



Fourth meeting of the CIOMS Working Group (WG) XVII on Long-term safety of medicinal products

29-30 June 2026, Geneva, Switzerland, hybrid meeting

Minutes

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Summary

The fourth meeting of the CIOMS Working Group XVII on *Long-term Safety of Medicinal Products* was held in Geneva, Switzerland, on 29–30 June 2026, with participants attending both in person and virtually. The Working Group reviewed the proposed report chapters, agreed on key structural changes, refined the report's scope and focus, and identified the principal revisions required for each section. The meeting concluded with agreement on the revised report structure, allocation of chapter revisions, and a programme of ongoing subgroup work ahead of the next face-to-face meeting, scheduled for 26-27 January 2027.

Minutes of discussion

Day 1

Opening and welcome

- Lembit Rägo, CIOMS Secretary General, opened the two-day meeting and welcomed WG members.
- Lembit continued with an overview of recent activities across CIOMS Working Groups:
 - Three reports had been published during the previous year: WG XII report on [Benefit-Risk Balance for Medicinal Products](#); Report on [Severe Cutaneous Adverse Reactions – SCAR](#); and WG XIV on [Artificial Intelligence in Pharmacovigilance](#).
 - The progress was reported on current projects, including the [WG XV on Pharmacoepidemiology for Public Health](#), which had completed public consultation and was undergoing final revision. WG on [Recommended Standards of Education and Training for Health Professionals Participating in Medicines Development](#) was also progressing.
- There are several ongoing CIOMS WGs (more information at <https://cioms.ch>).
- A new WG member with expertise in research ethics, Maria Ribeiro from Nova Medical School, was welcomed, reflecting the Group's intention to strengthen ethical perspectives within discussions on long-term safety.
- *Tour de table* was made to introduce participants to each other. For a list of participants see [Annex 1](#).
- Agenda was adopted.
- Kateriina was rapporteur.

Relevant external developments

- A recent cross-industry publication examining long-term follow-up following CAR-T cell therapies was presented. The publication questions the scientific justification for the current 15-year follow-up requirement and forms part of ongoing discussions with the FDA. Members considered that the publication may provide useful background information for the WG and agreed that it should be circulated.
- Recent developments in regulatory guidance relating to gene therapies were also highlighted. Members noted that recently issued guidance increasingly recognises opportunities to use accumulated knowledge and prior experience when determining appropriate duration of long-term follow-up. Additional publications on gene therapy and personalised medicine were identified and will be shared with the WG.
- Members also noted significant regulatory developments introducing formal reliance pathways for regulatory submissions in Canada. Although not directly related to the objectives of the WG, the development illustrates broader changes occurring within regulatory systems that may influence future approaches to medicinal product evaluation.

Review of the draft report

- First drafts had now been prepared for most chapters, reflecting extensive collaboration within both drafting workstreams.
- Both workstream leads acknowledged the significant contributions made by chapter authors and noted that the principal objective had been to generate comprehensive first drafts rather than polished chapters. Although considerable variation existed between chapters, all major topics had now been addressed, and the report contained a substantial body of scientific material on which further refinement could be based.
- The WG undertook an extensive discussion on the overall structure, consistency and strategic direction of the report.
- Members agreed that the report had reached a stage where editorial harmonisation was now the primary priority. It was recognised that the individual chapters reflected the writing styles and perspectives of different drafting teams and therefore varied considerably in structure, level of detail and scientific emphasis.
- It was observed that some chapters contained detailed descriptions of established pharmacovigilance concepts that are already well documented elsewhere, while other chapters remained relatively high level or consisted mainly of preliminary outlines.
- It was agreed that the report should avoid reproducing existing guidance where possible and instead focus on issues specifically relevant to long-term safety.
- The need to develop a coherent narrative throughout the report was repeatedly emphasised. Members noted that the report should read as a single document rather than a collection of independently authored chapters. This would require removal of duplicated material, harmonisation of terminology and consistent use of definitions across all chapters. The possibility of revising the order of chapters was also discussed to improve the overall flow of the document.
- Several members proposed introducing a common structure for all chapters, including concise introductions, consistent formatting, executive summaries or key messages, and concluding sections highlighting practical implications. Such an approach was considered likely to improve readability and make the report more useful for a broad readership.
- Members also agreed that the report should be future-oriented rather than focused solely on current practice. While background information remains important, the principal value of the report should lie in identifying emerging challenges, anticipating future developments and proposing principles that will remain applicable as new therapeutic modalities continue to evolve.
- The WG discussed the intended readership and agreed that the report should provide value for medicinal product developers, regulators, healthcare professionals, researchers and academics. While educational content remains important, the report should primarily offer practical guidance that assists stakeholders in addressing long-term safety questions throughout the product lifecycle.
- Case studies were considered valuable educational tools. Members agreed that detailed examples would generally be more appropriate as appendices rather than within the main body of the report, thereby allowing the narrative chapters to remain focused on overarching principles.

