

# Assessment of Readiness for Chronicity in Health Care Organizations

# ARCHO 1.0



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## INTRODUCTION

The management of chronic conditions is one of the greatest challenges faced by healthcare services worldwide. At present, there is broad agreement on the need for new models to better manage chronic conditions and recognition that no universal model is available in this field.

The care provided to chronic patients by healthcare systems and overarching health, social, and educational policies need a complete overhaul if quality, efficiency and sustainability are to be guaranteed.

In recent years, new conceptual frameworks have been developed, based on procedures showing better outcomes in the management of chronic patients across a variety of settings. One of the models that has been most widely acknowledged and discussed is the Chronic Care Model (CCM), developed at the MacColl Institute for Healthcare Innovation. This model has also been adapted to other settings (in particular, the Expanded CCM and ICC).

The CCM identifies the essential elements required by healthcare systems to provide quality care to individuals with chronic conditions. It is based on productive interactions between informed, empowered chronic patients and a prepared, proactive health team, and is operationalised through six basic elements: the organisation of the healthcare system, the community, the provision of care, patient self-care, decision-making tools and information systems. There is growing evidence that interventions implemented on the basis of the CCM improve processes and outcomes.

The ARCHO is an instrument for self-assessment of healthcare organizations with respect to their degree of readiness to cope with chronicity. It is based on the CCM and has been specifically developed for national health system environments. It allows assessment across a variety of organisational settings and levels: macro (decisions on healthcare policies and resource allocation), meso (management of health organizations, large centres and programmes) and micro (practices of healthcare professionals, e.g., in health centres or multidisciplinary projects).

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## INSTRUCTIONS FOR SELF-ASSESSMENT

ARCHO, Assessment of Readiness for Chronicity in Health Care Organizations, is the English term for the original name in Spanish of IEMAC, Instrumento de Evaluación de Modelos de Atención ante la Cronicidad.

Please, be aware of this correspondence when using ARCHO.

The ARCHO was designed as an instrument to help healthcare providers that want to improve their health system by adapting it to the needs of patients with chronic conditions. To use the instrument effectively, we suggest you read these instructions before using the ARCHO.

### 1. Self-assessment instrument

The ARCHO is a tool that enables healthcare organisations to self-assess their implementation of models for the management of chronic conditions. This questionnaire can help ascertain how well geared your organisation is towards prevention and the management of chronic patients and measure its performance with respect to certain dimensions, making this a valuable tool for identifying weak areas and, in turn, for improving the organisation.

This questionnaire should be completed online; in this way, the results of the self-assessment are processed and reports generated automatically. It is available on: <http://www.iemac.org>

### 2. Scope of application and assessment perspective

The ARCHO is an instrument for self-assessment which can be used in a variety of contexts and across a range of organisational levels. Specifically, it can be used at all decision-making levels: macro, meso and micro; and in all healthcare levels.

It should be taken into account that not all interventions considered in the ARCHO are equally applicable at all levels and, as such, results should be viewed in context. For instance, some of the Dimension 1 interventions, Organisation of the Health System, are more meaningful at macro levels, i.e., where policies and strategies are formulated and resources allocated, while some in Dimension 4, Self-Management, are more relevant at the micro levels, in relation to the activity of healthcare professionals. The interventions in Dimension 3, Health Care Model, although relevant to all levels, are particularly applicable at the meso level with regards to the management of healthcare organisations, hospitals and programmes.

On the other hand, the ARCHO offers the opportunity to integrate assessments from the macro, meso and micro levels in order to build up an overall picture of the system.

