

EMA regulatory update

Rapid Fire Session

Veronika Jekerle

Head of Pharmaceutical Quality

Human Medicines

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COLLEGE TER BEOORDELING VAN GENEESMIDDELEN



Notified Body Opinions:
Findings & Handling by Swissmedic Quality Assessors

CMC <u>Strategy</u> Forum
Basel, 21 <u>October</u> 2025

Rapid <u>Fire</u> <u>Session</u> <u>with</u> <u>Regulatory</u> <u>Updates</u>

Ulla Grauschopf, Division Head Quality Assessment, Swissmedic



SAHPRA Rapid Fire Updates

CASSS-CMC strategy forum Basel 20-22 October 2025

MPHAKO BRIGHTON RATLABYANA

MANAGER PHARMACEUTICAL EVALUATIONS (PRE-REGISTRATION UNIT)





EMA regulatory update Rapid Fire Session

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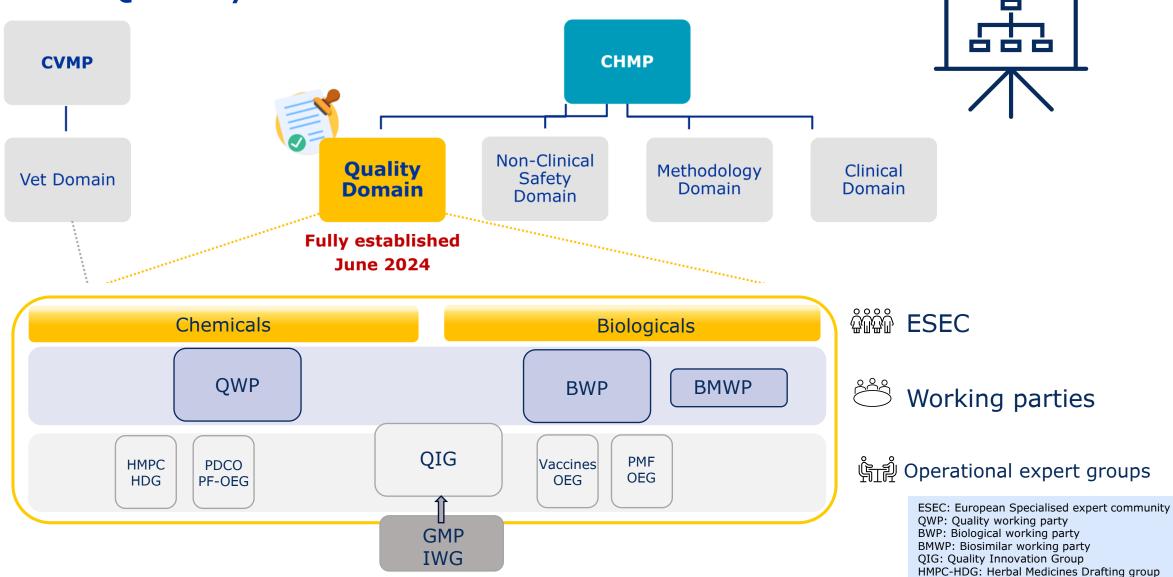
European Medicines Agency

CASSS-CMC strategy forum

Basel 20-22 October 2025



EMA's Quality Domain

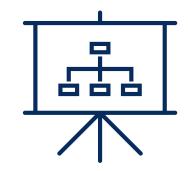


PDCO-PF-OEG: Paediatric Formulation OEG PMF OEG: Plasma Master File OEG GMP IWG: Inspector working group

EMA's Quality Domain

EU National Competent Authorities



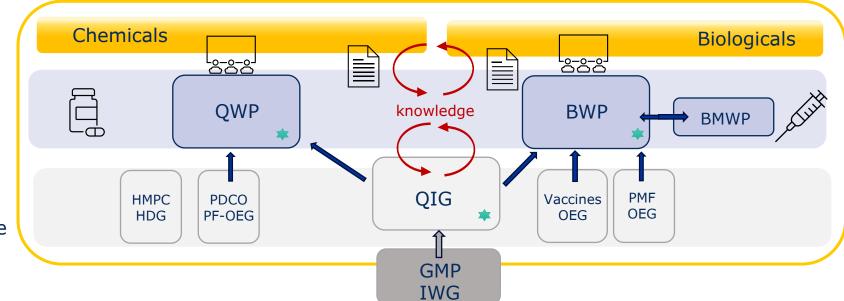




EMA Quality Domain













international observers

ESEC: European Specialised expert community

QWP: Quality working party BWP: Biological working party BMWP: Biosimilar working party QIG: Quality Innovation Group

HMPC-HDG: Herbal Medicines Drafting group PDCO-PF-OEG: Paediatric Formulation OEG

PMF OEG: Plasma Master File OEG GMP IWG: Inspector working group

EU pharmaceutical legislation



Enabling mechanisms for innovation/CMC

e.g.

