5.1 ERN-EUROBLOODNET REPOSITORY OF CLINICAL PRACTICE GUIDELINES AND OTHER CLINICAL DECISION MAKING TOOLS ON RHD

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Report document

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Short Description

Report on repository of clinical practice guidelines and other clinical decision making tools, including their classification on Quality domains and strategy for the identification of gaps for development of new ones

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1. INTRODUCTION

CLINICAL PRACTICE GUIDELINES AND OTHER CLINICAL DECISION MAKING TOOLS FOR RARE HEMATOLOGICAL DISEASES, GAPS AND NEEDS

Clinical decision support systems represent nowadays essential tools for health professionals to guide on the next steps to take on the prevention, diagnosis, treatment and management of patients, considering the latest information and data available on the field and aiming to deliver value-based health care.

In the area of clinical decision support systems, different types of tools are identified based on the procedure followed for its development. As defined by the ERN Continuous Monitoring Working Group of the Member States and the ERN Coordinators, Clinical practice guidelines (CPGs) are defined as "statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options". While on the other hand, other Clinical Decision Making Tools (CDMT) "Clinical Consensus Statement is the end product developed by an independent panel of (at least 3) subject matter experts convened specifically to perform a systematic review of the available literature, for the purpose of understanding a clinically relevant issue or surgical procedure, offering specific recommendations on a topic. Compared to Clinical Practice Guidelines and Clinical Practice Recommendations, Clinical Consensus Statements undergo a less rigorous peer review process."

In this context, during past decades a great number of clinical decision support systems have been produced and implemented supporting the adequate provision of health care for millions of patients across the world. However, due to the low prevalence of Rare Diseases (RD), the development of high quality guidelines has usually been postponed for the prioritization of more prevalent diseases. Fortunately, the contribution of these support tools to shorten the time to diagnosis and improvement of the quality of care on RDs is now widely acknowledged, and several European countries have recently included their development as a priority in their national plans on RDs.

Another issue is the lack of findability of CPG and CDMT tackling RDs. According to "Clinical Practice Guidelines for Rare Diseases: The Orphanet Database", there are a large number of national and international databases gathering CPGs, but generally containing very few addressing RDs, and are difficult to find amongst the mass of recommendations available for more frequent diseases. Moreover, a significant number of the guidelines produced for RDs by research networks, reference centres or other organizations are not published in international peer-reviewed journals, and thus cannot be found in biomedical literature databases.

As for other RDs, this scenario remains when focusing on Rare hematological diseases (RHDs). A number of CPGs and CDMT have been published on prevention, diagnosis, and clinical care of patients and many scientific societies have produced such guidelines at the national or European level. However there is no repository including quality assessment, evaluation of gaps or level of implementation, updates or any system to guarantee their usefulness and impact in patients' quality of life.

Accordingly, ERN-EuroBloodNet identified as a high priority to generate a comprehensive repository of CPG and CDMT and the definition of a methodology for their classification based on quality domains and assessment of real translation into clinical practice with the final aim to, not only support guideline development when lacking, but also assess their implementation in the different EU Member States.

ERN-EuroBloodNet REPOSITORY OF CPG AND OTHER CLINICAL DECISION MAKING TOOLS

List of international CPG and other CDMT

In the first two years of ERN-EuroBloodNet implementation (2017-2018), a protocol for the creation of the repository of CPG and other CDMT on RHD was defined aiming to achieve an accurate and reliable source of information on the guidelines and recommendations followed by the ERN-EuroBloodNet members. A first list of 69 CPG and other CDMT on RHD was identified with the feedback from subnetworks coordinators and members.