Definition of long-term safety

- The WG devoted considerable discussion to refining the proposed definition of long-term safety, recognising that it would determine the scope and direction of many subsequent chapters. Members agreed that the definition should be sufficiently broad to accommodate different

medicinal product classes while clearly distinguishing long-term safety from routine pharmacovigilance.

- Discussion focused on the terminology used to describe safety events, with members favouring broader terms such as *safety concerns* or *safety issues* rather than limiting the definition to established adverse reactions, recognising that many long-term safety questions originate as hypotheses or signals. Members also considered whether delayed and cumulative effects, prediction of potential risks, and the identification, evaluation and management of long-term safety issues should be explicitly reflected in the definition.
- It was agreed that long-term safety extends beyond the identification of new risks to include the ongoing evaluation of known risks, changes in disease progression and patient characteristics, evolving benefit–risk considerations and the management of uncertainty throughout the product lifecycle. Several alternative definitions were reviewed and revised. While no final wording was agreed, there was consensus that the definition should remain concise, scientifically robust and sufficiently flexible to accommodate future therapeutic developments. The drafting team will continue refining the wording following the meeting.
- A revised working definition was developed and incorporated into the working draft while the wording will continue to be refined: *“Long-term safety of medicinal products involves prediction, identification, evaluation, and management of delayed effects and safety issues either long after medicinal product exposure or prolonged use”*.

Report structure – remaining chapters

- The proposed Limitations and Challenges and Future Directions chapters were reviewed.
- The WG agreed that many limitations, including loss to follow-up, methodological constraints, evidence quality and implementation challenges, are more appropriately addressed within the relevant scientific chapters rather than in a standalone chapter.
- It was proposed that the key limitations and potential approaches to addressing them be summarised in a concise table or appendix to provide an accessible overview while avoiding duplication.
- Members agreed that future developments should be integrated throughout the report where relevant, with an overarching Future Directions section to be developed once the substantive chapters have matured. The structure and content of both sections will be revisited following further development of the main scientific chapters.

Organovigilance

- The WG discussed whether organovigilance, including xenotransplantation, should be addressed in the report.
- Members recognised that organovigilance shares important principles with long-term safety monitoring but noted that expanding the report beyond medicinal products could broaden its scope and overlap with existing areas such as biovigilance.
- Several options were considered, including addressing organovigilance in a Future Directions section or as an appendix.
- It was agreed that the report should remain focused on medicinal products, while recognising organovigilance as an emerging area that could be referenced through an appendix or illustrative example. The topic will be revisited following further development of the report.

Continuing the editing process

- Members agreed to continue the chapter review in plenary to ensure consistency, identify duplication and support harmonisation across the report.

- The potential use of AI tools for editorial harmonisation was discussed. Members agreed that AI could support identification of duplication and improve consistency, provided all revisions undergo scientific review by the WG.
- It was agreed that the afternoon session would focus on sequential chapter review, establishment of a common chapter structure and identification of editorial improvements before detailed revision.

