

## **PKU-related Written Questions to the Commission**

### **1 Increasing awareness of Phenylketonuria (PKU) as a lifelong condition (tabled by MEPs D. Clune; N. Childers and T. Zdechovsky, 2019)**

In July 2018, a policy round table organised in cooperation with the European Society for Phenylketonuria and Allied Disorders (ESPKU) and hosted by the undersigned made it clear that there is a persistent and fundamental lack of awareness about, and appreciation of, the full neurocognitive impacts of poorly managed PKU and the impact and reality of living with this condition. Moreover, there is an ongoing misunderstanding that PKU is a paediatric condition, resulting in under-appreciation of the need to carry out follow-up checks and dietary and pharmacological treatment in adulthood. There is too little focus on the appropriate transition of patients from child to adult health services as well as on patients who do not regularly attend follow-up appointments and consequently fall between the cracks in healthcare systems.

*Can the Commission say what can be done to increase awareness of the lifelong nature of PKU and the best ways to manage its unmet needs?*

#### **Answer:**

Phenylketonuria (PKU) is a rare disease and the Commission's strategic objective in this area is to support the Member States in improving patient access to diagnosis, information and care.

The Commission's efforts have targeted both awareness and disease management, including support to improve recognition, registration and visibility of rare diseases. Bringing together fragmented data and knowledge fosters better understanding of how a rare disease like PKU develops over the life course. It also helps to develop new treatments and diagnostic tools for those who need them most.

The European Reference Networks (ERNs) bring specialised healthcare professionals together via virtual platforms to provide guidance on rare disease diagnosis and treatment where there is an insufficient number of patients and/or lack of knowledge to ensure highly specialised care.

They also operate as platforms for research, guideline development, training and knowledge sharing. This increases awareness of the lifelong nature of a disease. The Commission co-funds ERNs through the EU Health Programme(1) and the Connecting Europe Facility Programme(2)(3). Expertise on PKU is covered by the ERN for Hereditary Metabolic Disorders (MetabERN(4)).

The Commission supports the development and implementation of national plans for rare diseases and actively supports the implementation of validated best practices in public health via the Commission's Steering Group on Health Promotion, Disease Prevention and Management of Non-Communicable Diseases(5) and the Best Practice Portal(6).

### **2 The need for proper protein food labelling (tabled by MEPs M. Harkin, J. Faria and T. Zdechovsky, 2019)**

Phenylketonuria (PKU) is a metabolic condition which means that the liver cannot break down the amino acid, phenylalanine. This is because the body cannot create the requisite enzyme to break it down. If it is not broken down, this substance is poisonous to the body. It can also hinder the development of the brain, resulting in low IQ and impaired executive functioning.

Treatment of this condition usually consists of a diet with highly restricted intake of protein.

While clear EU regulations are in place for, inter alia, gluten, allergens, lactose and weight control foods, there are no such rules for protein content. In fact, food labelling on protein is often misleading. Furthermore, the EU is the world's largest multi-nation trading community. There are many US food products on the market, yet there appears to be no harmonisation of rules on protein labelling.

*Will the Commission consider ensuring that the proper labelling of protein in foodstuffs is applied, for the benefit of people affected by PKU?*

*Will it address the issue of non-EU foods complying with EU rules on protein labelling?*

Answer:

Phenylketonuria (PKU) is an inborn error of metabolism that results in decreased metabolism of the amino acid phenylalanine. Treatment is with a diet low in protein, as most foods containing protein contain phenylalanine. When needed, diets may be supplemented by special formulas for people with PKU to provide essential nutrients that would otherwise be lacking in their diet.

Regulation (EU) No 1169/2011 on the provision of food information to consumers(1) requires the indication of the amount of protein as part of the mandatory nutrition declaration, thereby informing if a food is high or low in protein. If the sweetener aspartame is used in a food, the regulation requires specific information on the labelling that aspartame is 'a source of phenylalanine'.

Special formulas for people with PKU are covered by Regulation (EU) 2016/128 laying down specific compositional and information requirements for food for special medical purposes (FSMP)(2), and must additionally be labelled in accordance with that regulation. In particular, pursuant to its Article 6(1)(b), the mandatory nutrition declaration shall include the amount of components of protein, including, inter alia, phenylalanine, present in the product to ensure that all information necessary for the appropriate use of the FSMP is labelled.

Both Regulations mentioned above apply to imported foods when placed on the EU market.

The Commission considers that the current rules are adequate and that further legislation in this area is not necessary.

**3 The need for an EU body to ensure the implementation of guidelines for treating rare disorders (tabled by Katerina Konecna MEP, 2019)**

In recent years, European care and treatment guidelines have been developed in a number of areas, including for rare disorders such as phenylketonuria (PKU).

These guidelines are usually jointly developed by healthcare professionals, patients and researchers and aim to ensure the best possible management and outcome of the conditions they apply to. However, they take a great deal of effort to develop and agree, and ensuring their implementation is not always easy.