This first list was analyzed in terms of coverage of the different diseases encompassed by the network. Given the expertise of the subnetworks coordinators, the scope of the list was well balanced through the different RHDs, nevertheless, it was agreed to conduct a revision by additional experts identified in the field in order to produce a second version as extensive and comprehensive as possible. Special efforts were focused on the gathering of more CPGs for the oncological disorders given the relatively low number compiled in the first exercise. Final list included a total of 116 CPG and other CDMT. Fig 1
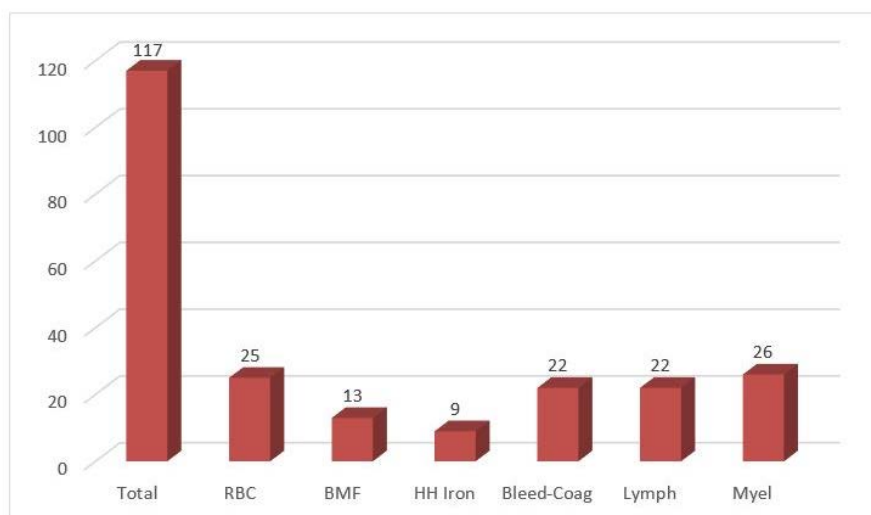
Figure 1: List of international CPG and other CDMT compiled for RHD. RBC: Red blood cell diseases subnetwork, BMF: Bone marrow failures subnetwork, HH-Iron: Hemochromatosis and other rare genetic disorders of iron metabolism and heme synthesis subnetwork, Bleed-Coag: Bleeding and coagulation subnetworks, Lymph: Lymphoid malignancies subnetwork, Myel: Myeloid malignancies subnetwork

Classification based on Quality domains

A methodology for classification of CPG and other CDMT based on Quality Domains was defined according to three domains:

Domain 1: Scope and purpose: Each document shall be classified based on the objectives and clinical questions, on: Prevention, diagnosis, treatment.

Domain 2: Patients' involvement: The composition of the document development group shall be evaluated with reference to the involvement of patient advocacy organizations patients.

Domain 3: Rigour of development: The methodology adopted to develop the guideline / recommendation shall be assessed according to the following scale.

A: evidence and consensus-based guidelines / recommendations: grading system for strength of recommendation involving assessment of the quality of evidence (study design, study quality, consistency) (e.g. GRADE, SIGN)

B: consensus-based guidelines / recommendations: formal consensus development techniques (e.g. Delphi method, nominal group technique)

C: expert opinion: entirely based on opinions by experts without formal consensus development techniques

As result for the classification exercise, a total of 68 CPG and other CDMT were classified with the participation of 10 ERN-EuroBloodNet experts as follows:

- 24 for Red blood cell disorders
- 13 for Bone marrow failures
- 6 for Haemochromatosis and other iron related disorders
- 26 for Myeloid diseases

The task is still ongoing for the Bleeding and coagulation disorders and Lymphoid malignancies.

ERN WORKING GROUP ON KNOWLEDGE GENERATION

ERN-EuroBloodNet is one of the members of the "ERN Working Group on Knowledge Generation", with the representation of Luca Malcovati, eurobloodnet representative for best practices and chair of EHA Working group on guidelines, and Maria del Mar Mañú Pereira, eurobloodnet scientific director. The working group has the common goal of producing unique guidelines at the EU level by the best experts in the field, following a concrete methodology and validated at the national level.

DG SANTE signed a contract for the development of CPG and other CDMT for rare diseases, entering into force in January 2020. In this context, the contractor organized a first meeting with the ERNs representatives on 6th of February 2020 for establishing the roadmap of the project and clarify the objectives and timeline.

During the workshop, ERNs were informed that the tender includes the support of development of 2 new CPG and 5 CDMT per ERN, with the provision of human and technical resources. In addition, a training program will be offered to educate 1 representative per network as expert in the field, and 5 representatives per network as intermediate experts (user level).

2. OBJECTIVES

One of the key objectives established by ERN-EuroBloodNet is to foster best practice sharing in RHD by creating a comprehensive public repository of reliable evidence based CPG and other CDMT, ranging from prevention, diagnostic tests and treatments to the organisation of patient-centred management in multidisciplinary teams.

The repository of guidelines and recommendations will serve as a central platform for sharing best practices, facilitating timely, effective and efficient translation of research results into patient oriented strategies at the individual and public health levels and provide professionals, patients, and policy makers with the best and most up to date information.

This Deliverable presents the actions undertaken to:

a) Implement the central platform on CPG and other CDMT publicly at ERN-EuroBloodNet website
b) Define the strategy for the identification of new CPG and other CDMT to be created in line with the ERN WG on knowledge generation

TASK 1. CREATION OF THE ERN-EUROBLOODNET PUBLIC REPOSITORY OF CPG AND OTHER CDMT

IMPLEMENTATION OF THE TECHNICAL SOLUTION

Based on the list of CPG and other DMT compiled and classified on the previous period of implementation, a technical solution was implemented at ERN-EuroBloodNet website back office.