### 3. Self-assessment process

Self-assessment provides you with the following:

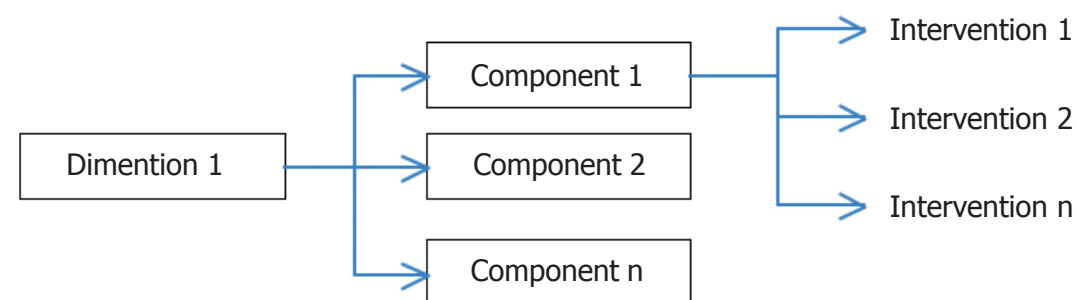
- Awareness of strengths in the management of chronic patients within your organisation
- Identification of areas for improvement.
- A rating of your organisation with respect to its approach to chronic conditions, in terms of a score from 0 to 8000.
- A basis on which to draw up action plans

We suggest that the self-assessment is carried out by a group of professionals (we refer to them as the self-assessment team) who reach a consensus on responses to the questions posed by the ARCHO.

The self-assessment team should include professionals with different profiles and management responsibilities within the organisation. Professionals from various healthcare settings (primary care and hospital) may be involved, as well as those from the social care system. For some interventions, it may also be useful to include the perspective of patients.

Before the assessment meeting, you should read through the questionnaire to familiarise yourselves with the instrument and its dimensions, components and interventions. We suggest you initially following the order set by the questionnaire itself, i.e., start with Dimension 1 and work through to Dimension 6. On the other hand, when assessing the different dimensions at the self-assessment team meeting itself, the recommended order of addressing the questions is as follows:

- For the macro level: Dimensions 1, 2, 3, 4, 5 and 6.
- For the meso and micro levels: Dimensions 3, 4, 2, 1, 5 and 6.



#### 4. Structure of the questionnaire

The questionnaire consists of six dimensions, related to the six elements of the Chronic Care Model. As illustrated in the diagram below, each dimension is broken down into a series of components (n=27) and, in turn, each of these into interventions (n=80):

For each dimension and component, a number of statements are proposed (corresponding to possible interventions). Each of these must be rated, on a scale of 0 to 100, reflecting the current situation in the health organisation being assessed. Each score should be accompanied by a description of the specific measures in place or actions carried out that justify the rating, in order to provide evidence to support the assessment.

For some of the interventions the questionnaire includes a note clarifying the scope to which they refer.

#### 5. Rating scale

The rating scale, ranging from 0 and 100, is divided into 5 bands. When rating each intervention, the following criteria should be taken into consideration:

- **Deployment**, defined as depth and degree of the implementation of the intervention. Deployment may mean something different depending on the type of intervention. For most cases, the level of deployment (%) reflects degree of coverage of the population and/or

of the most prevalent chronic conditions. On the other hand, in some dimensions, in particular Dimension 1, it may refer to the scope of the intervention in the corresponding management areas.

- Presence or absence of a process for **systematic and ongoing assessment** of the outcomes of the interventions implemented
- **Introduction of improvements** which enhance the outcomes in terms of better quality, efficiency and sustainability of the system.

Although the scale is continuous to allow a detailed description of the level of development of an organisation with regard to each of interventions, it has been divided into 5 bands to make the process of rating easier.

**First band: An action plan and/or isolated measures are in place. Deployment is limited.** This corresponds to pilots, specific actions with a certain group of patients and projects at the design stage. Deployment (coverage in terms of geographical area and number of diseases) is very limited.

**Second band: The action plan has been implemented but outcomes have not been evaluated. The plan is deployed in 25% of the relevant areas.** This will apply when the action plans have been implemented in some hospitals, by some professionals or in certain departments, units or services, and for some chronic conditions, with a deployment of around 25%. It is likely that in this band no outcome evaluation has yet been made.

**Third band: The action plan is being developed systematically. Outcomes have been evaluated. The plan is deployed in 50% of the relevant areas.** This band assumes that the action plan is being systematically implemented (which means it is no longer a question of pilot projects based on the voluntary activities of a few individuals) and the assessment system has been designed. The implementation of these interventions involves a greater number of hospitals and professionals from different disciplines, and several chronic conditions, usually the most common ones (such as, diabetes, hypertension, asthma, COPD, depression, osteoarthritis, among others), with a deployment of approximately 50%.

