





EUROPLAN NATIONAL CONFERENCES 2012-2015

CONTENT GUIDELINES FOR WORKSHOP 4 / THEME 4 CENTRES OF EXPERTISE AND EUROPEAN REFERENCE NETWORKS FOR RARE DISEASES

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Annex (separate document) – Overall outcomes from Final Report & Synopsis of detailed outcomes of 2010 EUROPLAN National Conferences on Governance and Monitoring of a NP

A. How to read and use these Content Guidelines

The EUROPLAN Content Guidelines cover 6 main Themes. For each Theme, these Content Guidelines cover all the core topics to be addressed in the Workshop dedicated to that Theme. These Guidelines include:

1st column - RESOURCES

This column includes the background documents and relevant material that should be referred to in preparation for the discussion. They mainly include:

- Specific articles of the EU Council Recommendation on an action in the field of rare diseases;
- Specific items from the Commission Communication on Rare Diseases: Europe's Challenges;
- Extracts from the Synthesis Report of the 15 EUROPLAN National Conferences held in 2010;
- EUCERD Recommendations on Quality Criteria for Centres of Expertise for Rare Diseases in Member States;
- EUCERD Recommendations on Rare Disease European Reference Networks;
- EUCERD Core Recommendations on Rare Disease Patient Registration and Data Collection.
- Directive 2011/24/EU Directive on "Cross Border Health Care";
- Specific recommendations from the "EUROPLAN Recommendations";
- Specific EUCERD Core Indicators;
- Specific EUROPLAN Indicators;
- Extracts from the Executive Report to the EC on NBS in the EU;
- EuroGenTest's general recommendations for genetic counselling;
- Specific articles from the EU Directive on Cross Border Health Care.

NB: Full documents of the sources referenced above can be found in Section C

2nd column - TOPICS FOR DISCUSSION

The topics for discussion are questions formulated to stimulate the discussion within the Workshop. The conference organisers, with the help of their Advisor, will select those questions that are relevant for the discussion in their countries. As such, not all listed questions need to be addressed in a mandatory way. They rather represent a "menu" from which to pick the questions that address the most relevant topics in the country, having considered the level of advancement of the national policy on rare diseases in the country.

B. Guidelines for discussion

RESOURCES	TOPICS for DISCUSSION
B.1 Designation and evaluation of CE (Centres of Expertise)	
Council Recommendation on RD 11. Identify appropriate centres of expertise throughout their national territory by the end of 2013, and consider supporting their creation. EUROPLAN recommendations R 4.1 Well defined mechanisms of designation of centres of expertise are established and their quality is assured, efficiency and long term sustainability. See also page 43 of EUROPLAN Recommendations for case studies of Identification and Designation of Centres of Expertise in DK, FR, IT, SP, UK; and page 44 for case studies of evaluation of CEs in DK, FR, SP, UK. R 4.4 A national directory of Centres of expertise is compiled and made publicly available. EUCERD Recommendations for Quality Criteria for CEs "Mission and scope of centres of expertise (CEs) for rare diseases (RD) in Member States (MS)" 16. A national directory of formally designated CEs is compiled and made publicly available, including on the Orphanet portal. "Criteria for designation of CEs for RD in MS" (17-32) 17. Capacity to produce and adhere to good practice guidelines for diagnosis and care. 18. Quality management in place to assure quality of care, including National and European legal provisions, and participation in internal and external quality schemes when applicable. 19. Capacity to propose quality of care indicators in their area and implement outcome measures including patient satisfaction. 20. High level of expertise and experience documented, for instance, by the annual volume of referrals and second opinions, and through peer-reviewed publications, grants, positions, teaching and training activities.	 Mapping of CES Starting from the recognition that expertise on RDs exist in all countries, (see Final Report of EUROPLAN I conferences, Area 4) what is the level of knowledge of the existing expertise in your country? Is there a mapping of structures providing expertise on rare diseases? Have their different roles and competences been acknowledged? Designation criteria for CES Are designation criteria for CEs being defined in your country? If not, is there a procedure in place to define and approve such designation criteria? Are the designation criteria such to adapt to the characteristics of the disease or group of diseases covered by each CE? What sort of quality management is ensured within CEs throughout the national territory? Please compare the designation criteria adopted in your country with the EUCERD Recommendations on Quality Criteria for CEs (see left column). What recommended criteria are missing? Which ones could be incorporated? Designation process of CEs At what stage of development is the process of designation of CEs in your country? What designation process is in place or will be put in place to designate CEs? Considering the mapping of existing resources, how to better rationalise the existing resources instead of creating new ones and new centres, while ensuring compliance with agreed quality criteria and standards?

- 22. Contribution to state-of-the-art research.
- 23. Capacity to participate in data collection for clinical research and public health purposes.
- 24. Capacity to participate in clinical trials, if applicable.
- 25. Demonstration of a multi-disciplinary approach, when appropriate, integrating medical, paramedical, psychological and social needs (e.g. RD board).
- 26. Organisation of collaborations to assure the continuity of care between childhood, adolescence and adulthood, if relevant.
- 27. Organisation of collaborations to assure the continuity of care between all stages of the disease.
- 28. Links and collaboration with other CE at national, European and international level.
- 29. Links and collaboration with patient organisations where they exist.
- 30. Appropriate arrangements for referrals within individual Member States and from/to other EU countries if applicable.
- 31. Appropriate arrangements to improve the delivery of care and especially to shorten the time taken to reach a diagnosis.
- 32. Consideration of E-Health solutions (e.g. shared case management systems, expert systems for tele-expertise and shared repository of cases).

"Process for designating and evaluating CEs for RD in MS" (33-40)

- 33. MS take action concerning the establishment and designation and evaluation of CEs and facilitate access to these centres.
- 34. MS establish a procedure to define and approve designation criteria and a transparent designation and evaluation process.
- 35. The designation criteria defined by MS are adapted to the characteristics of the disease or group of diseases covered by the CE.
- 36. CEs may not fulfill some of the designation criteria defined by the MS as long as the absence of fulfillment of those criteria does not impact on the quality of care and as long as CEs have a strategy in place to attain designation criteria in a defined time period.
- 37. The designation process at MS level ensures that the designated CEs have the capacity, and the resources to fulfill the obligations of designation.
- 38. The designation of a CE is valid for a defined period of time.
- 39. CE are re-evaluated on a regular basis through a process incorporated into the designation process at MS level.
- 40. The designating authority at MS level may decide to withdraw the designation of a centre of expertise if one or more of the conditions that formed the basis for

- Are patient organisations involved in the designation of CEs? (See for the example the French "Comité national consultatif de labellisation" (CNCL), a national advisor committee, where patient representatives are involved with experts, relevant authorities and members of learned societies.
- Is there a national directory of CEs? Is it publicly accessible?

Evaluation of CEs

- Are CEs evaluated on a regular basis? Is this evaluation process incorporated into the designation process at national level?
- Which "quality of care" indicators are adopted and what outcome measures are considered? Do they include patient satisfaction as a minimum requirement?
- What actors are involved in the evaluation process? Specifically, are patients and patient organisations involved in the evaluation process of CEs?

Information on available expertise and CEs

- How expertise available in your country and CEs are made known and accessible to patients?
- Is there a national directory of formally designated CEs that is publicly available, including on the Orphanet portal? (see EUCERD Recommendation n°16 and EUROPLAN Recommendation R 4.4)
- What other sources of information are used apart from Orphanet?

designation is no longer satisfied, or if there is no longer a need to maintain the national service.

B.2 Scope and functioning of CEs

Council Recommendation on RD

- 14. Support the use of information and communication technologies such as telemedicine where it is necessary to ensure distant access to the specific healthcare needed.
- 15. Include, in their plans or strategies, the necessary conditions for the diffusion and mobility of expertise and knowledge in order to facilitate the treatment of patients in their proximity.

EUROPLAN recommendations

R 4.5 Travelling of biological samples, radiologic images, other diagnostic materials, and e-tools for tele-expertise are promoted.

EUCERD Recommendations on Quality Criteria for CEs

"Mission and scope of centres of expertise (CEs) for rare diseases (RD) in Member States (MS)" (1-14)

- 1. CEs tackle diseases or conditions requiring specific care due to the difficulty in establishing a diagnosis, to prevent complications and/or to set up treatments.
- 2. CEs are expert structures for the management and care of RD patients in a defined catchment area, preferably national, and at international level if necessary.
- 3. The combined scope of all CEs within a MS covers all RD patients' needs, even if they cannot provide a full range of services with the same level of expertise for each RD.
- 7. CEs collaborate with patient organisations to bring in the patients' perspective.
- 11. CEs respond to the needs of patients from different cultures and ethnic groups (i.e. have cultural sensitivity).
- 14. The scope of diseases covered by each CE, or by a CE at national level, will vary depending on the size of the country and the structure of the national health care system.
- 15. CEs liaise with other CEs at National and European level when relevant.

"Criteria for designation of CEs for RD in MS"

Definition

Analyse the (explicit or implicit) **definition of CEs** in your country and compare with the EUCERD Recommendation on Quality Criteria for CEs: "CEs are expert structures for the management and care of RD patients in a defined catchment area, preferably national, and at international level if necessary. CEs tackle diseases or conditions requiring specific care due to the difficulty in establishing a diagnosis, to prevent complications and/or to set up treatments."

Scope

- What scope of CEs in your country? Does the combined scope of all CEs within
 your country cover all RD patients' needs? How to ensure that all patients living
 with a RD have access to the appropriate CE in your country or abroad?
- Especially in smaller countries, where the existing expertise cannot possibly cover all RDs, do CEs rely on networks of experts?
- What distribution of competences does exist between the national and the regional level?

Involvement of patients and patient organisations

- What type of collaboration with patients and their organisations is established in CEs?
- How to ensure that patient representatives are closely involved in the management and decision-making processes of CEs in a systematic manner?
- In particular, are patients involved in those areas where they can be specific added value e.g. social counselling? (See EUROPLAN I Final Report, Area 4)
- What solutions are envisaged when a patient organisation does not exist for the specific disease(s) covered in the scope of the CE? How do individual patients are heard and involved?

- 20. High level of expertise and experience documented, for instance, by the annual volume of referrals and second opinions, and through peer-reviewed publications, grants, positions, teaching and training activities.
- 21. Appropriate capacity to manage RD patients and provide expert advice.
- 29. Links and collaboration with patient organisations where they exist.
- 32. Consideration of E-Health solutions (e.g. shared case management systems, expert systems for tele-expertise and shared repository of cases).

High level of expertise and mobility of expertise

- How is the level of expertise available in CEs measured and accounted for (see examples in EUCERD Recommendation n° 20)?
- How do CEs share expertise amongst themselves and through networks of expertise in the country and abroad?
- What solutions are provided in order to support the mobility of expertise
 - a) amongst CEs;
 - b) CEs and diagnostic laboratories;
 - c) providers of care at local level?
- What is the role of e-health solutions? What concrete solutions do exist and/or could be put in place e.g. shared case management systems, expert systems for tele-expertise, shared repository of cases, etc. (see EUCERD Recommendation n° 32)?
- What solutions are or could be prescribed "to bring highly specialised expertise
 on rare diseases to ordinary clinics and practices, such as a second opinion from a
 centre of excellence"? (see EUROPLAN Recommendation, par. 63 page 46)

B.3 Multidisciplinarity, healthcare pathways & continuity of care

Council Recommendation on RD

- 13. Organise healthcare pathways for patients suffering from rare diseases through the establishment of cooperation with relevant experts and exchange of professionals and expertise within the country or from abroad when necessary.
- 15. Include, in their plans or strategies, the necessary conditions for the diffusion and mobility of expertise and knowledge in order to facilitate the treatment of patients in their proximity.
- 16. Encourage centres of expertise to be based on a multidisciplinary approach to care when addressing rare diseases.