Master files

Personalised medicines

Platform approaches

Decentralised manufacturing

Regulatory sandbox

Variation framework & Annex II Strengthened pre-submission support

What will the pharmaceutical sector reform change?







Quality Innovation Group



The Quality Innovation Group (QIG) is an operational expert group set up to support the translation of innovative approaches to the design, manufacture and quality control of medicines, to bring new therapies and help improve the supply of existing medicines to patients.

1st LLFG 13 March 2023 Decentralised manufacturing

Continuous manufacturing of biologicals or end-to-end continuous manufacturing

2nd LLFG 12 Oct 2023

Digitalisation and automation of manufacturing and control

3rd LLFG
5 June 2024

Process models

4th LLFG 19-20 Nov 2024

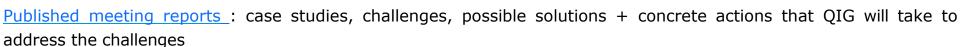
Platform manufacturing technologies

5th LLFG 8-9 April 2025

Personalised medicines



6th LLFG 3-5 Mar 2026 Innovative technologies to advance sustainability goals in pharmaceutical manufacturing





Pharmaceutical Process Models

- Listen & learn focus group (4/5 June 2024)
- Case studies (diverse models in pharmaceutical manufacturing)

Discussion points:

- Model agnostic regulatory framework
- Risk-based consideration → regulatory requirements
- Model classification (low/medium/high)
- Model validation
- Documentation
- Lifecycle
 - Preliminary QIG considerations on pharmaceutical process models
 - QIG breakout session: 18 Nov 2025





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Address for viets and delivertes: Refer to www.ema.europa.eu/bow-to-find-us
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Procliminary QCC Considerations regarding Pharmacoustics Process Models

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Platforms

- Listen & learn focus group (19-20 November 2024)
- **Regulators' considerations**: prior knowledge/platform approaches
- **Industry examples**: vaccines, mRNA, gene therapy, continuous direct compression, oligonucleotides

Discussion points:

- Benefits of the platform: streamlined development, data utility, acceleration
- **Prerequisites:** definition, documentation, data maturity, reproducibility
- Modular approach versus end-to-end
- Product experience & ideal product class
- Lifecycle management







Resources



CHMP/BWP guidance

- Guideline on quality aspects of RNA vaccines (revision for finalisation in 2026)
- Reflection Paper on tailored clinical approaches for biosimilar developments (revision for finalisation in 2026)
- Guideline on the development and manufacture of human medicinal products specifically designed for phage therapy (draft in public consultation)
- Revision of Guideline on Radiopharmaceuticals Based on Monoclonal Antibody Derivatives (awaiting finalisation)
- Revision of Guideline on epidemiological data on blood transmissible infections) (draft in preparation)
- QIG Preliminary Considerations on Pharmaceutical Process Models (draft)
- Guidance to support new variations framework (i.e. complex manufacturing, PACMP, PLCM, other)
- Questions and Answers on BWP learnings
- ICH Guidance (Q1/Q5C; Q3; Q6; M4Q; Upcoming: Biosimilars, Cell&Gene therapies discussion group, SPQS)

nature reviews drug discovery

nature > nature reviews drug discovery > biobusiness briefs > article

BIOBUSINESS BRIEFS | 15 March 2024

Genome-editing medicinal products: the EMA perspective

By Anna Tavridou , Dolca Rogers, Giada Farinelli, Jordanis Gravanis & Veronika Jekerle

Genome editing technologies such as CRISPR-Cas9 are being developed as therapeutic platforms, especially for monogenic diseases that could be treated by targeting the associated mutations. The first CRISPR-Cas9-based medicinal product, Casgevy (exagamglogene autotemcel), has recently been granted marketing authorization in the European Union for sickle cell disease and β-thalassemia, and a substantial number of other genome-editing medicinal products (GEMPs) are in development.

