



# ReFORMÚLaTE

¿QUÉ TÉCNICO DE FARMACIA  
QUIERES LLEGAR A SER?

“Desarrollo Profesional de los Técnicos de Farmacia  
en los Servicios de Farmacia de Hospital”

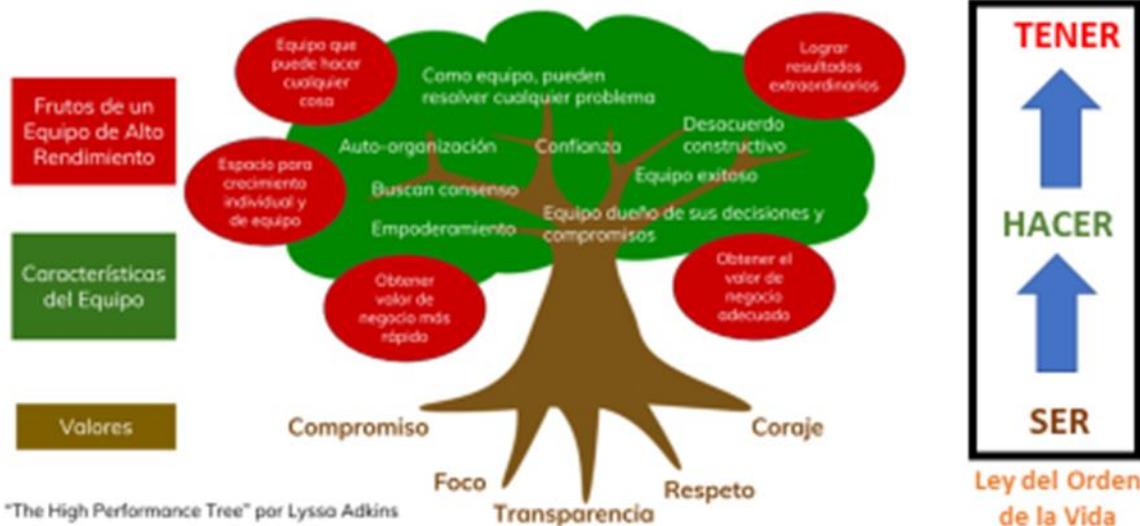


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## EQUIPOS DE ALTO RENDIMIENTO



- ✓ **Propósito común**
- ✓ **Roles claros y Co-Responsabilidad**
- ✓ **Liderazgo aceptado**
- ✓ **Procesos efectivos**
- ✓ **Relaciones interpersonales sólidas**
- ✓ **Comunicación Excelente**

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RESEARCH ARTICLE



## Impact of a pharmacy technician on clinical pharmacy services in an Australian hospital

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REVIEW

## Advancing the role of the pharmacy technician: A systematic review

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ABSTRACT

**Objectives:** To summarize the findings of a literature search on advancing the role of pharmacy technicians, including the types of training identified and the potential costs and benefits to both the technician and the pharmacy.  
**Data sources:** A literature search of Scopus, Embase, and Medline was conducted on January 11, 2017.  
**Study selection:** Original research, research reports, case studies, or association reports were included for review. Articles were considered to be relevant based on identification of an advanced pharmacy technician role or addressing additional training/education for technician functions.  
**Data extraction:** A standard data extraction form was used to collect study authors, article title,



MINISTRY OF HEALTH  
SINGAPORE

# Pharmacy Technicians Entry-to-Practice Competency Standards

With Implementation Guide for Competency Assessment

Chief Pharmacist's Office

Version 2.0: September 2020

## 2. Pharmacy Technicians Entry-to-Practice competency standards

7 competency domains were identified for entry-level pharmacy technicians

Domain 1: Support optimal use of drugs

Domain 2: Dispense medications

Domain 3: Compound pharmaceutical products

Domain 4: Drug distribution and supply

Domain 5: Workplace safety and health

Domain 6: Professionalism, ethics and team work

Domain 7: Communication and education

The first five domains of the competency standards focus on technical and patient care competencies

The last two domains articulate the expected behavioural and professional competencies

See [Appendix 6.1](#) for complete listing of ETP competency standards for pharmacy technicians

## Appendix 6.1 ETP Competency Standards for Pharmacy Technicians



### Domain 3 - Compound Pharmaceutical Products

Pharmacy Technicians support pharmacists in the small scale compounding of non-sterile extemporaneous pharmaceutical products.

