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ASOCIACIÓN NACIONAL DE ENFERMERÍA
COORDINADORA DE RECURSOS MATERIALES

HEALTHCARE PRODUCT MANAGEMET NURSING SPANISH COMPETENCES

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Product Management Competency Framework Sanitary

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1. Theoretical Framework

1.1. Background

Background at European and International level

A review of existing documentation at the European level only found information on Portugal, where this position exists with powers similar to those developed in Spain.

Background at the national level

In the 1980s, coinciding with the transfer of healthcare responsibilities from the State to the Autonomous Communities, many changes occurred affecting healthcare management. This decentralization led to the emergence of new organizational and management models.

Hospitals are beginning to be conceived as service companies, with a new business culture and high technological complexity. For all these reasons, the history of this role of the nurse in the field of Healthcare Products, Equipment, and Technologies is developing in parallel with and influenced by the political and economic changes in our country.

It is at this time, when new health needs arise and there is a greater demand for services, combined with limited healthcare resources, that the creation of a position with a broad understanding of the healthcare system and the ability to efficiently manage it is considered. Healthcare organizations consider nursing as the professional best suited to these new needs. They recognize their ability to understand new healthcare products as they emerge, to compile hospital catalogs, describe products using technical criteria for their evaluation, and act as a transmission belt between healthcare and economics, and therefore assign them the responsibility of undertaking these functions. The first nurses responsible for material resources appeared in hospitals with large or very large beds, at that time exceeding 600 beds and with high complexity.

Since 1997, these leaders began to meet among themselves, since within the health organization it is a single-person unit, which implies loneliness in the development of their work and decision-making; it is in these meetings that topics of interest to these professionals are regularly discussed, such as their professional profile, competency map, or the problems they face daily in the management of medical devices.

In 2004, at a meeting held in Palma de Mallorca, the decision was made to create a professional association, but it wasn't until June 2005 that it became a reality.

The professional association is conceived as an instrument that provides coverage for the daily practice of these professionals, as well as helping to mitigate geographic dispersion and changes in healthcare management in the face of the economic crisis.

The economic crises that occurred in 1993 and 2008 forced healthcare organizations to direct their efforts toward acquiring healthcare products based on efficiency and to place the management of healthcare technology more in the hands of nursing, thus extending this role to the entire national territory.

Thus, the degree of implementation of this figure within the Spanish public health system, distributed by Autonomous Communities and updated to May 2019, is as follow:

ANDALUSIA

PROVINCE	CENTER	Number
Almería	Torrecárdenas Hospital	1
Cadiz	Health Logistics Platform [*]1	1
Cadiz	Puerta del Mar Hospital Puerto Real Hospital,	1
Cadiz	La Línea Hospital,	1
Cadiz	Algeciras Hospital	1
Cordova	Health Logistics Platform [*] Virgen de las Nieves Hospital San Cecilio Clinical	1
Grenade	University Hospital Baza Regional Hospital	1
Grenade	Health Logistics Platform [*] Juan Ramón Jiménez Hospital [**]2	1
Grenade	Infanta Elena Hospital [**] Health Logistics Platform [*] Health Logistics Platform [*] Regional	1
Huelva	University Hospital Serranía de Ronda Hospital Virgen del Rocío	1
Huelva	Hospital Virgen Macarena	1
Huelva	Hospital, Virgen de Valme	1
Jaén	Hospital,	1
Malaga	Osuna Hospital	1
Malaga	Healthcare Logistics Platform [*]	2
Malaga		1
Seville		1
Seville		1
Seville		1
Seville		1
Seville		1
TOTAL		**24**

Table 1: Number of Nurse Managers of Primary Care by Province and Center. Andalusia

1[*]Health logistics platforms are provincial organizations that consolidate the activities of all hospitals and primary care districts in the province.

2[**]Operations Control, with functions related to authorization and control of GAC (consumer agreement management) and the logistical organization of the center

ASTURIAS		
PROVINCE/AREA	**CENTER**	**Number**
Avilés	San Agustín Hospital	1
Gijón	Cabueñes Hospital	1
Langreo	Nalón Valley Hospital.	1
Oviedo	Central Hospital of Asturias	1
Oviedo	Sespa	1
TOTAL		**5**

Table 2: Number of RRMM Nurses by Province and Center. Asturias

ARAGON		
PROVINCE	**CENTER**	**Number**
Huesca	Barbastro Hospital	1
Huesca	San Jorge Hospital	1
Saragossa	Miguel Servet Hospital	1
Saragossa	Clinical Hospital	1
TOTAL		**4**

Table 3: Number of RRMM Nurses by Province and Center. Aragon

BALEARICS		
PROVINCE	**CENTER**	**Number**
Majorca	Central Services - Purchasing and Logistics Subdirectorate. Purchasing Center.	5
Majorca	Son Espases University Hospital	1
Majorca	Son LLàtzer University Hospital	1
Majorca	Regional Hospital of Manacor	1
Majorca	Regional Hospital of Inca	1
Minorca	Mateu Orfila Regional Hospital, Ibiza	1
Ibiza and Formentera	Regional Hospital, and Formentera Hospital	1
	061 SAMU	1
Majorca		1
TOTAL		**12**