Nevertheless, the field of GEMPs is still nascent, with very limited scientific guidance available to developers to fit these complex products into existing regulatory frameworks. A recent horizon scanning report by the EU Innovation Network includes initial regulatory considerations, socioeconomical aspects and recommendations to help better understand general challenges and opportunities of genome editing. Developers seeking to market their products in Europe should also make use of tailored support from national competent authorities and the European Medicines Agency (EMA): that is, Innovation Task Force (ITF) meetings, PRIority Medicines (PRIME) designation and scientific advice (SA). SA - recommendations from the EMA that may aid developers on aspects of the medicine development supporting a marketing





check for updates

Citation: Shivii, R.; Grabski, E.;

Lessons Learnt on Building a

Controls (CMC) Package for

Vaccines 2024, 12, 1234.

vaccines12111234

https://doi.org/10.3390/

Received: 27 June 2024

Chemistry, Manufacturing, and

Jekerle, V. Scientific and Regulatory

COVID-19 Variant Vaccine Updates in

the EU-A Regulator's Perspective.

Academic Editor: Giuseppe La Torre

Scientific and Regulatory Lessons Learnt on Building a Chemistry, Manufacturing, and Controls (CMC) Package for COVID-19 Variant Vaccine Updates in the EU—A Regulator's Perspective

Ragini Shivji 1,*, Elena Grabski 2,† and Veronika Jekerle 1

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- Division of Infectology, Paul-Ehrlich-Institut, Federal Institute for Vaccines and Biomedicines, Paul-Ehrlich-Straße 51-59, 63225 Langen, Germany; elena.grabski@pei.de
- Correspondence: ragini.shivji@ema.europa.eu
- † EMA Biologics Working Party member.

Abstract: During the COVID-19 pandemic, eight COVID-19 vaccines were authorised in the European Union (EU); as a result of emerging SARS-CoV-2 variants and waning immunity, some of these have been adapted to broaden the immunity against circulating variants. The pace at which variants emerge challenges the technical feasibility to make adapted vaccines available in a suitable timeframe and in sufficient quantities. Despite the current absence of a clear-cut seasonal spread for COVID-19, the EU regulatory approach thus far is a pragmatic approach following a pathway similar to that of seasonal influenza. This approach currently requires chemistry, manufacturing, and controls (CMC-the design, development and consistent manufacture of a specified medicinal product of good quality) and non-clinical data (from product laboratory and animal studies), as well as demonstrating that updated vaccines induce an immune response that can predict clinical efficacy and safety in humans. For CMC data, COVID-19 mRNA vaccine adaptations generally made use of the same formulation, control strategy, manufacturing process, and inclusion of registered manufacturing sites for the drug product; therefore assessment was generally streamlined. The experience gained from the vaccine adaptations, combined with a continuous early regulator-developer scientific discussion, permits increasingly greater predictability for timing and positive regulatory outcomes. Here, we review key aspects of the quality control and manufacture of updating COVID-19 vaccines to protect against new variants. Although most experience has been gained with mRNA vaccines, we note that investment in the streamlining of manufacturing processes for recombinant protein vaccines would facilitate future strain updates/adaptations thereby safeguarding availability of different COVID-19 vaccine types, which is considered of value for public health. We also reflect on the challenges and opportunities in establishing more predictable regulatory mechanisms for future COVID-19 vaccine adaptions and more widely for future vaccines containing rapidly evolving pathogens with the potential to cause health threats.

Keywords: COVID-19 vaccine; chemistry, manufacturing, and controls; regulatory approvals





Learning from the EMA experience: common CMC deficiencies in marketing authorisation applications over the past decade

Dolores Hernán Pérez de la Ossa*, Friederike Haas, Robert N. Bream, Evangelos Kotzagiorgis, Klara Tiitso, Veronika Jekerle

European Medicines Agency, Pharmaceutical Quality Office, Human Division, Amsterdam, the Netherlands

Here, we present an analysis of major objections (MOs) raised on quality aspects during review of marketing authorisation applications (MAAs) for new medicines via the centralised procedure in the European Union (EU). The review covers a 10-year period by analysing data from 2013, 2018, and 2023. We identify common deficiencies, which should help developers prepare dossiers aligned with EU and global standards and avoid delays to approval of medicines, thereby improving patient access to medicines. The most common deficiencies are correlated with specific product types, recent public health crises, new legal frameworks, and the publication or revision of guidance.

