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Improving the quality of care for people with chronic diseases: translating recommendations to practice

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Abstract

Introduction. Aim of this paper is to present a guide for translating to practice an evidence-based set of Quality Criteria and Recommendations (QCR) to promote the implementation of policies and practices in the field of health promotion, disease prevention and care for people with chronic diseases.

Methods. The guide is based on real-world experiences of eight European pilot actions using QCR as a framework for practice design, development, implementation, monitoring and evaluation. All partners implemented their respective practices by following the same agreed process.

Results. The implementation method was summarized in seven steps where each of one outline a particular phase of the process. The guide provides a step-by-step tutorial for the implementation of QCR.

Conclusions. Practical experiences from the pilot actions show the potential value of using the QCR in designing and implementing practices to improve the quality of care for people with chronic diseases.

Key words
- chronic diseases
- quality of care
- implementation
- intersectoral initiatives

INTRODUCTION

The burden of noncommunicable chronic diseases (NCDs) is steeply rising and although there is evidence of declining rates of premature mortality from NCDs in European region, improvements are not being implemented efficiently and fast enough [1]. Comprehensive and aligned health system response is needed including governance for intersectoral actions aligned at national, regional and local levels, well-resourced public health services supporting equity, multi-profile proactive primary care, efficient and timely care for acute states, person-centred care designed together with care users. Moreover it should include fit-for-purpose health force, adequate, prioritized financing aligned with service delivery goals, access to quality medicines and information solutions to support population health and individual seamless care including self-management [1]. Quality of care being one of the core processes is being improved in Europe using several strategies [2].

A first group of strategies focuses on healthcare structures and inputs, such as regulation of health professionals, technologies (through health technology assessment) and of healthcare facilities, including external institutional strategies (accreditation, certification, and supervision). A second group consists of strategies that steer and monitor quality of healthcare processes by setting standards (clinical guidelines for professionals and clinical pathways for provider institutions), by focusing on monitoring procedures and assuring improvements (audit and feedback directed to professionals), and patient safety strategies. The third group of strategies concerns leveraging processes and outcomes – the use of information to assure improvements (such as public reporting and pay-for-quality).

European Union (EU) supports numerous activities to increase quality of care in member states via health programs providing frameworks for sharing experiences and implementation across countries working in real world conditions [3]. EU co-funded the two most important Joint Actions on chronic diseases: JA CHRODIS – European Joint Action on chronic diseases and promoting healthy ageing across the life cycle and JA

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CHRODIS PLUS – Implementing good practices for chronic diseases. The two Joint Actions aimed to support countries efforts, and transnational collaboration, for the improvement of prevention and quality of care for people with chronic diseases fostering integration of science-based interventions with community preferences mainly through carefully planned of pilot and innovative practices [3-5]. They produced a great deal of material (documents, guidelines, videos, etc.) useful for researchers but above all for health professionals, patients and decision makers. However, all these documents are published mainly on the JA dedicated sites, and often remain little known losing their potential impact on the quality of health of European citizens [http://chrodis.eu].

One of the results of JA CHRODIS was the definition of Quality Criteria and Recommendations (QCR) to improve prevention and quality of care for people with chronic diseases [6]. QCR definition involved, through a structured methodology, the community of partners of the Joint Action, and experts from a wide number of organizations across Europe and from a variety of professional backgrounds. The objective was to define an evidence-based set of quality criteria to assess whether a practice (i.e., interventions, policies, strategies, programs, and/or clinical practices) can be regarded as a "good practice" using Type 2 Diabetes as a model/example disease. The process led to the agreement on nine core quality criteria, with their essential components, that were the basis to formulate recommendations general enough to be applied in chronic diseases other than diabetes, in various domains (prevention, care, health promotion, education, and training), and in countries with different political, administrative, social and health care organization *(Table 1)*.