One of the reasons for this is the absence of a dedicated body or institute that can monitor guidelines once they have been developed and adopted by the community concerned.

Given the Commission's track record in the area of rare disorders and the recent establishment of specific and specialised European Reference Networks (ERNs) on a variety of conditions:

*Could a specific role for ERNs be envisaged in relation to monitoring and promoting the implementation of European treatment guidelines?*

Answer:

The production and adaptation of Clinical Practice Guidelines and other Clinical Decision Support Tools is one of the key objectives of the European Reference Networks (ERN) system established under the directive on the application of patients' rights in cross-border healthcare(1).

The ERN Delegated Decision(2) establishes that Networks shall develop and implement clinical guidelines and cross-border patient pathways and that the healthcare providers applying to become members of the Networks must develop and use clinical guidelines and pathways in their area of expertise. The Commission is supporting the ERNs in developing the guidelines through actions financed by the EU Health programme including the development of a common methodology, training and capacity building and technical support to the current 24 ERNs. This aim is to develop or adapt in the next three years more than 100 clinical practices guidelines and other decision support making tools.

Complementary initiatives with Member States in the area of rare diseases may also be discussed in the context of the Steering Group on Health Promotion, Disease Prevention and Management of Non-Communicable Diseases(3).

**4      Need to ensure newborn screening across the EU  
(tabled by MEPs D. Clune, J. Faria and T. Zdechovsky, 2019)**

Prevention is one of the main health priorities at EU level and across Europe today. Screening newborns for certain disorders, such as PKU, is one of the concrete measures that Member States can take in order to make a practical contribution to disease prevention. Screening enables the diagnosis of severe and rare disorders as early as possible so that they can be appropriately treated, better managed and even cured. However, not all newborns are systematically screened in the EU, despite the fact that measures and rules are in place in many Member States. The Commission has already recognised the importance of this topic and has taken several steps to put in place an EU framework for newborn screening.

Given the potential positive impact of newborn screening and its significant contribution to disease prevention, would the Commission agree to address this topic as part of the work programme of the Steering Group on Health Promotion and Prevention, which acts as the main public health committee of the EU, by exploring recommendations with a view to closing the existing gaps in this practice?

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Answer:

Phenylketonuria (PKU) is a rare disease. The Commission's strategic objective in this area is to support the Member States in improving patient access to diagnosis, information and care. This is reflected in the priority areas for funding in third Health Programme(1).

Pursuant to Article 168 (7) of the Treaty on the Functioning of the European Union(2), EU action in the field of public health must fully respect the responsibilities of the Member States for the organisation and delivery of health services and medical care, including new born screening. The Commission can facilitate the exchange of best practices and help coordinate Member States' efforts — as it has done before in relation to cancer screening.

However, following the EU Committee of Experts on Rare Diseases 2013 Opinion on Potential Areas of European Collaboration on New Born Screening(3), Member States refrained from further exploration of collaboration or harmonisation in relation to new born screening.

The Steering Group on Health Promotion, Disease Prevention and Management of Non-Communicable Diseases(4) is a key mechanism for dialogue and priority setting with national health ministries. It has on several occasions discussed the issue of rare diseases in the past two years. Asked to identify priorities for cross-national learning and upscaling of best practice, the Steering Group opted to focus on (rare diseases) coding and registration. This is now followed up and supported via Commission co-funding of the 'RD-CODE' project(5).

**5      Access to innovative treatment and care:  
(tabled by MEPs K. Konecna and N. Childers, 2019)**

Persistent health inequalities remain, across and within the Member States; this issue is considered an urgent priority for the EU health policy agenda. In recent years, the lack of access to treatment and care (including dietary, pharmacological treatment and long-term care) has been increasingly recognised as an important factor in combating health inequalities, since the lack of access results in poorer health outcomes and a lower quality of life.

As Members of the European Parliament, we believe that patients across the EU — in particular those faced with considerable unmet needs e.g. people living with rare diseases — are entitled to equal access and opportunities so they can enjoy the highest attainable quality of health services and care.

*Can the Commission indicate how it is responding to increasing calls — from patients, healthcare professionals and other key health and social stakeholders — for better and equal access to treatment and care, including innovative and personalised medicinal products?*

Answer:

Article 35 of the EU Charter of Fundamental Rights (applicable to Member States when they implement Union law) enshrines people's right of access to treatment and care under the conditions established by national laws and practices(1).

The European Pillar of Social Rights affirms everyone's right to timely access to affordable, preventive and curative healthcare of good quality(2). The Commission's contribution to the future of Europe(3), stresses that the EU should support Member States to make their healthcare systems effective, accessible and resilient.

The European Semester(4) and European Funds are the tools that the Commission mobilised to support Member States in improving their healthcare systems. According to the recently published study(5), midway through the current programming period, 923 projects in 16 Member States have supported access to healthcare with an estimated overall budget of EUR 1.3 billion.