Table 4: Number of RRMM Nurses by Province and Center. Balearic Islands

CANARY ISLANDS		
PROVINCE	**CENTER**	**Number**
Las Palmas de Gran Canaria	Insular Maternal and Child University Hospital Complex	1
Las Palmas de Gran Canaria	José Medina Grosa Hospital	1
Santa Cruz de Tenerife	Central Services Santa Cruz de Tenerife	1
GA Primary Tenerife		1
Santa Cruz de Tenerife	University Hospital of the Canary Islands	2
Las Palmas de Gran Canaria	Insular Maternal and Child University Hospital Complex	1
TOTAL		**6**

Table 5: Number of RRMM Nurses by Province and Center. Canary Islands

CANTABRIA		
PROVINCE/AREA	CENTER	Number
Santander	Marqués de Valdecilla Hospital	1
Santander	Central Services	1
TOTAL		2

Table 6: Number of RRMM Nurses by Province and Center. Cantabria

CASTILLA LA MANCHA		
PROVINCE	CENTER	Number
Albacete	Central Services	1
Basin	Central Services	1
Toledo	Toledo Paraplegic Hospital	1
Toledo	Central Services	1
TOTAL		4

Table 7: Number of RRMM Nurses by Province and Center. Castilla La Mancha

CASTILLA Y LEÓN		
PROVINCE	CENTER	Number
Ávila	University Healthcare Complex	1
Burgos	University Healthcare Complex	1
Burgos	Aranda de Duero Hospital	1
Burgos	Miranda de Ebro Hospital	1
Lion	University Healthcare Complex	1
Palencia	SACYL Hospital	1
Salamanca	General Hospital	1
Segovia	General Hospital	1
Soria	Healthcare Complex	1
Zamora	Healthcare Complex	1
Valladolid	Rio Ortega Hospital	1
Valladolid	University Clinical Hospital	1
		1
		1
TOTAL 12		

Table 8: Number of Nurses in Primary Care by Province and Center. Castile and León

CATALONIA		
PROVINCE/AREA	**CENTER**	**Number**
Barcelona	Hospital Clinic	4
Barcelona	Hospital de la Santa Creu I Sant Pau	1
Sant Joan Despi	Consorci Sanitari Integral	1
Barcelona	Vall d'Hebron University Hospital	1
Barcelona	ICS Central Services	3
Sant Boi Llobregat	Parc Sanitari Sant Joan de Deu	1
Barcelona	Parc de Salut Mar	1
Plugs of Llobregat	Sant Joan de Déu Hospital	1
Girona		1
Hospitalet de Llobregat	Doctor Josep Trueta Hospital	1
Hospitalet de Llobregat	Bellvitge Hospital	1
	Catalan Institute of Oncology	1
Equalizer	General Hospital	1
Badalona	H. Can Ruti	1
Lleida	H. Arnau De Villanova	1
Manresa	Fundacio Althaia	1
Granollers	H. de Granollers	1
Tortosa	Sister Maria Verge de la Cinta	1
Tarragona	Brother John XXIII	1
Terrassa	Consorci Sanitari de Terrasa	1
Terrassa	Mutua de Terrassa	1
Vic	Vic Hospital Consortium	1
		1
TOTAL		**26**

Table 9: Number of RRMM Nurses by Province and Center. Catalonia

COMMUNITY OF MADRID		
PROVINCE/AREA	CENTER	Number
Alcala de Henares	H. Prince of Asturias 1	1
Alcorcón Aranjuez	H. Alcorcón Foundation H	1
Coslada	Del Tajo	1
The Escorial	H. Del Henares	1
Fuenlabrada	H. El Escorial	1
Getafe	H. From Fuenlabrada	1
Guadarrama	H Getafe	1
Leganés	H. Guadarrama	1
Madrid	H. Severo Ochoa	1
Madrid	Brother Gregorio Marañón	2
Madrid	H. October 12	1
Madrid	San Carlos Clinical Hospital	1
Madrid	H. La Paz	1
Madrid	H. Ramon Y Cajal	1
Madrid	H. General of Defense H.	2
Madrid	The Princess	1
Madrid	H Infanta Leonor	1
Madrid	H Baby Jesus	1
Madrid	H Santa Cristina	1
Madrid	H Red Cross	1
Madrid	Central Services	4
Majadahonda	H. Iron Gate	1
Móstoles	H. De Móstoles	2
Parla	H. Infanta Cristina	1
TOTAL		30