The technical solution allows the "tagging" of each of the document compiled and classified according to:

- Subnetwork
- Disease group
- Quality Domains, including:
  - Scope and purpose
  - Patients' involvement
  - Rigour of development
- Expert who performed the classification

The solution also allows the inclusion of the link for accessing the document, and space for comments if were indicated by the reviewers.

Title of the guideline:

Addressing the diagnostic gaps in pyruvate kinase deficiency: Consensus recommendations on the diagnosis of pyruvate kinase deficiency. (2019)

Subnetwork:	Disease group/s:
× Red blood cell defects	× Pyruvate Kinase Deficiency

Scope and Purpose:	Patients' involvement?:	Rigour of development:
2. Diagnosis	No	B - Consensus based

Link: *(url)* *[http://exemple.com]*   Expert:

https://www.ncbi.nlm.nih.gov/pubmed/30358897   Bianchi, Paola

Comment:

Update   Discard

Task 2. Strategy for the identification of gaps for developing new CPG and CDMT

The creation of the repository of CPG and CDMT and their classification based on quality domains has not been intended to be an exhaustive analysis of quality but a first practical classification for further analysis of gaps that are potential targets to be filled through the support provided by DG SANTE in the context of the ERN Working group on Knowledge generation.

In this context, the actions addressed to the creation of the repository has shed light on the current coverage of CPGs and other CDMT for four of the subnetworks while allowing the identification unbalances among the different scopes and purposes. Also, a clear need of patients' involvement in the generation of CPGs have been revealed.

The analysis of the classification attending the rigour of development has also provided very valuable information of the grade of evidence used for their creation, while allowing the identification of areas where additional efforts are needed to increase the CPGs available as level A, for instance, on the bone marrow failures area.

Once the classification of CPGs on quality domains is completed, the action will allow the generation of the full picture of best practices documents available for RHD at EU level, and thus, the identification of areas needing for best practices promotion in collaboration with the European Hematology Association (EHA) Guidelines Committeee, which aims to promote and support the creation and adoption of guidelines for diagnosis and treatment of hematologic diseases, in close collaboration with the EHA Scientific Working Groups.

4. RESULTS

LINKED TO TASK 1. CREATION OF THE ERN-EUROBLOODNET PUBLIC REPOSITORY OF CPG AND OTHER CDMT

1.1 PUBLIC REPOSITORY

A dedicated section for Guidelines and other Clinical Decision Making tools was implemented at ERN-EuroBloodNet website, for the details of the methodology followed for the creation of the repository: http://eurobloodnet.eu/best-practices/guidelines-and-recommendations/

The 68 CPG and other CDMT classified based on Quality Domains are available at the Repository section: http://eurobloodnet.eu/best-practices/guidelines-repository/

CPG and other CDMT reviewed by EuroBloodNet expert panel for Best practices will be publicly available for RHD community, thus "findable" and "searchable" Including search engine for disease category, scope and purpose, Involvement of patients In its development and rigour of development.

LINKED TO TASK 2. STRATEGY FOR THE IDENTIFICATION OF GAPS FOR DEVELOPING NEW CPG AND CDMT

Based on the first gaps identified through the repository of CPG and CDMT, EuroBloodNet has already initiated collaboration with EHA Guidelines Committee to avoid duplication of efforts but create a synergy to:

- Identify areas where evidence-based guidelines, consensus based guidelines, and position documents are needed
- Determine the methodology required for each item.
- Appoint section editors together with EHA-SWGs and EuroBloodNet members to initiate the composition of the specific group of experts that will produce the guidelines
- Identify organizations active in producing hematology guidelines (e.g.ESMO) for co-creation of guidelines

5. CONCLUSIONS AND NEXT STEPS

The repository of CPG and other CDMT on RHD is publicly available on ERN-EuroBloodNet website allowing both non-experts and experts in RHD to benefit from an exhaustive database with reliable and updated clinical decision support tools, promoting the delivery of highly specialised procedures and treatments and the harmonisation of care delivery across EU.

In addition, the classification of the documents based on Quality Domains has allowed the identification of gaps that are potential target to be addressed in line with the actions implemented by DG SANTE and ERN WG on knowledge generation. In this context a strategy will be defined together with the European Hematology Association - Guidelines task force, in order to finally decide on 2 new CPG and 5 new CDMT to be developed.

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