EUROPLAN recommendations

- R 4.2 Healthcare pathways are defined and adopted, based on best practices and expertise at national and international level.
- R 4.6 Centres of expertise provide proper training to paramedical specialists; paramedical good practices are coordinated, in order to serve the specific rehabilitation needs of rare diseases patients.
- R 4.12 The adoption of an ad hoc coding is promoted, when appropriate, to recognise and appropriately resource and reimburse the special rehabilitation treatments necessary for rare diseases.

- Are CEs in your country based on a multidisciplinary approach? Are they capable
 of bringing together, or coordinating, 'within the specialised healthcare sector,
 multidisciplinary competences/skills, including paramedical skills and social
 services, in order to serve the specific medical, rehabilitation and palliative needs
 of rare diseases patients'? (EUCERD Recommendation n°4)
- Do CEs have links with specialised laboratories and other facilities?
- What opportunities are provided for "education and training for healthcare professionals from all disciplines, including paramedical specialists and non-healthcare professionals (such as school teachers, personal/homecare facilitators) whenever possible"?

"Clinical or **healthcare pathways** are structured, multidisciplinary plans of care designed to support the implementation of clinical guidelines or protocols." (EUROPLAN Recommendations, page 46, par. 64).

How do CEs contribute to build "healthcare pathways" from primary care? How
to develop a system based on the adoption of healthcare pathways for the
provision of care?

EUCERD Recommendations on Quality Criteria for CEs

"Mission and scope of centres of expertise (CEs) for rare diseases (RD) in Member States (MS)"

- 4. CEs bring together, or coordinate, within the specialised healthcare sector multidisciplinary competences/skills, including paramedical skills and social services, in order to serve the specific medical, rehabilitation and palliative needs of rare diseases patients.
- 5. CEs contribute to building healthcare pathways from primary care.
- 9. CEs provide education and training to healthcare professionals from all disciplines, including paramedical specialists and non-healthcare professionals (such as school teachers, personal/homecare facilitators) whenever possible.

"Criteria for designation of CEs for RD in MS"

- 25. Demonstration of a multi-disciplinary approach, when appropriate, integrating medical, paramedical, psychological and social needs (e.g. RD board).
- 26. Organisation of collaborations to assure the continuity of care between childhood, adolescence and adulthood, if relevant.
- 27. Organisation of collaborations to assure the continuity of care between all stages of the disease.

Final Report of EUROPLAN I National Conferences

(Area 4, page 43)

"Structures have to be developed to coordinate day-to-day care within an acceptable travel distance, while expert care should be organised in Centres of Expertise (diagnosis, establishing a care plan, regular check-up, certain emergencies, etc.). These structures may be information platforms or tools able to functionally connect the centres with the other structures involved in the continuity of patients' care."

- How do CEs link to local structures providing day-to day care?
- In particular, how to link medical expertise of specialised CEs to local medical, paramedical and social care?
- What solutions are provided for to support the mobility of expertise from CEs to local care providers, so as to allow the treatment of patients in their proximity?
 Specifically, what e-heath solutions could support the task? (see above B.2., High level of expertise and mobility of expertise)
- What mechanisms can be found to recognise the paramedical and rehabilitation interventions (provided that they are prescribed by the CE), to integrate them into the reimbursement schemes and to simplify the procedures for reimbursement? (see EUROPLAN Recommendation R 4.12 and Final Report of EUROPLAN I Conferences)
- Do CEs take into account the ageing of patients? Do they envisage
 "collaborations to assure the continuity of care between childhood, adolescence and adulthood, if relevant?" (EUCERD Recommendation n°26)
- Is it envisaged that CEs organise "collaborations to assure the continuity of care between all stages of the disease"? How are these collaborations ensured in practical terms?

B.4 Access to information

EUCERD Recommendations on Quality Criteria for CEs

"Mission and scope of centres of expertise (CEs) for rare diseases (RD) in Member States (MS)"

- 10. CEs contribute to and provide accessible information adapted to the specific needs of patients and their families, of health and social professionals, in collaboration with patient organisations and with Orphanet.
- How do CEs "provide accessible information adapted to the specific needs of
 patients and their families, of health and social professionals, in collaboration
 with patient organisations and with Orphanet"? (EUCERD Recommendation n°10)
- In particular, what role do patient associations have in the provision of accessible information tailored to the needs of different users?

B.5 Research in CEs – How to integrate research on RDs and provision of care

EUCERD Recommendations on Quality Criteria for CEs

"Mission and scope of centres of expertise (CEs) for rare diseases (RD) in Member States (MS)"

13. CEs contribute to research, to improve the understanding of the disease and to optimise diagnosis, care and treatment, including the clinical evaluation of long-term effects of new treatments.

"Criteria for designation of CEs for RD in MS"

- 22. Contribution to state-of-the-art research.
- 23. Capacity to participate in data collection for clinical research and public health purposes.
- 24. Capacity to participate in clinical trials, if applicable.

EUCERD Core Recommendations on Rare Disease Patient Registration and Data Collection

2.2 RD Centres of Expertise, where they exist, should contribute to a registry(ies). Other experts in the field should also contribute to the registry(ies).

- What is the role of CEs in research? Do they contribute 'to improve the
 understanding of the disease and to optimise diagnosis, care and treatment,
 including the clinical evaluation of long-term effects of new treatments'?(EUCERD
 Recommendation n°13)
- Do they contribute to state of the art research on relevant RDs? Do they have the capacity to participate in clinical trials?
- In your country, is there a list of RD registry(ies) run by CEs easily accessible to the public?
- Do CEs that run a rare disease registry systematically involve the patient groups that are concerned by the disease being studied in the registry?

B.6 Good practice guidelines

EUCERD Recommendations on Quality Criteria for CEs

"Mission and scope of centres of expertise (CEs) for rare diseases (RD) in Member States (MS)"

8. CEs contribute to the elaboration of good practice guidelines and to their dissemination.

"Criteria for designation of CEs for RD in MS"

17. Capacity to produce and adhere to good practice guidelines for diagnosis and care.

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(Area 5, page 51)

 "Good practice guidelines should align actions performed at different levels of care and by different healthcare professionals, with specific information for patients, families, caregivers and teachers".

(Area 4, page 47)

- How do CEs "contribute to the elaboration of good practice guidelines and to their dissemination"? (EUCERD Recommendation n° 8)?
- How are patients and their representatives involved in their development?
- How do CEs coordinate among themselves or network with other similar bodies to develop good practice guidelines?
- How could experts and CEs better contribute to the development of international/European good practice guidelines?
- What measures do exist to adopt and/or adapt guidelines developed in other countries or by other international bodies where they do not exist for certain specific diseases, so as optimise efforts and resources?
- Do CEs recognise and adhere to existing good practice guidelines for the RDs they deal with?

- "Providing contributions to European recommendations or guidelines should be also an activity performed by CoEs."

B.7 Diagnostic and genetic testing

Council Recommendation on RD

- 17. Gather national expertise on rare diseases and support the pooling of that expertise with European counterparts in order to support:
- (a) the sharing of best practices on diagnostic tools and medical care as well as education and social care in the field of rare diseases;
- (c) the development of medical training in fields relevant to the diagnosis and management of rare diseases, such as genetics, immunology, neurology, oncology or paediatrics;
- (d) the development of European guidelines on diagnostic tests or population screening, while respecting national decisions and competences;

EUCERD Recommendations for Quality Criteria for CEs

"Mission and scope of centres of expertise (CEs) for rare diseases (RD) in Member States (MS)"

- 1. CEs tackle diseases or conditions requiring specific care due to the difficulty in establishing a diagnosis, to prevent complications and/or to set up treatments.
- 6. CEs have links with specialised laboratories and other facilities.

"Criteria for designation of CEs for RD in MS"

- 17. Capacity to produce and adhere to good practice guidelines for diagnosis and care.
- 31. Appropriate arrangements to improve the delivery of care and especially to shorten the time taken to reach a diagnosis.

EUROPLAN Recommendations

- R 4.5 Travelling of biological samples, radiologic images, other diagnostic materials, and e-tools for tele-expertise are promoted.
- R 4.7 A national framework is ensured on rare diseases screening options and policies.
- R 4.8 Proper performance of newborn screenings prescribed in the country is monitored with appropriate indicators.
- R 4.9 Accessibility to genetic counselling is promoted.
- R 4.10 The quality of genetic testing and other diagnostic tests is ensured, including participation in external quality control schemes at national and international level. R 4.11 A national inventory of medical laboratories providing testing for rare disease

Good practice guidelines

See above B.6. on Good practiceguidelines for both diagnosis and healthcare.

Diagnostic laboratories

- How to compile an inventory of medical laboratories providing testing for RD?
- Is there an accreditation process for such laboratories based on quality criteria?
- How to ensure support and networking of such laboratories in order to have dedicated infrastructures and resources for the biological component of RDs? How to link them to CEs in a structured way? How to ensure partnership with laboratories outside the country when not available at national level?

Travelling of diagnostic material and tele-expertise

- What arrangements do exist to enable the travelling of biological samples, radiological images as well as other diagnostic material?
- How to organise DNA and sample exchanges at the national and European level? What sort of reimbursement agreements and policies do support these exchanges?

See also above in B.2. "High level of expertise and mobility of expertise"

Genetic counselling

- What measures are in place to make sure that families are directed towards the most appropriate diagnostic testing and rare disease centres of expertise?
- Is genetic counselling an integral part of genetic testing and made easily accessible and provided before and after genetic testing in CEs? Is it provided by adequately trained healthcare professionals?
- How to best integrate the EuroGenTest recommendations on genetic counselling (http://www.eurogentest.org/web/files/public/unit3/guidelines%20of%20GC%2

is compiled and made publicly available.

Final Report of EUROPLAN I Conferences

(Area 4, page 47)

- "Competent genetic counselling should be made easily accessible and provided before and after genetic testing, in regional centres or CoEs (Romania).
- In some countries the medical speciality of "Clinical genetics" does not exist. It is recommended that it be introduced as soon as possible in the university system.
- Strict quality control and evaluation of genetic testing should be fulfilled. External quality controls programmes should be also implemented.
- It was frequently demanded that an inventory of medical laboratories providing testing for RDs be compiled. This was sometimes supported by the request for accreditation of such laboratories (e.g. Romania, France).
- In France, in particular, the Second NP, in addition to CoE and their networks, introduces the 'reference laboratories' and the networks of such laboratories, in order to have dedicated infrastructures (and resources) for the biological component, often neglected in CoEs, where treatment and care are usually provided as a priority."

EuroGenTest Recommendations on Genetic Counselling

http://www.eurogentest.org/web/files/public/unit3/guidelines%20of%20GC%20final.pdf

B.8 Screening policies

Council Recommendation on RD

- 17. Gather national expertise on rare diseases and support the pooling of that expertise with European counterparts in order to support:
- (d) the development of European guidelines on diagnostic tests or population screening, while respecting national decisions and competences

EUROPLAN Recommendations

- R 4.7 A national framework is ensured on rare diseases screening options and policies.
- R 4.8 Proper performance of newborn screenings prescribed in the country is monitored with appropriate indicators.

Executive Report to the European Commission on newborn screening in the European Union

http://ec.europa.eu/eahc/documents/news/Executive Report to EC 20120108 FIN

Ofinal.pdf) into national practices?