Table 10: Number of RRMM Nurses by Province and Center. City of Madrid

FORAL COMMUNITY OF NAVARRE		
PROVINCE/AREA	CENTER	Number
Iruña-Pamplona	Navarra University Clinic	1
Iruña-Pamplona	Navarra Hospital Complex	3
Iruña-Pamplona	Navarra Hospital	1
Iruña-Pamplona	Central Services	1
TOTAL		6

Table 11: Number of Nurses in Primary Care by Province and Center. Foral City of Navarra

VALENCIAN COMMUNITY		
PROVINCE	**CENTER**	**Number**
Alicante	Alcoy Health Department	1
Alicante	Hospital S. Juan	1
Castellón	General Hospital	1
Valencia	Central Services	1
Valencia	H. Clinic	1
Valencia	H. The Faith	5
Valencia	Peset Hospital	1
TOTAL		**11**

Table 12: Number of RRMM Nurses by Province and Center. Valencia City

EUSKADI-BASQUE COUNTRY		
PROVINCE/AREA	**CENTER**	**Number**
Donostia	H. Donostia	1
Basurto	Osi Bilbao Basurto	1
Bilbo	Central Services	1
Vitoria-Gazteiz	Araba Integrated Health Organization	1
TOTAL		**4**

Table 13: Number of RRMM Nurses by Province and Center. Basque Country

ESTREMADURA		
PROVINCE	**CENTER**	**Number**
Badajoz	Badajoz University Hospital and	1
Badajoz	Mérida Hospital	1
Badajoz	Don Benito-Villanueva Hospital, University	1
Cáceres	Hospital of Cáceres, Virgen del Puerto	1
Cáceres	Hospital in Plasencia, and Campo Arañuelo	1
Cáceres	Hospital in Navalmoral de la Mata.	1
TOTAL		**6**

Table 14: Number of RRMM Nurses by Province and Center. Extremadura

GALICIA		
PROVINCE/AREA	**CENTER**	**Number**
A Coruña	Juan Canalejo Hospital	1
Ferrol	Hospital Architect Marcide Nova Santos	1
Lugo	Hospital Lucus Augusti	1
Lugo	Xeral-Calde Hospital Complex	1
Ourense	Central Services	1
Pontevedra	Hospital Complex	1
Santiago	Eoxi Santiago	1
Vigo	Hospital Complex	1
		2
TOTAL		**8**

Table 15: Number of RRMM Nurses by Province and Center. Galicia

RIOJA		
PROVINCE	**CENTER**	**Number**
Logroño	San Pedro Hospital	1
TOTAL		**1**

Table 16: Number of Nurses in Primary Care by Province and Center. La Rioja

MURCIA		
PROVINCE/AREA	CENTER	Number
Caravaca de la Cruz	Northwest Regional Hospital	1
Cartagena	Santa Lucia Hospital	1
Cieza	De la Vega Lorenzo Guirao Hospital	1
Lorca	Rafael Méndez Hospital	1
Murcia	Reina Sofía Hospital	1
Murcia	Virgen de la Arrixaca Hospital	1
Murcia	Morales Beseguer Hospital	1
Murcia	Emergency Management	1
Murcia	Central Services	4
Saint Xavier	Los Arcos Hospital of the Mar Menor	1
TOTAL 13		

Table 17: Number of RRMM Nurses by Province and Center. Murcia

Illustration 1. Distribution of Nurses expert in the Management of products, equipment and tech-health technology.

Thanks to their experience and market knowledge, the person responsible for managing the center's healthcare equipment and technology products has played a key role in selecting the best healthcare product for an organization, from a perspective of favorable economic impact.

The way of doing things has been changing and as Raquel Rodríguez (1) explained at the 4th ANECORM congress in Córdoba,*"Scientific evidence must be provided for the selection of medical devices."*

We can say that by consolidating this figure, professionalization is increased when it comes to obtaining the best product, given that not only is the most economical product taken into account, or what is apparently considered the best, but also the one that best adapts to the center, always with the criterion of opting for the best available evidence in decision-making that allows for providing the best care to patients.

It is important to highlight that from the point of view of the nurse responsible in this area, two different analyses will always be used to evaluate a product: one

This assesses the quality and safety of the device in relation to regulatory compliance, where it can be demonstrated that the medical device will perform the function for which it was designed, with all safety guarantees; and another that compares two products to identify the most suitable.

Regarding the definition of the competency profile of the Expert Nurse in the Management of Healthcare Products, Equipment and Technology, it was at the 2004 meeting in Palma de Mallorca where this need began to become evident, with two communications already published on the professional profile and dependency:

- **"The Future of the Material Resources Manager in the Management Department"**from Ms. Susana Álvarez Gómez, Management Director of the LeónHospital.
- **"Past and Future of the Nursing Manager of Material Resources"** by Mr. Miguel A de Mena Mogrobejo, former Head of Material Resources at the León Hospital.

It was after the first congress of the National Association of Nurse Coordinators of Material Resources, held in Cadiz in 2007, that more publications began to appear regarding the role of material resources.

