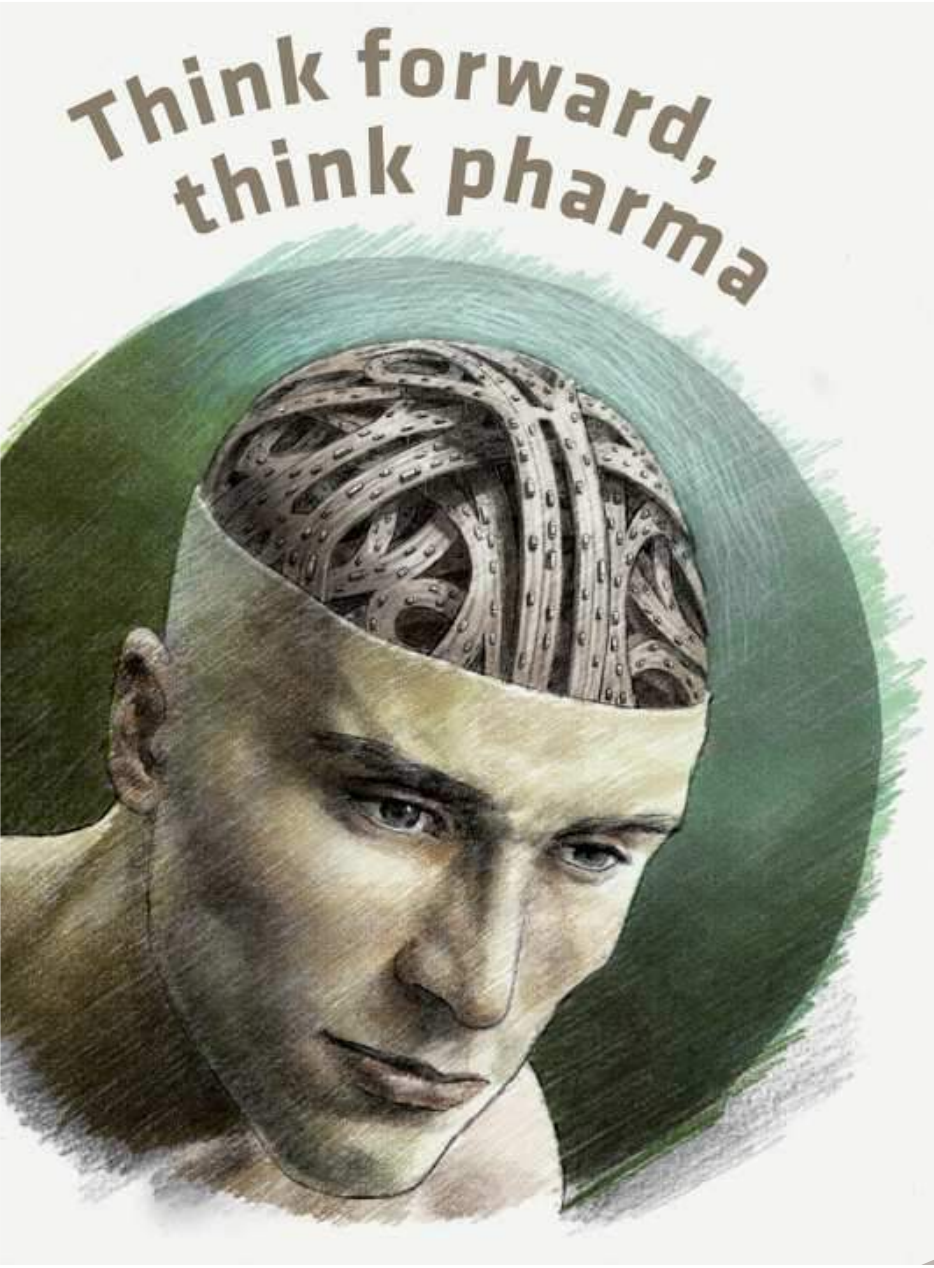


REGULATORY AFFAIRS

SPEAKER

BARCELONA - 13th MARCH 2019

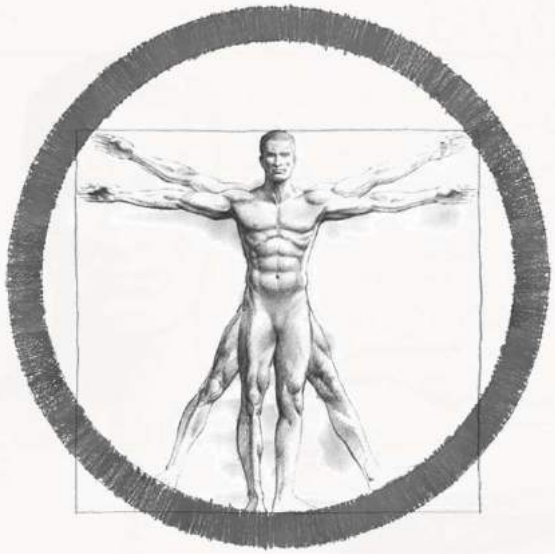
believe in life
Galenicum
PHARMACEUTICAL COMPANY

Background

Galenicum Health: is a pharmaceutical company focused in the development of generic products, with a B2B & B2C business model.

