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## The ACSA Accreditation Model: Self-Assessment as a Quality Improvement Tool

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### 1. Introduction

Excellence in healthcare is based on the concept of "continual improvement". It must start from the premise that everything we do is always capable of being improved (Pomey et al, 2005). It is not an isolated action, but rather a culture and a dynamic concept that must backbone the entire organization without impediment. This "know how" will allow the reinforcement of strengths and the reduction of those weaknesses (Lorenzo, 2004) found when making a previous consideration of how everyday practice is performed and how it can be improved.

The quality and safety of care is found in all European policy agendas, which currently show differences in the quality of services provided (Lombart et al, 2009). Consequently strategies are suggested to improve quality and safety in different health systems.

Healthcare institutions have a social responsibility to respond to health-related needs with the provision of important services, that are equitable, cost effective and of high quality. Similarly, health professionals have the responsibility to remain competent to attain standards of excellence, generate and disseminate knowledge and commit to defending the interests and welfare of patients, responding to the health demands of society (Perez & Oteo, 2006).

The above is generally assumed by everyone involved in improving health services, such as health institutions, scientific societies, professional associations and the professionals themselves. Consistent with this, we are living at a time of expansion of continuing education activities (Pardell, 2005), that are accompanied by a significant investment in resources. Similarly, significant efforts are being made to promote the accreditation and quality of healthcare institutions (Pomey et al, 2005).

However, what methodology should be followed? The better this "know how" is carried out the closer results will be to excellence, and it must be done by measuring results and performance (Laing, Hohh & Winkelman, 2004) and taking into account the meanings of effectiveness and efficiency. In this context, the concept of accreditation is used as a tool to drive the continual improvement of care quality. The detection of areas for improvement is highlighted as one of the main strengths of the process (Aranaz et al, 2003). This

accreditation process may include a serie of essential interventions to facilitate and encourage professionals and organizations to assess themselves (Claveria, 2004), participating in identifying and prioritizing problems and developing areas for improvement. It is essential that this reflection involves the largest number of professionals, including managers (Gutt et al, 2006), something that can enrich the process. Performance is compared with expectations and objectives, thereby identifying opportunities for improvement. Many accreditation models use self-assessment as a reflection tool that allows the identification of the strengths and areas for improvement of the organization (Viswanathan & Aslmon, 2006, Giraud, 2001, Greenfield & Braithwaite, 2008).

## **2. Self-assessment in professional development**

Among the methodologies for the evaluation of competence, the portfolio is characterized by developing a self-assessment phase. This reflection exercise is one of the strengths of the portfolio (Arnau-Figueras & Martinez-Carretero, 2007; Prados, 2005). That is why the self-assessment phase of the process is the main generator of benefits for the continuing professional development (CPD) of those professionals who undertake the assessment process (Almuedo-Paz et al, 2011).

There are several experiences of the use of the portfolio in postgraduate education and its role in CPD support (Tochel et al, 2009). Similarly, in the health professions self-evaluation is used to induce continual improvement in professional work (Casey & Egan, 2010; Cowan, Wilson-Barnett, & Norman, 2007; O'Neill & Kurtz, 2001). In the health field, this type of competence evaluation based on self-assessment is most widespread at the resident stage (Caverzagie, Shea & Kogan, 2008; Pasquina, Kelly & Hawkins, 2003; Staccini & Rouger, 2008).

### **2.1 Self-assessment in health institutions**

With regard to models of self-assessment of quality, the EFQM (European Foundation for Quality Management) Excellence Model is the most widely accepted with regard to self-assessment (Del Rio et al, 2006, Brun et al, 2004 ; Pariente et al, 2004; Martínez-Pillado, 2008; Editorial Committee, 2004), allowing total quality management to be applied in the health sector to obtain better results (Ugalde, 2003). However, the complexity of adapting it to primary and specialized care decreases its applicability (Arcelay et al, 1998). Importantly, among the models for the accreditation of quality specific to the health sector, there is an important commitment to self-assessment as a cornerstone of the accreditation process, such as in the Australian Council on Healthcare Standards (Greenfield & Braithwaite, 2008 ), Haute Autorité de Santé (Fortes, Mattos & Baptista, 2011) and Accreditation Canada (McCurdy et al, 2009).

As the result of a need for a model more suited to the healthcare reality, already demanded in public health organizations (Guix Oliver, 2005), and favoured by further development of specific continual improvement tools that enable management of healthcare quality (Torres-Olivera et al, 2004), the ACSA accreditation model was born (Almazán-González, 2006). In this model, professionals and institutions that initiate the process, at the first stage of self-assessment, have reference standards that address aspects of quality related to the citizen, professional, healthcare processes, support elements and results. The working methodology

is to reflect on what is done today to reach those standards (objectifiable facts or positive evidence), how it can be demonstrated, what results are obtained and how they can be improved (where work needs to be done to strengthen or achieve compliance), that is, areas for improvement, a cornerstone in the process of continual improvement. The greater number of professionals that work on accreditation projects, the more enriching are the improvement cycles that are designed. In this model, professionals can participate as assessors (reflecting on the implementation and improvement of standards) and as agents for improvement (they are responsible for implementing the identified improvements).

This model attempts to identify areas or activities where attention must be focussed to achieve higher quality levels in institutions throughout the whole Health System, whilst promoting the development of a culture of quality and transparency based on continual improvement.

### **3. ACSA model of accreditation**

The Andalusian Agency for Healthcare Quality was founded in 2002 as part of the strategy promoted by the Andalusian Regional Ministry of Health, to improve and ensure quality in the healthcare provided to citizens within the Andalusian Public Health System (SSPA).

Quality plans of the Andalusian Regional Ministry of Health arise from a firm commitment to excellence, innovation and professional development. One of its strategic processes is focused on "ensuring the management of quality in the health services."

These strategic lines include the development of the accreditation programmes of the Agency for Healthcare Quality, based on the continual improvement of quality and the progress and development of professionals.

At this time, the Agency has established and implemented its own unique accreditation model, has designed a series of accreditation programmes as tools for the continual improvement and safety at the service of the professionals, units and organizations, and has established a methodology that facilitate their application in practice and maximizes results.

#### **3.1 The accreditation model**

Accreditation is seen as the process that observes and recognizes how the healthcare provided to citizens responds to our quality model, always with the aim of encouraging and promoting continual improvement of our institutions, professionals, training, etc.

From this perspective, the accreditation model of the Andalusian Health System boasts a number of typical characteristics:

- It is consistent with the plans and management tools for continual improvement in the SSPA: clinical management, process management, competence management and knowledge management.
- The standards present in the different programmes reference the health regulatory framework of Andalusia, the strategic elements of the SSPA, the recommendations on best practice, safety elements, the needs and expectations of citizens, the results of satisfaction surveys, etc.