National legal framework

- What population screening programmes do exist in your country? In particular, which newborn screening programmes?
- What measures are in place or should be adopted to ensure that existing newborn screening programmes are as comprehensive as possible?
- What measures could be put in place to evaluate and then to improve their performance and their actual coverage of population?
- What policies are envisaged to monitor changes in the population which can justify the provision of targeted screening practices?
- What legal basis does support the newborn screening practices in your country?
 If newborn screening practices are made mandatory, are they accompanied by the necessary transparent and clear information to parents?

ALE.pdf

In particular, see below in section B.5 the following chapters in full:

"B. Areas that could benefit from the development of an EU policy on NBS", page 7; "C. Actions proposed to facilitate the development of EU policies in the field of neonatal screening", page 10.

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(Area 5, page 46)

- "A good legal basis is essential to frame RD screening policies. Also, running common surveys to assess the feedback of RD stakeholders on these topics may be of great value.
- Implementation is also essential. The case of Romania, where a dedicate session of the workshop focused on screening, shows how in actual fact the lack of resources or of appropriate screening centres, or the lack of consistent application of the existing policy create important gaps in detection of RDs and delays/mistakes in diagnosis. Screening policies should be therefore accompanied by evaluation procedures to assess the quality and performance of the programmes."

(Area 5, page 47)

- "Extension of the current neonatal screening programmes is demanded by many Conferences, as they are considered relatively limited. At present, more diseases can be reliably diagnosed (not too many false positives or negatives), for which early treatment would be beneficial.
- An international exchange on the effectiveness and regulations of newborn screening should be promoted further. The outcomes of the EC-funded project on neonatal screening of RD in Europe, which aims at issuing recommendations for good practices, is awaited."

From the Executive Report to the EC on Newborn Screening in the EU, section C5 in this document:

"The national legal basis might furthermore regulate consistently the following issues:

- the storage and the delayed use of samples and the associated consent;
- the identification of eligible benefits;
- the communication of results to parents and/or patients, including unintended findings;
- the collection and communication of data for the assessment of the programme and for improving the knowledge on disease and treatment;
- ensure quality control and quality assurance
- sustain funding. "

Decision making process

- How to ensure that the decision-making process is associated to the national technology assessment process?
- What arrangements could be envisaged to involve patients and patient groups in the decision-making process for including additional newborn screening practices?

Collaboration at the EU level

- How to enable collaboration on newborn screening policies at EU level, especially to deal with the assessment of elements that are common to all countries and are better dealt with at the EU level (e.g. efficacy of treatments, reliability of screening tests) without impairing the national competence?
- Does your country participate to existing committees ensuring collaborative efforts in this field e.g. the EUnetHTA (www.eunethta.eu)?
- How to facilitate the sharing documents and experiences for the benefit of countries that do not have the material available as yet?

Awareness and training

- What training courses could be provided for all stage of newborn screening, and in particular regarding the communication to parents of the diagnostic suspicion and of positive confirmed diagnoses?
- What specific support and funding could be provided to patient groups with regard to patient empowerment after diagnosis? e.g. providing guidelines regulating the involvement of professions in the treatment of patients with disorders they screen for.

- In addition to newborn screening policies, that only concern a limited number of RDs, what measures could be put in place to enable doctors and in particular neonatologists to investigate unusual symptoms in newborns?
- What specific training programmes could be developed by CEs for this purpose?

B.9 European and international collaboration – Cross-border healthcare and ERNs (European Reference Networks)

EU Directive on Cross Border Health Care (CBHC Directive)

http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:088:0045:0065:EN:PDF

EURORDIS Q&A on Cross-border Healthcare Directive

http://e-news.s3.amazonaws.com/Q%26A cross border care final-1.pdf

European Commission - Q&A on Patients' Rights in Cross Border Healthcare http://europa.eu/rapid/press-release MEMO-11-32 en.htm?locale=en

Council Recommendation

Whereas:

[...]

- (13) ...ERNs could also serve as research and knowledge centres, treating patients from other Member States and ensuring the availability of subsequent treatment facilities where necessary.
- (14) The Community added value of ERNs is particularly high for rare diseases by reason of the rarity of these conditions, which implies both a limited number of patients and a scarcity of expertise within a single country. Gathering expertise at European level is therefore paramount in order to ensure equal access to accurate information, appropriate and timely diagnosis and high quality care for rare disease patients.

(The Council of the EU) hereby recommends that Member States:

•••

12. Foster the participation of centres of expertise in European reference networks respecting the national competences and rules with regard to their authorisation or recognition.

EUCERD Recommendations on European Reference Networks for Rare Diseases

Patients' rights to cross-border healthcare

- What national measures do need to be adapted or changed in order to comply with the Cross Border Healthcare (CBHC) Directive and to ensure equality of access and treatment of patients from all over the EU?
- How is your country defining the list of treatments for which prior authorisation
 is required according to the CBHC Directive? How to avoid too narrow definitions
 that could hamper the referrals of rare disease patients to healthcare providers
 abroad?
- When a CE sends a patient abroad for a second opinion, is the authorisation
 automatically delivered? Although not compulsory under the CBHC rules, this is
 essential, as the decision of a recognised expert cannot be put into question.
- Is your country setting up National Contact Points as per the CBHC Directive? Are
 they equipped with information on which type of care is available in other EU
 countries, costs, rights and practical aspects on cross border care that will be
 received, in order to enable patients to make informed choices?
- What other measures are envisaged to address the specific information needs of healthcare professionals, patient organisations and citizens in general?
- Are travel and accommodation costs reimbursed to patients travelling abroad under the EU rules? Member States have the option to cover or not these "other costs" (article 7.4 of the CBHC Directive), but these costs are unavoidable for RD patients as expertise can often only be found abroad.
- What e-Health measures are being put in place to enhance cooperation with other EU countries to have access to the patient's written or electronic medical records of patients who are travelling for healthcare aboard? What solutions are being put in place to ensure that this data is fully readable and understandable and that different health IT systems "talk to each other"?

http://www.eucerd.eu/?post_type=document&p=2207

"Core to the move from the pilot ERNs to RD ERNs under the terms of the Cross-Border Healthcare Directive is the possibility to embed RD ERNs in the healthcare systems of the EU so that the sustainability of such networking is ensured and no longer driven by short-term projects." (page 3)

"Within the on-going national planning for rare diseases (national plans or strategies for rare diseases), there should be a framework to promote and support the common process for designation of national CEs or experts who may be affiliated in the future RD ERNs." (page 9)

EUCERD Recommendations on Quality Criteria for CEs

"Mission and scope of centres of expertise (CEs) for rare diseases (RD) in Member States (MS)"

- 12. According to national/international ethical and legal frameworks, CEs should ensure respect of non-discrimination and non-stigmatisation of RD patients across Europe, within their sphere of competencies.
- 15. CEs liaise with other CEs at National and European level when relevant.

"Criteria for designation of CEs for RD in MS"

- 28. Links and collaboration with other CE at national, European and international level.
- 30. Appropriate arrangements for referrals within individual Member States and from/to other EU countries if applicable.

EUCERD Core Recommendation on RD Patient Registration and Data Collection

- 1.4 For disease-specific registries, appropriate core data sets specific to the diseases or disease groups should be adopted. In the future, such disease-specific registries could fall under the remit of RD ERNs. Every effort should be made to incorporate current disease-specific registry initiatives where quality can be assured.
- 1.5 To avoid duplication and to support Cross-Border Healthcare, the possible benefits of using a global or European RD patient identifier (possibly incorporating the current health identifier) should be investigated to provide a way to link information, samples and research data, and to ensure a quick and secure means of data sharing and protection.

European Reference Networks (ERNs)

- As a preparatory ground for the participation in ERNs, what specific measures do already exist that foster the connection of CEs and healthcare providers throughout the country and the sharing of information amongst them?
- is there a framework in place to promote and support the common process for designation of national CEs and healthcare providers that may be affiliated in the future RD ERNs?
- What measures do support in national centres the "core components" of a RD ERN as per the EUCERD Recommendations on ERNs? (Notably: disease registries, quality assurance mechanisms for laboratory testing, training and education tools, information flow for good practice guidelines and best practices of diagnosis and care amongst Member States, telemedicine, cross border referral mechanisms, etc., as in "Mission, Vision and Scope, in EUCERD Recommendation on ERNs", page 5)
- Where there may be no or limited number of CEs, is there already a reflection process on measures to support the inclusion of healthcare providers to join an future ERN?
- What national measures do need to be put in place in order to support the establishment of RD ERNs under the terms of the Cross Border Healthcare Directive and to embed them in the national healthcare system?
- Specifically, what criteria does a national centre need to meet to become part of an ERN?

NB: in compliance with the Cross Border Healthcare Directive, the European Commission is due to adopt the criteria that national centres must fulfil to join ERNs and criteria that a network must fulfil to be designated as an ERN (for all diseases). Upon adoption, these Content Guidelines will be updated.

EUROPLAN Recommendations

R 4.3 Cross-border healthcare should be promoted, where appropriate. In that case, centres able to provide quality diagnosis and care are identified in neighbouring or other countries, where patients or biological samples can be referred to, and cooperation and networking is promoted.

EUCERD Recommendations for Quality Criteria for CEs

The European dimension of CEs

- 41. MS with established CEs share their experience and quality indicators with other MS and coordinate their efforts to identify CEs for all RD patients at EU level.
- 42. Networking of CEs is a key element of their contribution to patient diagnosis and care, to ensure that expertise travels rather than patients themselves when appropriate; exchange of data, biological samples, radiological images, other diagnostic materials, and e-tools for tele-expertise are promoted.
- 43. Cross-border healthcare is organised, where appropriate, with designated CEs in neighbouring or other countries, where patients or biological samples can be referred to.
- 44. Member States should provide adequate information to professionals, citizens and patients organisations concerning the possibilities and conditions of access to health care at national and international levels in the field of rare diseases.
- 45. Designated CEs at MS level are the key elements of the future ERNs.

B.10 Sustainability of CEs

EUROPLAN Recommendations

(par. 61 page 44)

- "61. From the experience of the few member states where centres of expertise exist, it is clear that specific funding is deemed necessary to ensure long-term sustainability of such centres. Long-term sustainability is needed for the benefit of the patients, and ensures collation and maintenance of the knowledge and experience developed in the centre as well as the continuity of care. In addition centres of expertise are often called to bear special costs and administrative efforts due to the complexity of rare diseases and the high costs of treatments."
- R 4.1 Well defined mechanisms of designation of centres of expertise are established and their quality is assured, efficiency and long term sustainability.

- What mechanisms do ensure that CEs are established and operate at national level in line with a sustainable plan?
- How is the long-term sustainability of CEs accounted for? What mechanisms do exist to verify the long-term sustainability of CEs at the moment of designation? And at the moment of evaluation?
- How are activities performed by the CEs but not strictly related to patient treatment funded (e.g. clinical research, production of guidelines for diagnosis and care; in-depth clinical and biological investigations; coordination of international networks, etc.)?
- How to make best use of Structural Funds in the forthcoming period 2014-2020?
- Is there scope for investments in rare disease CEs in the national strategic

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(Area 4, page 44)

- "Solutions should be found for the performance of activities which go beyond the treatment (purely healthcare services), recognised as fundamental for CoEs, yet often underperformed due to the lack of fund, reimbursement provisions, human resources or time.
- In France, the Second NP allocates funds for "Missions d'intérêt générale" to CoEs and introduces a system of funding based not on the single centre, but on funds dedicated to certain activities recognised as "missions of general interest". This allows creating resources for activities not strictly related to patient treatment, such as clinical research, production of guidelines for diagnosis and care; in-depth clinical and biological investigations; coordination of international networks, etc.
- Finally, it has been raised (Spain) that in countries qualifying for it, RDs should be included in included in the "Cohesion budget" also available for health objectives, usually managed by the Ministry for Health."

reference frameworks (NSRFs) for Structural Funds (ERDF, ESF*, Cohesion Fund)?