**Fourth band: The action plan has been systematically evaluated for at least 2 years. The plan is deployed in 75% of the relevant areas.** This band should be used when the action plan has been in practice for at least 2 years. Interventions are deployed in approximately 75% of relevant areas involving a broad range of professionals or many hospitals, as appropriate. These interventions involve many types of chronic conditions. Further, it has been possible to assess the interventions and the outcomes thereof are allowing improvements to be introduced in the ways of working in the organisation.

**Fifth band: The action plan is part of the care model. It is deployed in over 85% of the areas and favours innovation.** This is limited to cases where the action plan is fully integrated in clinical practice and there is deployment across over 85% of the organisation. Evaluation is geared towards improvement and innovation of new, radically different interventions, for example, of a new nature or involving the application of new technologies.



The rating given indicates the robustness and depth of the interventions currently in place and, in some cases, may help to identify potential interventions which have been shown to be of value in improving care for chronic patients.

It is important to remember that the tool has been developed under restrictive criteria. This means that to increase the rating, from one band to the next, the criteria for the previous band should have been fully met.

## 6. Rating

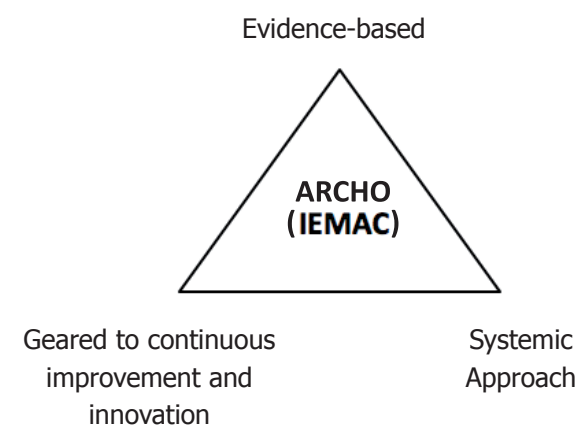
The overall ARCHO score corresponds to the sum of the scores for each intervention. It ranges from 0 to 8000 and is designed to facilitate internal comparisons (that is, of the organisation with itself) over time.

Operationally, when the scores from each intervention have been agreed on, a figure (ranging from 0 to 100) on the degree of development in each component and dimension can be obtained from the average of the score for the corresponding interventions.

When interpreting the scores, it should be noted that it is normal to begin with fairly low ratings. It is logical that as time passes and professionals familiarise themselves with chronic care models and key management concepts, scores increase with improvements made (meaning a higher rating). On the other hand, we underline that the process of improvement is not always linear and tends not to be well understood until it is underway, so in a given period the rating may be lower than in earlier periods before going on to improve steadily over time.

## 7. Frequency of Assessment

The time it takes to implement interventions for improving chronic care in a healthcare organisation varies depending on the type of intervention.



At the start, annual self-assessment is recommended and, later, depending on the levels achieved and the number, intensity and type of improvement interventions undertaken, this interval can be lengthened.

## 8. Principles inspiring the ARCHO model

The following principles were considered inspirational when designing the ARCHO:

- A systemic approach to chronic conditions that considers the organisation holistically and underscores the synergistic value of interventions.
- The use of evidence-based interventions, whenever possible.

- A drive for continuous improvement and innovation to ensure progress in the management of chronic conditions.

## 9. Final considerations

### The ARCHO is an instrument allowing:

- The assessment of healthcare organisations (at any level, macro, meso or micro) with regard to the implementation of a model of excellence for chronic care, and its progress over time
- The establishment of action plans based on the identified strengths and areas for improvement
- A comparative analysis of good practice between different organisations which have rolled out improvement plans based on the same components and interventions.