**Standard 3.1** Assist in Compounding of Non-Sterile Extemporaneous Pharmaceutical Products

**Standard 3.1 - Assist in compounding of non-sterile extemporaneous pharmaceutical products**

**Element 1 - Understand the controls and work environment required for preparing particular types of pharmaceutical products**

Performance Criteria	Evidence Examples
1. Distinguish between sterile and non-sterile extemporaneous products and the corresponding work environment	<ul style="list-style-type: none"> <li>Differentiate between sterile and non-sterile extemporaneous products</li> <li>Know the corresponding work environment required for each preparation, such as open bench top for non-sterile products and cleanroom/laminar flow cabinets/isolators etc. for sterile products</li> </ul>
2. Describe principles behind Good Manufacturing Practice, including quality control and quality assurance practices	<ul style="list-style-type: none"> <li>Define what Good Manufacturing Practice is</li> <li>Highlight extemporaneous products that are not prepared in accordance to GMP guidelines or organisational requirements</li> </ul>

**Element 2 – Prepare for small-scale compounding of non-sterile extemporaneous products**

Performance Criteria	Evidence Examples
1. Select formulation corresponding to the non-sterile extemporaneous product to be compounded	<ul style="list-style-type: none"> <li>Access and use most updated formulations/worksheets in workplace</li> </ul>
2. Understand the formulation instructions, including preparation methods	<ul style="list-style-type: none"> <li>Interpret common terminology and abbreviations (e.g. dosage forms)</li> <li>Interpret the preparation steps</li> </ul>
3. Differentiate active ingredients from excipients	<ul style="list-style-type: none"> <li>Identify the active ingredient(s) based on the formulation/worksheet</li> </ul>
4. Prepare work area for compounding activity	<ul style="list-style-type: none"> <li>Clean work area before compounding activities</li> <li>Organise work area such that compounding can proceed in an orderly and unimpeded manner</li> </ul>

## Standard 7.2 - Provide education

### Element 1 - Provide patient education

Performance Criteria	Evidence Examples
1. Provide necessary information to assist patients in understanding and management of their conditions	<ul style="list-style-type: none"> <li>Communicate basic indication, dosing information and adverse drug reaction to patient</li> <li>Explain specific dosing requirement, storage conditions, general healthcare advice that would enhance the efficacy of drug use</li> <li>Assess patient or caregiver's understanding on the information given</li> <li>Provide relevant materials (e.g. patient information leaflets) to aid patient's understanding</li> </ul>
2. Communicate relevant information to questions raised by patient or caregivers	<ul style="list-style-type: none"> <li>Elicit needed information and identify the information needs of a particular patient or caregiver</li> <li>Understand the questions raised by patients or caregivers and respond with relevant information and appropriate terminology</li> <li>Seek advice from pharmacists when in doubt</li> </ul>
3. Handle basic enquiries from public	<ul style="list-style-type: none"> <li>Use appropriate reference sources to obtain information</li> <li>Seek advice from pharmacists when in doubt</li> <li>Record enquiry information given in a consistent manner</li> </ul>
4. Provide non-pharmacological advice to assist management of symptoms	<ul style="list-style-type: none"> <li>Provide non-pharmacological advice such as dietary or lifestyle modification to patients and/or caregivers</li> </ul>
5. Promote public awareness on relevant healthcare issues through participation of health campaigns organised in-house or through healthcare organizations	<ul style="list-style-type: none"> <li>Actively promote ongoing public health campaigns to patients</li> <li>Participate in relevant training in order to be equipped with the information and skills to engage the public</li> </ul>