Keywords: medicines; marketing authorisation; major objection; quality; deficiencies







Reflection paper on a tailored clinical approach in biosimilar development



17 February 2025 EMA/CHMP/BMWP/60916/2025 Committee for Medicinal Products for Human Use (CHMP)

Reflection paper on a tailored clinical approach in biosimilar development

Draft for internal consultation agreed by Biosimilar Medicines Working Party ¹	21 October 2024
Consultation with MWP, BWP and SAWP	17 January 2025
Adopted by CHMP for release for consultation	<dd 2025="" month=""></dd>

Draft agreed by Biosimilar Medicines Working Party ³	12 February 2025
Adopted by CHMP for release for consultation	<dd 2025="" month=""></dd>
Start of public consultation	<dd 2025="" month="">2</dd>
End of consultation (deadline for comments)	<dd 2025="" month="">3</dd>
Agreed by <working party="">³</working>	<month yyyy=""></month>
Adopted by <committee></committee>	<dd month="" yyyy=""></dd>

Comments should be provided using this <u>EUSurvey</u> form (add the link to the form). For any technical issues, please contact the <u>EUSurvey</u> Support.

Reflection Paper, Biosimilar, Comparative Efficacy Study, Tailored clinical approach ⁴

Scope: This Reflection Paper discusses the **necessity of CES for demonstration of biosimilarity**. In order to place those reflections into context, the Reflection Paper first considers the current practice with respect to analytical comparability exercises, including *in vitro* pharmacology, and consider their predictive value.

Subsequently, some reflections will be provided with regard to the contribution of CES, and other human in vivo studies, especially PK/PD studies, and to the assessment of immunogenicity.

This Reflection Paper is **not intended to replace current guidance** or current practice with regard to analytical comparability exercises.

Personal views only - evolving field - may not reflect final view of EMA/CHMP





Workshop @ EMA 22nd September

Take home messages

- Broad support for the principles and main conclusion of the RP
- Maintaining high scientific standards while considering a tailored approach is key
- To be further reflected upon (either update of RP or subsequent guidance):
 - Contents of similarity assessment protocol
 - Impurities (esp. process related)
 - Statistical approaches for CQAs
 - PK studies
 - Immunogenicity assessment

Personal views only - evolving field - may not reflect final view of EMA/CHMP



Notified Body Opinions: Findings & Handling by Swissmedic Quality Assessors

CMC Strategy Forum
Basel, 21 October 2025
Rapid Fire Session with Regulatory Updates

Ulla Grauschopf, Division Head Quality Assessment, Swissmedic

Schweizerisches Heilmittelinstitut Institut suisse des produits thérapeutiques Istituto svizzero per gli agenti terapeutici Swiss Agency for Therapeutic Products

Hallerstrasse 7, 3012 Bern www.swissmedic.ch

Notified Body Opinions - Status at Swissmedic

- Swissmedic has aligned its authorisation requirements for non-separable (integral and co-packaged) combination products with the revised provisions of the EU-MDR.
- In keeping with Article 117 EU-MDR, a Notified Body Opinion must be submitted for integral medical device components for which the involvement of a designated conformity assessment body ("Notified Body") would be required if the device component were to be marketed separately as a CE-marked medical device.



..... Autoinjectors and pre-filled syringes as "bread and butter" devices for SC administered parenterals.

Quality Assessors have to rely on the Notified Body Opinion report during their assessment.

Findings

- Late coming NBOs due to limited NB capacity
- Significant heterogeneity in the delivered content of NBOs
 - 11 pages versus 120 pages! → quantity is not everything...but!
 - Unclear descriptions of the device components assessed by the NBO with no/minimalistic link to the submitted drug-device combination product
 - GSPR compliance declared despite obvious data gaps.
 - Biocompatibility, usability and transport validation data missing, incomplete or not applicable to the final version of the device......
- In some cases, NBO did not cover the **intended use scenario**, eg peninjector required to have a small volume uptitration with device not capable to stay within the required dose delivery limits but NB issued positive opinion because of compliance with ISO11608

Swissmedic has noticed that in some cases critical deficiencies in the content of the NBO limits its usefulness for the marketing authorisation assessment.