Jarillo(2) at the VI ANECORM congress, believes that the coordinator of material resources is a relatively new figure and that the management of material resources is identified with any nursing unit of the hospital organization.

As Montse Artigas(3) explained in her presentation at the 7th congress in Barcelona, the figure of the material resources nurse must have somecompetencies and skills in:

- **Organization**
- **Communication**
- **Planning**
- **Relationship**
- **Problem solving**
- **Management**
- **Innovation**

2. Justification of the need

The reasons that justify that a nurse is the most suitable person to be responsible for the medical device within a healthcare organization can be summarized as follows (4):

- This is the person on the healthcare team who best knows the medical device.
- Know the material and know the techniques and care offered to the patient.
- Has the appropriate qualifications and training.
- Has a more global vision within the organization.
- Is able to make quick, reliable and judicious decisions.
- Considering that he is responsible for the second largest part of the organization, he must be a middle manager or director.

In this sense, nurses

- They have cross-cutting knowledge of the entire organization.
- They have clinical knowledge in all aspects of patient care, from the provision of medical care to the application of medical treatments and, therefore, the materials needed to carry them out.
- They are the ones that use the majority of the medical supplies, both consumables and inventories, and, if they are not direct users, they manage their supply, logistics, and storage.
- They are the central element in the relationship between both healthcare and non-healthcare institutions, due to their healthcare functions and their roles in the control, use, and storage of healthcare products in the different units.
- They know directly, in addition to what their own needs are as professionals, and therefore what requirements should be demanded of health products, they also know the direct needs of patients and other professionals, for example in the case of a bed, the nurse knows what needs must be covered for the patient, but also knows that there are conditions that the bed must meet in terms of correct nursing care (different positions, etc.), space and transfer needs, that is, that it fits in the elevator or in the room, but also knows what conditions an orderly needs for its transport.

Due to the privileged position they occupy within the healthcare system and their frequent and extensive use of healthcare products and technology, they are best placed to carry out this holistic management of these products and, therefore, it is their inexcusable duty to contribute this knowledge to provide the best healthcare and to facilitate and assist in the maintenance of the National Health System.

Therefore, it is important to have this role defined within healthcare organizations and to ensure that it is a nurse with decision-making capacity, thus making the system more efficient and increasing the quality of care nurses provide.

There are cases in which the direct management of Healthcare Products, Equipment, and Technology by nurse managers has resulted in significant financial savings, in addition to collaborating in the standardization of clinical practice. One example is the process of centralizing the purchasing of medical devices for the treatment of chronic skin wounds implemented by SERMAS in 2010, with several results in different areas:

- From a cataloging perspective, a single cataloging of these products was carried out for all healthcare centers.
- From the point of view of reducing variability in clinical practice, a single protocol was implemented.
- From a management perspective, an economic study is carried out with the aim of improving purchasing processes.
- As a result of all this, a centralized purchasing process is carried out, resulting in savings of 6,757,000 euros.

For all these reasons, the resource nurse is a nursing professional, recognized by the organization and, above all, by their colleagues, who share the day-to-day work.

This position can be part of the hospital's organizational chart, either as a nursing director or as a management director. It's difficult to find a professional profile linked to specific training in medical devices. Nor does having a good understanding of medical devices and nursing care make you a good candidate professional in this field, "*Being a good nurse doesn't make you an efficient manager, although it makes it more likely.*" As Juan Luis González (5) explained to us at the ANECORM congress in Barcelona 2013.

It seems then that in order to define our professional place, we will have to increase our training within the bachelor's and master's degrees.

However, we find that within the regulated training programs throughout the country, whether master's or bachelor's degrees in nursing training, very little specific training is provided on healthcare products, regardless of the training area, whether private or public. As a result of this lack of regulated training, nursing professionals have developed over time through on-the-job experience.

For all these reasons, a nurse with a profile of excellence in the management of healthcare products, equipment, and technology is required.

We must also keep in mind that the person responsible for material resources is a figure established in the organization as a position of trust.

Defining what competencies this nurse must have, in relation to existing training and what place they should occupy in the organizational chart,

3. Standardization of the Nurse's updating in the field of Management of Products, Equipment and Health Technology

3.1. Denomination

Nurse in the field of Product Management, Equipment and Healthcare Technology.

3.2. Definition

The profile of the **Nurse in the field of Product Management, Equipment and Healthcare Technology,** is a nursing professional with a university degree and knowledge of the management, use, and adaptation of medical devices, responsible for coordinating the economic area with the healthcare area of a healthcare organization. This person is responsible for assessing the needs that arise in the healthcare area and communicating them to the logistics area in its different divisions: purchasing, warehouse, and distribution, supporting logistics when preparing technical specifications (PPT) and healthcare professionals when evaluating medical devices that come up for tender, carrying out their activity in two areas of care:

- Direct care, in terms of clinical needs, understanding clinical needs as the needs for healthcare products, equipment, and technologies that professionals have to perform patient care activities.
- Indirect care, regarding the safety needs of patients.