The EU pharmaceutical legislation(6) includes conditional marketing authorisation (MA) (unmet medical need), MA under exceptional circumstances (e.g. rare diseases), and an accelerated assessment of products of major public health interest and therapeutic innovation.

The ongoing evaluation of the EU Orphan Regulation(7) includes an assessment of market incentives and national measures to increase accessibility to medicines.

The European Reference Networks(8) aim at improving the access to highly specialised advice for rare disease patients. The Commission also promotes projects to improve cooperation and knowledge sharing and research on inequalities in access to healthcare through support to the Organisation for Economic Cooperation and Development(9).

The proposed Regulation on Health Technology Assessment(10) represents an important tool to support evidence-based decision-making and give faster access to innovative health technologies and treatment.

## **6 PKU (phenylketonuria) and access to low protein foods in the EU (tabled by Brian Crowley MEP, 2016)**

PKU (phenylketonuria) is a rare metabolic disorder that requires a very low-protein diet. Medically approved low-protein foods, which provide nutrition and satiety, are a key part of the diet. Compliance with the diet is paramount, as the effects of raised levels of certain amino acids, for example phenylalanine, will cause neurological damage to the brain. Availability and access to these low-protein foods is a barrier to many sufferers in Ireland.

*1. Can the Commission provide information on the availability of special low-protein foods in other Member States?*

*2. What action has the Commission taken to identify and share good practices related to improving access to nutritious and safe food for sufferers of PKU?*

*3. Can the Commission provide information on any EU-funded research or projects that investigate how to improve quality of life for sufferers of PKU?*

Answer:

Phenylketonuria patients can benefit from a number of actions developed under the EU policy on rare diseases and measures developed under EU food law. In order to raise awareness and to provide information on rare diseases, the Commission has been supporting the Orphanet database(1) (the world reference database on rare diseases) for several years, which now describes approximately 6000 rare diseases including phenylketonuria and is the major inventory of information for health professionals and patients.

Food for special medical purposes which can address the specific nutritional requirements of people with phenylketonuria can be placed on the European market in line with the requirements of Regulation (EU) No 609/2013(2). In addition, under Regulation (EU) No 1169/2011 on the provision of food information to consumers(3), foods containing aspartame/aspartame-acesulfame salt must include a warning statement on the label.

Finally, the Commission funded through the Seventh Framework Programme for Research and Technological Development (FP7), two research projects focused on phenylketonuria. The 'TREPAPHEN' project(4) explored the association between measures of metabolic control, cognitive performance and neurological health in phenylketonuria patients, while the 'AC for PKU treatment' project(5) worked on a biochemical carrier system that would allow the development of an enzyme replacement therapy for phenylketonuria.

## **7 Link between artificial sweeteners and metabolic disorders (tabled by B. Staes MEP)**

In 2013, the EFSA published a report on the safety of aspartame, in response to the growing distrust felt towards that artificial sweetener. In the report, the EFSA stated that the use of aspartame was entirely safe, except for people suffering from phenylketonuria (PKU).

As a result of further scientific research (for example by the Weizmann Institute in Israel, published in Nature in 2014), interest in the effects of artificial sweeteners (such as sucralose, saccharine and aspartame) on human metabolic processes has grown. For example, it has been claimed that such disorders as diabetes and obesity could be caused by them. The research by the Weizmann Institute showed that the sweeteners were harmful to animals and that they altered the composition of the animals' intestinal flora, which in turn could produce symptoms of diabetes. In 2013, researchers arrived at similar conclusions for human beings (Pepino et al., 2013). This has cast increasing doubts on whether such sweeteners as aspartame really are as safe and healthy as previously thought.

*1. In October 2013, in reply to parliamentary Question E-009789/2013, the Commission indicated that it would follow this issue. What progress has been made on this?*

*2. Has the EFSA returned to this subject and conducted further research into the dangerous effects of artificial sweeteners on human metabolic processes?*

*3. What are the conclusions, and where can they be found?*

### Answer:

In accordance with Regulation (EU) No 257/2010(1) EFSA is currently re-evaluating all authorised food additives. The Commission continues to closely follow these re-evaluations and, if needed, will propose appropriate measures on the outcomes indicated in the scientific opinions of EFSA, as explained in its reply to parliamentary Question E-009789/2013(2).

As regards aspartame (E 951), EFSA concluded in December 2013(3), that aspartame is safe at current levels of use. Aspartame can continue to be used in compliance with the conditions for use of sweeteners, i.e. for the production of energy reduced food or for food with no added sugars, as laid down in Regulation (EC) No 1333/2008 of the European Parliament and of the Council on food additives(4).

As regards the other sweeteners, their re-evaluation is expected to be finalised by end 2020.

Therefore, the Commission does not intend to take further action, at this stage, within the framework of EU food additives legislation.