How to move forward to improve the situation?

- Sharing of our findings with EMA colleagues, NBs and industry stakeholders
 - Team NB incl. Art 117 working group
 - Planned publication at Swissmedic homepage
- Introduction of a checklist for Swissmedic quality assessors to facilitate the handling of a Notified Body Opinion Report
- Issuing of questions within LoQ to applicants
 - e.g. if scope and clear description of device components in the NBO are missing: "Please confirm that all device components of the drug-device combination product have been addressed in the NBOp. Please explain and justify any deviations in Module 3. Please request from the NB to include such information in future versions of this NBOp."
- → Industry colleagues to check NBOs prior submission- ask yourself the same questions as we do in Quality Assessment

 Thank You!



Dr. Emmanuelle Charton, Head of Division B, European Pharmacopeia Department EDQM





European Directorate for the Quality of Medicines & HealthCare, EDQM

- Part of the Council of Europe
- Founded in 1964
- European Pharmacopoeia: Partial agreement
 (39 members states & the EU + 33 observers)
- ★ Contributes to public health and access to good quality medicines and healthcare in Europe
- Wide scope of activities

Europe 39 member states and the EU Asia 3 observer observer observer **Africa** Oceania 9 observer states South America observer observer states Non-state EU (member) TFDA and WHO (observers)* * EU: European Union; TFDA: Taiwan Food and Drug Administration; WHO: World Health Organization

Our vision

Together for better health, for all

Our mission

To contribute to public health protection by engaging with an international community of experts and stakeholders

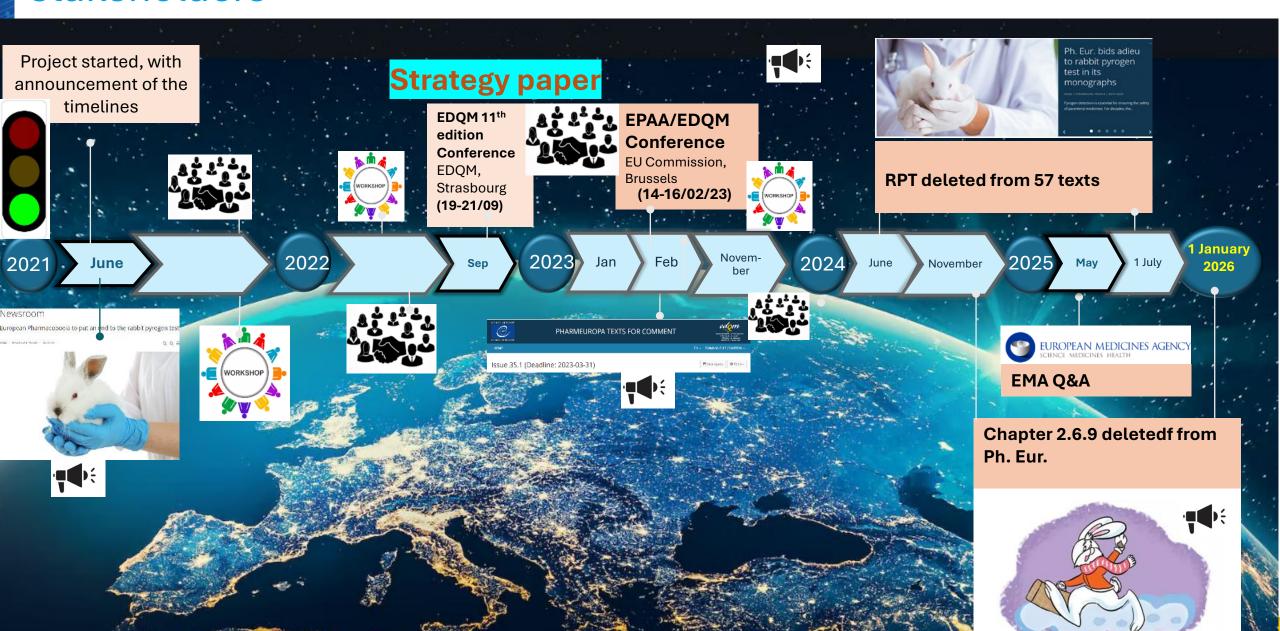


New Pyrogenicity Strategy
Suppression of the Rabbit Pyrogen Test





Phasing out the Rabbit Pyrogen Test - Communication to stakeholders



Save the date! Follow-up EPAA/EDQM event

25-26 February 2026 Brussels

https://www.edqm.eu/en/-/save-the-date-joint-edqm-epaa-symposium-pyrogen-testing-2.0-ethical-evolving-and-eco-friendly-implementing-safe-rapid-state-of-the-art-and-sustainable-non-animal-approaches-worldwide-25-26-february-2026