In addition, the definition of the profile of **the Nurse in the field of Product Management, Equipment and Healthcare TechnologyIt** is characterized by the place where it carries out its activity in the different health organizations, which are:

- Healthcare centers
- The "purchasing centers"

These centers are responsible for collecting all the needs for health products that exist in a community, region or group of health organizations and that

The aim of their grouping is to unify the medical devices they use and be able to submit all of them in a single tender. This aims to improve the purchase price by increasing the number of product units required.

3.3. Objectives of nursing practice in the field of product, equipment, and healthcare technology management.

3.3.1. General objective:

Contribute to improving the quality of care through the use of the most appropriate material resources for proper, humane, and safe care for both patients and the professionals who use them.

3.3.2. Specific objectives:

- Adapt material resources to healthcare practice.
- Achieve rational and efficient use of resources.
- Evaluate the products used and newly incorporated.
- Incorporate the best available evidence into the management of material resources.
- Ensure patient safety.
- Ensure the safety of the professional.
- Contribute to the humanization of health.
- Contribute to the sustainability of the institution.
- Monitor consumption and use of resources.
- Identify and alert of possible technical interference in the use of resources

4. Determination of the competency profile of the Nurse in the field of Management of Products, Equipment and Health Technology

4.1. Definition of Competence

For this work the following definition of competence has been assumed: "Intersection between knowledge, skills, attitudes and values, as well as the mobilization of these components, to transfer them to the real context or situation, creating the best action/solution to respond to the different situations and problems that arise at any given time, with the available resources" (6)

4.2.

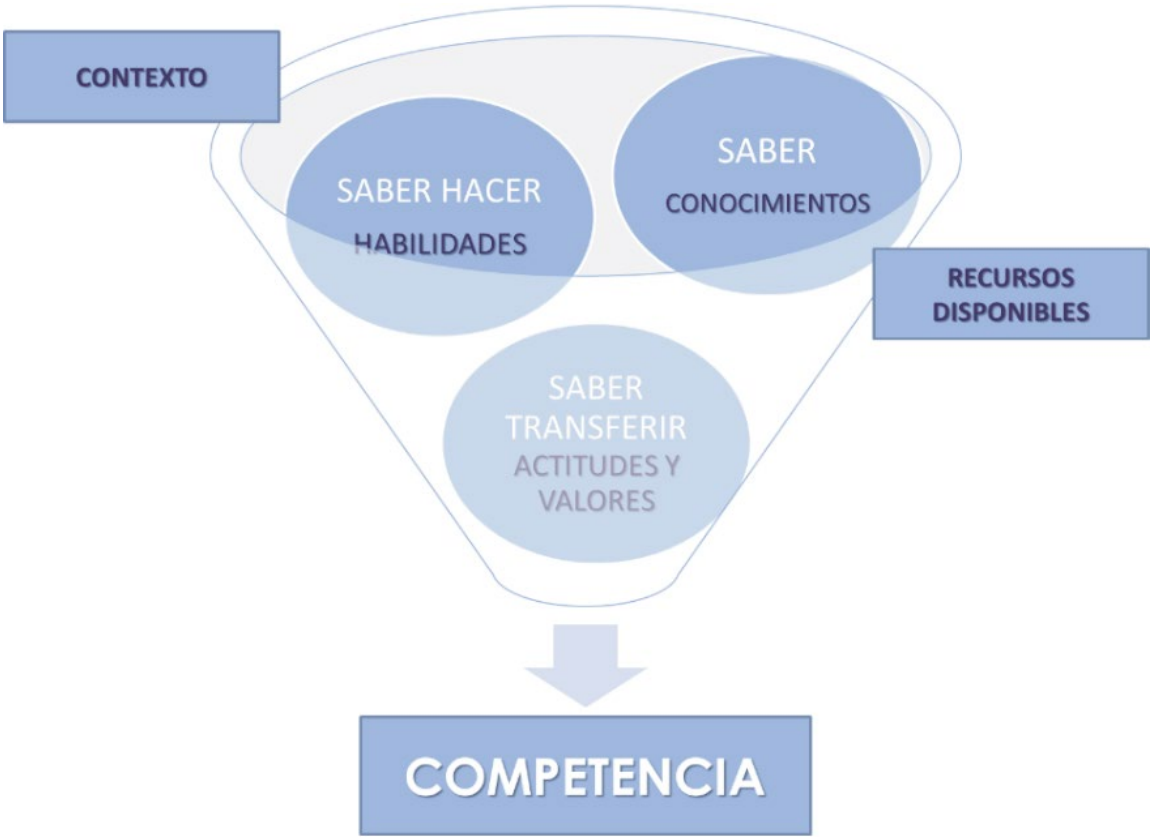

Illustration SEQ Illustration * ARABIC 2: Definition of Competence. Gómez del Pulgar, M. (Doctoral Thesis. 2011)

Goals:

- Identification of the most frequent Nursing Diagnoses in this area of action according to NANDA and the NIC interventions related to this area.
- Establish the competency profile of the professionals of **the Nurse in the field of management of healthcare products, equipment and technology.**

4.3. Materials and Methods

The objectives are worked on in two phases, using expert consensus techniques. The phases are described below:

PHASE 1:

A review will be carried out of the most frequent nursing diagnoses in the area of action of t**he Nurse in the field of management of healthcare products, equipment and technology.** For this we usethe e-care tool.