## 6.2 Sample questions on drug-related problems

This section is a compilation of suggested questions and answers for assessment on ability to identify DRPs under Key Task 1 (Process Prescription):

*“Assess a minimum of TEN unique problematic prescriptions or simple enquiries by patient and is able to identify drug-related problem in prescription and able to demonstrate the use of drug references or made reference to hospital policies and the escalation procedure when in doubt.”*

Drug-Related Problems (DRPs) for assessment under Key Task 1 are listed as follows:

Category of DRP	Drug-Related Problems (DRPs)
Indication	Therapeutic duplication
Drug selection	Contraindication
	More affordable drug available
	Inappropriate drug formulation/dosage form
Dosing regimen	Dosage too low
	Dosage too high
	Inappropriate frequency/ route/site (without change in daily dose)
	Duration too short
	Duration too long
Drug interactions	Drug-drug

*Note: For ETP assessment, questions are based on simple prescriptions with no more than 6 items*

## Appendix 6.2 Sample questions on drug-related problems

### Example 1: Therapeutic Duplication

Name: TAK (67/C/F)	Patient Id: SXXXX105C	Rx number: 175616	Date	22_Feb-2020
Drug Allergy: NIL				
Item Name	Instructions	Duration	Prescriber	Remarks
Hyzaar Tablet [Losartan 50mg Hydrochlorothiazide 12.5mg]	1 tablet - OM	24 weeks	LTC	
Simvastatin Tablet	20 mg – ON	24 weeks	LTC	
Lovastatin Tablet	40 mg - ON	24 weeks	LTC	
Calcium Carb 450mg, Vitamin D 200 unit Tablet	1 tablet – BD	24 weeks	LTC	<i>Do not supply. Still have.</i>
Hypromellose 0.3% Eye Drop	Ophthalmic 1 drop to BOTH – Q4H <i>PRN: Dry eyes</i>	4 bottles	LTC	

**Question:** Mdm TAK was prescribed with the list of medications. Identify the potential DRP.

- A. Inappropriate dosage
- B. Inappropriate frequency
- C. Duration is too long
- D. Therapeutic duplication

**Answer:** D

## Appendix 6.2 Sample questions on drug-related problems

### Example 6: Dosage too high

Name: UBD (76/I/F)	Patient ID: SXXXX292K	Rx number: 473	Date	8_Jun-2020
Drug Allergy: NIL				
Item Name	Instructions	Duration	Prescriber	Remarks
Arcoxia Tab	90 mg as needed – 3X A DAY	14 days	AM	For pain and inflammation

**Question:** Study the prescription and identify potential DRPs.

**Answer:** The recommended dose of Arcoxia is a maximum of 120mg/day. This is an overdose.



SKILLS FRAMEWORK FOR HEALTHCARE SKILLS MAP - SENIOR PHARMACY TECHNICIAN		
Sector	Healthcare	
Track	Pharmacy Support	
Occupation	Pharmacy Technician	
Job Role	Senior Pharmacy Technician	
Job Role Description	<p>A Senior Pharmacy Technician is responsible for the processing and dispensing of medication. S/He is required to supervise the drug supply and distribution and compounding processes. S/He supports staff management and development. S/He participates in quality assurance and improvement projects and activities. S/He supports the management of pharmacy operations.</p> <p>S/He works in varied settings such as hospitals, outpatient clinics, polyclinics and retail pharmacies.</p> <p>S/He is required to be professional, ethical and meticulous. S/He should possess communication and leadership skills.</p>	
Critical Work Functions and Key Tasks / Performance Expectations	Critical Work Functions	Key Tasks
	Dispense medication	Process prescriptions or medication orders
		Dispense medication
		Provide patient counselling and education
		Assist pharmacists in the sale of pharmacy-only medications
		Perform medication reconciliation
		Assist pharmacists in provision of basic clinical services in pharmacist-led clinics
		Report dispensing errors and near misses to pharmacists
	Perform drug supply and distribution	Supervise repackaging of drugs and bar-coding of products
		Manage cycle counts and stock take
Participate in procurement activities		
Assist pharmacists in product recalls		
Manage inventories of pharmaceutical and non-pharmaceutical products		
Distribute drugs to relevant departments		