AGATE ROMAN - REGULATORY AFFAIRS B2B MANAGER

- Graduated in Pharmacy by the Universidad del País Vasco (UPV)
- Master Degree in Pharmaceutical Industry - CESIF, BARCELONA
- I am a regulatory affairs senior specialist with more than 12 years experience specialised mainly in Regulatory Affairs.
- Experiencia in Human medicinal products, veterinarian and medical devices.



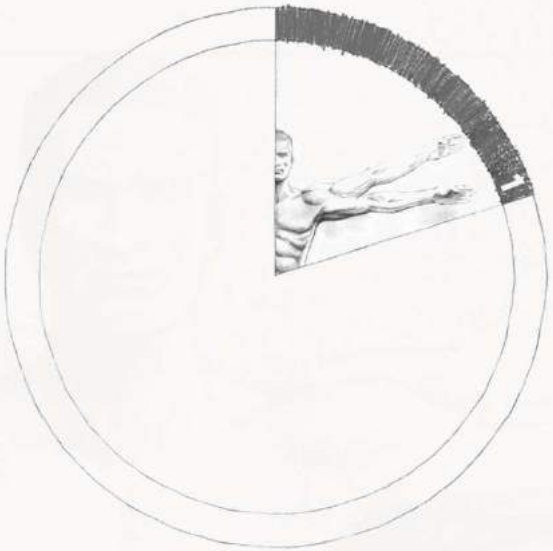
Why?

One day in office

What is the market looking for

Are you the person?

Career Development



Why?

One day in office

What is the market looking for

Are you the person?

Career Development

1. Why?

- Healthcare industries regulation has stemmed from avoiding the repetition of disasters

Elixir Sufanilamide
1937 US Antibiotic
Prepared with diethylene glycol caused >100 deaths.
Food, Drug & Cosmetic Art Regulation in 1938 requiring animal safety test & pre-approval of FDA

1957-1962 DE (EU, Australia, US, Canada)
OTC 1960 DE
Antiemetic for pregnant woman.
Caused > 10,000 birth deformities cases.
Tougher rules for the testing and licensing of drugs were applied in all countries

1. Why?. RA Functions

- Regulatory Affairs is involved in the development of new medicinal products from early on, by interpreting legal requirements and integrating regulatory principles, leading to prepare and submit the relevant regulatory dossiers to health authorities

The interface between the pharmaceutical company and the regulatory agencies across the world.

1. Why?. Registration procedure

- All medicinal products require prior authorization to be marketed, and for that require a registration, which documents and assures it´s quality, safety and efficacy