Exploring a certification system for rapid microbiological methods

Identification of



- ***** Benefits
- ★ Challenges
- Questions re. stakeholder needs (what would be acceptable/not acceptable)



Concept stage:

Still lots of questions to address

Stakeholders feedback



- ★ Needs
- ★ Embark
- ★ Shape the system

Regulator workshop

Public workshop



EDQM WORKSHOP

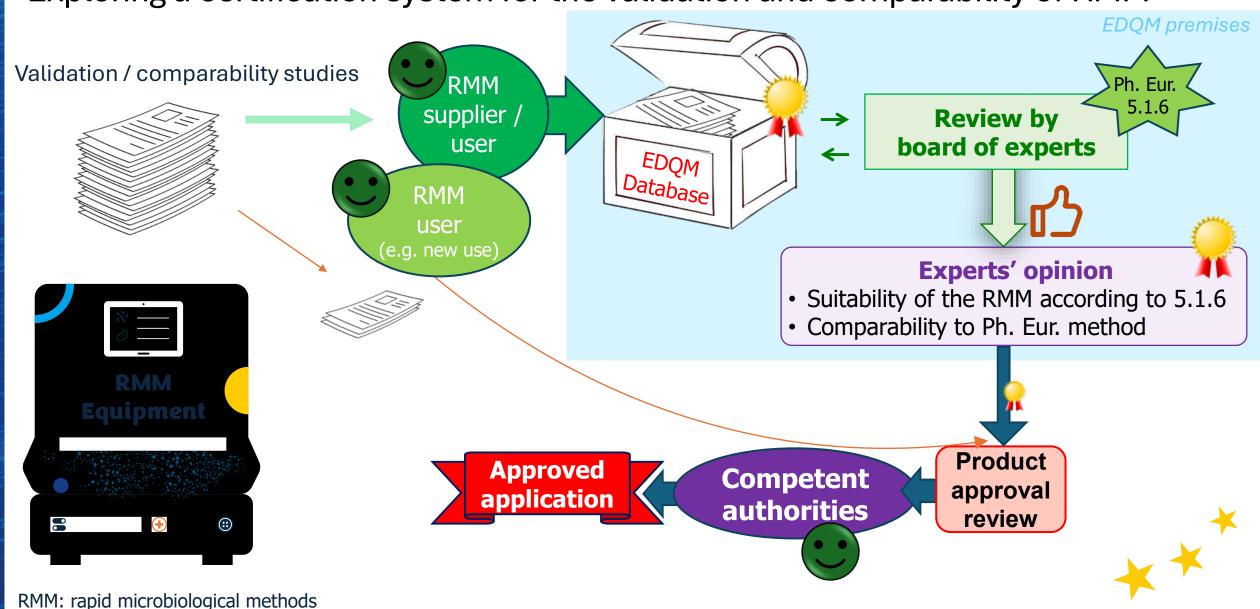
EXPLORING A CERTIFICATION SYSTEM FOR THE VALIDATION OF RAPID MICROBIOLOGICAL METHODS

15-16 October 2024, Strasbourg, France





Exploring a certification system for the validation and comparability of RMM



Take away message: The EDQM is...

- ...participating in the establishment of innovative approaches to QC of medicines in Europe
- ... listening to its stakeholders to help shaping up these approaches
- ...facilitating the regulatory framework in Europe and beyond by the establishement of standardised approaches
- ★ promoting **globalisation** of these approaches