- It addresses quality from an integrated approach, through a series of accreditation programmes targeting different elements involved in healthcare: health centers and clinical management units, continuing education, professional competences and web pages.
- It has a progressive nature, identifying different stages or degrees of progress towards excellence. Going beyond an isolated benchmark or a recognition obtained at a given time, accreditation is a dynamic, continual and evolving process that reflects and reveals not only the situation at the time of its implementation but also, above all, the potential for development and improvement to grow in quality.

The accreditation model of the Andalusian Health System provides a common framework for all accreditation programmes within it.

### 3.2 The accreditation programmes

The Agency has accreditation programmes in several areas:

- Programmes of accreditation of centres and units (hospitals, primary care and hospital clinical units, haemodialysis units, clinical laboratories, diagnostic imaging units and blood transfusion centers).
- Programmes of accreditation of professional competences for 70 different health disciplines.
- Accreditation Programmes for continuing education (activities, programmes and centers for continuing education).
- Programmes of accreditation of healthcare web sites.

Accreditation programmes share the same structure and contemplate, from each of their perspectives, the same key areas of quality management. They are grouped into five blocks, five dimensions around which are grouped the content of the various programmes. These blocks are related to:

- The citizen
- Integrated health care
- Professionals
- Areas of support
- Efficiency and results

Each programme is developed with the participation of the professionals in the Health System through technical advisory committees.

### 3.3 Methodology

Our accreditation model grants a role to self-assessment in all the programmes. Continual improvement is based on the immense potential possessed by the people and organizations. In the self-assessment phase, different groups or professionals identify their current position, determine their aspirations and plan actions to achieve them.

Self-assessment creates a space for consensus and shared improvement in which the different actors are involved (professionals, managers and citizens).

For example, in the process of accreditation of centres and units, the professionals analyze the standards and their purpose and reflect on:

- What is done? and How can it be demonstrated?, from where those positive evidences arise.
- What are the results? How can they be improved?, Questions that lead to areas for improvement.

Similarly, in the process of accreditation of competences, during the self-assessment the professional examines the competences and good practices related to the achievement of outstanding results in their work, and provides evidence and proof of the presence of these good practices in their daily performance.

The accreditation model starts with reference standards with which the centres, professionals, units, etc. move towards improving services to citizens and the implementation of management tools to improve quality.

From our view of quality, the standards are a continually evolving system which the citizen contributes to by incorporating their needs and expectations. Its definition, review and continual updating give dynamism to the processes of accreditation.

Accreditation also means an explicit and public recognition that the requirements needed to develop quality care have been fulfilled, and that a line of continual improvement has been undertaken. As a tool, and not an end in itself, accreditation promotes and encourages processes of improvement and evaluation within the health system.

The road proposed for continual improvement involves the entire organization, from the highest management to the entire group of people who work there, all of whom must be firmly committed to this process.

Additionally, given that accreditation has been regarded as a dynamic process, it should not be understood as the end of a road, but as an opportunity to establish new and alternative paths to improve quality.

External evaluation is another of the common elements of the accreditation process, for both centres and professional competences. At this stage, teams of the Agency's surveyors observe and recognize the evidence presented (documents, by observation, in interviews) that are associated with different elements of quality and safety, and identify the level of accreditation obtained, the strengths, the potential and the areas for improvement.

Each of the phases, and especially self-assessment, are based on a series of Web-based applications called ME\_jora developed by the Andalusian Agency for Healthcare Quality, which allows each accreditation process to be conducted securely and with the support of Agency professionals, and also enables the dissemination and exchange of knowledge and the elements of quality identified in them.

#### **4. Accreditation programme for healthcare units**

As in the other accreditation programmes, the standards for the accreditation of clinical units are divided into three groups:



- The standards of group I relate to the vested rights of citizens, the aspects related to the safety of citizens and professionals, the ethical principles that should be contemplated in all healthcare policies and those priority items for the SSPA.
- In group II the standards include those elements associated with the further development of the organization (information systems, new technologies and redesigning of organizational spaces).
- The group III standards relate to showing that the clinical unit generates innovation and development for society in general.

Group I includes those standards that are considered mandatory and therefore must necessarily be present and stabilized to achieve any level of accreditation.

The following table summarizes the distribution of programme standards for clinical management units by type of standard:

Standard Type	Definition
Group I	Standards that provide for the vested rights of citizens, issues related to the safety of citizens and professionals, the ethical principles that should be contemplated in all activities of the clinical management units and those priority items for the Andalusian Public Health System
Group II	Standards governing elements associated with the further development of the organization (information systems, new technologies and redesigning of organizational spaces)
Group III	Includes those standards that demonstrate that the clinical management unit generates innovation and development oriented to society in general

Table 1. Distribution of programme standards for accreditation of clinical unit.

4.1 Results of accreditation

The accreditation model articulates progression in different grades, each more complex and demanding than before, thereby facilitating continual improvement. Accreditation levels are advanced, optimum and excellent.

However, as long as the system is constantly evolving and seeking ways to improve, it would be wrong to understand the final grade as a final or last stage. Rather (and as a result of improvements that will occur due to new technologies, new services, new forms of organization and new demands from the citizen user and professional user), the standards established for the various grades will be updated periodically. For example, what can be seen today as far for any system, with continual improvement, may be excellence tomorrow.

Ultimately, the accreditation model for the Andalusian Health System is a useful methodological tool that allows checking of the extent to which activities are carried out according to quality standards, and the light of external evaluations provides public and express recognition of those institutions and professionals who comply and demonstrate such.

The result of the accreditation process can be:

*Pending the stabilization* of obligatory standards: situation is maintained until the plans for improving the clinical unit meet the obligatory standards of group I. Achieving these will qualify for some level of accreditation.

*Accreditation - Advanced:* accreditation obtained by achieving over 70% compliance with group I standards (all those considered obligatory are included within this percentage).

*Accreditation - Optimal:* is reached when there is 100% compliance with group I standards and more than 70% compliance with group II standards.

*Accreditation - Excellent:* the level of excellence is achieved when there is 100% compliance with group I and group II standards, and more than 70% compliance with group III standards.

After obtaining an accreditation rating of advanced or optimal, clinical management unit, after at least a year, may voluntarily choose to attempt accreditation in successive ratings.

4.2 Structure of the standards manual

The manual of standards of clinical management units is divided into five blocks and eleven criteria, which are described below:

I. The person, central to the Health System	The person as an individual asset
	Accessibility and continuity of care
	Clinical information
II. Organization of person-centred activity	Management of integrated healthcare plans and processes
	Health promotion in the community
	Clinical unit management
III. Professionals	Clinical unit professionals
IV. Support Processes	Structure, equipment and suppliers
	Information systems and technology
	Continual improvement
V. Results	Clinical unit results

Table 2. Structure of accreditation programmes for clinical units

I. The person, central to the health system

This block represents 24.77% of all standards in the manual, referring to the rights, expectations and participation of users, proffesionals and units petitioning of the clinical unit; to the elements related to privacy and accessibility to available resources; to the relationship between professionals and healthcare and to interdisciplinary actions linked with the use and safekeeping of the clinical and personal information of the user. There is differentiation into three criteria:

- The person as an individual asset
- Accessibility and continuity of care
- Clinical information

II. Organization of person-centred activity

This block constitutes 22.94% of the standards contained in the manual. They primarily concern issues related to:



- Management of integrated healthcare plans and processes
- Health promotion in the community
- Management of the clinical unit

### **III. Professionals**

These account for 11.01% of all standards and cover from the induction of professionals to the adequacy of professional resources for care, while facilitating the updating of their competences and professional development and enhancing research work in the clinical unit.