PREPARATION OF DOSSIER

SUBMISSION

MARKETING AUTHORIZATION

PRICE & REIMBURSEMENT

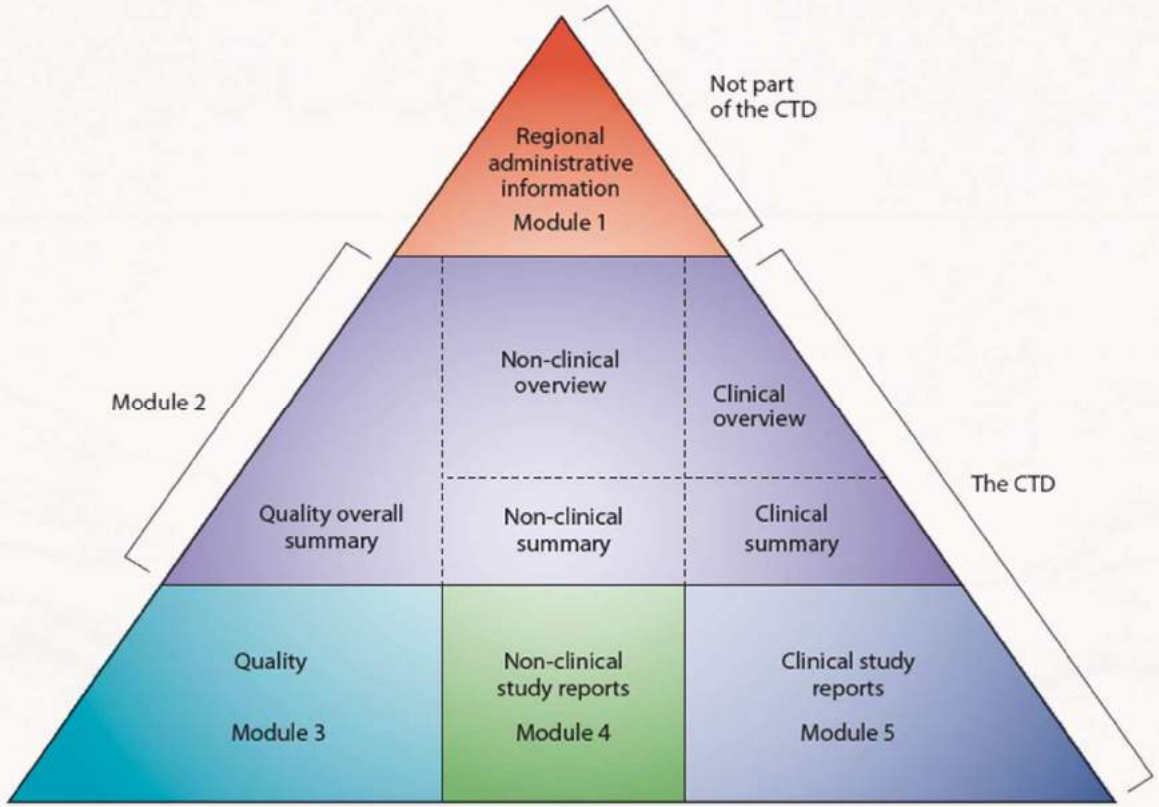
MEDICINAL PRODUCT

1. Why?. Marketing Authorisation (MA)

- A license to sell a medicine
- License granted by “Competent Authorities”
- Assessment is benefit/risk based on:
  - Quality
  - Safety
  - Efficacy

1. Why?. Registration Dossier: Common Technical Document (CTD)

- **Common Technical Document** (CTD) format in US, EU & JAPAN since July 2003



1. Why?. Registration Dossier: Structure

- Structure of the **Registration Dossier**: Module 3 Quality

CTD	EU CTD (NTA, Vol. 2B, Edition 2001)
3.1	MODULE 3 TABLE OF CONTENTS
3.2	BODY OF DATA
3.2.S	DRUG SUBSTANCE
3.2.S.1	General Information
3.2.S.1.1	Nomenclature
3.2.S.1.2	Structure
3.2.S.1.3	General Properties
3.2.S.2	Manufacture
3.2.S.2.1	Manufacturer(s)
3.2.S.2.2	Description of manufacturing process and process controls
3.2.S.2.3	Control of materials
3.2.S.2.4	Controls of critical steps and intermediates
3.2.S.2.5	Process validation and/or evaluation
3.2.S.2.6	Manufacturing process development
3.2.S.3	Characterisation
3.2.S.3.1	Elucidation of structure and other characteristics
3.2.S.3.2	Impurities
3.2.S.4	Control of drug substance
3.2.S.4.1	Specification
3.2.S.4.2	Analytical Procedures

A. DRUG SUBSTANCE

3.2.S.4.3	Validation of analytical procedures
3.2.S.4.4	Batch analyses
3.2.S.4.5	Justification of Specification
3.2.S.5	Reference Standards or Materials
3.2.S.6	Container Closure System
3.2.S.7	Stability

1. Why?. Registration Dossier: Structure

- Structure of the **Registration Dossier**: Module 3 Quality

3.2.P	DRUG PRODUCT
3.2.P.1	Description and composition of the drug product
3.2.P.2	Pharmaceutical Development
3.2.P.2.4	Controls and critical steps and intermediates
3.2.P.3	Manufacture
3.2.P.3.1	Manufacturer(s)
3.2.P.3.2	Batch formula
3.2.P.3.3	Description of Manufacturing Process and Process Controls
3.2.P.3.4	Controls of critical steps and intermediates
3.2.P.3.5	Process validation and / or evaluation
3.2.P.4	Control of excipients
3.2.P.4.1	Specifications
3.2.P.4.2	Analytical procedures
3.2.P.4.3	Validation of analytical procedures
3.2.P.4.4	Justification of specifications
3.2.P.4.5	Excipients of human or animal origin
3.2.P.4.6	Novel Excipients *(ref to A 3)*

A. DRUG PRODUCT

3.2.P.5	Control of drug product
3.2.P.5.1	Specification(s)
3.2.P.5.2	Analytical Procedures
3.2.P.5.3	Validation of Analytical Procedures
3.2.P.5.4	Batch analyses
3.2.P.5.5	Characterisation of Impurities
3.2.P.5.6	Justification of specification(s)
3.2.P.6	Reference Standards or Materials
3.2.P.7	Container Closure System
3.2.P.8	Stability
3.2.A	APPENDICES
3.2.A.1	Facilities and Equipment
3.2.A.2	Adventitious Agents Safety Evaluation
3.2.A.3	Excipients
3.2.R	REGIONAL INFORMATION
3.3	LITERATURE REFERENCES

1. Why?. Registration Procedures

- National
- MRP/DCP
- Centralised Procedure

1. Why?. National Procedure

- National Health Authorities in each Member State

- Marketing authorisation in a single EU Member State

- Result: National approval national SPC
  - Difference between Member States

1. Why?. Mutual Recognition Procedure (MRP) Decentralized Procedure (DCP)

MUTUAL RECOGNITION (MRP)

