority and the government and to lobby and advocate for adopting of adequate rare disease and orphan drug legislation. Currently, only 4 EEC have established a national alliance of people with rare diseases - National Alliance of People with Rare Diseases (NAPRD) – Bulgaria; Hungarian Federation of People with Rare and Congenital Diseases- Rare Diseases Hungary (HUFERDIS); Romanian National Alliance for Rare Diseases (RONARD); and National Association of Rare Disease Organizations – Russian federation [5-9, 13].

National plans on rare diseases

For the current study, we define a national plan for rare diseases as an official strategic public health document, accepted by the government, containing specific priorities, actions, timetable for implementation and a dedicated budget. Using this definition, currently only Bulgaria has a national plan for rare diseases among all the EEC. The Bulgarian plan is also one of the few available in Europe, together with the recently approved strategic documents in Portugal and Spain [13]. On 27th of November 2008, the Bulgarian Council of Ministers approved finally the National Plan for Rare Diseases – genetic disorders, congenital malformations and nonhereditary diseases (2009-2013). It consists of 9 priorities:

1. Provision of epidemiological data on rare diseases in Bulgaria by the establishment of a National Register.
2. Improvement of the prevention of rare diseases with genetic origin by extension of the screening programs.
3. Improvement in the prevention and diagnostics of rare diseases that are of genetic origin by the

introduction of new genetic tests, decentralization of laboratory activities and facilitated access to genetic counselling.
4. Integrated approach to the implementation of prevention, diagnostics, treatment, and social integration of patients with rare diseases and their families.
5. Increase of the physicians' professional qualification in the field of early diagnosis and prevention of rare diseases.
6. Research on the necessity, opportunity, and criteria for the establishment of a reference centre for rare diseases on a functional principle in Bulgaria.
7. Organization of a national public awareness campaign on the problems of rare diseases and their prevention.
8. Support and collaboration with non-governmental organizations and the associations of patients with rare diseases.
9. Close collaboration with other EU member-countries working to achieve the purpose of the program and with the Rare Disease Task Force at DG SANCO, EC.

The recent EU policy development will for sure speed up the process of creation of national plans on rare diseases in most of the EU countries. Initiative groups have been formed in several EEC. In Romania, a patient-driven initiative led to signing a contract for collaboration on rare diseases with the government [8]. Expert groups with similar tasks including both patients and medical professionals have been formed also in the Czech Republic, Hungary, Poland and Russian federation [5-7, 9].

Due to the importance of specific public health measures on rare diseases, the European Project for Rare Diseases National Plans Development (EUROPLAN) started in April 2008 as a three-year community action programme in the field of Public Health (2003 - 2008) [3]. The main goal of this project is to develop recommendations on how to define a strategic plan for rare diseases. The recommendations will provide information on the different steps to develop a strategic plan and, more important, it will include priority areas and actions of intervention in the field of rare diseases.

Conclusions

The awareness and public health initiatives on rare diseases in Eastern European countries are generally low (Table 1). Public and specialized information about rare diseases in local languages is missing. EEC, which are also EU member states provide comparatively better healthcare services to people with rare diseases in respect to clinical management, rehabilitation and access to orphan drugs. Patient associations are becoming more and more active, thus pushing local governments to consider EU legislation and best practices on rare diseases. However, the gap between EEC and the rest of the EU member states require intensive attention and support by the European Commission, especially on improving awareness by translation of available information sources into local languages, and facilitating networking projects among all European countries [15]. It is important to note, that current EU funding sources can not be efficiently utilized by partnering institutions from new member states and other EEC because of several important factors – lack of specialized medical facilities for rare diseases and trained professionals, lower economic status which restricts project co-funding, less experience in project development and management, etc. Thus a lot of preliminary work and funding of capacity building projects for Eastern European countries is needed as a prerequisite for more efficient networking activities for rare diseases and pooling of available resources at the EU level.

Table 1. Comparative review of the current rare disease and orphan drugs activities in Eastern European countries.

Country	Information and awareness	Diagnosis and screening	Management and rehabilitation	Patient organizations	National plans
Belarus		X			
Bulgaria	X	X	X	X	X
Czech Republic	X	X	X	X	
Hungary	X	X	X	X	
Moldova		X			
Poland	X	X	X	X	
Romania	X	X	X	X	
Russia	X	X	X	X	
Slovakia	X	X	X	X	
Ukraine	X	X			

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