PHASE 2:

The units of competence (groups) related to nursing functions and the nursing care process are established, within the context of health in the field of **Nurse in the field of Product Management, Equipment and Healthcare Technology.**

Within each competency unit, the related "competences in terms of demonstrations or learning outcomes" will be included.

To this end, the design method and results obtained for the ECOEnf(7), ECOEnfPed(8) and ECOEnfMQ(9) scales are followed as a reference; competency units are proposed for each of the nursing functions mentioned above.

4.4. Proposal for Competency Units (Results):

The Nurse in the field of Product Management, Equipment and Healthcare Technology They must be qualified and have extensive experience in this field.
They must possess specific skills and competencies, which will make them suitable for the job and to provide a high-quality service:
These competencies can be summarized in relation to the following functions:

4.4.1. Competencies related to the healthcare function:

This group of competencies does not apply in this area, because it is assumed that the professionals who will manage material resources have acquired the healthcare competencies of a general practitioner nurse, and this position does not perform direct healthcare activities.

4.4.2. Competencies related to the Administration/Management function

The nursing manager, an expert in the management of healthcare products, equipment, and technologies, will intervene by organizing and planning all actions necessary for their correct use.

Ensure the effective, efficient, and rational use of healthcare products, equipment, and technologies, analyzing needs based on safety, technical quality, and cost-benefit criteria, aimed at promoting patient care as the central focus of healthcare services.

Determine which group of healthcare products, equipment, and technologies are susceptible to improvement based on needs, using criteria of efficiency and clinical improvement based on the scientific evidence available to the entire healthcare organization.

Gain in-depth knowledge of the healthcare products, equipment, and technology market with the goal of finding solutions to everyday problems, improving methods and techniques that elevate the quality of comprehensive care.

He has the ability to develop his long-term vision for the organization, thinking with a very broad perspective, considering a wide range of possibilities.

4.4.3. Competencies related to the Teaching function

It is responsible for training all staff on the proper use and care of healthcare products, equipment, and technologies, as well as keeping them up-to-date on any product changes that may occur.

Establishes alliances with universities to include subjects related to the proper use and knowledge of medical devices in their curricular or postgraduate training.

4.4.4. Competencies related to the Research function

It facilitates and promotes independent research on the use of medical devices, providing support to nursing professionals in various healthcare units.

Help disseminate scientific evidence on the various healthcare products most commonly used in the unit to help reduce variability in clinical practice.

A unit of competency is proposed for each of the nursing functions. In the case of the Healthcare Function, these competencies are not applicable in this area, as it is assumed that the professionals who will manage material resources have acquired the healthcare competencies of a general practitioner nurse, and this position does not perform direct healthcare activities.

However, competencies are grouped in relation to cross-cutting functions, as well as for aspects related to communication and interpersonal relationships.

Four Competence Units are established, as shown in the following table:

Functions	Transversal Competencies	UC
Research Function **Management function** **Teaching Function** **Communication and interpersonal relationships**	Investigation Management Teaching Communication and interpersonal relationships	UC1 UC2 UC3 UC4

4.5. Results

The results of Phase 1 are shown below:

Identification of the most frequent nursing diagnoses in this area of practice according to NANDA and the related NIC interventions. The diagnoses and related nursing interventions for the area of practice are shown below. N**urse expert in the management of healthcare products, equipment and technology:**

NANDA Diagnosis: Ineffective Health Maintenance
Code: 00099

NIC Intervention: Management of Economic Resources Code: 8550

NIC Intervention: Assistance for Financial Resources Code: 7380

Other Interventions of the Expert Nurse in the Management of Healthcare Products, Equipment and Technology, which do not have an associated diagnosis

NIC Intervention: Product evaluation
Code: 7760
Definition: Determine the effectiveness of new products or equipment.
Related Activities:

- Determine the need for a new product or a change to a current product.
- Select the product for evaluation
- Define the analysis perspectives (benefits for the patient or caregiver).
- Determine product effectiveness and safety issues. Contact other institutions that use the product to obtain information.

Additional information.