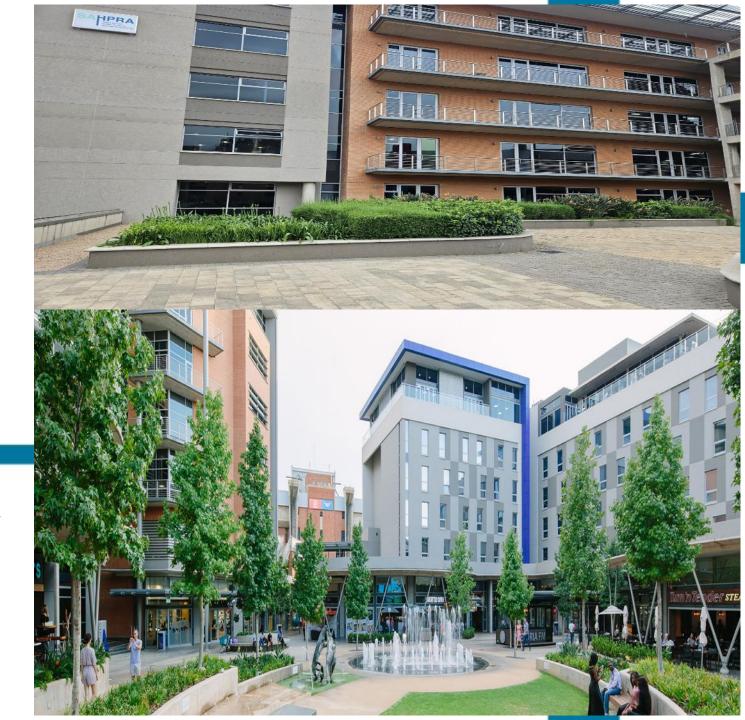
SAHPRA Rapid Fire Updates

CASSS-CMC strategy forum Basel 20-22 October 2025

MPHAKO BRIGHTON RATLABYANA

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South African Health Products Regulatory Authority (SAHPRA)

- Population ~ 62 million
- HQ in Pretoria-Capital city
- 2 Regional offices (Durban and Cape-Town)
- ~400 staff members





Background information

- Work sharing initiative in SADC (medicines assessments and GMP inspections)
- Founded in October 2013 by 4 countries









- SAHPRA joined the initiative in 2016
- Triggered by common challenges
 - -Huge backlogs & Long registration times
 - -High staff turnover
 - -Limited capacity to assess certain types of products e.g biologicals
 - -Inadequate financial resources



10 years on...Where are we?

2 | meetings/Year of Heads of Agencies (HOA)

≠17

Since 2013

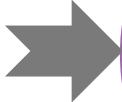
Training Sessions

of Assessment 31 (face to face) Sessions: 4 | year +13 (virtual : 1111 sessions)=44

Manufacturers inspected for GMP compliance: 4 schedules | year



11 | Average # of products per session



ZAZIBONA



Negative

Withdrawn

409 Products.



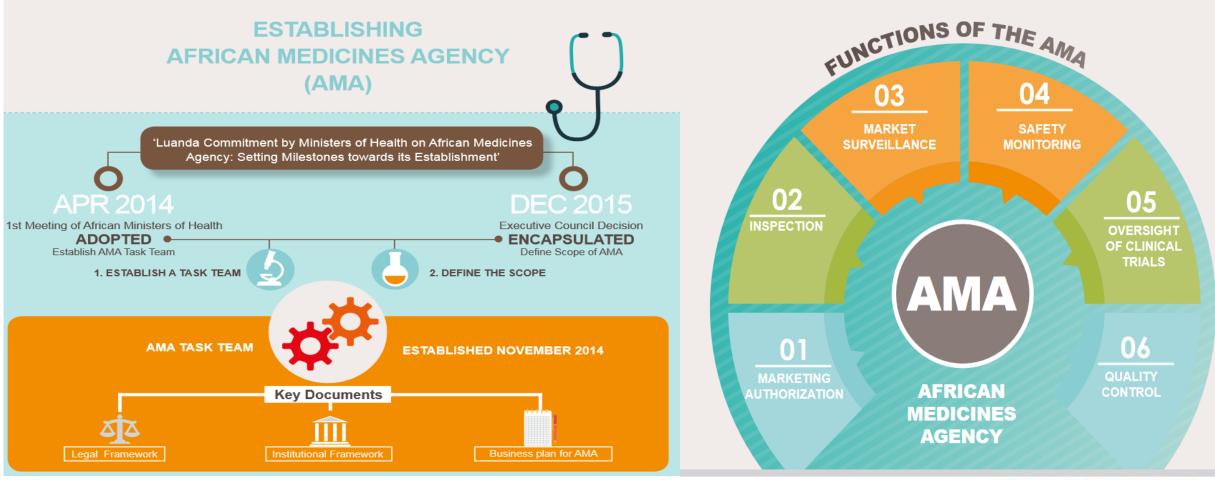
AFRICAN MEDICINES AGENCY

AMA a Specialized Agency of the African Union (AU) dedicated to improving access to quality, safe and efficacious medical products in Africa through regulatory harmonisation and systems strengthening.