- If the medicinal product <u>already has</u> a national Marketing Authorisation (MA) in the EU
- Marketing in the countries of the EU included in the MRP

DESCENTRALIZED PROCEDURE (DCP)

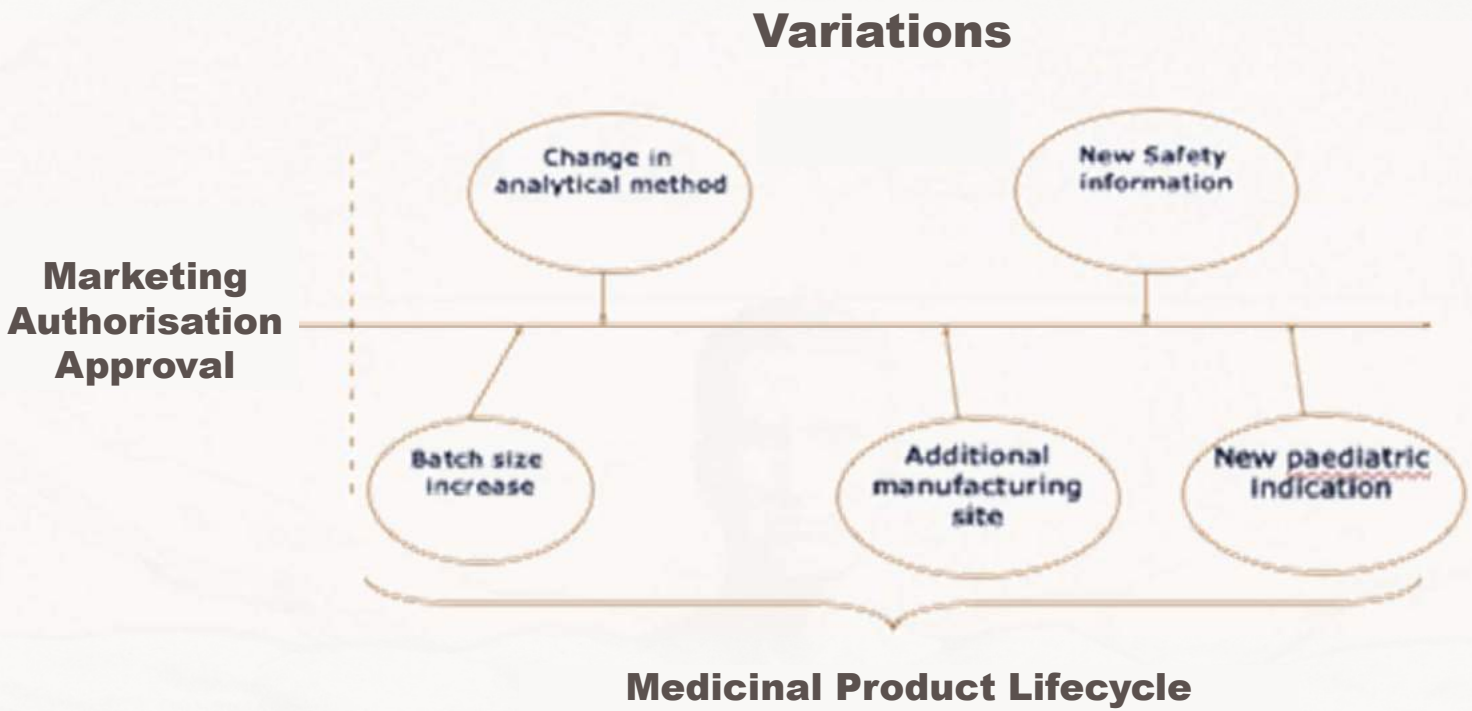
- If the MP <u>HAS NOT</u> a previous national MA in the EU
- Marketing in the countries of the EU included in the DCP

1. Why?. Centralized Procedure (CP)

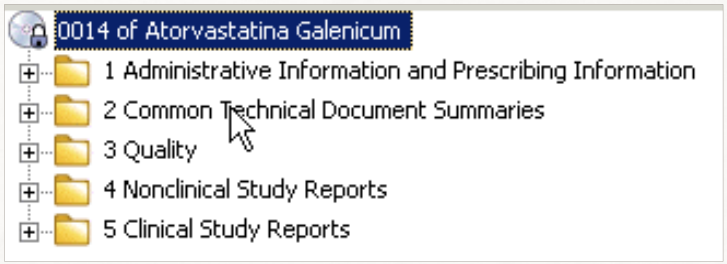
CENTRALIZED PROCEDURE (CP)