On the other hand, it should be noted that:

- ARCHO has not been designed to compare organisations, hospitals, services, or healthcare practices on a global rating.
- It measures the perceptions of the members of the assessment team about the way their system deals with chronic conditions. As with other self-assessment tools, these perceptions may be influenced by the motivations and expectations of the respondents themselves and by their understanding and interpretation of the interventions.
- Although ARCHO addresses multiple improvement dimensions, it is not intended to be a comprehensive plan for improvement of a healthcare system. Basic aspects, for instance, human resources, funding and incentives, are only considered in as far as they relate to the improvement of care for chronic patients.

## DIMENSIONS

- 1 ORGANISATION OF THE HEALTH SYSTEM**
- 2 COMMUNITY HEALTH**
- 3 HEALTHCARE MODEL**
- 4 SELF-MANAGEMENT**
- 5 CLINICAL DECISION SUPPORT**
- 6 INFORMATION SYSTEMS**

## 1. ORGANISATION OF THE HEALTH SYSTEM

*This dimension deals with the transformation of the health system with the aim of improving population health through a shared vision. It is based on adequate funding schemes, information systems that allow for evaluation, improvement and innovation, and the alignment of social and health policies..*

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1.1 Leadership commitment

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1.2 Strategic framework

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1.3 Population-based approach

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1.4 Information system, evaluation, improvement and innovation

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1.5 Funding scheme

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1.6 Social and healthcare policies

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## 1.1 Leadership commitment \*

1.1.1 Leaders have developed an explicit vision of chronic care.



1.1.2 Leaders have reallocated resources to drive transformation of the healthcare model with the aim of improving care for chronic patients.



1.1.3 Senior leaders promote clinical leadership among members of multidisciplinary teams\*.



*Describe the measures carried out that justify this rating:*

An action plan and/or isolated measures are in place. Deployment is limited.

The action plan has been implemented but outcomes have not been evaluated. The plan is deployed in 25% of the relevant areas.

The action plan is being developed systematically. Outcomes have been evaluated. The plan is deployed in 50% of the relevant areas.

The action plan has been systematically assessed for at least 2 years. The plan is deployed in 75% of the relevant areas.

The action plan is part of the care model. It is deployed in over 85% of the areas and enhances innovation.

\* **1.1.0** In this context, "leader" is defined as any member of staff with a management role in healthcare organisations and those responsible for teams of staff, depending on the setting in question: regional health service, geographical healthcare area (e.g., district or region), hospital or health centre.

**1.1.3.** A process related to clinical activity in which some health professionals act as leaders with the aim of improving clinical practice and service provision. This is based on the development of competencies to drive strategies, inspire a vision and shared values in professional practice, foster teambuilding, create an organisational culture of innovation and excellence, and develop and prepare professionals for achieving effective management of health problems and excellent care for patients and families.

## 1.2 Strategic framework

1.2.1 A strategic approach to chronic care is in place, based on a systemic vision that was developed with the collaboration of stakeholders, bringing together values, quality and responsible use of resources\*.



1.2.2 Measurable objectives in the settings relevant to chronic care have been defined and disseminated.



1.2.3 A system for monitoring strategic planning (process and outcomes) in chronic care is in place.



*Describe the measures carried out that justify this rating:*

An action plan and/or isolated measures are in place. Deployment is limited.

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\* **1.2.1.** This refers to the concept of the chronic care model as an integrated system overcoming fragmentation between existing care structures by action at various leverage points to achieve better outcomes.



### 1.3 Population-based approach\*

1.3.1 The care model is geared to improving health and reducing inequalities and its progress is monitored using indicators.



1.3.2 Population stratification systems providing useful information for clinical and management decisions have been devised and rolled out\*.



*Describe the measures carried out that justify this rating:*

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- \* **1.3.0.** A population-based approach is understood as one which takes the entire population of a certain geographical area into consideration in the design of policies, strategies, and action plans for chronic care. Accordingly, it includes not just patients receiving care but also the healthy population in relation to health promotion activities, in general, and individuals who do not use health services but who could potentially benefit from them.
- 1.3.2.** This refers to the classification of the population into groups that require different interventions or programmes depending on their health status, risk, complexity or needs. To date, the stratification models most widely used classify the population according to their risk of emergency hospitalisation and/or use of other services which imply increased costs in the future. This intervention is addressed from a planning perspective and is complemented by intervention 6.1.1 concerning the individual classification of each patient recorded in their medical record.