### **IV. Support processes**

This block accounts for 30.28% of the standards in the manual, and is dedicated to the management of the structure of the centre and its facilities, supply processes, equipment, safety measures and functionality for users and professionals to achieve the proposed objectives. It analyzes the areas relating to new technological advances in the field of information technology, the protection of personal data and strategies for managing risks and specific quality plans. It is differentiated into the following three criteria:

- Structure, equipment and suppliers
- Information Systems and Technology
- Continual Improvement

### **V. Results**

Finally, there is a set of standards which make up 11.01% of the contents of the manual and which reflect the results obtained by the clinical unit in terms of activity, efficiency, accessibility, satisfaction and scientific- technical quality.

## **4.3 Phases of the accreditation programme**

### **PHASE 1. Preparation. Application for accreditation and introductory visit**

The head of the unit requests the Andalusian Agency for Healthcare Quality to start the accreditation process by completing an application in the ME\_jora C program, available on the website of the Andalusian Agency for Healthcare Quality at <http://www.juntadeandalucia.es/agenciadecalidadsanitaria>.

This application results in joint planning of the whole process of accreditation between the unit and the Agency.

Subsequently, the Andalusian Agency Healthcare Quality appoints a project manager, and the unit names an internal accreditation process manager to facilitate the development of the process and communication with the Agency.

Finally, by agreement with the unit, a visit is planned to present the accreditation process.

### **PHASE 2. Internal focus: self-assessment**

Self-assessment is conceived as the permanent testing of the areas for improvement in the organization. The standards manual is taken as a reference for this assessment. During this phase, the professionals in the unit conduct an exercise of reflection, and must observe the strengths (i.e. positive evidence) and in turn identify areas for improvement.

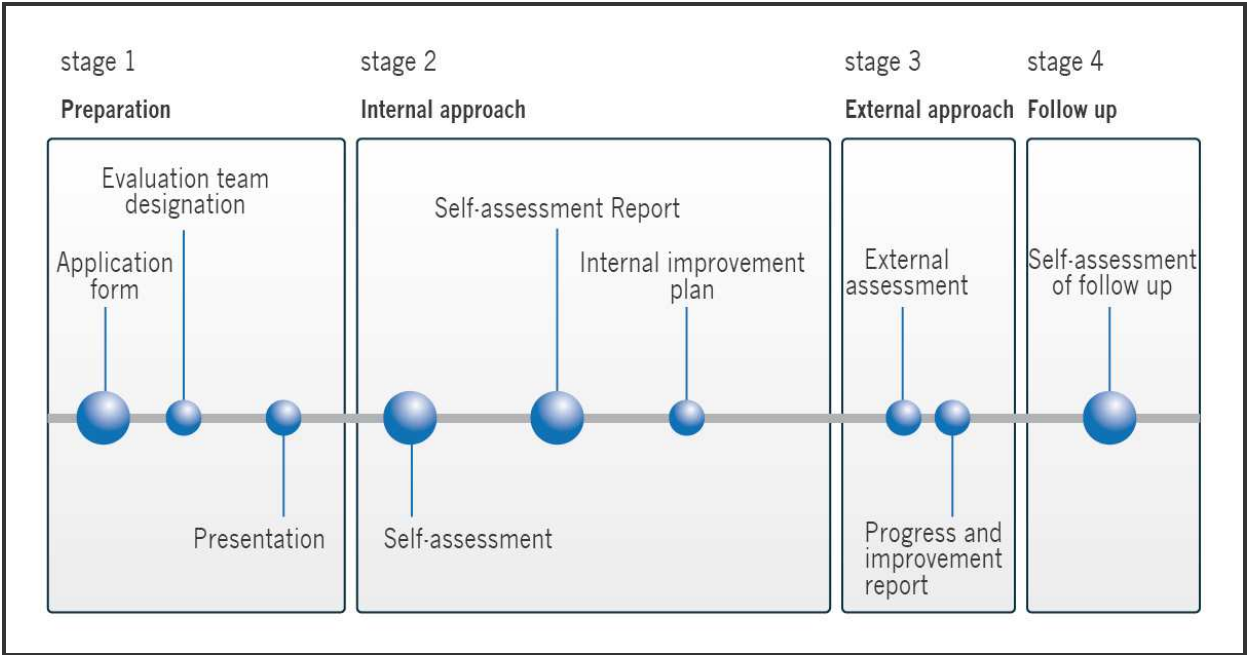


Fig. 1. Phases of the accreditation program.

Self-assessment has the following objectives:

- To provide the unit with a way towards continual improvement and towards accreditation through:
  - To identify strengths, in order to maintain, and even improve them. To identify areas for improvement in order to work on them and turn them into strong points.
  - The expansion of information on the purpose, scope of the standard and the provision of examples of good practice.
- To enable periodic self-assessment, both within and outside of the accreditation cycle, to assess progress on an ongoing basis.
- To promote learning and knowledge management in the health system.

In the design of self-evaluation, a qualitative approach has been chosen to determine the level of compliance using the Deming PDCA cycle.

Thus, by following the PDCA (Plan - Do - Check - Act) method for each of the standards, we develop a continual improvement cycle. This prevents the compliance with a standard remaining as a static fact, or point, associated with the moment of assessment. By using the PDCA cycle of continual improvement it is intended that the organization review its approach to compliance with standards. It must PLAN ahead, DO what is required, CHECK the effectiveness of the standard and ACT to improve implementation and development, thus ensuring the consolidation and stabilization of the standard over time.

In turn, stabilization of a standard does not only involve the compliance with it, it also involves the mobilization of the unit in a process that will ensure future compliance.

The unit will therefore review which phase of the PDCA cycle (Plan, Do, Check, Act) each standard is at, according to the steps described in the table below:

PHASE	PRECIS	STEP
PRIOR	Preliminary improvement profile	The influence of the standard on the organization has been determined prior to starting the accreditation process
PLANNING	Specify objective and information system	Indicators have been defined that identify the attainment of the standard
	Plan	The actions needed to achieve the standard have been defined
	Define functions	The responsibilities and human resources needed to meet the standard have been identified and assigned
	Communicate	All those involved in the initial process to reach the standard have been informed of the plans
	Proportion resources	All the resources (materials, training, etc.) needed to achieve the standard are defined and assigned
COMPLIANCE	Complies	The purpose of the standard is achieved in accordance with its influence and with the defined indicators.
EVALUATION	Appraise	Non-conformities have been identified in the results
ADAPTATION	Correct and enhance	Actions have been undertaken to eliminate the observed non-conformities

Table 3. Phases of the improvement cycles

The standards manual is based on a software application that:

- Provides accessibility to the accreditation process with secure access via user profiles from any post or workplace in the healthcare unit.
- Acts as a document manager for all the information generated in the accreditation process.