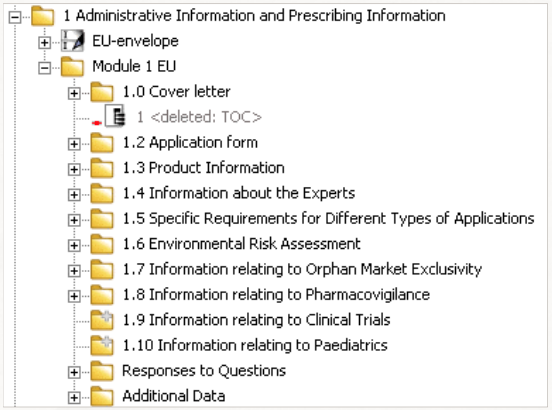
- Mandatory: Bio tech products-HIV-cancer-Neuro-Diabetes-AI disease Orphan drugs, viral diseases.
- Optional for new AS, and GENERICs of prod approved via CP
- 1 Marketing Authorization in all the EU
- 1 (invented) name
- 1 common product information

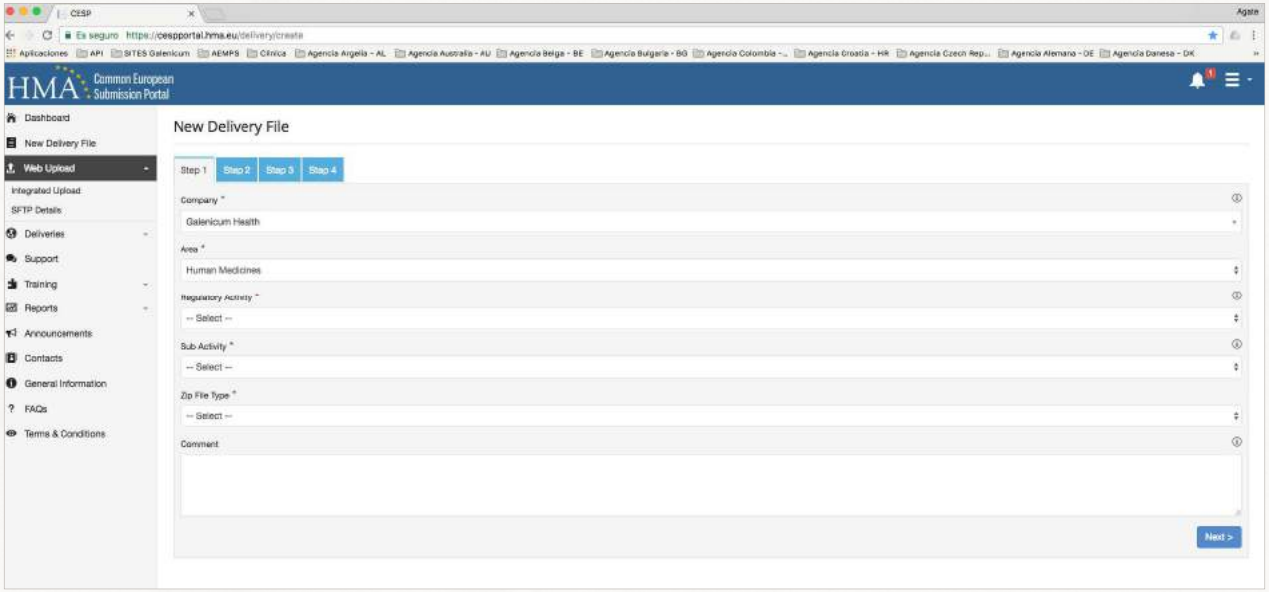
1. Why?. Life-cycle Management



1. Why?. Registration Dossier: eCTD & CESP

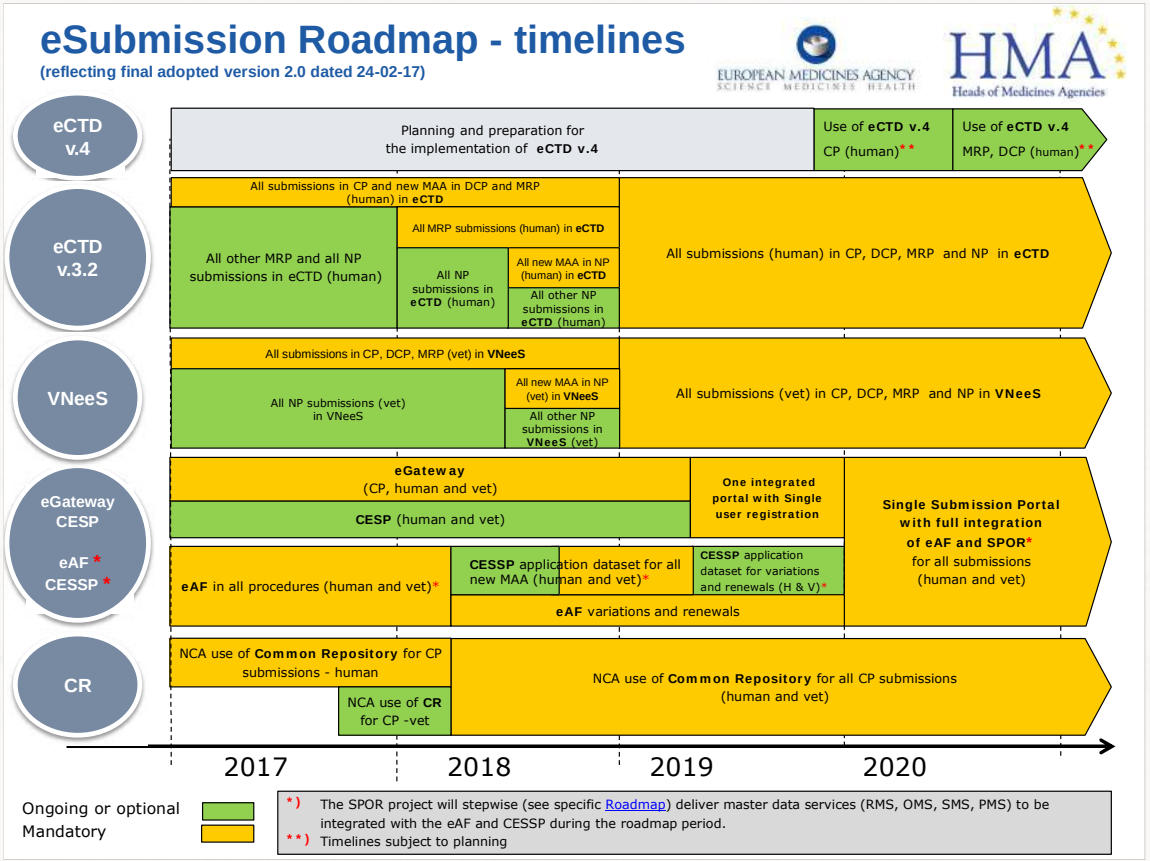






1. Why?. Registration Dossier: eCTD & CESP

- Since January 2017 - All submissions in CP and new MAA in DCP and MRP (human) in eCTD
- From Q3 2018 - All new MAA in NP (human) in eCTD



1. Why?. Legal Basis

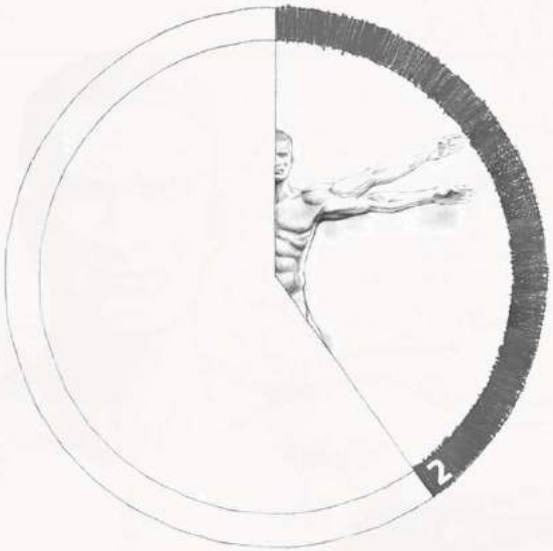
- **Article 8(3) Full Application**
  - Full dossier; quality, nonclinical and clinical data
- **Article 10 (1) Generic**
  - Reference product on the market no less than 8 years
  - Same qualitative, quantitative compositions
  - Same pharmaceutical form
  - Bioequivalence
- **Article 10 (3) Hybrid (mixed) Application**
  - Additional non-clinical/clinical data in case:
    - Product does not meet definition of generic
    - No bioequivalence
    - in case of changes in the active substance(s),
    - Change to active substance, therapeutic indications, strength, pharmaceutial form or route of administration
- **Article 10(a) Well established use**
  - Well-established medicinal use of active substance for at least 10 years
  - Non-clinical and clinical trial results replaced by appropriate scientific literature
- **Article 10(b) Fixed combination products**
  - Active substances used in composition of authorised medicinal products but not in combination
  - New non-clinical and clinical data relating to the combination are required

1. Why?

- **RA is involved in the whole product's life:**
  - from initial development, including clinical trials.
  - obtaining MAs, while ensuring it meets corresponding regulations,
  - to actually writing the product information, price & reimbursement, advertising materials…

- **The "go-between" the company and the corresponding Health Authority, to ensure that their medicinal products meet all the necessary regulations**

- **RA requires scientific, legal and business knowledge**



Why?

One day in office

What is the market looking for

Are you the person?