Eight partners of JA CHRODIS PLUS engaged their communities in the co-creation of evidence, in real life conditions, using QCR to develop, implement and monitor innovative practices in the fields of disease prevention, health promotion and healthcare. They identified and prioritized improvement areas to be addressed in their interventions focusing on Type 1 and Type 2 diabetes, tinnitus, and complex chronic conditions [7-9]. Based on the experience of the eight pilot actions, we developed a guide to translate QCR into practice.

Aim of this paper is to present a guide for the use of QCR, and the overall process we followed for its definition, to contribute to dissemination and implementation research, and to support those who are going to lead the planning, implementation, monitoring and evaluation of practices in the field of health promotion, disease prevention and care for people with chronic diseases.

METHODS

Blueprint for action

We defined a "blueprint for action" to support partners, across European countries, to plan practices using QCR [10].

The general strategy for design, implementation, monitoring and evaluation of pilot actions was developed by the Asociacion Centro De Excelencia Internacional En Investigacion Sobre Cronicidad (KRONIKGUNE) one of the JA partners. The strategy was then adapted by Authors (MM, JZ, AG) to include QCR providing a framework – structure, content, methodology – to enhance the adoption of QCR that could be applied in different settings and contexts.

The framework was comprised of a series of operational elements, methodological details, practical indications, and specific templates aimed to further support partners in the definition of the pilot plans:

- define a Local Implementation Working Group (LIWG) and identify key stakeholders;
- describe the scope of intervention by selecting, from QCR, the recommendations and related quality criteria, to be considered as the components of the intervention;
- conduct a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of the context of pilot action using QCR;
- identify and prioritize improvement areas using QCR;
- plan actions for each identified improvement areas;
- define the key performance indicators;
- design the pilot implementation plan.

The strategy, templates and methods were discussed and agreed with partners during workshops and teleconferences in a participatory process.

Outline of eight pilot actions adopting QCR

Eight European partners from Bulgaria, Croatia, Finland, Germany, Greece, Spain, Serbia, and Slovenia, planned and conducted pilot actions to implement and test QCR in different settings and contexts for practice design, development, implementation, monitoring and evaluation [11].

Each participating Country followed the methodology defined by the blueprint for action, and used at least four out of the nine quality criteria: practice design, target population empowerment, education and training to promote empowerment, and sustainability and scalability. Moreover, at least one of the three criteria from the management perspective (Governance, Interaction with regular and relevant systems or Evaluation) was to be included. The partners used qualitative and quantitative methods of data analysis to assess the effectiveness both pilot action and QCR.

Croatia (Croatian Institute of Public Health in collaboration with the Primary Health Care Centres) tested structured education and performance feedback to increase the use of diabetes control checklist for improvement of quality care in diabetes, as well as to identify barriers for their full implementation in primary health care settings [12].

Finland (National Institute for Health and Welfare in collaboration with Primary health care and Family Federation of Finland) defined and tested a culturally sensitive lifestyle intervention model among a hard-to-reach and underserved population specifically tailored to the Somali population [13].

Greece (Aristotle University Hospital-AHEPA of Thessaloniki, Alexander Technological Educational Institute of Thessaloniki) provided structured education

Table 1
Quality Criteria and Recommendations (QCR) to improve prevention and quality of care for people with chronic diseases