The self-assessment phase consists in turn of the following phases:

1. The management team sets the objectives and action plan for the self-assessment of the clinical management unit.

How the self-assessment will be deployed, and the format for internal and external communications, etc, will be determined in the planning.

A manager is designated in the unit for the accreditation process.

It is advisable to appoint a manager for the accreditation process in the unit, who will assume the role of key person in organizing and coordinating the whole process and communicate with the Andalusian Agency for Healthcare Quality. Their main functions will be to:

- Set the schedule to be followed and ensure compliance.
  - Participate in the selection of assessors, giving them support and help in training.
  - Establish and conduct meetings of the assessors.
2. The assessors are selected and assigned to certain standards.

A group of assessors is designated in this phase, depending on the size of the unit. It is recommended that these assessors be multidisciplinary, as this will enhance learning and creation of organizational knowledge. Given the dynamic nature of both standards and the process itself, this team should not only be for a one-time-only self-assessment exercise, but rather should continue to work on identified areas for improvement and on the recommendations of the external evaluation, and would regularly update the self-assessment. To promote teamwork and make it efficient, it is also advisable to divide the standards among professionals who will participate in the self-assessment.

The assessors are trained in handling the IT application.

The unit manager of the accreditation process will provide the assessors with:

- The complete standards manual and the list of standards upon which each will perform self-assessment.
- Access to software where groups can register positive evidence, the areas for improvement and the degree of compliance according to the PDCA cycle.

The manager for the accreditation process of the Andalusian Agency for Healthcare Quality will be responsible for providing sufficient training to ensure the management of the software and the monitoring of the process.

### 3. The self-assessment files are completed.

Coordinated by the internal manager of the accreditation process, the working group reviews the standards and completes the forms in the software application available on the Web. The review of standards entails reflection on whether the standard is met, in which case the positive evidence supporting it must be described. If there was no evidence to demonstrate compliance with the standard, the self-assessor must describe the areas for improvement that the clinical management unit should address in order to comply and stabilize the standard. The software allows the attachment of files to the positive evidence and improvement, for thus acting as a document manager.

4. The self-assessment group shares the findings (positive evidence and areas for improvement) and finalizes the self-assessment.
5. The results from the assessment are then pooled, and some of the responses are clarified, and the information shared and completed.
6. Priority is given to the positive evidence and areas for improvement. After sharing the results obtained by the different groups, the areas for improvement are approached globally, searching for common lines of action. The software allows the prioritization, planning and allocation of managers of the areas of improvement.
7. The improvement plans are developed and implemented. The software allows the description of actions for each area of improvement, which along with the ability to plan and designate managers, makes it an easy management system for continual improvement in the unit.
8. The process of self-assessment is evaluated and improved. Finally, the process of self-assessment is contemplated as a learning formula, to introduce improvements and thus prepare the successive self-assessments. The software has a results module that facilitates and supports the planning, monitoring and achievement of the actions arising from the management of improvement made in the self-assessment phase.

**PHASE 3. External approach. Evaluation visit**

Once the self-assessment phase is completed, a visit will be made by the team of surveyors from the Andalusian Agency for Healthcare Quality, who will study the self-assessment and perform an external evaluation. This visit will be planned with the agreement of the management team of the clinical unit.

Thus, throughout this phase, the evaluation team of the Andalusian Agency for Healthcare Quality is responsible for verifying compliance with the standards based on positive evidence and areas for improvement provided by the healthcare unit during the self-assessment and on other significant evidence that will be collected during the visit and that will be in the form of documents, interviews, and direct observation.

**PHASE 4. Reports**

After the external evaluation visit, the evaluation team of the Andalusian Agency for Healthcare Quality prepares a progress report which specifies the degree of compliance with standards and recommendations.

This report is sent from the Andalusian Agency for Healthcare Quality to the management team of the unit.

**PHASE 5. Monitoring and collaboration between the clinical unit and the Andalusian Agency for Healthcare Quality**

A specific module in the ME\_jora C application has been defined and implemented in order to carry out accreditation project monitoring over the five year validity period of accreditation.

The objectives of the follow-up phase are:

- Consolidate the results obtained by the stabilization of standards compliance over five years.
- Maintain and increase the momentum of improvement through the implementation of identified areas for improvement, along with the opportunity to continue identifying new areas for improvement.

After obtaining accreditation, the unit has the self-assessment monitoring sheet available, so that at two and four years from the date of accreditation a follow-up evaluation is carried out consisting of the following four sections:

- Analysis of the prior considerations about structural and organizational changes that could have been produced in the clinical unit and that could affect the scope of accreditation.
- Positioning and analysis of compliance with the mandatory standards, in order to ensure maintenance of compliance over time.
- Update of the areas for improvement identified in the self-assessment phase yet to be fulfilled.
- Update indicators of activity and healthcare processes over the last two years.

5. Professional competences accreditation programme

5.1 Conceptual framework

The professional competences accreditation programme of the SSPA has been designed to recognize the achievements of professionals in real and daily practice, and as a tool to promote professional development and continual improvement.

The accreditation programme is based on the methodological and conceptual framework of management by competences, as a comprehensive model for configuring the processes of selection, performance appraisal, training management, promotion and incentives.

The concept of competence refers to a capacity or stable personal characteristic causally related to desirable outcomes in an organization.

A key element of management by competences is identifying these capacities as measurable elements. The most coherent acceptance of the competencies approach is that which considers them as a set of observable behaviours which are measurable in a reliable and valid way, and causally related to good or excellent performance.

In the healthcare system, and in its measurement, competence is defined as the ability of health professionals to integrate and apply knowledge, skills and attitudes associated with the "good practices" of their profession to resolve the situations that arise.

This conceptual approach focuses on what the professional does. For the professional to develop good practices, i.e., the observable behaviours associated with a competence (to do), it is necessary for all five components of the competence to be present: to know it (knowledge), know-how to do it (skills), know how to be (attitudes), want to do it (motivation) and the ability to do it (professional competence and means) (Fig. 2).