### 1.4 Information system, evaluation, improvement and innovation

1.4.1 The structure of the information system for evaluation, improvement and innovation has been defined and there is awareness of it.



1.4.2 Measurements of quality, health outcomes and efficiency are taken into consideration in the care of chronic conditions.



1.4.3 Methods for collaborative learning, as well as identification and dissemination of good practice are in use.



1.4.4 Innovation with the participation of all stakeholders is encouraged.



*Describe the measures carried out that justify this rating:*

An action plan and/or isolated measures are in place. Deployment is limited..

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## 1.5 Funding scheme

1.5.1 A risk-adjusted per capita funding scheme has been rolled out\*.



1.5.2 Incentives are in place for reaching shared targets in areas of chronic healthcare with the aim of improving the quality of care.



*Describe the measures carried out that justify this rating:*

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\* **1.5.1.** Per capita funding is based on the number of people registered in a region, as opposed to schemes based on the funding of hospitals or activity-based programmes (per capita funding is an incentive to keep the population healthy). Per capita payment may be risk-adjusted according to circumstances.

## 1.6 Social and healthcare policies

1.6.1 Policies to promote coordination and/or integration of social and healthcare have been defined and implemented, especially in cases of frailty and dependence.



*Describe the measures carried out that justify this rating:*

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The action plan is part of the care model. It is deployed in over 85% of the areas and enhances innovation.

## 2. COMMUNITY HEALTH

*This dimension refers to cooperation between the healthcare system and community resources, organisations and institutions in the prevention and management of chronic conditions.*

2.1 Community strategies in health plans

2.2 Alliances with community stakeholders

2.3 Linking patients to community resources

### 2.1 Community strategies in health plans

2.1.1 Programmes and community projects are designed reflecting community health needs.



2.1.2 Institutions, community agents, local bodies and the public work together with health institutions in planning community healthcare policies.



 Describe the measures carried out that justify this rating:

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The action plan is part of the care model. It is deployed in over 85% of the areas and enhances innovation.

2.2 Alliances with community stakeholders

2.2.1 An up-to-date map of community resources that have an impact on health has been developed and is in use.



2.2.2 Partnership and cooperation agreements are in place between healthcare providers and the management of community resources.



Describe the measures carried out that justify this rating:

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2.3 Linking patients to community resources

2.3.1 Channels for accessing community programmes and resources have been set up to meet the needs of chronic patients.



Describe the measures carried out that justify this rating:

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### 3. HEALTHCARE MODEL

*This dimension refers to how to advance towards proactive models of care which address the needs of each patient in a comprehensive way and in which the different departments/units and professionals involved carry out their functions in a planned, structured and coordinated manner.*

#### 3.1 Patient-centred care

#### 3.2 Professional competencies related to chronic care

#### 3.3 Multidisciplinary teamwork

#### 3.4 Integration and continuity of care

#### 3.5 Active patient follow-up

#### 3.6 Innovation in interactions between patients and healthcare professionals

#### 3.7 Clinical management of chronic conditions and incentive schemes

#### 3.1 Patient-centred care\*

3.1.1 Chronic patients are able to identify one professional who acts as their healthcare contact person in each care setting\*



3.1.2 Patients have a contact number to obtain advice from a healthcare professional on a 24-hour basis (other than emergency services)



3.1.3 A specific action plan has been devised for advanced chronic patients in the last stages of their life, reflecting their values and preferences



3.1.4 An aim of the social care and healthcare provided is for patients to remain in their environment and in the community with the best quality of life possible.



*Describe the measures carried out that justify this rating:*

An action plan and/or isolated measures are in place. Deployment is limited...

The action plan has been implemented but outcomes have not been evaluated. The plan is deployed in 25% of the relevant areas.

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\* **3.1.** This refers to planning, organisation and provision of care that takes into account the values, preferences and needs of individual patients and encourages their involvement in the whole process, assisting them in their interaction with the healthcare system and professionals as a means to improve the quality of care they receive.