 Are there in the country specific Operational Programmes for Health where projects for RDs infrastructures and human resources could be included?

* ERDF = European Regional Development Fund ; ESF = European Structural Fund

C. Background documents

C.1 Council Recommendation of 8 June 2009 on an action in the field of rare diseases (2009/C 151/02)

Whereas:

- [...]
- (13) In July 2004, a Commission High-Level Group on Health Services and Medical Care was established to bring together experts from all Member States to work on practical aspects of collaboration between national health systems in the EU. One of this High-Level Group's working groups is focusing on European Reference Networks (ERNs) for rare diseases. Some criteria and principles for ERNs have been developed, including their role in tackling rare diseases. ERNs could also serve as research and knowledge centres, treating patients from other Member States and ensuring the availability of subsequent treatment facilities where necessary.
- (14) The Community added value of ERNs is particularly high for rare diseases by reason of the rarity of these conditions, which implies both a limited number of patients and a scarcity of expertise within a single country. Gathering expertise at European level is therefore paramount in order to ensure equal access to accurate information, appropriate and timely diagnosis and high quality care for rare disease patients.
- (15) In December 2006 an expert group of the European Union Rare Diseases Task Force issued a report 'Contribution to policy shaping: for a European collaboration on health services and medical care in the field of rare diseases' to the High-Level Group on Health Services and Medical Care. The expert group report outlines, inter alia, the importance of identifying centres of expertise and the roles that such centres should fulfil. It is also agreed that, in principle and where possible, expertise should travel rather than patients themselves. Some measures called for in the report are included in this recommendation.
- (16) Cooperation and knowledge sharing between centres of expertise has proven to be a very efficient approach to dealing with rare diseases in Europe.
- (17) The centres of expertise could follow a multidisciplinary approach to care, in order to address the complex and diverse conditions implied by rare diseases.

(The Council of the EU) hereby recommends that Member States:

[...]

"IV. CENTRES OF EXPERTISE AND EUROPEAN REFERENCE NETWORKS FOR RARE DISEASES

- 11. Identify appropriate centres of expertise throughout their national territory by the end of 2013, and consider supporting their creation.
- 12. Foster the participation of centres of expertise in European reference networks respecting the national competences and rules with regard to their authorisation or recognition.
- 13. Organise healthcare pathways for patients suffering from rare diseases through the establishment of cooperation with relevant experts and exchange of professionals and expertise within the country or from abroad when necessary.
- 14. Support the use of information and communication technologies such as telemedicine where it is necessary to ensure distant access to the specific healthcare needed.
- 15. Include, in their plans or strategies, the necessary conditions for the diffusion and mobility of expertise and knowledge in order to facilitate the treatment of patients in their proximity.
- 16. Encourage centres of expertise to be based on a multidisciplinary approach to care when addressing rare diseases."

V. GATHERING THE EXPERTISE ON RARE DISEASES AT EUROPEAN LEVEL

17. Gather national expertise on rare diseases and support the pooling of that expertise with European counterparts in order to support:

- (a) the sharing of best practices on diagnostic tools and medical care as well as education and social care in the field of rare diseases;
- (b) adequate education and training for all health professionals to make them aware of the existence of these diseases and of resources available for their care;
- (c) the development of medical training in fields relevant to the diagnosis and management of rare diseases, such as genetics, immunology, neurology, oncology or paediatrics;
- (d) the development of European guidelines on diagnostic tests or population screening, while respecting national decisions and competences;
- (e) the sharing Member States' assessment reports on the therapeutic or clinical added value of orphan drugs at Community level where the relevant knowledge and expertise is gathered, in order to minimise delays in access to orphan drugs for rare disease patients.

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:151:0007:0010:EN:PDF

C.2 EUCERD Recommendations on Quality Criteria for Centre of Expertise for Rare Diseases in Member States

http://www.eucerd.eu/?post_type=document&p=1224

Executive summary (http://www.eucerd.eu/?page_id=13):

On the 24 October 2011, during the third meeting of the EUCERD, the EUCERD Recommendations on Quality Criteria for Centres of Expertise for Rare Diseases in Member States were unanimously adopted by the 51-member EUCERD.

There are around 6000 rare diseases and most are unknown to healthcare professionals so rare diseases patients suffer from not knowing where to consult. To overcome this, some Member States have established centres specialised in some rare diseases/groups of rare diseases which have proven to be very efficient in improving quality of care. In order to help other countries elaborate similar processes, the EUCERD has established this set of Recommendations on Quality Criteria for Centres of Expertise for Rare Diseases in Member States.

The development of centres of expertise and European Reference Networks in the field of rare diseases is encouraged in the Council Recommendation on an Action in the Field of Rare Diseases (2009/C 151/02) (8 June 2009) and more recently in the Directive on the application of patients' rights in cross-border healthcare (2011/24/EU) (9 March 2011) as a means of organising care for the thousands of heterogeneous rare conditions affecting scattered patient populations across Europe. In order to share knowledge and expertise more efficiently, the EUCERD recommendations seek to introduce harmonious standards of quality practices by elaborating criteria for the Member States to incorporate into their process to designate centres of expertise, especially in the context of national plans/strategies for rare diseases which the Council has urged all Member States to elaborate by 2013.

EUCERD, formally the EC Rare Diseases Task Force, has already issued a series of reports investigating the state-of-the-art in the field. The 45 Recommendations build upon these previous achievements and will serve to assist the Member States in developing their healthcare pathways at both the national and EU levels in the field of rare diseases. The recommendations cover the mission and scope of the centres of expertise at Member State level; the criteria for designating centres of expertise in Member States; the process of designating and evaluating centres of expertise in Member States; and the European dimension of centres of expertise.

Mission and scope of centres of expertise (CEs) for rare diseases (RD) in Member States (MS)

- 1. CEs tackle diseases or conditions requiring specific care due to the difficulty in establishing a diagnosis, to prevent complications and/or to set up treatments.
- 2. CEs are expert structures for the management and care of RD patients in a defined catchment area, preferably national, and at international level if necessary.
- 3. The combined scope of all CEs within a MS covers all RD patients' needs, even if they cannot provide a full range of services with the same level of expertise for each RD.
- 4. CEs bring together, or coordinate, within the specialised healthcare sector multidisciplinary competences/skills, including paramedical skills and social services, in order to serve the specific medical, rehabilitation and palliative needs of rare diseases patients.
- 5. CEs contribute to building healthcare pathways from primary care.
- 6. CEs have links with specialised laboratories and other facilities.
- 7. CEs collaborate with patient organisations to bring in the patients' perspective.
- ${\bf 8. \ CEs\ contribute\ to\ the\ elaboration\ of\ good\ practice\ guidelines\ and\ to\ their\ dissemination.}$
- 9. CEs provide education and training to healthcare professionals from all disciplines, including paramedical specialists and non-healthcare professionals (such as school teachers, personal/homecare facilitators) whenever possible.
- 10. CEs contribute to and provide accessible information adapted to the specific needs of patients and their families, of health and social professionals, in collaboration with patient organisations and with Orphanet.
- 11. CEs respond to the needs of patients from different cultures and ethnic groups (i.e. have cultural sensitivity).

- 12. According to national/international ethical and legal frameworks, CEs should ensure respect of non-discrimination and non-stigmatisation of RD patients across Europe, within their sphere of competencies.
- 13. CEs contribute to research, to improve the understanding of the disease and to optimise diagnosis, care and treatment, including the clinical evaluation of long-term effects of new treatments.
- 14. The scope of diseases covered by each CE, or by a CE at national level, will vary depending on the size of the country and the structure of the national health care system.
- 15. CEs liaise with other CEs at National and European level when relevant.
- 16. A national directory of formally designated CEs is compiled and made publicly available, including on the Orphanet portal.

Criteria for designation of CEs for RD in MS

- 17. Capacity to produce and adhere to good practice guidelines for diagnosis and care.
- 18. Quality management in place to assure quality of care, including National and European legal provisions, and participation in internal and external quality schemes when applicable.
- 19. Capacity to propose quality of care indicators in their area and implement outcome measures including patient satisfaction.
- 20. High level of expertise and experience documented, for instance, by the annual volume of referrals and second opinions, and through peer-reviewed publications, grants, positions, teaching and training activities.
- 21. Appropriate capacity to manage RD patients and provide expert advice.
- 22. Contribution to state-of-the-art research.
- 23. Capacity to participate in data collection for clinical research and public health purposes.
- 24. Capacity to participate in clinical trials, if applicable.
- 25. Demonstration of a multi-disciplinary approach, when appropriate, integrating medical, paramedical, psychological and social needs (e.g. RD board).
- 26. Organisation of collaborations to assure the continuity of care between childhood, adolescence and adulthood, if relevant.
- 27. Organisation of collaborations to assure the continuity of care between all stages of the disease.
- 28. Links and collaboration with other CE at national, European and international level.
- 29. Links and collaboration with patient organisations where they exist.
- 30. Appropriate arrangements for referrals within individual Member States and from/to other EU countries if applicable.
- 31. Appropriate arrangements to improve the delivery of care and especially to shorten the time taken to reach a diagnosis.
- 32. Consideration of E-Health solutions (e.g. shared case management systems, expert systems for tele-expertise and shared repository of cases).

Process for designating and evaluating CEs for RD in MS

- 33. MS take action concerning the establishment and designation and evaluation of CEs and facilitate access to these centres.
- 34. MS establish a procedure to define and approve designation criteria and a transparent designation and evaluation process.

- 35. The designation criteria defined by MS are adapted to the characteristics of the disease or group of diseases covered by the CE.
- 36. CEs may not fulfill some of the designation criteria defined by the MS as long as the absence of fulfillment of those criteria does not impact on the quality of care and as long as CEs have a strategy in place to attain designation criteria in a defined time period.
- 37. The designation process at MS level ensures that the designated CEs have the capacity, and the resources to fulfill the obligations of designation.
- 38. The designation of a CE is valid for a defined period of time.
- 39. CE are re-evaluated on a regular basis through a process incorporated into the designation process at MS level.
- 40. The designating authority at MS level may decide to withdraw the designation of a centre of expertise if one or more of the conditions that formed the basis for designation is no longer satisfied, or if there is no longer a need to maintain the national service.

The European dimension of CEs

- 41. MS with established CEs share their experience and quality indicators with other MS and coordinate their efforts to identify CEs for all RD patients at EU level.
- 42. Networking of CEs is a key element of their contribution to patient diagnosis and care, to ensure that expertise travels rather than patients themselves when appropriate; exchange of data, biological samples, radiological images, other diagnostic materials, and e-tools for tele-expertise are promoted.
- 43. Cross-border healthcare is organised, where appropriate, with designated CEs in neighbouring or other countries, where patients or biological samples can be referred to.
- 44. Member States should provide adequate information to professionals, citizens and patients organisations concerning the possibilities and conditions of access to health care at national and international levels in the field of rare diseases.
- 45. Designated CEs at MS level are the key elements of the future ERNs.