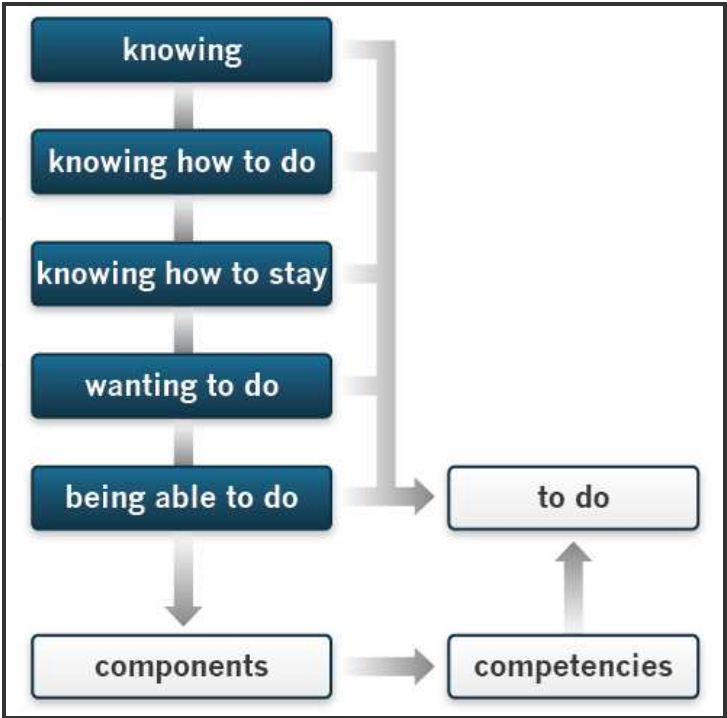


Fig. 2. Components of the competence.



The set of competences required by a professional in a job is their "competence map". It identifies competencies and the best practices (observable behaviours) associated with them, as well as the evidence (or verification criteria for determining the presence of good practices) and tests (measurement and evaluation tools that determine compliance of the evidence of good practice integrated in a professional competence).

As described above, most of the tests to determine compliance with the evidence included in the competence accreditation programme are based on "what the professional does" (in real situations, in their results, and so on.), as an ideal way to recognize and accredit professional competences.

The accreditation of professional competences is conceived as a process that systematically observes and recognizes the proximity between the competences that a professional really has and those defined in the competence map (Almuedo, 2006).

The manuals for the accreditation of health professionals have been developed with the participation of over 600 professionals and representatives from 70 scientific societies, which have formed technical advisory committees, one for each discipline or specialty, each of which has developed its specific manual of competencies.

Each of these technical committees has identified the competencies that a particular professional must possess, as well as the good practices that should be present in the performance of their work.

In all the manuals, the professional competences are grouped around 5 blocks and 10 criteria, which address the quality model of the Andalusian Public Health System (Table 4)

Block I	<b>The citizen</b>	1. Orientation to the Citizen (satisfaction, participation and rights)
Block II	<b>Integrated Health Care</b>	2. Health Promotion, Prevention and Community Care
		3. Attention to the individual and the family
Block III	<b>The Practitioner</b>	4. Management by Integrated Healthcare Processes
		5. Teamwork & Inter-professional Relationships
		6. Attitude of Progress and Professional Development
		7. Commitment to Teaching
Block IV	<b>Efficiency</b>	8. Commitment to Research
Block V	<b>Results</b>	9. Efficient use of resources
		10. Results oriented professional development

Table 4. Structure of the professional competences accreditation manuals

Each competence is associated with a number of good practices, and each good practice must be backed up by evidence and tests that the professional must provide to demonstrate that they do indeed possess such competences.

5.2 Levels of accreditation

Accreditation means getting explicit and public recognition of compliance with the requirements to provide quality care and the beginning of a line of continual improvement by a professional. Thus, accreditation is not an end in itself, but a dynamic, continual and evolving process, which provides professionals with the opportunity to establish development options to grow in quality.

When a professional is competent in a particular area of their professional performance, they present a series of observable and measurable behaviours, which verify the presence of such competence: this set of behaviours constitute their good practices, which can be observed and measured through evidence and tests (Brea-Rivero et al, 2001).

The evidence used to verify the existence of good practice has been classified by level of complexity and can be of various types:

- Essential evidence (which is essential for professional compliance)
- Evidence Group I (indicating that the professional progresses towards maturity),
- Evidence Group II (consolidating the professional's maturity)
- Evidence Group III (which makes the professional a benchmark for other professionals in the system).

The tests are instruments or objective elements of measurement or evaluation which determine the fulfilment of the evidence associated with each good practice of a professional competence.

The tests to be provided are primarily:

- Non-attendance tests:
  - The self-audit is a review that the professional makes of sample health records of patients seen over a certain period of time.
  - The reports consist of conducting a brief summary of a health history, in which the professional shows what his performance was in certain situations. Also, the reports can be "reflection" and / or "clinical practice".
  - Certificates are documents accrediting the performance of a particular activity.
- Attendance tests simulating a clinical situation. These tests are called by the Agency for Healthcare Quality on determined dates, which the professional can attend or not, as these tests are not mandatory).
- Non-attendance tests subject to call (also called "contextualized cases"). They can consist of using the Internet to make a critical reading of a scientific or medical journal based on the evidence.

Evaluation methods are mainly focused on the highest level of Miller's pyramid (Miller, 1990).

With regard to how much evidence and tests a professional has to provide, it is important to note that the evidence contained in the manual of competencies corresponds to your professional group, depending on the level of accreditation intended to demonstrate or achieve, the quantity and percentage of evidence required is different.

Based on these percentages of evidence obtained (essential, group I, II and III), the result may be accredited in any of the following grades (Table 5):

- Advanced grade
- Expert grade.
- Excellent grade.

The accreditation will have a term of five years. After this period, the accreditation ceases to have effect, unless the process of reaccreditation began before expiry.

	ADVANCED	EXPERT	EXCELLENT
GROUP I	70%	70%	60%
GROUP II		70%	70%
GROUP III			80%

Table 5. Evidence required to achieve different levels of accreditation.

5.3 Accreditation process

The process of accreditation of competences is a voluntary process by which the professional systematically reviews their own practice, demonstrating a level of competence, which they already had, or have achieved during the accreditation process. Thus, the competence accreditation programme attempts to ensure the presence and / or acquisition of new competences and a determined level of their development throughout professional life.

Accreditation is a dynamic process that entails a periodic evaluation every five years to verify the presence or acquisition of new skills and their level of development (certification and recertification).

The accreditation process consists of three phases:

- Phase 1: The Application.
- Phase 2: The self-assessment.
- Phase 3: The recognition and certification.

Step 1. Request

The accreditation of professional competences begins with a formal request via the Web, which contains the information needed to correctly identify the professional and their accreditation choice.

Access to the professional competences accreditation programme, is made through the website of the Andalusian Agency for Healthcare Quality, in the ME\_jora P application, which is designed to facilitate the process of professional accreditation.

[http://www.juntadeandalucia.es/agenciadecalidadsanitaria/acsa\\_profesionales/](http://www.juntadeandalucia.es/agenciadecalidadsanitaria/acsa_profesionales/)

Once the application is accepted, the professional has access to all information relating to their accreditation process, thereby enhancing the autonomy of the professional to manage their accreditation path with transparency throughout the process.