**3.1.1.** The healthcare contact person is the professional a given patient identifies as his/her reference in the event of any incidents or questions. The patient knows the name of this professional. It might be their primary care doctor or nurse, a person responsible for patient services or their hospital specialist, depending on the setting.

**3.1.2.** The channels for consultation must be far-reaching and include the telephone and other communication networks, the possibility of face-to-face consultations and other methods.

### 3.2 Professional competencies related to chronic care

3.2.1 Professional healthcare competencies required for the management of chronic patients have been established and are developed\*.



3.2.2 Certain professionals are given the role of ensuring coordination and continuity of care, particularly in processes of transition between care settings and planning hospital discharge\*.



3.2.3 Nurse community case managers are involved in the management of high-risk chronic patients.



3.2.4 Competencies of professionals are developed, in particular for relational skills and skills for motivating patients for change.



*Describe the measures carried out that justify this rating:*

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\* **3.2.1.** This refers to the recognition and development of new competencies among health professionals and the development of new profiles with a combination of competencies, to ensure that professionals are better prepared to provide quality care to their chronic patients. Examples of the corresponding new roles may be: health coaching, telephone counselling and the examples discussed in 3.2.2, 3.2.3 and 3.2.4.

**3.2.2.** These are professionals who participate actively in the planning process at the time of discharge of hospitalised or institutionalised patients, in order to ensure continuity in the care process, to maintain care at home or in other community settings, and to avoid readmission or institutionalisation. Examples would be liaison nurses and nurse case managers who fulfil this coordination function and ensure continuity of care..

### 3.3 Multidisciplinary teamwork

3.3.1 Work is carried out in teams in hospitals and other settings\*.



3.3.2 Formal and informal relationships between professionals with joint activities in different healthcare levels are encouraged\*.



3.3.3 Teamwork between (health, social and community) organisations is facilitated to improve planning, implementation and improvement of care models for chronic patients.



3.3.4 Healthcare teams and other groups involved in patient care in other settings treating the same chronic patients have shared goals.



*Describe the measures carried out that justify this rating:*

An action plan and/or isolated measures are in place. Deployment is limited..

The action plan has been implemented but outcomes have not been evaluated. The plan is deployed in 25% of the relevant areas.

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The action plan has been systematically assessed for at least 2 years. The plan is deployed in 75% of the relevant areas

The action plan is part of the care model. It is deployed in over 85% of the areas and enhances innovation

\* **3.3.1** This refers to the rolling out of a team development strategy including the following key elements: identification of team members; definition of their roles and functions; definition of shared goals and corresponding targets, with systematic evaluation of targets reached; and specification of information and communication channels and how often they should be used so that effective cooperation among members is strengthened. The team may range from the basic care unit of the primary care physician and nurse to other larger multidisciplinary and/or inter-area care settings. They may be general or specialised in one or several conditions.

**3.3.2** This refers to providing opportunities for professionals to come together and discuss issues of common interest, whether by organising structured activities (seminars, conferences, meetings, etc.) or providing more informal forums for interaction (social networks, knowledge management platforms, social activities, etc.).



### 3.4 Integration and continuity of care

3.4.1 Pathways between primary and specialist care have been designed and put into place for the most common chronic conditions. These pathways describe the route patients should follow and appropriate healthcare settings based on patient needs.



3.4.2 Care processes take into account the relationship with social care and the community setting.



3.4.3 The integrated and multidisciplinary care process for patients with multiple conditions is defined and applied.



3.4.4 Alert systems are in place for informing and activating the clinical team during referral processes and transitions of care (hospital admission and discharge).



3.4.5 An alternative route, avoiding attendances to the emergency department, has been established for chronic patients during periods of poor control or worsening of their condition: on-line consultations, telephone contact; day hospital; and admission, where necessary, managed from the primary care setting.



### 3.4 Integration and continuity of care

3.4.6 Medication reconciliation is performed across the continuum of care, and especially during transitions between different settings\*.



*Describe the measures carried out that justify this rating:*

An action plan and/or isolated measures are in place. Deployment is limited.

The action plan has been implemented but outcomes have not been evaluated. The plan is deployed in 25% of the relevant areas.