- Define the objectives of the evaluation.
- Draft the testing criteria to be used during the evaluation.
- stablish appropriate objectives for testing the new product.
- Direct the personnel education necessary to conduct the trial.
- Request the collaboration of other healthcare professionals, if necessary (biomedical engineers, pharmacists, physicians, and other institutions).
- Obtain product evaluation from the patient, if appropriate.
- Determine the costs of implementing the new product, including preparation contracts, additional supplies, and maintenance.
- Make relevant recommendations to the corresponding committee or the person coordinating the evaluation.
- Participate in the ongoing monitoring of product effectiveness

NIC Intervention: Supply Management
Code: 7840
Definition: Ensure the acquisition and maintenance of appropriate items for the provision of patient care.
Related Activities:

- Identify items commonly used in patient care.
- Determine the stock level required for each item.
- Add new items to the inventory list, as appropriate.
- Check expiration dates on items at specified intervals.
- Inspect the integrity of sterile packaging.
- Ensure the supply area is cleaned regularly.
- Avoid stockpiling expensive items.
- Request new or replacement equipment, if necessary.
- Ensure that special equipment maintenance requirements have been met.
- Request patient education materials as appropriate. Request special items for the patient, depending on the type.
- Mark the unit/center equipment for identification as appropriate.
- Review the supplies budget, as appropriate.

NIC Intervention: Cost Containment.
Code: 7630
Definition: Manage and facilitate the efficient and effective use of resources. Use supplies and equipment efficiently and effectively.
Related Activities:

- Document the resources currently and previously used.
- Find competitive prices for supplies and equipment.
- Determine whether supplies should be disposable or reusable.
- Determine whether supplies should be purchased or rented.
- Obtain supplies and equipment at competitive prices.
- Use standardized documentation (e.g., clinical pathways) to contain costs and maintain quality, as appropriate.
- Collaborate with interdisciplinary teams to contain costs and maintain quality, as appropriate.
- Use/refer to quality improvement programs to ensure quality and cost-effective patient care is provided
- Continuously evaluate services and programs to ensure their profitability. Identify mechanisms to reduce costs.

NIC Intervention: Environmental management
Code: 6480
Definition: Manipulation of the patient's environment to achieve therapeutic benefits, sensory and psychological interest
Related Activities:

Create a safe environment for the patient.

NIC Intervention: Environmental management: safety
Code: 8550
Definition: Monitor the physical environment to promote safety.

- Collaborate with other agencies (health department, etc.) to improve environmental health.
- Eliminate hazard factors from the environment, when necessary.
- Provide adaptive devices to increase environmental safety.

NIC Intervention: Environmental management: worker safety
Code: 6489
Definition: Control and manipulation of the work environment to promote worker health and safety.
Related Activities:

- Initiate environmental modification to eliminate or minimize risks.

NIC Intervention: Quality Control
Code: 7800
Definition: Systematic collection and analysis of a center's quality indicators to improve patient care.
Related Activities:

- Identify patient care problems or opportunities to improve care.
- Participate in the development of quality indicators. Incorporate standards from appropriate professional groups.
- Use pre-established criteria when collecting data.
- Interview patients, families, and staff, as appropriate.
- Review patient care records to document care as needed.
- Perform data analysis, if applicable.
- Compare the results of the collected data with pre-established standards.
- Recommend changes in practices based on the findings.
- Review standards, if applicable.
- Participate in improvement committees, if applicable.
- Provide quality improvement guidance to new employees.
- Participate in intra and interdisciplinary problem-solving teams.

NIC Intervention: Peer evaluation
Code: 7700
Definition: Systematic evaluation of a colleague's performance against professional standards of practice.
Related Activities:

- Participate in the establishment of protocols and standards for professional practice.
- Report on areas of strengths and weaknesses as indicated.
- Provide supervision and advice, if appropriate.
- Provide feedback opportunities. Coordinate appropriate education and training, if necessary.

COMPETENCIES IN THE RESEARCH FIELD

UC5: RESEARCH

Competencies

Facilitate independent nursing research in the field of healthcare products, equipment, and technology.

Know the available scientific evidence to ensure that safe healthcare products, equipment, and technology are purchased for patients and professionals.

Help disseminate scientific evidence on the various healthcare products most commonly used in the unit to help reduce variability in clinical practice.

Design, implement, and evaluate scientific protocols and action plans for the practice of school nursing.

Participate in seminars and conferences.

Publish articles related to healthcare products, equipment, and technology.

Contribute to scientific production with publications related to nursing expertise in healthcare products, equipment, and technology.

SKILLS IN THE ADMINISTRATIVE/MANAGEMENT FIELD

UC6: ADMINISTRATIVE / MANAGEMENT

Criteria	Competencies
Adaptability/ flexibility	Manage the changing needs of the organization by providing solutions and prioritizing decision-making.
Leadership	Negotiate consumer agreements, criteria for a homogeneous valuation, needs plan, etc.
Leadership	Coordinate the technical committees for product evaluation, preparation of technical and administrative specifications for purchasing files, and creation of guides for the correct use of products, equipment, and healthcare technology, etc.