The AMA Treaty was adopted by the AU Assembly on 11 February 2019 and came into force on **5th Nov 2021.**



AFRICAN MEDICINES AGENCY





TYPES OF APPLICATIONS IN THE CONTINENTAL PLOT

09 Biological Products (3 Vaccines)

2 New Chemical Entities

10 Multisource Products manufactured in the Continent



CURRENT STATUS/ KEY ACHIEVEMENTS

- From the 21 applications
- 10 Continentally Listed as of July 2025
- All remaining applications are in the final cycle 3



Role of SAHPRA

- Chair AMRH Steering committee
- Chair GMP Technical Committee
- Chair EMP Technical committee of biological and vaccines
- Participate actively in EMP TC.
- Participate actively in BABE TWG.
- Participate actively in other supporting TC's.
- Contribute to pool of continental assessors and GMP inspectors.



Panel discussion

Dr. R.M. (Martijn) van der Plas
Senior beoordelaar Afd. Kwaliteit

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BEOORDELING VAN
GENEESMIDDELEN







Acknowledgement to: Zanele Xaba-Zazibona Focal person Aseza Matolengwe-AMA focal person Alex Juma Ismail-AUDA NEPAD RSS

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mphako.ratlabyana@sahpra.org.za ratlabyanamb@gmail.com Dr. Emmanuelle Charton, Head of Division B, **European Pharmacopeia Department EDQM** Thank you for your attention! More information www.edqm.eu https://go.edqm.eu/Newsletter Follow us on in edgm @edqm_news **EDQMCouncilofEurope**

Revised variation classification GL: main changes

Procedural part

- Operational details shifted to EMA/CMDh guidance for easiest updates in the future.
- Change the current code system (numbering) to facilitate the implementation of the new framework

A. Administrative variations

 Reduction/simplification list from 8 to 5 scopes.

B. Quality variations

Review of all categories:

- Downgrade certain scopes when scientifically justified (risk/based approach).
- Removed conditions of biological medicinal products in certain circumstances allowing a Type IA variations.
- Implementation of PACMP as Type IB or Type IA also for BIO.
- Alignment and consistency between Chemicals and Biologics where appropriate
- New section on In-house reference preparations.
- New scopes for **Medical devices** in line with MDR.

C. Safety, Efficacy, PhV variations

- **Deletion** of scopes (C.I.9, C.I.10, as now done via Art. 57 database).
- C.I.3 expanded to include implementation of PRAC signals and joint recommendations of EU authorities.
- New scope for submission of results of assessments carried out on target patient groups.

D. PMF

 Reduction/simplification list from 23 to 16 scopes.



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> Questions and answers for biological medicinal products

Questions and answers for biological medicinal products



Human

Biologicals

Regulatory and procedural guidance

Research and development

Scientific guidelines

Page contents

Storage Sites for Master cell bank/ Working cell bank/ Active substance/ Finished product/ Intermediates (3.2.S.2.1, 3.2.P.3.1)

Reprocessing (3.2.S.2.2, 3.2.P.3.3)

Raw materials and media components (3.2.S.2.3)

Cleavable purification tag (His-tag) (3.2.S.2, 3.2.S.4)

Updated on 16 June 2025:

'Raw materials and media components (3.2.S.2.3)' section

This question and answer page is developed and maintained by the <u>CHMP</u> Biologics <u>Working Party</u> (BWP) and provides agreed positions by the Biologics <u>Working Party</u> position on issues that can be subject to different interpretation or require clarification, typically arising from discussions or correspondence during assessment procedures of biological human medicinal products.

In order to obtain information on a topic, please click on the topics/questions. Please note that this page has been produced to provide transparency and additional information, and should be read in conjunction with the <u>European Pharmacopoeia</u>, <u>CHMP</u> guidelines on quality and other guidance documents.

Method identification numbers (3.2.S.4.1, 3.2.P.5.1)

Expand all

Collapse all