Criteria	Recommendations
1 Practice design	The design should clearly specify aims, objectives, and methods, and rely upon relevant data, theory, context, evidence, and previous practices including pilot studies. The structure, organization and content of the practice is defined, and established together with the target population, that is clearly described (i.e., exclusion and inclusion criteria and the estimated number of participants). Human and material resources should be adequately estimated in relation with committed tasks. Relevant dimensions of equity have to be adequately taken into consideration, and targeted.
2 Target population empowerment	The practice should actively promote the empowerment of the target population by using appropriate mechanisms, such as self-management support, shared decision making, education-information or value clarification, active participation in the planning process and in professional training, and considering all stakeholders needs in terms of enhancing/acquiring the right skills, knowledge, and behaviour.
3 Evaluation	The evaluation outcomes should be linked to action to foster continuous learning and/or improvement and/or to reshape the practice. Evaluation and monitoring outcomes should be shared among relevant stakeholders, and linked to the stated goals and objectives, taking into account social and economic aspects from both the target population, and formal and informal caregiver perspectives.
4 Comprehensiveness of the practice	The practice should consider relevant evidence on effectiveness, cost-effectiveness, quality, safety, the main contextual indicators, as well as the underlying risks of the target population using validated tools to individual risk assessment.
5 Education and training	The practice should include educational elements to promote the empowerment of the target population (e.g., strengthen their health literacy, self-management, stress management etc.). Relevant professionals and experts are trained to support target population empowerment, and trainers/educators are qualified in terms of knowledge, techniques, and approaches.
6 Ethical considerations	The practice should be implemented equitably (i.e., proportional to need). The objectives and strategy are transparent to the target population and stakeholders involved. Potential burdens (i.e., psychosocial, affordability, accessibility, etc.) should be addressed to achieve a balance between benefit and burden. The rights of the target population to be informed, to decide about their care, participation and issues regarding confidentiality should be respected and enhanced.
7 Governance	The practice should include organizational elements, identifying the necessary actions to remove legal, managerial, financial, or skill barriers, with the contribution of the target population, carers and professionals that is appropriately planned, supported, and resourced. There is a defined strategy to align staff incentives and motivation with the practice objectives. The practice should offer a model of efficient leadership and should create ownership among the target population and several stakeholders considering multi-disciplinarity, multi/inter-sectoral, partnerships and alliances, if appropriate. The best evidence and documentation supporting the practice (guidelines, protocols, etc.) should be easily available for relevant stakeholders (e.g., professionals and target populations), which should support the multidisciplinary approach for practices. The practice should be supported by different information and communication technologies (e.g., medical record system, dedicated software supporting the implementation of screening, social media, etc.), defining a policy to ensure acceptability of information technologies among users (professionals and target population) to enable their involvement in the process of change.
8 Interaction with regular and relevant systems	The practice should be integrated or fully interacting with the regular health, care and/or further relevant systems, enabling effective linkages between all relevant decision-makers and stakeholders, and enhancing and supporting the target population's ability to effectively interact with the regular, relevant systems.
9 Sustainability and scalability	The continuation of the practice should be ensured through institutional anchoring and/or ownership by the relevant stakeholders or communities and supported by those who implemented it. The sustainability strategy should consider a range of contextual factors (e.g., health and social policies, sex and gender issues, innovation, cultural trends and general economy, and epidemiological trends), assessing the potential impact on the population targeted.

and training to medical and paramedical healthcare personnel for the management of cardiovascular risk factors (hypertension and diabetes) and for patient's education on lifestyles and self-management.

Serbia (University of Belgrade, Primary Health Care Centres, in collaboration with Republic Institute of Public Health and Ministry of Health) pilot action aimed at redesigning health care delivery to achieve better coordination of services to improve prevention and strengthening high quality care for chronic diseases, taking type 2 diabetes as a model disease [14].

Slovenia (General Hospital Novo mesto, and the Primary Healthcare Centre Novo mesto) developed a model to integrate care across levels of healthcare and the community based on a case study of chronic wound management. Special focus was paid to enhanced patient participation, and to sustainability through community partnership and support of the national policy-makers [15].

Spain (Regional Ministry of Health of Cantabria & Cantabrian Health Service), Bulgaria (National Centre of Public Health and Analyses), and Germany

(University Hospital Regensburg) aimed to assess to what extent mHealth tools (self-management and patient empowerment features) could contribute to patient control over their chronic disease, tinnitus, and diabetes [16].

Each partner prepared an implementation project report available at http://chrodis.eu/07-fostering-the-quality-of-care-for-people-with-chronic-diseases/, following the adapted version of SQUIRE 2.0 Guidelines [17].