C.3 EUCERD Recommendations on Rare Disease European Reference Networks (RD ERNs) http://www.eucerd.eu/?post_type=document&p=2207

[Missing: Introduction - background, scope and target groups of these Recommendations]

MISSION, VISION AND SCOPE

- 1. The overall vision of RD ERNs is that they will provide the framework for healthcare pathways for RD patients through a high level of integrated expertise. RD ERNs will enable networking of centres on a European level, and promote that the appropriate healthcare professionals have access to the tools and guidelines provided by the RD ERN and to the knowledge of the networks. This will cover in a step-wise approach all rare disease patients, including those in the process of seeking a diagnosis or in whom a final diagnosis is not yet confirmed.
- 2. Nationally designated centres of expertise (CE) are the core participants in RD ERNs. In the context of rare diseases, such centres should be compliant with the EUCERD recommendations for quality criteria for CE in rare diseases and Directive 2011/24/EU on the application of patients' rights in cross-border healthcare.
- 3. An RD ERN needs to be flexible enough to accommodate working with different national CE structures. Depending on the national healthcare system, CEs can be very different structures organised by regions, treatments, or diagnostic procedures, offering services in one location or through an established network.
- 4. An RD ERN should cover essential core tools and activities. The detailed scope of each RD ERN will vary between medical areas. However, some core components of an RD ERN can be identified, and the tools required to facilitate the delivery of some of these transversal components could be shared between different RD ERNs to allow interoperability. The core components of a RD ERN should include:

i. Disease Registries

At a minimum, the primary purpose of data collection for an RD ERN should be to obtain clinical information from the patient and to interchange this information between professionals who care for the patients to improve the diagnosis and the delivery of clinical care. Also, the system should be used to assess the quality of care and the results of the healthcare provided in the CE. An RD ERN registry should integrate and harmonise existing resources where necessary, and possible, rather than duplicate effort. Such resources should use international terminologies to support interoperability as part of the global RD efforts on data sharing.

ii. Quality assurance mechanisms for laboratory testing

RD ERNs should promote the use of laboratory testing facilities which participate in quality assurance programmes in collaboration with, for example EuroGentest, EMQN. Supporting the establishment of quality assurance schemes for the methods applied in a very limited number of centres should be within the scope of RD ERNs.

- iii. Mechanism for information flow for good practice guidelines/best standards of diagnosis and care amongst MS It is the mission of the RD ERNs to develop good practice guidelines for patients' care. Good practice guidelines for RD generated by particular CEs in an RD ERN or by a network should be shared within an ERN and more broadly, as applicable. RD ERNs should have a mechanism whereby this information can be shared between MS for implementation as applicable within their specific healthcare setting.
- iv. Training and education tools RD ERNs should secure resources for training and education purposes that will promote good practice, with the aim of raising standards of care, diagnosis and treatment of patients within each network.
- v. Mechanisms for evaluation and clear indicators of performance The groups providing evaluation of RD ERNs should be multi-stakeholder and include patient organisations. Indicators should cover processes, outcomes (many of which will be able to be measured utilising the output of the registries) and impact such as, for example, through the utilisation of patient reported outcomes.

- vi. Communications infrastructure to ensure visibility of the RD ERNs and their processes and accessibility RD ERNs will establish and maintain their own web sites and their visibility will also be assured via the Orphanet database and the national help lines.
- vii. Cross-border referral mechanisms

RD ERNs will provide a resource for the operation of the cross-border mechanisms under both Directive 2011/24/EU on the application of patients' rights in cross-border healthcare and Regulation EC 883/2004 on the coordination of social security schemes, for example by highlighting the availability of relevant CEs and facilities and the mechanisms by which access to them are available.

viii. Telemedicine core

In all of these areas where disease specific resources and tools have already been generated and demonstrated to be of high quality (e.g. by previous networks), RD ERNs should be required to utilize these in order to maximise the value of previous investments to support tele-consultations, training and education.

- 5. An RD ERN will provide to the MS, guidance, definitions and mechanisms to ensure transparent and seamless healthcare pathways for the following:
 - i) Patients with either
 - A clear and confirmed diagnosis with or without a CE covering this diagnosis in their country,
 - A suspicion of diagnosis with or without a CE in their country, and
 - An unclear diagnosis
 - ii) CEs when
 - A patient requires expertise from a suitable CE outside their country
 - Support, training and consultation is required

All decisions on individual patients using these pathways should be the responsibility of the national health authorities. The national health authorities should take into account the pathways defined by the RD ERNs, in recognition that they represent the highest level of expertise available at one point in time.

- 6. A particular problem in the field of rare diseases is that for some patients a complete diagnosis is not possible even with the highest levels of medical knowledge. The concept of an RD ERN sharing, improving and providing the highest levels of medical knowledge at the European level provides a unique opportunity to reduce the uncertainties for the patients with an unclear diagnosis. Therefore, patients who may have a rare disease but who have an unclear diagnosis require a pathway into the most appropriate RD ERN or RD ERNs to have the best possible chance of achieving a precise diagnosis and to access appropriate care once a diagnosis is achieved. Models to provide such a mechanism for patients with an unclear diagnosis should be further explored.
- 7. An RD ERN should have the capacity to follow patients with an unclear diagnosis and manage their care according to medical need. For this purpose, RD ERNs might require access to research expertise, though any diagnoses achieved in a research setting would need to be confirmed in a laboratory testing facility thereafter. Due to fast advancing technologies, the RD field is frequently on the border between research and care. Therefore, RD ERNs will need to address how to deal withincreasing capacity following research advances. MS will need to agree on the procedure for following these patients.

GOVERNANCE

- 8. As with all ERNs, RD ERNs should have robust and clearly defined governance, with oversight structures and clear and comparable methods for evaluation. Due to the specific role of patient organisations in RDs, RD ERNs should take into account the views of patient organisations. Patient organisations should play an integral role, especially in the evaluation of RD ERNs where patient organisations exist and where MS recognise that they have the capacity to do so.
- 9. RD ERNs require strong leadership and the co-ordinating site(s) should be chosen preferably on the basis of proven ability to coordinate a network and its shared tools as well as to lead the medically relevant activities in the disease field. The best coordinating partner is not automatically the best centre of expertise or the one with the largest number of patients, rather the one that has the capacity to fulfil all the key functions of coordination and to expand the network as necessary.

COMPOSITION OF RD ERNS

- 10. All RD ERNs will be required to deliver added value in at least three of the objectives listed in Article 12 of the Directive on patients' rights in cross-border healthcare. RD ERNs will be composed of existing CEs but they will need to collaborate with each other, as well as with patient groups, health and social care providers, relevant research groups and diagnostic laboratories. Because of the specificities of rare diseases great heterogeneity of diseases and of expression of diseases without predominant symptoms, a limited number of patients and a scarcity of relevant knowledge and expertise sharing knowledge between different healthcare providers is an overarching goal of an RD ERN. It also has to promote access to centres not fulfilling the EUCERD quality criteria or not nationally designated, as well as individual healthcare professionals to the tools and guidelines provided by the RD ERN and to the knowledge of the network.
- 11. Therefore, different forms of affiliation to an RD ERN (association, collaboration) should be allowed to ensure inclusivity. Existing sources of information (Orphanet, pilot ERNs, EUCERD, help lines, information from patient organisations) will contribute to identify key experts who can play a valuable role in RD ERNs. In smaller countries for example, where there may be no or limited number of CEs, we recommend that other healthcare providers can become affiliated members of an RD ERN in order to have access to the good practice guidelines for care, treatment and diagnosis. Such affiliated members should adhereto the agreed clinical guidelines for onward referrals, and would be required to attend network-training meetings and contribute to the overall data collection of the network. This will allow an RD ERN to reach out to as many MS as possible. Within the on-going national planning for rare diseases (national plans or strategies for rare diseases), there should be a framework to promote and support the common process for designation of national CEs or experts who may be affiliated in the future RD ERNs.
- 12. Funding mechanisms for RD ERNs need to be adequate and long-term. Sustainable and long-term funding processes are needed, as RD ERNs are likely to remain necessary for the foreseeable future. Based on satisfactory evaluation against agreed indicators, funding should be for at least 5-year periods.
- 13. The funding for RD ERNs should include support for co-ordination and networking. The financial system of the CEs and affiliated centres in delivering healthcare are the competence of the MS. However, there are specific costs for networking, which should be part of a sustainable funding support mechanism from EC funds. Such funds should be available for:
 - Co-ordinator time
 - Project management
 - Registry and data collection co-ordination
 - · IT, web site and communication platform
 - · Support for network meetings within an RD ERN and between RD ERNs, training and education packages both online and face to face
 - Networking activities with other RD ERNs
 - Board activities with their bureau
 - Evaluation of the RD ERNs
- 14. Funding for core network activities should be proportional to the number of targeted patients, the number of centres integrated, and the number of diseases covered in terms of information to be produced and disseminated.

DESIGNATION OF RD ERNs

15. Ahead of the designation process for RD ERNs, consideration should be given to the possible economies of scale of developing shared platforms across RD ERNs such as core components for registries and data collection, quality assurance etc. (as listed in recommendation 4).16. A clear process for the designation of RD ERNs should be established. Criteria for the evaluation of prospective RD ERNs should include their inclusiveness and plans for expansion, excellence of the network, leadership qualities of the proposed co-ordinator(s), and numbers of MS involved, amongst others.

- 16. A clear process for the designation of RD ERNs should be established. Criteria for the evaluation of prospective RD ERNs should include their inclusiveness and plans for expansion, excellence of the network, leadership qualities of the proposed co-ordinator(s), and numbers of MS involved, amongst others.
- 17. A step-wise strategy for RD ERN designation should be delineated so that all patients with a rare disease will have access to an appropriate RD ERN in a defined period of time.
- 18. As it will only be possible to establish a limited number of RD ERNs at the beginning of the process, it is recommended to give priority to RD ERNs which meet the following 4 priority criteria as a robust starting point: 1. Preferably existing formal or informal networks of experts that have reached maturity and have the scope to expand; 2. There are patient registries established and willing to interoperate; 3. There are existing networks of patient groups; and 4. There are sufficient existing activities of research output. When the priority criteria are established in the delegated act of the Cross-Border Healthcare Directive, these should be followed. Each thematic RD ERN would still need to expand over the course of its first five years of designation to include other centres, expert groups, patient groups and ultimately diseases.
- 19. Based around the concept of medical specialties and body systems, diagnostic and therapeutic areas can be identified each covering a wide range of rare diseases. Comparison of the systems in place in MS with well-developed services for rare diseases shows that the number of diagnostic and systemic areas which might cover the majority of diagnoses could be approximately 20-30. By the end of the Health for Growth Programme (in 2020), the 20 to 30 RD ERNs should be established and covering a wide range of RD. These first established RD ERNs will be the ones meeting the "priority criteria" as defined above and will then progressively expand in order to cover all RDs by the end of the two next EU Public Health Programmes (by 2025), through integration of appropriate centres and expertise.
- 20. A formal system for networking across all RD ERNs and sharing expertise should be defined and implemented. Good practice and common methodologies on the common areas of RD ERN work should be shared (e.g. registry development, utilisation and sharing of data and banked tissue resources, good practice guidelines etc.). For future RD ERNs, as high quality systems to implement common tools are defined, the utilisation of these standards and methodologies should be a condition for designation.
- 21. Working groups should be established as necessary to help oversee the establishment and implementation of the RD ERNs within the scope of Article 12 of the Cross-Border Healthcare Directive (Directive 2011/24/EU). These working groups may act under the auspices of the EUCERD in order to guarantee that progress in RD ERN developments will be aligned with other ongoing RD initiatives.