Scope, objectives and intended audience

- Before commencing the chapter review, members revisited the overall purpose, objectives and target audience of the report to support consistent drafting.
- It was agreed that the report should provide practical, principles-based guidance on long-term safety rather than an exhaustive review of pharmacovigilance, while remaining relevant to medicinal product developers, regulators, researchers and other stakeholders.
- Members agreed that the report should:
 - provide a comprehensive overview of long-term safety principles;
 - integrate knowledge across therapeutic areas and regulatory disciplines;
 - identify current challenges, knowledge gaps and future opportunities; and
 - remain relevant as scientific knowledge and regulatory practice evolve.

Chapter 1 – Introduction

- The WG reviewed the revised introductory chapter, recognising that it would require further refinement once the remaining chapters had matured.
- Members agreed that Chapter 1 should establish the overall context for the report, define long-term safety, describe the scope and intended audience, and introduce the overarching principles that underpin subsequent chapters.

Several editorial improvements were proposed, including:

- incorporating revised wording of the agreed definition of long-term safety;
 - improving the narrative flow;
 - relocating introductory material from later chapters where appropriate;
 - ensuring that the scope and target audience accurately reflect the agreed objectives of the report; and
 - reviewing the order of subsections so that the principles of long-term safety are introduced earlier within the chapter.
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- Discussion also considered the use of references to the International Council for Harmonisation guidance. Members noted that citations should accurately reflect the scope of the relevant guidance and that references relating to follow-up periods and pharmacovigilance requirements should be verified before inclusion.
 - The description of long-term adverse reactions was further reviewed. Members discussed whether cumulative toxicity should be more explicitly represented alongside delayed effects and agreed that the wording should better distinguish adverse effects associated with prolonged exposure from adverse effects occurring after long latency.
 - The importance of prospective real-world evidence was also highlighted. Members considered that the report should place greater emphasis on the increasing role of prospective real-world data in understanding long-term safety and identifying evolving safety concerns throughout the product lifecycle.

- Discussion also considered several illustrative examples included within the chapter. Members questioned whether enzyme induction represented an appropriate example of long-term safety and debated whether withdrawal syndromes should be retained. Following discussion, the Group agreed that withdrawal reactions following prolonged treatment are appropriately considered within the context of long-term safety because they arise as a consequence of sustained exposure, even though the clinical manifestation itself may be acute.
- The relationship between Chapter 1 and the later chapter addressing principles and considerations was also discussed. Members recognised overlap between the introductory principles presented in Chapter 1 and the more detailed discussion planned for Chapter 3. It was agreed that both chapters should be retained but further harmonised during subsequent drafting so that Chapter 1 provides a concise overview while Chapter 3 presents the supporting rationale in greater detail.

Actions:

- Chapter 1 authors to revise the introduction following completion of the remaining chapters.
- Review examples used within the chapter to ensure consistency with the agreed scope.
- Harmonise the introductory principles with the detailed discussion presented in Chapter 3.
- Verify regulatory references and supporting citations before the next draft.

Chapter 2 – Regulatory landscape

- The WG considered that the current inventory of regulatory guidance was comprehensive but agreed that the chapter should evolve from a catalogue of individual guidance documents into a more integrated discussion that assists readers in understanding the regulatory landscape.
- Several alternative approaches to organising the chapter were discussed. Suggestions included grouping guidance according to product lifecycle, regulatory purpose or common scientific themes rather than presenting guidance sequentially by regulator. Members considered that such an approach would improve readability and enable readers to compare similarities and differences between regulatory frameworks more readily.
- The Group recognised that while guidance issued by the International Council for Harmonisation (ICH) provides an important international foundation, additional regional guidance from Europe, North America and Asia should also be represented where relevant. Members highlighted the importance of recognising regional differences while avoiding unnecessary duplication of similar guidance.
- Several members proposed supplementing the narrative with summary tables comparing regulatory requirements across regions. Such tables could present key similarities and differences relating to clinical development, risk management, post-authorisation commitments and long-term follow-up in a format that is easier for readers to interpret.
- Members further suggested that the chapter should explicitly identify areas where current regulatory guidance remains limited, particularly for emerging therapeutic modalities, thereby reinforcing the rationale for the CIOMS report.
- Discussion also explored the future use of visual summaries and infographics to improve accessibility of complex regulatory information. While considered valuable, members agreed that such materials should only be developed once the narrative content has been finalised.