Intermediary evaluation with the support of study visits

To support partners and evaluate the use of QCR, on-site assessment of the implementation process was performed in five pilot action sites. A concept note was defined that included rationale and general objectives of the study visits, expected outcomes, and methods being used by the LIWGs. During dedicated workshops the partners had the opportunity to discuss the concept note and identify ways to achieve meaningful patient involvement onto the implementation sites.

In general, the study visits were meant to foster the implementation activities via knowledge and experience exchange among partners. Moreover, the visits represented the opportunity to:

- conduct an interim implementation assessment with respect to outcome measures, as defined in the pilot action plan, with respect to QCR and with special focus to patient involvement and sustainability/scalability of the action;
- re-define, if needed, the action plan through a plan-do-study-act cycle;
- increase interest of the national stakeholders, including decision maker, creating the facilitatory context for the sustainability and spread of the action.

During the study visits, QCR usability was tested and evaluated by the participants and their opinions were heard and discussed. Participants were representatives of the LIWG, national/local stakeholders, including representatives of patients, experts from the JA (MM, JZ LN, VS, DS) and other representatives of European Health Futures Forum.

A questionnaire on the usability of QCR was submitted to partners when study visits were not performed.

RESULTS

Study visits lead the way to multi-stakeholder participation, meaningful patient involvement, and commitment from Health Authorities. The LIWGs considered all viewpoints and worked in a transparent manner, which facilitates the identification of possible enablers and barriers.

Based on the study visits, a valuable learning point was that all the LIWGs considered Quality Criteria and Recommendations as a valuable framework when it comes to the design, development and implementation of their pilot action and activities onto their respective sites. On some occasions, it was the QCR itself that triggered representatives from these groups to take new and different pathways. In general, it was considered a useful checklist, which supported implementation process, to see the whole picture at the beginning of the project and to ponder the practical details in advance. A partner declared that "it makes you not forget anything and have it at the back of your mind all the time". The added value of QCR was to be scientifically grounded. As a barrier, some implementers experienced less flexibility in practice development due to its use. Moreover, the criteria needed an introduction with explanations by trained experts because QCR is not a 'plug in and play' instrument. Without the external expert support its usage would have been questionable.

The guide for the use of QCR was developed in accordance with the implementation process defined in the blueprint for action [10] and real-world experiences in the participating countries. Activities were designed and implemented in different health care systems, in different contexts and were addressing different scopes in a variety of areas. All pilot actions developed and implemented their respective practices by following the same method, and QCR was used as a framework for practice design, development, implementation, monitoring and evaluation.

Based on the practical experience of the eight pilot actions, the guide outlines the suggested steps for a successful translation into practice of QCR. The full process is not completely linear but involves periodic evaluations and possibly the modification of the initially defined work plan and can be summarized in seven steps.

1. *Establishment of the core leadership group and the implementation working group*. Various aspects of governance and leadership have to be addressed prior to design practice and establish a wider group responsible for its implementation. A central leadership group has to be settled that plans, organizes, monitors, shares, reports and provides support during the pursuit of the objectives of the practice. The leadership group defines the implementation working group by identifying the stakeholders to be included and at what level: individuals and/or entities that are involved or influenced by the planned activity or are considered important for the sustainability or action implemented.
2. The second step is to define the *scope of the practice*. The implementation working group led by leadership group outlines, based on the available knowledge, the problem that the practice will address, defines the target populations, and selects the Recommendations and Criteria that are core to the successful implementation.
3. It is necessary to *identify the contextual factors* that could influence the implementation itself before the action plan is developed in detail. Baseline analysis of situation and context can be conducted using quantitative, qualitative, or mixed methodology [3].
4. Following step is to *define the action plan* that includes: definition of specific objectives and activities to be conducted per each objective; responsibilities, who does what, trying to create ownership among target population and other stakeholders; timing; key performance indicators, process and outcome measures.
5. It is necessary to perform *monitoring and evaluation*

of the implementation to encourage continuous learning and activity improvement. Intermediary as well as final evaluation of the activity can be performed using QCR, including assessment of key performance indicators. Intermediary evaluation can lead in an adaptation of the original plan, if needed. Results of the evaluations have to be shared among relevant stakeholders, showing the link to the defined goals and objectives.