Skills and Competencies	Technical Skills and Competencies		Generic Skills and Competencies	
	Ambulatory Care Service Support	Level 3	Communication	Intermediate
Audit Management	Level 3	Teamwork	Intermediate	
Automated Distribution Management	Level 3	Interpersonal Skills	Intermediate	
Billing Procedures	Level 2	Decision Making	Intermediate	
Change Management	Level 2	Service Orientation	Intermediate	
Continuous Improvement Management	Level 3			
Document Management for Pharmacy Support	Level 2			
Drug Distribution and Inventory Management	Level 2			
Excellence in Service	Level 2			
Infection Control	Level 2			
Inventory Procurement for Pharmacy Support	Level 2			
Management of Stakeholders	Level 2			
Medication Dispensing	Level 3			
Medication Reconciliation in Pharmacy Support	Level 3			
Medication Safety	Level 1, Level 2			
Non-sterile Compounding	Level 2			
Patient Education on Use of Prescribed Drugs	Level 2			
People Management	Level 2			
Performance Management	Level 2			
Pharmaceutical Equipment Maintenance	Level 2			
Pharmacy-only (P) Medication Sales	Level 3			
Professional, Legal and Ethical Healthcare Practice	Level 3			
Programme Delivery	Level 3			

# RETOs 2030 –SEFH-

## RETO 6 FAVORECER EL EMPODERAMIENTO Y CAPACITACION DEL TÉCNICO EN FARMACIA

### 1. DEFINICIÓN

Alcanzamos una capacitación de los Técnicos en Farmacia y Parafarmacia (TEF) que les permite realizar las tareas delegadas por el Farmacéutico Hospitalario con las máximas garantías de calidad, seguridad y eficiencia.

### 2. OBJETIVOS

- 2.1. Conseguir que los TEF sean coparticipes de los resultados obtenidos en los pacientes mediante su implicación en las tareas asignadas.
- 2.2. Formar y capacitar a los TEF en todas las áreas del Servicio de Farmacia especializándose y complementando su formación académica.
- 2.3. Integrar al TEF en el entorno hospitalario, en los equipos multidisciplinares junto con otros profesionales sanitarios.

### MIEMBROS DEL RETO

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Ana Álvarez, HU Ramón y Cajal  
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Eva Negro, HU Getafe  
Remedios Romero, IES Salvador Allende

### 3. ESTÁNDARES

#### Dependiente del SFH

- 3.1. Definiendo el mapa de competencias y los perfiles del puesto de trabajo de cada área.
- 3.2. Diseñando un plan de acogida y acompañamiento para integrar en el Servicio de Farmacia a los TEF que se incorporan. Conociendo el servicio y el hospital desde un punto de vista asistencial, técnico, logístico y humano.
- 3.3. Estableciendo certificaciones de capacitación básica y avanzada por áreas y recertificación periódica.
- 3.4. Diseñando un plan de formación continuada, acompañado de un plan de mentoring.
- 3.5. Incorporando a los TEF en proyectos de formación e investigación.
- 3.6. Participando en el diseño e implementación de los procesos del Servicio de Farmacia
- 3.7. Colaborando con los centros educativos para complementar las necesidades formativas y definir el perfil de alumnos más adecuado para realizar las prácticas en los SFH.

#### Dependientes de la SEFH

- 3.8. Desarrollando un espacio para los TEF en la SEFH.
- 3.9. Promoviendo alianzas entre la SEFH y las organizaciones profesionales de los TEF.
- 3.10. Promoviendo acuerdos de colaboración entre la SEFH y los organismos responsables (Administraciones competentes) y, cuando proceda, el SFH en: materia de formación académica, procesos de selección y contratación.