Career Development

2. One day in the office

- **One day in the office:**

emails, meetings, deficiency letters,
deadlines, doubts, variations,
New initial MA submission, prices,
Compilation of dossier,
interdepartmental queries, advertising materials
search for updated legislation…

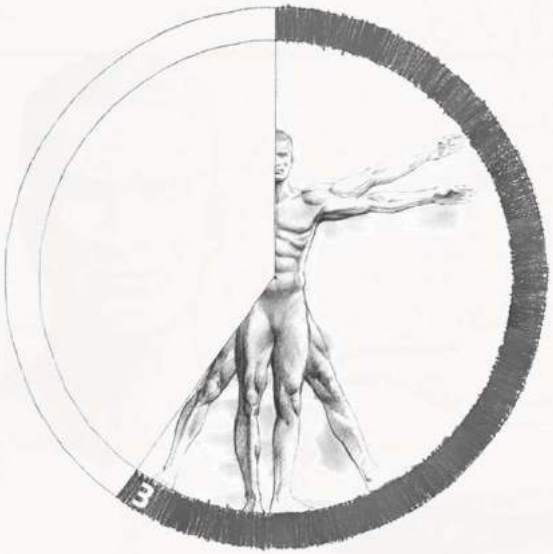
2. One day in the office

- **Best of the job position**
  - Compilation of a registration dossier
  - Getting the approval of a MA or a difficult variation

- **Worse of the job position**
  - Administrative work
  - Product Information (SmPC, PL and outer labelling)

- **Interdepartmental relations**
  - Provide support to all departments in the company: Supply Chain, Quality Assurance, Finance, Commercial, R&D…

- **What you have to lead with?**
  - Strick deadlines.
  - Work under pressure.
  - Liaising and negotiating with regulatory authorities and colleagues



Why?

One day in office

What is the market looking for

Are you the person?

Career Development

3. What is the market looking for?

- **Career:**
  - Relevant Degree in Health Science, preferably Pharmacy (Chemistry, Biochemistry, biotechnology, Medicine, etc)
  - Normally, post-graduate focused in Industry required, including internship. Ex: CESIF, UB, etc
  - High English level

- **Skills:**
  - Organised, responsible…
  - Attitude: easy learning, multi-task, focused …
  - Negotiation, analytical & communication skills.
  - Time management, problem solving…
  - Understanding of relevant legal, scientific, manufacturing…

RA Intership

Descripción

Descripción del puesto (BECARIO):

Dentro del departamento de Regulatory Affairs, el becario/a tendrá la posibilidad de adquirir conocimientos de productos Pharma prescripción a la vez que hará de enabling functions a nivel global contactando con las diferentes sucursales internacionales de la empresa mediante programas informáticos propios de Regulatory Affairs.

Plan de Trabajo:

- Participar en grupos de trabajo con el fin de resolver las incidencias que puedan aparecer los registros médicos de nuestras diferentes sucursales dando la información necesaria para resolver estas incidencias.
- Mantener actualizadas las guías y los procesos de funcionamiento de las diferentes figuras del departamento de Regulatory affairs, alineando así la política de empresa establecida referente a Registros a nivel internacional.
- Colaboración en la implementación de nuevas aplicaciones del ámbito regulatorio lideradas por el propio departamento.
- Seguimiento de las aplicaciones y propias y colaboración en las acciones de propuesta de mejora de las mismas.
- Participación en las reuniones internas e internacionales de preparación y seguimiento de las actividades.

Perfil & Requisitos:

- Grado en Ciencias de Salud, Química, Ingeniería o Informática.
- Valorable Master en Regulatory Affairs.
- Inglés nivel B2 (First Certificate), demostrable buen nivel oral.
- Pensamiento analítico y afinidad con Aplicaciones informáticas.

RA officer

Descripción

Purpose of the role:

We are looking for a Regulatory Affairs Officer CMC with experience within pharmaceutical industry to join our team in our Madrid Office. Someone who loves to take new challenges, to work in an international environment and who wants to grow with us.

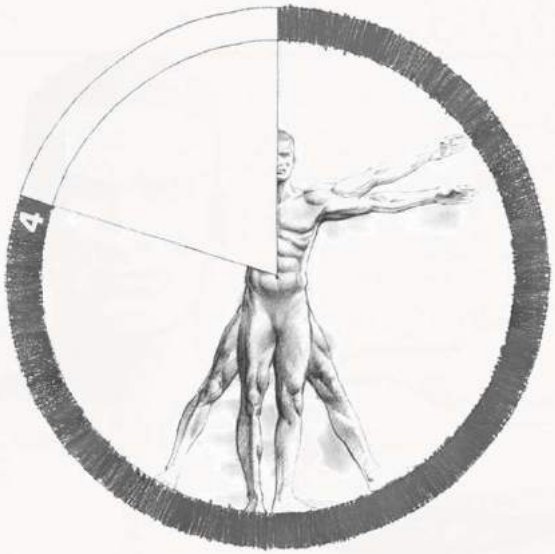
Regulatory Affairs Officer main responsibilities:

Overall management of Regulatory Activities in different regions and procedures worldwide (EU, US, RoW):

- New registrations
- Life-cycle management
- Support in CMC / quality
- Regulatory strategy and assessment in development
- Authoring of regulatory documentation
- Critical revision of regulatory documentation

- Responsible person for specific client
- Responsible person for communication with authorities
- Responsible for achieving deadlines and overall quality of the work to ensure the best client satisfaction
- Preparation of team-related trainings both internal and external
- Support in business development and marketing activities
- Establish processes and work instructions

According to the project the applicable activities can be done for medicinal products, medical devices, cosmetics, biocides, and other regulated products



Why?