6. *Preparation of a final report,* at the end of the planned activities, is essential to transmit key information and messages to the scientific, professional, and civil community, as well as to decision makers, and is a fundamental element for the sustainability and scalability of the practice. The report should be structured, partners in JA CHRODIS PLUS were using SQUIRE 2.0 Guidelines [17].
7. *Planning for sustainability of the practice and to increase potential the scale-up* should be considered from the first day of activity. A sustainability strategy should be defined that considers contextual factors and potential impact on the target population. The sustainability of the practice can be ensured through institutional anchoring and support from stakeholders or the community.

CONCLUSIONS

The process followed for translating recommendations to practice was based on the assessment of the applicability and transferability of QCR tool in different countries and settings, on the identification of predisposing factors and barriers and, above all, on collaboration amongst partners/countries which led to the definition of the guide for the implementation of QCR.

It is important to highlight that even though most of the studied activities were tackling diabetes and diabetes-related complications, each partner had different objectives facing different challenges, operating in various contexts and with target populations that varied from Country to Country.

Intervention methods were discussed and agreed with partners in a participatory process. Intermediary evaluation with multi-stakeholder participation allowed to re-define, if needed, the action plan through an iterative process also contributing to achieve a long-term, even if difficult to be measured, community benefit through research [3, 18].

Activities were conducted, in each participating Country, by a leadership and an implementation working group composed by the local relevant stakeholders, individuals, institutions or organizations in any way interested by the intervention or policy to be promoted. Population's target of the intervention (citizens, people with chronic diseases, health professionals, etc.) were also actively involved in the planning process and decision making. These characteristics are key elements to increase the likelihood of success and maximizes the benefits for the community [3, 5, 7, 8].

The partners were reflecting on essential elements of the QCR while establishing the leadership group and implementation working group, defining the scope of the pilot action in performing situation and context analysis and in designing the pilot action plan. Involvement of target population and of decision makers in the process was seen as an important facilitator in developing and implementing complex interventions. These were studied by qualitative and quantitative methods and focused on meaningful involvement of target population representatives to achieve sustainable and scalable results [3].

QCR implementation presents a very ambitious objective because it is aimed at reshaping health care systems by facilitating the transition from fragmentation to integration of care, including prevention efforts, and incorporation of community resources, to ensure a seamless care coordinated with and around the needs of people with chronic diseases.

The aims of the overall experience were to build, using a blend of participatory approaches, a common methodology helping fostering group work and creating a sort of community of practice through the organization of seminars, workshops, and stakeholder events [3, 5]. It helped to build a platform for the exchange of ideas, experiences, and materials and for the organization of study visits with the local working group, national and local stakeholders, decision makers and external experts. The implicit idea was that a participatory approach amongst all relevant stakeholders had the potential to create that essential sense of ownership to achieve concrete outcomes and maximum health impact. The added value of this method is reflected in the creation of a network, a community, a transnational human capital contributing to a generalizable knowledge.

In conclusion, practical experiences from the pilot actions show the potential value of using the QCR in designing and implementing practices in the field of chronic diseases, improving quality and integration of care, thus contributing to the reduction of health inequalities. The guide for the implementation of QCR provides additional practical support to all of those who want to develop, implement, monitor, and evaluate good practices in the field of health promotion, prevention, and care for people with chronic diseases.

Author contributions

Conceptualization, JZ, MM; methodology, JZ, MM, AG, VS; original draft preparation JZ, DO, LN, DS, MM; writing review and editing MM, JZ, DO, LN, DS, VS, DB, BC, AG, FP, ES, MV.

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Conflicts of interest statement

The Authors declare no conflict of interest.

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