## 4. HERRAMIENTAS/RECURSOS

### 4.1. Formación/docencia

#### 4.1.1. Plan de formación continuada:

- Curso de formación continuada para TEF de SEFH (Tecnifar)
- Formación en investigación
- Habilidades de comunicación

#### 4.1.2. Digitalización, simulación y realidad virtual para la formación

### 4.2. Investigación

#### 4.2.1. Asistencia a Jornadas de investigación para TEF.

#### 4.2.2. Participación en congresos con estudios propios

### 4.3. Tecnología:

#### 4.3.1. Historia Clínica electrónica

#### 4.3.2. Sistemas de información del Hospital y del SFH (programas, aplicaciones, etc.)

#### 4.3.3. Automatización y robotización

#### 4.3.4. Registros de resultados (ej: PROM) e indicadores

#### 4.3.5. Telefarmacia y entrega informada de medicamentos

### 4.4. Gestión de personas

#### 4.4.1. Plan de comunicación interna

#### 4.4.2. Plan de acogida que garantice que cada persona que se incorpora lo recibe

#### 4.4.3. Programa de motivación/incentivación

#### 4.4.4. Plan de mentoring

### 4.5. Procesos

#### 4.5.1. Sistema de Gestión de Calidad (definir metodología, desarrollar, comunicar, implementar y seguimiento con un cuadro de mandos)

#### 4.5.2. Metodología LEAN (ver punto 5.2 bibliografía)

#### 4.5.3. Metodología de diseño centrado en las personas: (ver punto 5.2 bibliografía)

### 4.6. Recursos que no dependen de los SFH:

#### 4.6.1. Alianza SEFH-cuerpo docente secundaria-ministerio de educación

#### 4.6.2. Alianza Sociedades Científicas autonómicas con Consejerías de Sanidad y Educación

#### 4.6.3. Real Decreto para curso especialización de TEF en Farmacia Hospitalaria

#### 4.6.4. Reconocimiento institucional.

Herramientas Clave donde el TEF debe aportar valor





## DE LOS PROM A LOS PREM



PROM



PREM

### ASISTENCIA SANITARIA BASADA EN VALOR



## PREM

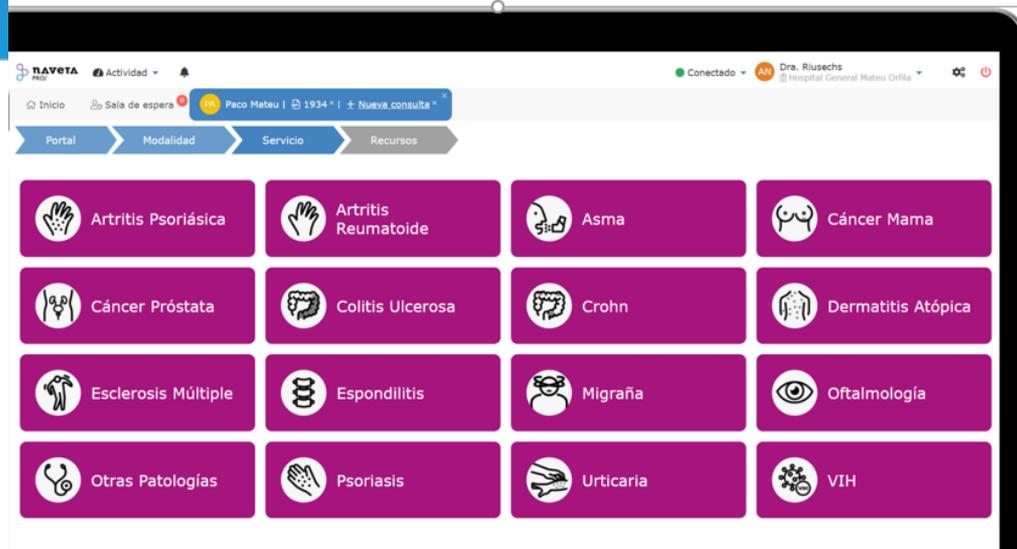




“ Proyecto NAVETA de medicina basada en valor mediante la creación de protocolos de excelencia asistencial multidisciplinar apoyada en la integración de la telemedicina y E-PROMS ”