From this moment, the Andalusian Agency for Healthcare Quality will supply credentials to access the accreditation programme and the manual of competencies for your professional group, assigning it a professional surveyor of the Agency (tutor guide) who will accompany the whole process, either through personal meetings, telephone contact, or electronic communication through the Web. Moreover, the ME\_jora P application includes a video with the information needed to provide accreditation.

PHASE 2: Self-assessment

This phase is the most important for the professional. It consists mainly in collecting and provide evidence from their own practice, real and daily (depending on the contents of the manual of competencies concerned), which demonstrate good practice in professional

performance, allowing a certain level of competence to be proven, which was previously possessed, or that has been achieved during the accreditation process. Therefore a portfolio type methodology is applied to assessing competence, which is the greatest benefit of continuing professional development.

Since the self-assessment can last indefinitely, depending on the professional, the evidence has a period of validity, outside of which it expires.

The Agency has developed a Web-based software application (ME\_jora P), which allows the professional to provide the necessary evidence to attain accreditation, as well as accessing the content of the corresponding manual of competencies, examples and references to consult in relation to good practice, it facilitates the development of self-assessment, customizes the process and establishes permanent contact with the Agency to resolve concerns.

### **PHASE 3: Recognition and certification**

Once the professional has completed their self-evaluation, the Agency for Healthcare Quality reviews the evidence provided, by expert professionals in each discipline or specialty, and depending on them, issue a report of results and the corresponding certification of the results of the evaluation, according to the criteria and standards established at the level of development that the professional has reached: advanced, expert or excellent.

In the report of results, the Agency for Quality provides the professional with vision on the percentage of evidence provided, and the level of compliance of such evidence after the assessment phase, identifying the level of professional development in each of the competences contained in the specific manual.

In addition, the practitioner may request a review of the report of the results of process of assessing the level of professional competence.

## **5.4 Support tools**

To facilitate the professional accreditation process, the Agency offers several support tools:

- Manual of competencies: in digital or paper format, containing the competencies and best practices that have been defined for each professional group or specialty. In addition, the manual contains all the evidence and proof to be provided to advance the accreditation.
- Tutor guide: when the professional requests starting their competences accreditation process, they are assigned an Agency professional to accompany them throughout the process. The tutor-guide will be in constant contact, either by personal meetings, telephone contact, or electronic communication through the Web.
- ME\_jora P: this Web-based software application has been designed to especially facilitate the self-assessment phase. ME\_jora P allows the professional to have an updated version of their manual of competencies, it provides the necessary evidence relating to their good practices, answer doubts with your tutor guide and check the status of accreditation at any stage.

6. Results

6.1 Results of the programme of accreditation centres and units

The number of accreditation projects has increased very significantly from 2003 to the present, from the 14 self-assessments initiated in 2003, to the 790 in 2011. During this period, 285 healthcare units and centres have been accredited and there have been 410 primary survey visits and 93 additional visits in those projects requiring a second visit for the verification of certain aspects that were improved after the first. (Table 6)

In the years 2009, coinciding with the release of the first general document of accreditation of services (rules governing the certification process), those files that were in the phase of self-assessment for over a year began to be closed.

Our model includes 2 follow up visits at 2 and 4 years from the first survey visit, for which a monitoring self-assessment is necessary in the 3 months preceding the visit itself. Up to the first quarter of 2011, 323 monitoring self-assessments had begun.

	2003	2004	2005	2006	2007	2008	2009	2010	2011
Applications received	14	51	60	47	81	50	196	172	119
Ongoing self-assessments	10	30	57	66	126	130	203	194	172
Initiated surveys	4	31	32	38	22	47	62	142	78
Visits made	4	34	42	55	36	57	97	146	78
Certifications granted	-	12	28	32	27	20	51	68	75
Monitoring self-assessments started	1	13	28	46	23	32	57	86	61
Certifications due	-	-	-	-	-	3	26	23	18
Suspended Certificates	-	-	-	-	-	-	-	4	11
Certificates withdrawn	-	-	-	-	-	-	-	-	4

2011: 1st Quarter and 2nd Quarter

Table 6. Results of accreditation projects.

As can be seen in Table 7, the average times for self-assessment of the different clinical units are variable. Note that the haemodialysis units took the most time to formalize the self-assessment phase (15 months), and emergency centres took the least time to complete this phase (6 months). The primary care clinics and hospital clinical units took very similar times to complete the self-assessment phase: 11 and 12 months respectively.

Approximately 54 areas have been identified for improvement by process during the self-assessment phase. The primary care units had more areas of improvement identified and haemodialysis units the least. There is a difference between the areas for improvement identified by the primary care units and those of hospitals, specifically 100 per project in the first case and 78 in the second, despite the time spent on the self-assessment phase being very similar.

Of the 30,497 areas identified for improvement by centres and units, 60% of them were planned and implemented during the self-assessment. It can be seen that the primary care

units (66%) had the most implemented areas for improvement in relation to those identified, and the emergency centres (2%) and clinical laboratories (40%) the least. In the identification and implementation of these areas for improvement, during the self-assessment phase 4893 assessors participated (professionals of the clinical centres and units who reflected on the standards compliance). Most assessors per project were found in the hospitals, followed by the primary care units, and least in the haemodialysis units.

	HOS	E	PU	HA	HM	L	DI	TC	Total
Indicators (process completed)									
Av. Time for self-assessment (months)	12	6	11	12	15	8	10	8	10
Av. Areas for Improvement by process	98	30	100	78	10	26	65	25	54
Overall Results (all processes)									
No. Centres /Units	29	9	215	174	26	23	9	8	544
Improvement areas identified	2.521	30	16.349	9.883	265	836	480	133	30.497
Areas of improvement achieved	1.385 (55%)	2 (7%)	10.732 (66%)	5.450 (55%)	154 (58%)	335 (40%)	220 (46%)	87 (65%)	18.365 (60%)
Self Assessments	424	88	2.472	1.598	52	117	94	48	4.893
Number of Queries	1.587	50	8.315	7.182	482	687	256	215	19.466

HOS (Hospitals). E (Emergency). PU (Primary Units). HA (Hospital area). HM (Haemodialysis). L (Labs). DI (Diagnostic imaging). TC (Transfusion Centre)

Table 7. Description of accreditation projects by clinical sphere.

Table 8 presents the results obtained in the accreditation process in relation to the number of areas for improvement identified in each of the blocks (dimensions of quality assessed). In clinical units, both primary care and hospital, the largest number of areas for improvement were identified in relation to the standards that address the evaluation of service being provided to people within the health system (privacy, accessibility, continuity of care, ethics, information, etc.), while in hospitals and clinical laboratories the greater number of areas for improvement were identified in the support process block (equipment, emergency plans, information systems, infection control, appropriate use of medication, etc.).

Figure 3 shows the classification of areas for improvement and the rate of implementation during the self-assessment.