Leadership	Manage the demands of healthcare professionals regarding healthcare products, equipment, and technology.
Leadership	Prepare reports on the demands and needs of professionals for the knowledge of professionals in the direction of economic management.
Oriented to results	Draw up consumer agreements with healthcare units.
Oriented to results	Analyze the needs of products, technology and sanitary equipment for the correct functioning of the unit.
Oriented to results	Plan the needs for healthcare products, technology, and equipment to ensure the unit operates in compliance with quality standards.
Commitment to the organization	Carry out the acquisition of products, equipment and health technology in a cost-efficient manner to collaborate in the maintenance of the Health System given that quality and sustainability are inseparable.
Commitment to the organization	Know the current legislation for the correct use of products, equipment and technology, as well as to guarantee an ethical, legal and quality acquisition.
Commitment to the organization	Collaborate with other departments in providing advice and/or in decision-making for the acquisition of healthcare products, equipment and technology.
Commitment to the organization	Collaborate with other departments in providing advice and/or in decision-making for the development of assembly plans or new actions.
Commitment to the organization	Conduct market research to facilitate efficient purchasing.
Quality control	Collaborate in the development of protocols, procedures and quality guides for everything related to healthcare products, equipment and technology.

Quality control	Determine the effectiveness of new products or equipment.
Quality control	Systematically collect and analyze a center's quality indicators to improve patient care.
Handling of supplies	Ensure the acquisition and maintenance of appropriate products for the provision of patient care.
Cost containment	Manage and facilitate the efficient and effective use of resources.
Environmental management	Manipulation of the patient's environment to achieve therapeuti benefits, sensory and psychological interest.
Environmental management	Monitor the physical environment to promote safety
Environmental management	Control and manipulation of the work environment to promote worker health and safety.
Evaluation of companions	Systematic evaluation of a colleague's performance against professional standards of practice.

COMPETENCES IN THE TEACHING FIELD

UC7 TEACHING

Criteria	Competencies
Detection of the needs of training	Conduct a situation analysis to identify potential needs and areas for training and intervention in healthcare products, equipment, and technology.
lanning and design	Design and carry out training interventions for the training action.
Interventions formative	Conduct training interventions for professionals to rationalize the use of healthcare products, equipment, and technology while maintaining the quality of care.
	Advise professionals, when necessary, on healthcare products, equipment, and technology.
	Collaborate with universities in the development of healthcare products, technology, and equipment in the undergraduate and graduate stages.

COMMUNICATION AND INTERPERSONAL RELATIONSHIP SKILLS

UC 8. COMMUNICATION AND INTERPERSONAL RELATIONSHIPS

Competencies

Create and establish communication mechanisms within the center to be able to carry out all functions related to the units.

Establish relationships with healthcare technology companies and professionals.

Demonstrate the ability to actively listen and give consistent responses. Ensure clear and precise communication both verbally and in writing.

Express yourself clearly and precisely with members of the health team to explain the difficulties you encounter when carrying out activities.

Establish actions aimed at overcoming the factors that interfere with communication when they represent a limitation.

Use the specific language of health sciences appropriately in situations that require it.

Empathize, detect, channel and resolve/manage conflicts.

5. Minimum training content

Since this professional's work spans the entire organization, they must have knowledge in management, quality, and research, so the minimum training required for this position is considered to be two-pronged.

Basic knowledge requires training in:

- Management of nursing units.
- Healthcare logistics management.
- Economic management.
- Quality management.
- Legal regulations: public procurement, quality regulations, and regulations specific to medical devices.
- Research in medical devices, market studies and methodology in evaluation systems.
- Advanced computer skills.

Glossary of Terms

CAPACITY AND COMPETENCE
Ability refers to power, something that can be achieved, but which depends on the individual and the circumstances. A person's learning potential is a necessary condition for the development of competence, but not sufficient. Competence refers to the performance displayed in a given situation, in which motivation, availability, intellectual abilities, knowledge, prior experience, attitudes, and values come into play.

COMPETENCE
Intersection between knowledge, skills, attitudes and values, as well as the mobilization of these components to transfer them to the real context or situation, creating the best action/solution to respond to the different situations and problems that arise at any given time, with the available resources(6).

GENERIC OR TRANSVERSAL COMPETENCES
Competencies that are developed in relation to three key criteria(10) They contribute to achieving high-value results at both personal and social levels. They are applicable to a wide range of relevant contexts and areas.

They are important for all people to be able to successfully cope with the variety of complex demands of life.

SPECIFIC COMPETENCES
These are those that form part of the requirements profile of a particular job based on its particularities.

Those related to specific disciplines, a field, or a degree, and in this sense, are oriented toward achieving a specific graduate profile.

UNIT OF COMPETENCE
The competency units define the major functions required for the performance of nursing professional activity. Each competency unit refers to one of these major functions, encompassing the professional competencies required for effective performance.

PROFESSIONAL CONTEXT
It describes, for guidance purposes, the means of production, products and results of the work, information used or generated and any elements of a similar nature considered necessary to frame the professional performance.

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