C.4 EUCERD Core Recommendations on Rare Disease Patient Data Registration and Data Collection http://www.eucerd.eu/wp-content/uploads/2013/06/EUCERD Recommendations RDRegistryDataCollection adopted.pdf

- 1. RD patient registries and data collections need to be internationally interoperable as much as possible and the procedures to collect and exchange data need to be harmonised and consistent, to allow pooling of data when it is necessary to reach sufficient statistically significant numbers for clinical research and public health purposes.
- 1.1 They should use international standards and nomenclature to code the tentative or final RD diagnosis. Either the OMIM code or the Orpha codes are recommended alongside any other coding system in operation in the MS health systems, such as ICD and SNOMED-CT, with a view to establishing a common semantic approach.
- 1.2 There should be adoption of a minimum common data set across RD that registries should collect, in collaboration with global initiatives, to allow the establishment of national and/or European RD population registries, which have the potential to collect data on all RD patients.
- 1.3 A minimum common data set should be defined, and supported with a semantic approach and Standard Operating Procedures. Interoperability (via means of mapping) of registry specific data sets towards this common data set should enable comparison across all RD and internationally.
- 1.4 For disease-specific registries, appropriate core data sets specific to the diseases or disease groups should be adopted. In the future, such disease-specific registries could fall under the remit of RD ERNs. Every effort should be made to incorporate current disease-specific registry initiatives where quality can be assured.
- 1.5 To avoid duplication and to support Cross-Border Healthcare, the possible benefits of using a global or European RD patient identifier (possibly incorporating the current health identifier) should be investigated to provide a way to link information, samples and research data, and to ensure a quick and secure means of data sharing and protection.
- 1.6 For countries with regional organisation of healthcare, where multiple registries exist, overlap and duplication between the regional and national registries, should be avoided.
- 2. All sources of data should be considered as sources of information for RD registries and data collections, to speed up the acquisition of knowledge and the development of clinical research.
- 2.1 As with all registries, registries for RD should establish clear purposes and objectives of the data collection: the type of data collection should be suited to the need, and the data captured should be appropriate to the proposed use of the data, both in terms of scope and level of detail.
- 2.2 RD Centres of Expertise, where they exist, should contribute to a registry(ies). Other experts in the field should also contribute to the registry(ies).
- 2.3 (Electronic) health records from any sector of healthcare delivery are a valuable source for core data collection. Automatic data acquisition from these sources should be envisaged to ease the data collection process.
- 2.4 Collection of data on RD should be delineated in the National RD plan/strategy.
- 2.5 A system to allow the collection of data directly reported by patients should be included along with systems for data reported by clinicians.
- 3. Collected data should be utilised for public health and research purposes.
- 3.1 RD data collected should be used to support policy development at local, regional, national and international level.
- 3.2 RD data collected should, where possible, facilitate clinical and epidemiological research and the monitoring of care provision and therapeutic interventions, including off-label use of approved drugs and existing medications.
- 3.3 RD data collected should, where possible, be used to provide information for multi-centre and multi-national clinical trial feasibility studies.
- 3.4 Pooling of data across data collections and other resources, including internationally, should be encouraged to reach a critical mass for data analysis. According to the governance/oversight criteria, data should be made accessible to groups with legitimate questions such as researchers and policy/decision makers.
- 3.5 Access and sharing of data should be defined to control how data is shared and published in the public domain and this should be facilitated through the national RD plan/strategy.

4. Patient registries and data collections should adhere to good practice guidelines in the field.

Specific to the current and future specificities of RD registries:

- 4.1 Involvement of stakeholders such as patients, policymakers, researchers and clinicians (and industry, where appropriate) in the design, analysis and governance of registries is important to address the complexity and scarcity of knowledge on RD.
- 4.2 Representatives of all stakeholders should be invited to provide best possible expert support through an advisory board or committee to ensure appropriate information flow and knowledge exchange into and from the registry, and they should define a sustainability and exit strategy for the registry. Where appropriate, representatives from industry should also provide input.
- 4.3 This multi-stakeholder model for registry governance should apply not only at a national level but also at the European level and/or pan-European Platform repository of RD registries.
- 4.4 The process for consenting patients for participation in a RD registry should take into account the wider European and international context to ensure that patients are well informed of this dimension and the consent process is in line with the legal requirements at European and International level.
- 4.5 Patients already in a RD registry may be required to go through an additional consenting step to ensure compatibility with such systems.
- 4.6 RD registries should have a system to provide regular feedback to registered patients and their clinical teams, recognising their specific role in the success of registries in this field.

5. Existing and future patient registries and data collections should be adaptable to serve regulatory purposes, where required.

- 5.1 For the monitoring of therapeutic interventions for RD, a strategy between industry, academia and regulators should be agreed to ensure that data collection is expanded as necessary, and in time embedded in disease-specific registries to serve, for example, the requirements for post-marketing surveillance, and to support development of new therapies. Data access needs to be compliant with agreed guidelines established by the registry.
- 5.2 As quality assurance is crucial, it is a priority for existing RD registries to explore their capacity to adapt to collect data for regulatory purposes.
- 5.3 There should be an early dialogue on the type of registry required (and what data is required for regulatory purposes), and/or whether a registry exists for the condition targeted, with all stakeholders, in order to optimise the registration of patients and the generation of knowledge for RD for which a therapeutic intervention is being developed. Collection of data regarding off-label use of approved drugs and existing medications should be encouraged.

6. Patient registries and data collections should be sustainable for the foreseeable timespan of the registries' utility.

- 6.1 Local, regional, national and European structures contributing to or overseeing data collection should all be supported financially to carry out this role in a sustainable way so that financial responsibility for registries is shared proportionately between stakeholders, MS and the EC and defined in the appropriate funding programmes.
- 6.2 Public-private partnerships for RD registries should be considered where applicable as a long-term model for optimisation of resources, sustainability and co-creation of knowledge.
- 6.3 All registries and data collections should have in place an exit strategy in its work plan, including contingency planning for the data in the event that the registry is terminated. There should also be a procedure outlined for succession planning for registry continuation.

C.5 "Cross Border Heath Care Directive" – Directive 2011/24/EU of the European Parliament and of the Council of 9 March 2011 on the application of patients' rights in cross-border healthcare

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:088:0045:0065:EN:PDF

NB The text of the Directive is not reported below in full. Only the following two articles are provided herewith: ERNs (Article 12) and Rare Diseases (Article 13).

The full text is available online at the weblink provided above.

However, relevant provisions for RD patients and the application of their rights to healthcare in other EU countries are provided throughout the full text of the Directive. Therefore, in order to facilitate the task, please find below the Structure of the Directive with all its chapters.

Additionally, to ease understanding and reading of the Directive, please find herewith weblink to essential Q&A documents developed respectively by EURORDIS and the European Commission:

- EURORDIS Q&A on Cross-border Healthcare Directive: http://e-news.s3.amazonaws.com/Q%26A cross border care final-1.pdf
- European Commission Q&A on Patients' Rights in Cross Border Healthcare: http://europa.eu/rapid/press-release MEMO-11-32 en.htm?locale=en

Structure of the DIRECTIVE 2011/24/EU on the application of patients' rights in cross-border healthcare

CHAPTER I - GENERAL PROVISIONS

Article 1 - Subject matter and scope

Article 2 - Relationship with other Union provisions

Article 3 - Definitions

CHAPTER II - RESPONSIBILITIES OF MEMBER STATES WITH REGARD TO CROSS-BORDER HEALTH CARE

Article 4 - Responsibilities of the Member State of treatment

Article 5 - Responsibilities of the Member State of affiliation

Article 6 - National contact points for cross-border healthcare

CHAPTER III - REIMBURSEMENT OF COSTS OF CROSS-BORDER HEALTHCARE

Article 7 - General principles for reimbursement of costs

Article 8 - Healthcare that may be subject to prior authorisation

Article 9 - Administrative procedures regarding cross-border healthcare

CHAPTER IV - COOPERATION IN HEALTHCARE

Article 10 - Mutual assistance and cooperation

Article 11 - Recognition of prescriptions issued in another Member State

- Article 12 European reference networks
- Article 13 Rare diseases
- Article 14 eHealth
- Article 15 Cooperation on health technology assessment
- **CHAPTER V IMPLEMENTING AND FINAL PROVISIONS**
- Article 16 Committee
- Article 17 Exercise of the delegation
- Article 18 Revocation of the delegation
- Article 19 Objections to delegated acts
- Article 20 Reports
- Article 21 Transposition
- Article 22 Entry into force
- Article 23 Addressees

Article 12 - European reference networks

- 1. The Commission shall support Member States in the development of European reference networks between healthcare providers and centres of expertise in the Member States, in particular in the area of rare diseases. The networks shall be based on voluntary participation by its members, which shall participate and contribute to the networks' activities in accordance with the legislation of the Member State where the members are established and shall at all times be open to new healthcare providers which might wish to join them, provided that such healthcare providers fulfil all the required conditions and criteria referred to in paragraph 4.
- 2. European reference networks shall have at least three of the following objectives:
- (a) to help realise the potential of European cooperation regarding highly specialised healthcare for patients and for healthcare systems by exploiting innovations in medical science and health technologies; EN 4.4.2011 Official Journal of the European Union L 88/61
- (b) to contribute to the pooling of knowledge regarding sickness prevention;
- (c) to facilitate improvements in diagnosis and the delivery of high-quality, accessible and cost-effective healthcare for all patients with a medical condition requiring a particular concentration of expertise in medical domains where expertise is rare;
- (d) to maximise the cost-effective use of resources by concentrating them where appropriate;
- (e) to reinforce research, epidemiological surveillance like registries and provide training for health professionals;
- (f) to facilitate mobility of expertise, virtually or physically, and to develop, share and spread information, knowledge and best practice and to foster developments of the diagnosis and treatment of rare diseases, within and outside the networks;
- (g) to encourage the development of quality and safety benchmarks and to help develop and spread best practice within and outside the network;
- (h) to help Member States with an insufficient number of patients with a particular medical condition or lacking technology or expertise to provide highly specialised services of high quality.
- 3. Member States are encouraged to facilitate the development of the European reference networks:

- (a) by connecting appropriate healthcare providers and centres of expertise throughout their national territory and ensuring the dissemination of information towards appropriate healthcare providers and centres of expertise throughout their national territory;
- (b) by fostering the participation of healthcare providers and centres of expertise in the European reference networks.
- 4. For the purposes of paragraph 1, the Commission shall:
- (a) adopt a list of specific criteria and conditions that the European reference networks must fulfil and the conditions and criteria required from healthcare providers wishing to join the European reference network. These criteria and conditions shall ensure, inter alia, that European reference networks:
- (i) have knowledge and expertise to diagnose, follow-up and manage patients with evidence of good outcomes, as far as applicable;
- (ii) follow a multi-disciplinary approach;
- (iii) offer a high level of expertise and have the capacity to produce good practice guidelines and to implement outcome measures and quality control;
- (iv) make a contribution to research;
- (v) organise teaching and training activities; and
- (vi) collaborate closely with other centres of expertise and networks at national and international level;
- (b) develop and publish criteria for establishing and evaluating European reference networks;
- (c) facilitate the exchange of information and expertise in relation to the establishment of European reference networks and their evaluation.
- 5. The Commission shall adopt the measures referred to in paragraph 4(a) by means of delegated acts in accordance with Article 17 and subject to the conditions of Articles 18 and 19. The measures referred to in points (b) and (c) of paragraph 4 shall be adopted in accordance with the regulatory procedure referred to in Article 16(2).
- 6. Measures adopted pursuant to this Article shall not harmonise any laws or regulations of the Member States and shall fully respect the responsibilities of the Member States for the organisation and delivery of health services and medical care.