La asociación FARUPEIB (Farmacéuticos Unidades de Pacientes Externos Illes Balears) está integrada por un grupo de especialistas que trabajan en Farmacia Hospitalaria de los Hospitales de las Illes Balears: Hospital Universitario Son Espases, Hospital Can Misses, Hospital Mateu Orfila, Hospital Son Llàtzer, Hospital de Inca y Hospital de Manacor.

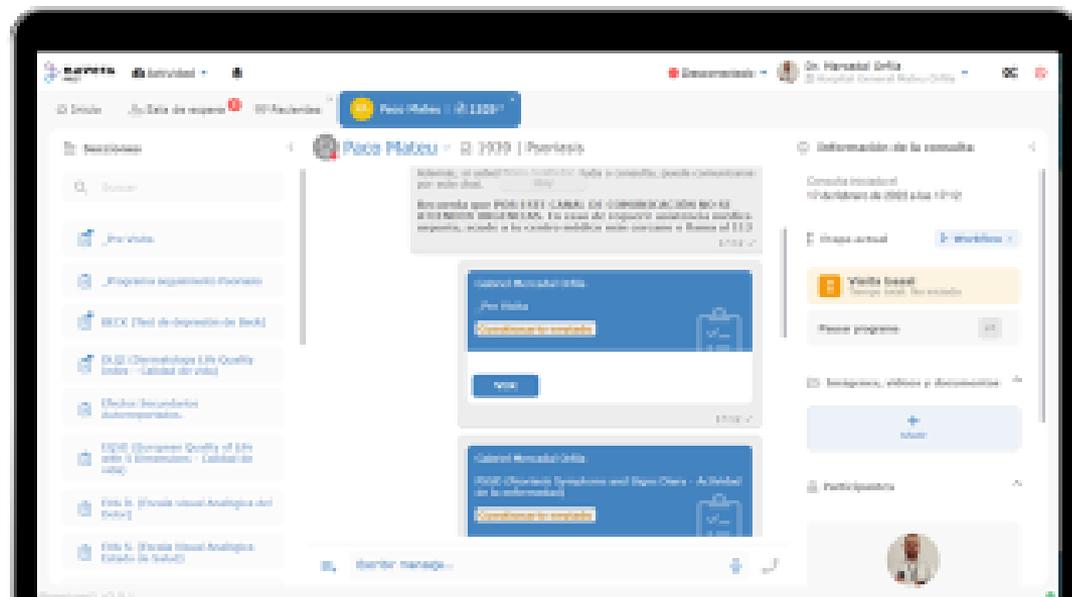


The screenshot shows the NAVETA PRO/telemedicina proms web application interface. At the top, there is a navigation bar with the NAVETA logo, a user profile for 'Dra. Rilusechs' at 'Hospital General Mateu Orfila', and a 'Conectado' status. Below the navigation bar, there is a breadcrumb trail: 'Inicio > Sala de espera > Paco Mateu | 1934 \* | Nueva consulta \*'. A secondary navigation bar contains 'Portal', 'Modalidad', 'Servicio', and 'Recursos'. The main content area features a grid of 16 purple buttons, each with an icon and a medical condition name: Artritis Psoriásica, Artritis Reumatoide, Asma, Cáncer Mama, Cáncer Próstata, Colitis Ulcerosa, Crohn, Dermatitis Atópica, Esclerosis Múltiple, Espondilitis, Migraña, Oftalmología, Otras Patologías, Psoriasis, Urticaria, and VIH.