Actions:

- Restructure the chapter primarily around the product lifecycle, supported by regional/country-specific comparison tables where appropriate.
- Include discussion of areas where existing guidance remains limited.

- Review additional regional guidance, particularly from Asia and other jurisdictions, where relevant.
- Consider development of supporting tables and infographics during the final editorial phase.

Chapter 3 – Principles and considerations

- The WG reviewed the outline of the chapter describing the principles underpinning a risk-based approach to long-term safety assessment. It was agreed that the chapter should explain the scientific considerations that guide long-term safety evaluation rather than simply list available methodologies. The discussion emphasised understanding product characteristics, mechanism of action, target population, available evidence, feasibility of data collection and prioritisation of risks most relevant to long-term follow-up.
- Several members observed that the concept of a "risk-based approach" required clearer explanation. The chapter should provide practical guidance describing how developers identify which long-term risks warrant enhanced monitoring rather than attempting to evaluate every potential safety concern equally.
- The relationship between this chapter and later chapters on methodologies and risk communication was also reviewed. Members agreed that overlap should be minimised through clearer delineation of chapter objectives and cross-referencing where appropriate.
- Additional topics proposed for further development included:
 - strengths and limitations of patient registries;
 - patient-reported outcomes;
 - prospective real-world evidence;
 - biomarkers and surrogate endpoints;
 - identification of populations requiring enhanced long-term follow-up;
 - evaluation of existing long-term follow-up programmes and registries; and
 - methodologies supporting targeted long-term safety assessment.
- Members reviewed the section on special populations and agreed that greater emphasis should be placed on chronic diseases, immunocompromised patients, patients with organ impairment and other populations presenting distinct long-term safety challenges, rather than maintaining a separate subsection on terminal illness.

Actions:

- Clarify the meaning and practical application of a risk-based approach.
- Review overlap with methodology and risk communication chapters.
- Expand discussion of registries, real-world evidence and patient-reported outcomes.
- Reassess the organisation of the section on special populations.
- Ensure that examples included are directly relevant to long-term safety assessment.

Patient perspective

- The WG discussed how the patient perspective should be reflected throughout the report. It was agreed that the report should acknowledge the role of patients in long-term safety evaluation, including study design, identification and prioritisation of safety concerns, assessment of acceptable risk, treatment tolerability and quality of life.
- It was recognised that previous CIOMS reports provide a strong foundation for patient involvement and should be referenced where appropriate.

- Members also highlighted the growing importance of patient-reported outcomes and other patient-reported information in understanding long-term safety and treatment burden.

Action: Reference relevant CIOMS publications and additional literature on patient engagement throughout the report, with particular emphasis on long-term safety, treatment tolerability and patient-reported outcomes.

Chapter 4 – Product-specific considerations

General approach

- The WG reviewed the proposed structure of Chapter 4 and discussed the appropriate balance between providing educational background and maintaining a practical focus on long-term safety.
- Members agreed that the chapter should not become an encyclopaedic catalogue of medicinal products or adverse reactions. Instead, it should illustrate key principles using carefully selected examples that demonstrate important concepts relevant to long-term safety assessment.
- Discussion emphasised that examples should be illustrative rather than comprehensive and should support understanding of how long-term safety concerns arise, are identified and are subsequently managed throughout the product lifecycle.
- It was agreed that Chapter 4 should focus on principles supported by representative examples rather than comprehensive lists of products or adverse reactions.