Article 13 - Rare diseases

The Commission shall support Member States in cooperating in the development of diagnosis and treatment capacity in particular by aiming to:

- 1. (a) make health professionals aware of the tools available to them at Union level to assist them in the correct diagnosis of rare diseases, in particular the Orphanet database, and the European reference networks;
- 2. (b) make patients, health professionals and those bodies responsible for the funding of healthcare aware of the possibilities offered by Regulation (EC) No 883/2004 for referral of patients with rare diseases to other Member States even for diagnosis and treatments which are not available in the Member State of affiliation.

C.6 EUROPLAN Recommendations

http://www.europlanproject.eu/ newsite 986987/ down/results/2008-2011 2.EUROPLANGuidance.pdf

EUROPLAN recommendations on Area 4: Centres of Expertise and European Reference Networks for rare diseases

- R 4.1 Well defined mechanisms of designation of centres of expertise are established and their quality is assured, efficiency and long term sustainability.
- R 4.2 Healthcare pathways are defined and adopted, based on best practices and expertise at national and international level.
- R 4.3 Cross-border healthcare should be promoted, where appropriate. In that case, centres able to provide quality diagnosis and care are identified in neighbouring or other countries, where patients or biological samples can be referred to, and cooperation and networking is promoted.
- R 4.4 A national directory of Centres of expertise is compiled and made publicly available.
- R 4.5 Travelling of biological samples, radiologic images, other diagnostic materials, and e-tools for tele-expertise are promoted
- R 4.6 Centres of expertise provide proper training to paramedical specialists; paramedical good practices are coordinated, in order to serve the specific rehabilitation needs of rare diseases patients.
- R 4.7 A national framework is ensured on rare diseases screening options and policies.
- R 4.8 Proper performance of newborn screenings prescribed in the country is monitored with appropriate indicators.
- R 4.9 Accessibility to genetic counselling is promoted.
- R 4.10 The quality of genetic testing and other diagnostic tests is ensured, including participation in external quality control schemes at national and international level.
- R 4.11 A national inventory of medical laboratories providing testing for rare disease is compiled and made publicly available.
- R 4.12 The adoption of an ad hoc coding is promoted, when appropriate, to recognize and appropriately resource and reimburse the special rehabilitation treatments necessary for rare diseases.

EUROPLAN recommendations on Area 5: Gathering the expertise on rare diseases at European level

- R 5.1 The use of international global information websites and data repositories for rare diseases is promoted.
- R 5.2 Access to knowledge repositories and to expert advice for health professionals is established.
- R 5.3 Information on how to establish or join a European reference Network is made available for to health professionals.
- R 5.4 The curriculum of the medical degree course includes an education package on rare diseases and on the relevant, specific provisions in the healthcare services.
- R 5.5 Training of medical doctors (general practitioners and specialists), scientists and new healthcare professionals in the field of rare diseases is supported.
- R 5.6 Continuing education programmes on rare diseases are made available for health professionals.
- R 5.7 The exchange and sharing of expertise and knowledge between centres within the country and abroad is promoted.
- R 5.8 Collaboration is ensured in the European evaluation of the existing screening programs.
- R 5.9 The development and adoption of good practice guidelines for rare diseases is promoted. The guidelines are made publicly available and disseminated as of the reach targeted health professionals.
- R 5.10 Dissemination of the information about treatment for rare diseases is ensured in the most effective way, to avoid delays of treatment accessibility.
- R 5.11 Participation is ensured in common mechanisms, when available, defining conditions for the off-label use of approved medicinal products for application to rare diseases; for facilitating the use of drugs still under clinical trial; for compassionate provision of orphan drugs.
- R 5.12 An inventory of orphan drugs accessible at national level, including reimbursement status, is compiled and made publicly available.

- R 5.13 Patients' access to authorised treatment for rare disease including reimbursement status, is recorded at national and/or EU level.
- R 5.14 The list of on-going clinical trials on Orphan Medicinal Products included in the European database for clinical trials on Orphan Medicinal Products (EUDRA) is made public at national level.
- R 5.15 All information on centres of expertise, good practice guidelines, medical laboratory activities, clinical trials, registries and availability of drugs, collected at national level, is also published on Orphanet as planned in the Joint Action.

C.7 EUCERD Core Indicators

http://www.eucerd.eu/wp-content/uploads/2013/06/EUCERD_Recommendations_Indicators_adopted.pdf

NB: Out of the 21 EUCERD core indicators, please find below selected indicators for this specific theme.

- 5. Existence of a national policy for establishing Centres of Expertise on RD
- 6. Number of national and regional Centres of Expertise adhering to the national policy
- 7. Participation of national or regional Centres of Expertise in European Reference Networks
- 10. Existence of a national policy on rare disease clinical practice guideline development and implementation

Core Indicators – Definitions and associated answers

AREA OF COUNCIL INDICATOR REC. (2009/ C151/02)		INDICATOR DESCRIPTION	TYPE OF INDICATOR	SHORT ANSWER	DETAILED ANSWER (multiple answers are possible, if needed)
		CONTENT INDICATORS			
CENTRES OF EXPERTISE					
Existence of a national policy for establishing Centres of Expertise	4	This policy defines a strategy to identify and designate centres of expertise, aiming to improve the quality of health care by defining appropriate centres with experience on RD as well as pathways that reduce the diagnosis delay and facilitate both care and treatment for RD patients.	Process	YES	YES, existing, fully implemented YES, existing, partly implemented
on RD				In progress/in development NO	
Number of national and regional Centres of Expertise adhering to	4	Member States identify and appoint Centres of Expertise (CEs) throughout their national territory, and consider supporting their creation. The Centres of Expertise should adhere to the national policy.	Outcomes	Number	Number of CEs complying with the national policy
the national policy		It is to be remembered that the EUCERD adopted the "EUCERD Recommendations on Quality Criteria for Centres of Expertise" which are "intended to help EU Member States in their reflections or policy developments concerning national			Number of CEs / million inhabitants

		plans and strategies for rare diseases when addressing the issue of organisation of healthcare pathways at national and European level". This indicator therefore also aims to count the number of Centres of Expertise that are compliant with the EUCERD recommendations.			Number of CEs fulfilling EUCERD criteria Number of CEs / million inhabitants
7. Participation of national or	4	The information on the integration of national Centres of Expertise in European Reference Networks (ERNs) is essential to obtain the broader picture of RD care across Europe and enables the diffusion of expertise across the EU, regardless of the size/population of each country. According to the "EUCERD Recommendations on European Reference Networks for Rare Diseases", different forms of affiliation to an RD ERN (association, collaboration) should be	Outcomes	Number of CEs participating in ERNs as full members	
regional centres of expertise in European Reference Networks		allowed to ensure inclusivity." Therefore this indicator aims to differentiate between full and associated membership of RD Centres of Expertise to RD ERNs. However, it should be taken into account that it will take some time before ERNs are established. Therefore it should be expected that this Indicator will provide meaningful information only a few years after the adoption of these Recommendations.		Number of CEs participating in ERNs as associated members	
KNOWLEDGE, CLASSIFICATION/CODING, REGIST	RIES AND RE	SEARCH			
10. Existence of a national policy for developing ,adapting and implementing clinical practice guidelines	2	The indicator checks the existence of a policy for developing, adapting and implementing clinical practice guidelines (CPGs) for diseases/groups of diseases ("Adapting" refers to adaption of supra-nationally based clinical guidelines to the local context). The cumulative production of protocols and clinical guidelines is an instrument for equity of access to care by rare	Process	YES	YES, a policy exists for developing CPGs YES, a policy exists for adapting CPGs YES, a policy exists for implementing CPGs
		disease patients across the European Union.		NO	

C.8 EUROPLAN Indicators

http://www.europlanproject.eu/ newsite 986989/Resources/docs/2008-2011 3.EuroplanIndicators.pdf

Area to be explored	Aims	Actions	_	Indicators	Type of indicator	Answers									
		Improve the quality of health care by defining appropriate centres with experience on RD as well as pathways* (see operative definition below) that reduce the diagnosis delay and facilitate the best both cares and treatments to patients 4.2. 4.2. 4.3. 4.4.										4.1.	Existence of a policy for establishing centres of expertise at the national/regional level	Process	 Not existing, not clearly stated Existing, clearly stated, partly implemented Existing, clearly stated and substantially implemented
			4.2.	Number of centres of expertise adhering to the policy defined in the country	Outcomes	Number of reference centres									
Centres of Expertise and European Reference Networks for Rare Diseases	tres of Expertise European erence Networks Rare Diseases Identify and/or establish national/regional centres of expertise and European reference network of centres European centres of expertise and define reduced delated best		4.3.	Groups of rare diseases followed up in centres of expertise	Outcomes	Computation must be referred to the whole country: Covering all or most of rare diseases Covering only some rare diseases									
			4.4.	Centres of expertise adhering to the standards defined by the Council Recommendations -paragraph d) of preamble	Outcomes	Percentage of centres of expertise adhered by the total of centres of expertise designed									
			4.5.	Participation of national or regional centres of expertise into European reference networks	Outcomes	Index based on Number of centres of expertise cooperating with ERN by number of total of centres of expertise designed									

^{*}Care Pathway - The European Pathway Association defines a clinical/care pathway as: Care pathways are a methodology for the mutual decision making and organization of care for a well-defined group of patients during a well-defined period. Defining characteristics of care pathways includes:

- An explicit statement of the goals and key elements of care based on evidence, best practice, and patient expectations;
- The facilitation of the communication, coordination of roles, and sequencing the activities of the multidisciplinary care team, patients and their relatives;
- The documentation, monitoring, and evaluation of variances and outcomes; and
- The identification of the appropriate resources.
- The aim of a care pathway is to enhance the quality of care by improving patient outcomes, promoting patient safety, increasing patient satisfaction, and optimizing the use of resources.

Area to be explored	Aims	Actions		Indicators	Type of indicator	Answers
	Improving education and	Existence of a information sites for professionals provided by the plan/strategy	5.1.	Existence of a comprehensive national and/or regional RD information system supported by the government	Process	 Yes, covers most RD Yes, covers only some RD Not formal decisions have been taken
			5.2.	Help lines for professionals	Process	 Yes, covers most RD Yes, covers only some RD Not formal decisions have been taken
	training		5.3.	Clinical guidelines	Outcomes	Number ranging between 0 to 30
Gathering the		Promoting training activities and awareness educational campaigns among professionals	5.4.	Number of such as activities promoted by the plan/strategy	Process	Number ranging between 0 to 30
expertise on Rare Diseases at European	Ensuring early and accurate diagnosis	Develop screening policies	5.5.	Number of diseases included in the neonatal screening programme	Outcomes	Number of diseases
level			5.6.	Number of diseases included in the neonatal screening programme properly assessed	Outcomes	Index based on the number of disease tests assessed and included in the neonatal screening programme divided by the total number of diseases included in the neonatal screening program.
		Ensure quality of RD diagnosis laboratory	5.7.	Existence of a public directory/ies of both genetic tests on Rare Diseases	Process	YesNoUnder discussion
			5.8.	Proportion of laboratories having at least one diagnostic test validated by an external quality control	Outcomes	Number of validated RD laboratorion divided by the total number of RD laboratories

		5.9	Number of ODD market authorizations by EMEA and placed in the market in the country	Outcomes	Index based on Number of ODD placed in the market by total of ODD approved by the EMEA
To ensure and accelerate accessibility to Orphan Designated	Ensure the mechanism that facilitates ODD access and the reimbursement of their	5.10	Time between the date of a ODD market authorization by EMEA and its actual date of placement in the market for the country	Outcomes	Average days since the date of market authorization by EMEA until the official date of placement in the market in the country
Drugs (ODD) !! (This sub-area is deal with in Workshop 5 of EUROPLAN II	cost to patients after they got the market authorization by EMEA.	5.11	Time from the placement in the market in the country to the positive decision for reimbursement by public funds	Outcomes	Average days since the date of placement in the market until the reimbursement decision date in the country
National Conferences		5	5.12	Number of ODD reimbursed 100%	Outcomes
	To develop mechanisms to accelerate ODD availability	5.13	Existence of a governmental program for compassionate use for Rare Diseases	Outcomes	NoYesIn process

C.9 Executive Report to the European Commission on newborn screening in the European Union

EU Tender - "Evaluation of population newborn screening practices for rare disorders in Member States of the European Union"

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B. Areas that could benefit from the development of an EU policy on NBS

Neonatal screening encompasses the whole system from information to prospective parents to treatment of those infants who have been identified as having one of the screened conditions. Neonatal screening in most countries is offered under the responsibility of the public health system. Yet in many countries the health system does not care for the collection and exchange of information between the confirmatory diagnostic, treatment and follow-up phases, which may prove invaluable for the quality of NBS.