## Programa iniciado y envío de cuestionarios

### Profesional

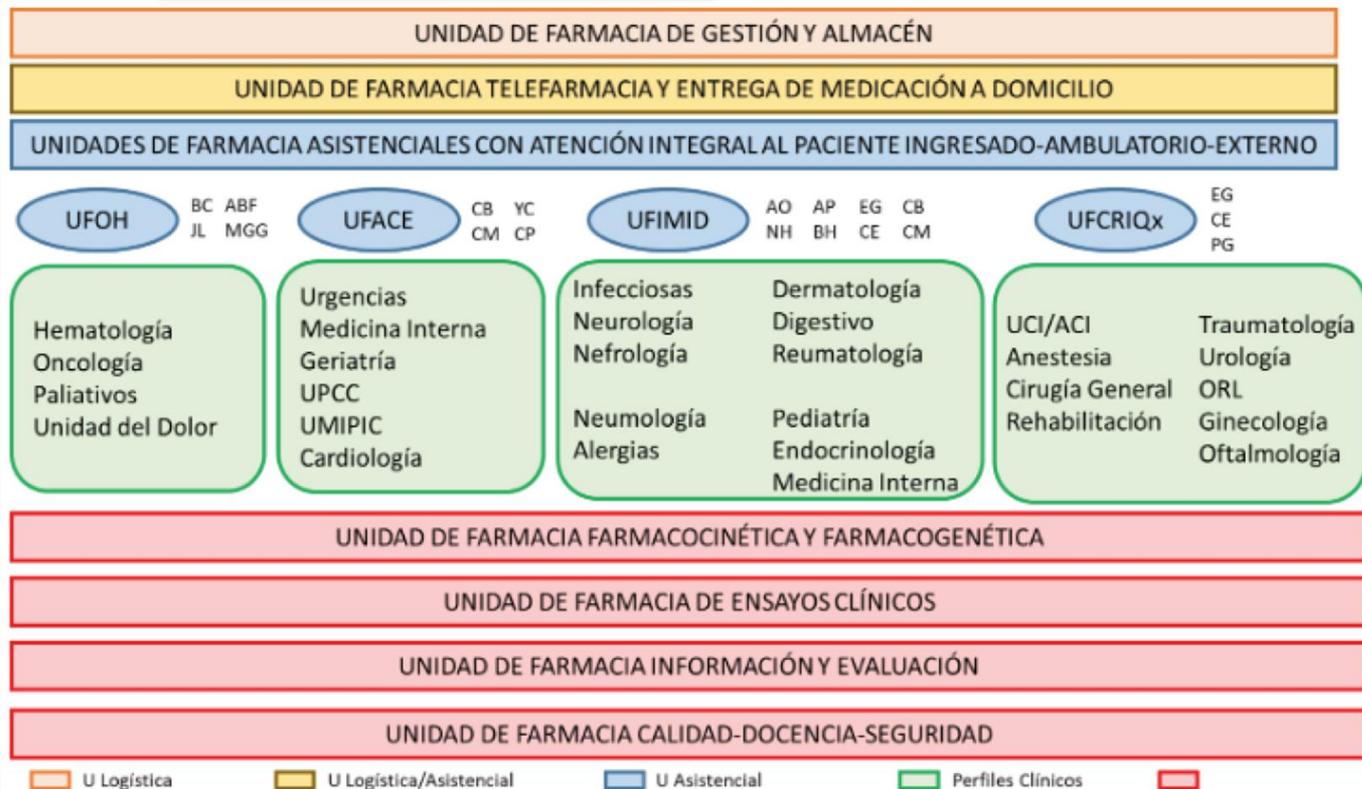
### Paciente recibe SMS y email



# Mapa Asistencial

Integración del TEF en UFA:

- ✓ Farmacotecnia
- ✓ Dispensación
- ✓ Gestión de agendas
- ✓ Gestión de botiquines
  - ✓ Comités
- ✓ Innovación procesos





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*Gracias por su atención*  
*Gràcies per la seva atenció*  
*Eskerrik asko zure arretagatik*  
*Grazas pola súa atención*