One day in office

What is the market looking for

Are you the person?

Career Development

4. Are you the person?

- RA requires scientific, legal and business knowledge

- Typical employers of regulatory affairs departments are:
  - Relevant Degree in Health Science, preferably Pharmacy (Chemistry, Biochemistry, biotechnology, Medicine, etc
  - Normally, post-graduate focused in Industry required, including internship. Ex: CESIF, UB, et
  - High English level

4. Are you the person?

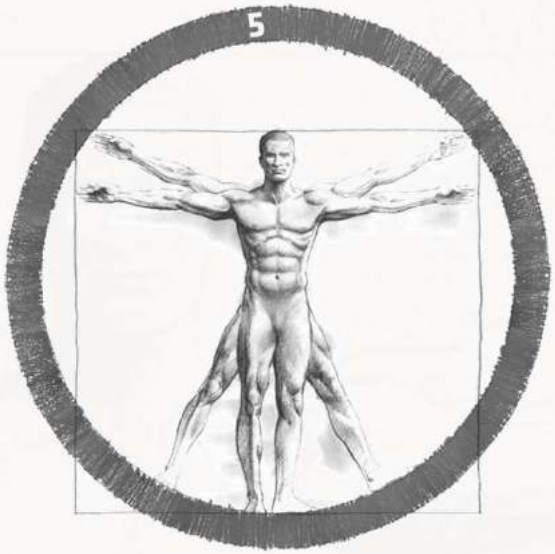
- **RA Junior Specialist - Job description**
  - Compilation, evaluation and submission of complete registration dossiers to local and international regulatory agencies, of Galenicum developed products and licensing from other companies; under other RA team senior associate supervision
  - Monitoring, updating and adapting documents, preparing submissions of license variations and renewals; under other RA team senior associate supervision
  - Management of documentation and requirements for providing 3º APIs to customers
  - Pricing and reimbursement
  - Maintenance of approved dossiers and RA internal databases

4. Are you the person?

- **RA Senior Specialist - Job Description**
  - Compilation, evaluation Providing advice about corresponding regulations to other departments of the company. Compilation, evaluation and submission of complete registration dossiers to local and international regulatory agencies, of Galenicum developed products and licensing from other companies
  - Monitoring, updating and adapting documents, preparing submissions of license variations and renewals
  - Support in developing and writing clear arguments and rationale according to Health Authorities' requests
  - Proactively taking part in internal regulatory strategies
  - Auditing 3ºpart registration dossiers and DMFs
  - Conducting Regulatory Affairs related trainings courses
  - Management of documentation and requirements for providing 3º APIs to customers
  - Maintenance of approved dossiers and RA internal databases

4. Are you the person?

- **All RA specialist – Job Description**
  - Ensuring compliance with regulations set by corresponding Health Authorities, as applicable
  - Keeping up to date with changes in applicable regulatory legislation and guidelines
  - Liaising and negotiating with applicable regulatory authorities



Why?

One day in office

What is the market looking for

Are you the person?

Career Development

5. Career development

- **Future opportunities**
  - RA senior role, progressing to regulatory coordinator, manager, head….
- **Develop your career into a another area: QA, clinical, PM…**
- **Knowledge development in different areas:**
  - Human medicinal products
    - Generic medicinal products
    - Innovative medicinal products
    - Veterinarian medicinal products
    - Medical devices.
    - Cosmetics
    - Food supplements
    - Etc...
  - Not only RA –EU:
    - FDA – USA.
    - Canada, Australia, NZ…
    - LATAM
    - Brasil.
    - MENA
    - Etc..

5. Career development

- **Expected salary for junior/senior positions**

TÉCNICAS	REMUNERACIÓN EN EUROS		BONUS %
PUESTO / EXPERIENCIA	MIN	MAX	
Técnico/Responsible QC	24.000€	55.000€	0-5
Técnico/Responsible QA	26.000€	60.000€	0-5
Dirección Técnica	38.000€	85.000€	5-10
Técnico/Responsible Regulatory	28.000€	85.000€	5-15
Técnico/Dirección I+D	24.000€	90.000€	10-30

Thank you

xxx | xxx | xxx@galenicum.com

1. What is a Marketing Authorisation (MA)?

a. A license to sell a medicine.

b. A license granted by “Competent Authorities”.

c. A license issued after the evaluation of the registration dossier.

d. All above are correct.

2. The assessment for the approval of a medicinal product is based on?

a. The quality, safety and price of the medicinal product.

b. The quality, safety and efficacy of the medicinal product.

c. The quality, efficacy and marketing of the medicinal product.

d. All above are correct.