There are a number of areas and steps of the whole neonatal screening system which show room for a feasible improvement by means of a dedicated EU policy, especially if it can benefit from synergies deriving from a coordinated action of the EU.

1. Decision-making framework

A structured framework, representing in a balanced way the views and needs of the patients and other citizens, the national health systems and other institutional stakeholders, such as social insurances and governmental scientific experts, could be defined at EU level consisting of three steps:

a. EU-level technology assessment

The Community level technology assessment deals with the general and intrinsic features of a disease candidate for screening; it could receive and assess dossiers, submitted by interested parties, supporting disease candidates for neonatal screening. It might also assess spontaneously new technological developments (horizon scanning). This activity could be carried out in association or collaboration with existing European countries collaborative mechanisms, such as EUNetTHA4.

4 http://

b. National (regional) technology assessment

The national (regional) technology assessment is performed within institutional processes with the participation of independent experts and takes into consideration the feasibility of the NBS programme with respect to local conditions (e.g.: availability of infrastructure, medical professionals with expertise in screened diseases' diagnosis and treatment and the organisation of the entire chain of health care), assessed according to criteria defined at EU level within the overall framework. More technical definitions might be provided by the EU-level technology assessment.

c. National decision-making

The decision-making step remains at the national/regional level and is separate from the national technology assessment process. The decisions made and the ways in which the technology assessments have been taken into consideration are to be documented and made public.

This structured framework could result, at national level, in a decision making process centred on the improvement of health, reduced burden of the preliminary scientific assessment, and in increased trust in the health systems for patients, their advocates and citizens in general, while considering the health system sustainability and the health priorities of a country. From an EU perspective, it will provide better consistency in the services offered by different countries and a flexible process, able to take into account the technological progress.

2. Legal basis and informed consent

A national legal basis for the operation of neonatal screening programmes, which can be tailored to local conditions within a common framework, would be important to ensure the necessary quality to the system. It would ensure the rights of infants to healthcare with an offer of NBS, which is defined through a shared procedure and transparent assessment.

Legal bases mandating participation in neonatal screening programmes might limit the burden of asking and archiving the informed consent; however the mandatory nature of NBS should be accompanied with provisions for adequate and transparent information to parents and public, as well as with an opt-out system, allowing parents to refuse the service.

The national legal basis might furthermore regulate consistently the following issues:

- the storage and the delayed use of samples and the associated consent;
- the identification of eligible benefits;
- the communication of results to parents and/or patients, including unintended findings;
- the collection and communication of data for the assessment of the programme and for improving the knowledge on disease and treatment;
- ensure quality control and and quality assurance
- sustain funding.

An EU action can help promote the extension of quality control and assurance processes, and define criteria of quality and of the operation of quality assessment, thus ensuring the achievement of health care quality targets, without dictating practical and technical arrangements of the national neonatal screening systems. Exchange of expertise might be key. Indeed, at present, the performance of the screening laboratory procedures in EU can hardly be assessed since studies are occasional and data are rarely known. Accreditation and certification procedures take place in about half of the countries, with a variety of standards. It is true, however, that most, if not all, screening laboratories participate in External Quality Assessment programmes. Other steps of the NBS system participate less frequently in quality control procedures. Use of guidelines and application of quality control and quality assurance programmes have to be more extensively used in a number of steps of the NBS process.

3. Training of professionals

While any assessment of the skills of laboratory screening professionals and of medical professionals is outside the scope of this work and is not addressed here, the survey indicated that professional training needs to be improved and extended on specific aspects especially relevant for NBS, such as communication with parents at all steps of the NBS process, from the pre-natal steps to the education of parents confronted with positive screening result. Appropriate training may effectively contribute to improvements necessary in specific steps of the process, which are highlighted separately.

4. Networking of specialists, screening laboratories and centres of expertise

Already part of the recommendations for an action in the field of rare diseases, networking of centres of expertise and of specialists, may speed up consultation and confirmation of individual diagnosis, as well as facilitate debate and consensus on the best strategies for confirmatory investigations and treatment, and allow easier access to quality care in countries with less expertise on selected diseases. Cooperation may help smaller jurisdictions to perform laboratory screening and confirmatory diagnosis at a reasonable cost. Good practices may serve to improve expertise in teams elsewhere.

5. Communication of screening results to parents

Availability of written material, at the time of first communication to parents of the meaning and the consequences of the positive outcome of NBS, can be regarded as particularly important, since it can support parents' understanding of and coping with the diagnosis of the chronic disorder in their children. However, printed and/or digital material is available in more than 50% screening countries for few diseases only.

Communication of a positive screening result and confirmed diagnosis could be better regulated with the aim of ensuring information which is more suitable to parents and families as well as reducing their anxiety.

6. Parents' and patients' empowerment after diagnosis

Only half of the respondents (49%) reported to have a guideline or directive regulating the involvement of professions in the treatment of patients with disorders they screen for. Written and/or digital material explaining treatment to parents is not always available. Better parents' and patients' empowerment may improve the management of care, reduce the burden of care for the public health system and improve the patients' and familys' quality of life. Patients' and parents' organisations may play a role in assuring optimal quality of care for their infants' disorder and in providing respite initiatives for the family carer.

Along the lines of the EU Recommendation for an action on rare diseases and the EUROPLAN documents, an EU policy may facilitate sharing documents and experiences for the benefit of countries which have not the material available yet, as well as to promote the involvement of parents' and patients' associations.

7. NBS programme assessment and epidemiological evaluation

Communication of long-term clinical outcomes to the different actors in the NBS system (including screening laboratory) and to a central registry will make the evaluation of the screening programmes and research on optimal treatment of the screened diseases possible.

Although treatments are, overall, started within the recommended age in practically all countries, there are some diseases where a rather high number of patients are already symptomatic at the start of treatment. At the same time there is wide variability among countries in the timing of each step of the NBS process preceding the start of treatment. Registries could help to evaluate the consequences of different approaches.

Important synergies may result if the initiatives of data collection at local levels would be harmonised and cross-linked to allow the establishment of national and international networks and registries for the NBS programme assessment and for clinical and epidemiological purposes.

8. Economic evaluation

Epidemiological evidence of effective prevention and cost-effectiveness are the main reasons to implement a screening programme for a certain disorder. Moreover, information on the cost-effectiveness of a program is of main importance for countries to plan and evaluate public health services. However, systematic and economic analysis is very rare and is extremely difficult, especially for small population countries.

Therefore, there is a need for an action, which, in association with the initiatives devoted to the assessment of economic dimensions of NBS programmes, allows the recording and comparability of key data on NBS costs and outcomes.

C.10 General recommendations for genetic counselling - EuroGenTest

http://www.eurogentest.org/web/files/public/unit3/guidelines%20of%20GC%20final.pdf

[...]

6. General recommendation for genetic counselling

- Genetic counselling should be regarded as an integral part of the genetic testing process. Genetic counselling cannot be compulsory; medical acts are very exceptionally compulsory. It should, however, be offered and strongly recommended in most testing situations as explained above. If an individual insists on having a test without genetic counselling, the medical facts and possible consequences should be discussed by the clinician ordering the test. In these situations, non-genetics health care professionals have a responsibility to recognize their abilities and limitations with regard to provision of genetic services. Furthermore, both genetics and non-genetics health care professionals should not agree to testing without pre-test counselling in circumstances where doing so would go against their professional judgement. According to good clinical practice, predictive tests for future severe illnesses with no options for treatment or prevention should not be performed without pre- and post-test genetic counselling, psychosocial evaluation and follow-up.
- Genetic counselling has to be provided or supervised by a health-care professional appropriately trained for genetic counselling.
- Genetic counselling should be given in a language well understood by the individual. When this is not possible, options such as using an interpreter should be offered.
- Before actual testing takes place, there should be free and informed consent. In situations where testing children or other persons who are not able to give informed consent is considered, those individuals should be involved in genetic counselling and in the decision-making process, according to their capacities. Adequate authorisation for genetic testing of children or persons who are not able to give informed consent is required from their parents or legal representatives. Testing for adult onset conditions in children should only be considered when treatment or surveillance would begin in childhood.
- If the counsellee decides to proceed for the test, a description of the circumstances associated with the test should be sent, together with the sample, to the testing laboratory as the interpretation of the results depends on the context.
- The resources needed to perform genetic tests and to provide the appropriate pre- and post-test counselling should be developed and put in place simultaneously.

Pre-test genetic counselling

- 1. In pre-test genetic counselling individuals are informed about the purpose of the test, including up-to-date, reliable description about symptoms and natural history of the disease, prospects of prevention or early diagnosis and treatment, inheritance pattern, the risk of disease in the counsellee's situation, available reproductive choices, reliability and limitations of the test concerned, and possible psychological impact and other consequences of the test result to the counsellee and his/her family/relatives. Privacy and confidentiality of the results, as well as possible consequences related to its disclosure to third parties, such as insurance companies and employers, are discussed, when appropriate. The counsellor is not coercive in any way; this principle is also explained to the counsellee.
- 2. Pre-test counselling includes discussion about the rights to know and to decide including the right not-to-know.
- 3. Possible uncertainties due to present lack of knowledge are declared discussion about the need to inform relatives about the test result, as well as the best ways to do this, are initiated, especially in conditions where early diagnosis may improve the prognosis.
- 4. Depending on the resources available, as well as the context and the disease being tested, further genetic counselling sessions or consultation with a psychologist should be offered. The possibility of contact with a social worker and/or patient /lay support organisations should also be offered, where applicable.
- 5. Written materials and/or reliable Internet addresses related to the subject should be offered when available.
- 6. The counsellor should offer assistance in decision making, and encourage the counsellee to take ample time for it, whenever possible.
- 7. A written summary of the discussion should be prepared, if the counsellee so wishes.

Post-test genetic counselling

- 3. After disclosure of test results, the first focus is on the emotional impact on counsellee and others involved. Depending on the resources available, as well as the context and the disease being tested, follow-up contacts with the genetic counselling unit should be offered, and/or a consultation with a psychologist. The possibility to contact a social worker and patient/lay support organisations should also be offered. A written summary of the test result and issues discussed during the counselling should be, as a rule, given to the counsellee.
- 4. Points 1) and 2) from pre-test genetic counselling may have to be repeated.
- 5. Implications to the individual (including a follow-up plan, when relevant) and his/her near relatives should be discussed
- 6. A strategy to inform relatives has to be discussed with the counsellee (or, if necessary, a decision to discuss this further, after time for reflection).
- 7. Written material to help the counsellee to spread the information in the family may also be offered.