Sphere	The citizen	Organization of patient-centred activity	Professionals	Support Processes	Results
Hospital	825	312	168	1,152	63
Emergency	11	2	8	9	23
Clinical Laboratory	267	107	61	342	59
Diagnostic Imaging	189	68	45	156	22
Blood Transfusion	37	16	11	66	3
Primary Care Units	6,400	3,304	1,358	4,646	641
Hospital units	4,164	1,855	803	2,715	346
Haemodialysis	122	53	27	52	11

Table 8. Areas for improvement identified in the various dimensions of quality discussed.

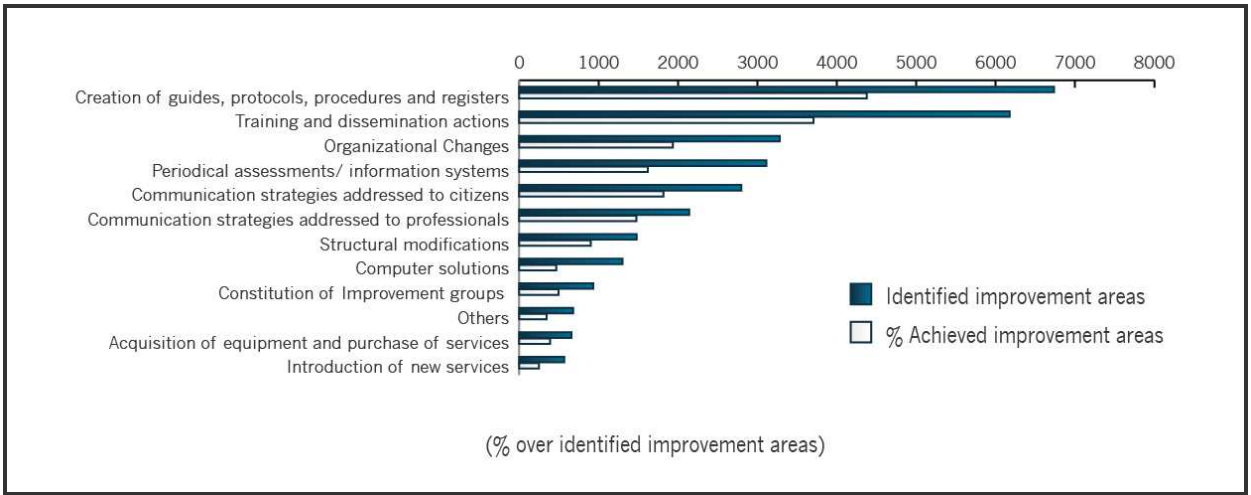


Fig. 3. Classification of areas for improvement.

6.2 Results of the programme of accreditation of professional competences

Following a pilot exercise in 2005, version 1 of the manuals of competencies were offered to the professionals in 2006. In January 2008, and based on experience gained since the beginning of the programme, version II was born, which included various improvements in the wording of the evidence, in the software application that supports the accreditation process and other actions aimed at facilitating the issuance of certificates for the workplaces of the professionals. Similarly, the average amount of evidence decreased through the manuals of competencies and, therefore, the evidence to be provided by professionals, fell from 74 on average in version I to 67 in version II.

Currently there are 70 version II manuals of competencies available to many other professional disciplines. (Figure 4).



Fig. 4. Accreditation manuals for professional competences.

Since the programme began, the number of professional accreditation processes has grown steadily (Fig. 5). In June 2011, more than 16,000 accreditation processes had been initiated, representing over 40% of medically qualified staff of the SSPA.

Of these, 3430 professionals had achieved some level of accreditation: 1,328 at advanced level, 1430 at expert level and 672 at excellent level.

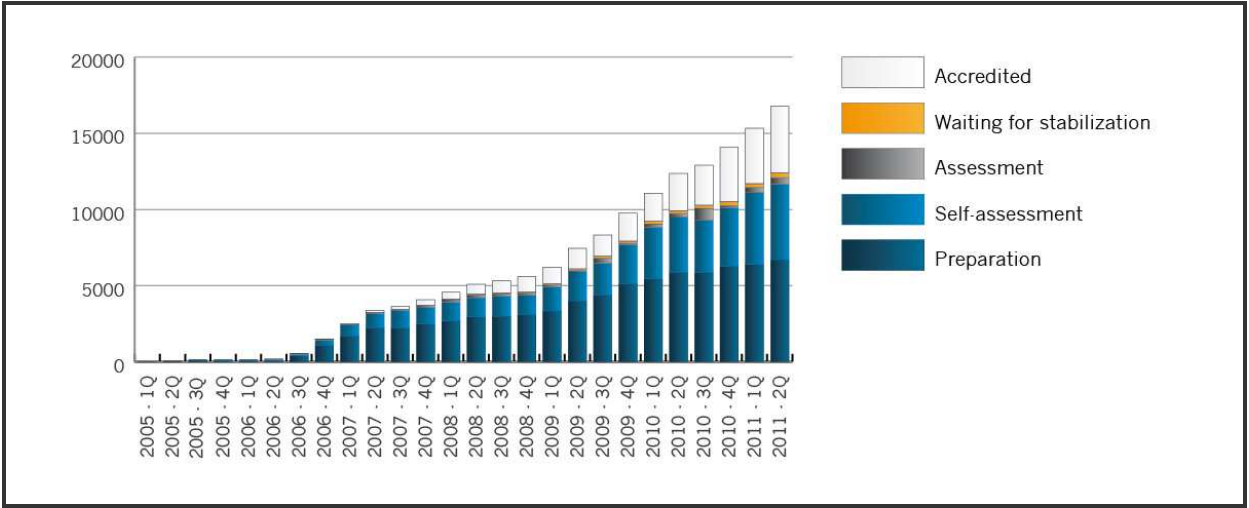


Fig. 5. Evolution of the accreditation processes.

The manual of competencies with the highest number of self-evaluation processes in absolute values are:

- Nursing care (hospitalization and special care).
- Primary care nursing.

- Family Medicine primary care.
- Nursing care hospital.

The procedures for these four maps together account for 42% of the ongoing processes.

As the demand for accreditation, hospital professionals account for 61% and professional primary care 24%, the rest belong to professionals and emergency blood transfusion centres.

In the matter of gender, more applications for accreditation are received from women than men in proportions of 56% - 44%, with considerable heterogeneity in response to the competence map.