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\* 3.4.6. This refers to the formal process of verification of a patient's regular medication at time of hospital admission and comparison with any new medication prescribed, to avoid duplication, interactions or contraindications between the two treatments. The reconciliation process should ensure continuity of treatment during the transition and ensure the continuity and compatibility of the treatments. The same applies on discharge, only in reverse.

### 3.5 Active patient follow-up

3.5.1 Standardised plans of action are in place for each patient profile, including health promotion activities, preventative measures and other interactions in the integrated care process.



3.5.2 A comprehensive care plan for each patient, with objectives for prevention, clinical control and symptoms control and self-management, is recorded in his/her medical record.



3.5.3 Alerts have been set up in the information system to make professionals aware that a patient's condition has become poorly controlled.



3.5.4 Patient medication is systematically reviewed to detect and address any efficacy, safety or adherence problems.



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### 3.6 Innovation in interactions between patients and healthcare professionals

3.6.1 Technology is used to allow remote interaction between patients and professionals\*.



3.6.2 Telemonitoring or teleconsultation is commonly used to monitor/follow-up patients.



3.6.3 Websites, social networks, and blogs with health education content are promoted.



3.6.4 Structured and proactive programmes are in place for remote monitoring/follow-up of chronic patients.



3.6.5 Group sessions are held\*.



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\* 3.6.1. This includes telephone calls, as well as e-mail, traditional websites, and Web 2.0 technologies.

\* 3.6.5. The objective is effective improvement in disease management to achieve improvements in health outcomes and a better quality of life. It is based on peer-led interactions, with exchange of knowledge, experience and know-how to produce a change in behaviour allowing effective management of the process.

3.7 Clinical management of chronic conditions and incentive schemes

3.7.1 Healthcare teams have powers to manage their own resources, organisation and operation.



3.7.2 An incentive scheme for professionals is in place that rewards effective management of chronic patients.



3.7.3 Feedback of information is routinely provided to clinicians so that they can improve their practice.



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4. SELF-MANAGEMENT

*This dimension refers to the involvement of patients in their own care and the management of their condition. It requires the effective use of support and training strategies to ensure that patients have the necessary motivation, knowledge, skills and resources\*.*

4.1 Patient assessment for self-management

4.2 Structured therapeutic education

4.3 Psycho-social development of patients and mutual support

4.4 Tools to facilitate self-management

4.5 Shared decision-making

\* 4. Active patients who have productive relationships with their medical teams are pivotal in the new models of management of chronic conditions.

## 4.1 Patient assessment for self-management

4.1.1 Professionals perform a comprehensive assessment of each case, together with the corresponding patient, to identify the patient's needs, attitudes and skills for self-management.



4.1.2 Professionals evaluate the environment of each patient with limited autonomy (family and social network, workplace, etc.), together with the corresponding patient, to identify caregivers and their ability to provide the necessary support.



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## 4.2 Structured therapeutic education

4.2.1 Therapeutic education is provided to patients covering all aspects of their chronic condition, through structured programmes.



4.2.2 Various types of therapeutic education are provided according to each patient's needs and preferences: individual appointments, group sessions, telephone calls, emails, specialised websites, on-line courses, educational material, etc.



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### 4.3 Psycho-social development of patients and mutual support

4.3.1 Management skills of patients (for problem-solving, decision-making, and proper use of healthcare and social resources, among others) are developed to increase their confidence and motivation with regard to their self-care ability (expert patient programmes).



4.3.2 Emotional support is provided by patient and caregiver support groups.



4.3.3 The participation of patients and caregivers in associations, working groups, social networks and patient forums is encouraged.



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### 4.4 Tools to facilitate self-management

4.4.1 Patients have clear, useful written information regarding their personal care plan.



4.4.2 Patients have secure electronic access to “personal health folders”, a part of their medical record that contains comprehensive information related to their condition (diagnosis, treatment, lifestyle recommendations, etc.).



4.4.3 Self-management tools (telephone contact, remote monitoring, patient notes, alerts, devices for measuring biological parameters, pill boxes, etc.) are used as appropriate for each patient.