The competency profile through accredited professionals to date, and grouped by criteria, is shown in Figure 6:

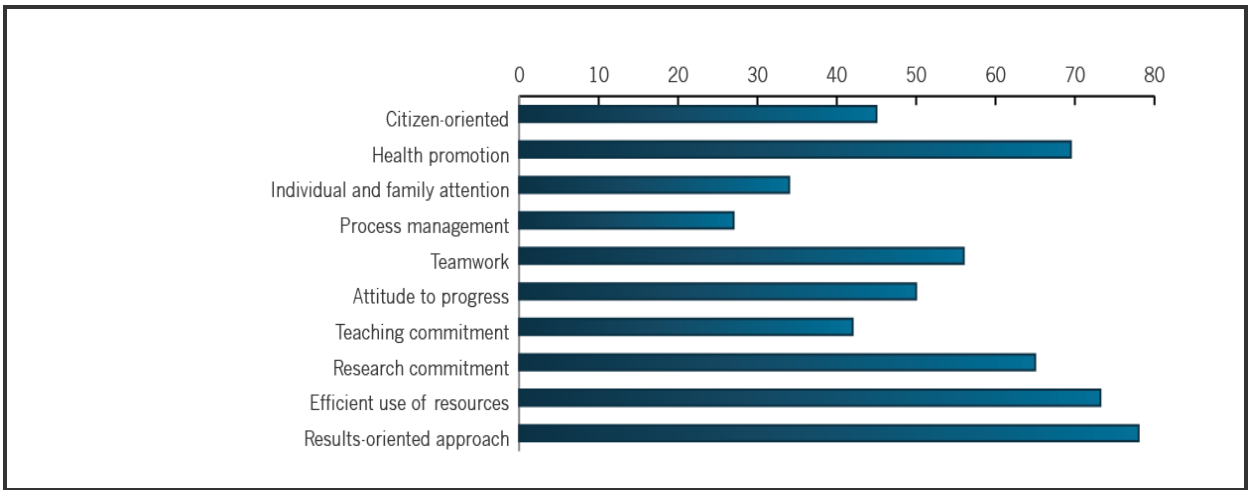


Fig. 6. Competency profile through accredited professionals.

Accredited professionals have invested an average time of 150 days on the self-assessment of their practices with version II of the manuals.

Professionals who have closed their accreditation process, over 36% have decided to restart the process in order to achieve a higher level of competence, so in fact they are already providing evidence and testing.

As a support to the continual improvement of the accreditation programme, the questionnaire of perceived satisfaction has been clearly defined. The validation of this questionnaire was carried out by the Andalusian School of Public Health, ensuring its content validity by using the following methodology:

- Logical validity in terms of the population in the study, validity of the method of application and the structure of the tool, translation and adaptation (semantic equivalence, conceptual and cultural) of items and scales found in the literature (which may improve the content of the tool ) and format of the tool's presentation.
- Revision (trial judges) was performed by experts in survey research methodology, research methodology in health services, quality and accreditation of centres, professional development organization and management of health services, to issue an assessment and critical assessment of the measuring tool.

The questionnaire and instructions were sent to 100% of the population under evaluation after each call. This was done via a message on the personal accreditation page, eliminating selection bias. The online nature of the accreditation process familiarises the professional with the use of technology, limiting the effect of the technological barrier for non-response. Responses were received, at the same preserving anonymity, and distinguishing between professionals who had used the accreditation process using different versions of the manuals.

The questionnaire includes several dimensions that are valued by different questions and statements using a Likert scale with response elements at levels of 0 to 10.

In this study, the assessment of the following elements were analyzed:

- Overall satisfaction with the accreditation process.
- Usefulness of the accreditation process in the "self-study" and "reflection of the practice."
- Usefulness of the accreditation process in the "maintenance and improvement of competences."
- Usefulness of the accreditation process in "maintaining and improving results."

Of the professionals who have completed this, the response rate has been 62.08%. It verified that the scales of the questionnaire items were adequate, had good discriminatory power and showed no such bias as "floor and ceiling", ie, they present acceptable proportions of upper and lower ends of its distribution.

The overall assessment obtained by the accreditation programme is 8.01 out of 10. On the other hand, analyzing the perceived usefulness in continuing professional development, we identified the following results:

- Usefulness of the "self-study and reflection on practice": 8.1 out of 10
- Usefulness on "maintaining and improving their competences": 8 out of 10
- Usefulness on "maintaining and improving their results": 8 out of 10

## 7. Conclusions

1. Healthcare organizations are making a major effort to promote quality in the care they provide, but a disturbing question has arisen, especially within the environment of the economic crisis we live in, Are you using the right tools to increase quality? There are posts warning against complacency with current methodologies that are proven ineffective and urging areas of self-assessment and reflection to be sought by professionals, followed by external validation.

2. The ACSA accreditation model offers healthcare organizations and professionals self-assessment and reflection, along with external validation by qualified professionals. One of the conceptual pillars of this model is considered to be the ultimate aim in continual quality improvement.

3. The Andalusian Agency for Healthcare Quality has established and implemented its own unique accreditation model to improve and ensure quality in the healthcare provided to citizens within the Andalusian Public Health System. To do that, the Agency, has designed a

series of accreditation programmes as tools for the continual improvement and safety at the service of the professionals, units and organizations, and has established a methodology that facilitates their application in practice and maximizes results.

4. Accreditation programmes share the same structure and contemplate, from each of their perspectives, the same key areas of quality management: The citizen, Integrated health care, Professionals, Areas of support and Efficiency & results.

5. For the Andalusian Agency for Healthcare Quality, Accreditation means an explicit and public recognition that the requirements needed to develop quality care have been fulfilled, and that a line of continual improvement has been undertaken. As a tool, and not an end in itself, accreditation promotes and encourages processes of improvement and evaluation within the health system.

6. Each of the phases, and especially self-assessment, are based on a series of Web-based applications called ME\_jora developed by the Andalusian Agency for Healthcare Quality, which allows each accreditation process to be conducted securely and with the support of Agency professionals, and also enables the dissemination and exchange of knowledge and the elements of quality identified in them.

7. The return obtained through the questionnaire of perceived quality is encouraging; our results are consistent with experiences using self-assessment in other areas.

## 8. Acknowledgment

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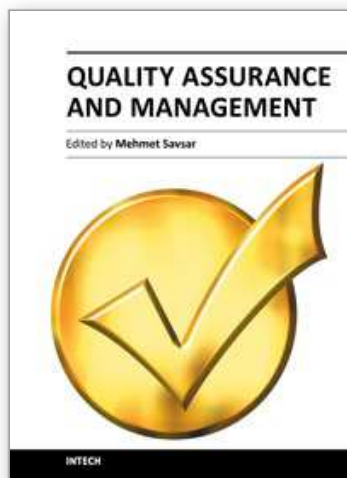
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## **Quality Assurance and Management**

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The purpose of this book is to present new concepts, state-of-the-art techniques and advances in quality related research. Novel ideas and current developments in the field of quality assurance and related topics are presented in different chapters, which are organized according to application areas. Initial chapters present basic ideas and historical perspectives on quality, while subsequent chapters present quality assurance applications in education, healthcare, medicine, software development, service industry, and other technical areas. This book is a valuable contribution to the literature in the field of quality assurance and quality management. The primary target audience for the book includes students, researchers, quality engineers, production and process managers, and professionals who are interested in quality assurance and related areas.

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