4.4.4 Programmes of group activities fostering personal autonomy and patient health have been set up.\*



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\* 4.4.4. Programmes such as group exercise classes, cooking lessons

4.5 Shared decision-making

- 4.5.1 Patients receive clear, detailed, relevant information about their health problems and the various care options.

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- 4.5.2 Patients are involved in defining problems, in the action plan for negotiating priorities and objectives, and in evaluating their own progress\*.

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\* 4.5.2. Once a general assessment of a patient has been made, the professional sets a series of therapeutic objectives with an associated action plan that is a road map stating how the activities and measures required to manage the chronic process are to be carried out. This action plan is agreed with the patient taking into account his/her values and preferences.

5. CLINICAL DECISION SUPPORT

*This dimension refers to the capacity of the system to improve health outcomes using decision support tools, training of professionals and exchange of knowledge among providers of care to chronic patients.*

5.1 Protocols and shared guidelines

5.2 Continued education and training

5.3 Liaison and consultation



### 5.1 Protocols and shared guidelines

5.1.1 Clinical practice guidelines covering the various care settings and other sources of expert knowledge (decision-making tools, etc.) are used and systematically updated.



5.1.2 Algorithms for alerts and decision making, e.g., diagnosis and point-of-care clinical decision support related to therapeutic interventions, based on clinical practice guidelines, are included in patient medical records.



5.1.3 The design of guidelines, protocols and expert tools covers the most common types of comorbidity.



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### 5.2 Continued education and training

5.2.1 The impact on practice of training programmes on the management of chronic patients and chronic conditions is evaluated.



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5.3 Liaison and consultation

5.3.1 Face-to-face interaction (clinical sessions, consultations between professionals, rotations, etc.) is used for the exchange of knowledge and expertise.



5.3.2 Remote interaction (electronic referral of patients, referrals via e-mail, referral via on-line platforms) is used for the exchange of knowledge and expertise.



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\* 5.3.1. This refers to the transfer of theoretical and empirical knowledge and experience between professionals to assist in the treatment of specific cases or to support training in specific areas. This transfer may occur between professionals with different levels of specialisation, different sectors/levels of care (such as primary care, hospitals, social services, public health) and different types of professionals (medical, nursing, pharmacy and others). It may take place in either one or both directions..

6. INFORMATION SYSTEMS

This dimension refers to the use of information to support clinical and population management, distributing relevant information in a structured, proactive and integrated manner between the various information subsystems, to improve care for chronic patients.

6.1 Information for management and clinical practice

6.2 Integration of patient clinical data

6.3 Reporting of clinical information between professionals

## 6.1 Information for management and clinical practice

6.1.1 The risk classification of patients in terms of their expected care requirements is included in their health record\*.



6.1.2 Patient lists can be compiled and activities planned by health problem, risk level or other relevant clinical parameters.



6.1.3 Clinical indicators have been established to assess different dimensions related to chronic conditions: expected prevalence, level of diagnosis, level of control, suitability of treatment and adherence, use of hospitalisation and emergency services, complications and mortality.



6.1.4 Processed data on indicators are provided to clinicians and managers on a regular basis to improve practice and management..



6.1.5 The medical record is designed to be user-friendly and ergonomic in order to facilitate clinical monitoring by professionals.



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\* 6.1.1. This assessment includes the risk of admission, foreseeable complications during treatment, and limited social support, as well as other difficulties.

## 6.2 Integration of patient clinical data

6.2.1 The electronic health record can be accessed and updated by all care areas.



6.2.2 Systems are in place to ensure the unequivocal identification of patients.



6.2.3 Patients can enter clinical information (symptoms, adherence, data from occupational health check-ups or private healthcare, etc.) in their personal health folders within their health record.



6.2.4 Information generated in other sectors (social services, public health) is shared between professionals.



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### 6.3 Reporting of clinical information between professionals

6.3.1 An e-referral or online consultation between professionals from different healthcare areas with electronic exchange of information is in place.



6.3.2 A channel (direct phone line, mobile or other means of contact) is in place for consultations between professionals in real time across the various levels of care.



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# IEMAC 1.0



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**MSD**