Small molecules and organ-specific toxicity

- The drafting group explained that an extensive working inventory had been developed linking medicinal product classes with recognised long-term organ toxicities. Members agreed that this internal working document was useful for drafting purposes but should not form part of the published report.
- Discussion centred on the appropriate level of detail. Several members expressed concern that listing individual medicinal products or extensive adverse reaction inventories could rapidly become outdated, might inadvertently omit important examples and could shift the emphasis away from the principles of long-term safety.
- Instead, members favoured organising the chapter around recognised categories of long-term toxicity, supported by a limited number of representative examples drawn from established regulatory information and well-characterised adverse reactions.
- The WG also considered the importance of explaining the biological mechanisms underlying long-term toxicities, while avoiding unnecessary textbook-level descriptions. The report should instead demonstrate how understanding mechanisms of action can inform long-term monitoring strategies, risk mitigation and future pharmacovigilance planning.

Members further highlighted the value of including examples illustrating:

- delayed recognition of long-term adverse reactions;
- development of appropriate long-term follow-up methodologies;
- evolution of scientific understanding over time;
- lessons learned from historical safety issues; and
- examples where subsequent evidence clarified or refuted initial safety concerns.

- Discussion also recognised that future therapeutic innovations may introduce additional mechanisms of long-term toxicity that are not yet fully understood, reinforcing the need for a principles-based approach.

Actions:

- Restructure the chapter around organ-specific long-term safety principles rather than medicinal product inventories.
- Retain only representative examples based on well-established regulatory information.
- Expand discussion of mechanisms underlying long-term toxicity and their implications for long-term monitoring.
- Include illustrative case studies demonstrating how long-term safety concerns have been identified and characterised over time.

Biological products

- Members considered that greater emphasis should be placed on immunogenicity, recognising it as one of the defining long-term safety considerations for biological therapies. Discussion highlighted that clinically significant immune responses frequently develop following repeated administration and may influence both efficacy and safety throughout long-term treatment.
- It was agreed that the discussion should move beyond acute infusion reactions and include broader long-term consequences of immunogenicity together with current approaches to monitoring and regulatory evaluation.
- Members also recommended that references to regulatory requirements relating to biological products should be consolidated within the chapter addressing the regulatory landscape to avoid unnecessary duplication.

Action: Expand discussion of long-term immunogenicity and harmonise regulatory references with Chapter 2.

Vaccines

- Members agreed that vaccines present unique long-term safety considerations due to their use in healthy populations and increasingly in older adults and immunocompromised individuals.
- The COVID-19 pandemic was recognised as an important example of large-scale long-term safety monitoring, highlighting surveillance methodologies, transparent communication, public confidence and management of uncertainty, while avoiding discussion of unconfirmed safety concerns.

Action: Include lessons learned from long-term safety monitoring during the COVID-19 pandemic, focusing on surveillance methodologies, regulatory experience and communication rather than unconfirmed safety signals.

Advanced Therapy Medicinal Products

- Members agreed that this chapter represents an important future-oriented component of the report and should continue to be expanded as experience with these products evolves.
- Discussion highlighted several distinctive long-term safety considerations, including insertional mutagenesis, gene editing technologies, vector-specific risks, long-term follow-up beginning during early clinical development, and the transition from clinical trial follow-up to post-authorisation surveillance.

- The Group also discussed the need to address different categories of advanced therapies separately, recognising that autologous and allogeneic cell therapies, viral vector-based gene therapies and emerging technologies each present distinct long-term safety challenges.
- Members further recognised that practical issues relating to prolonged follow-up, data collection and patient retention represent major methodological challenges that should be linked to the chapters addressing long-term safety methodologies.
- The importance of maintaining a forward-looking perspective was emphasised, with members recommending that the chapter acknowledge rapidly emerging technologies and evolving regulatory expectations while avoiding excessive focus on currently available products alone.

Actions:

- Expand discussion of long-term follow-up strategies specific to advanced therapies.
- Distinguish between different categories of advanced therapies where appropriate.
- Strengthen discussion of emerging technologies and future regulatory considerations.
- Cross-reference methodological challenges with later chapters on long-term follow-up and data collection.

Chronic diseases and long-term treatment

- Members questioned whether discussion organised around individual disease areas would provide sufficient value or whether emphasis should instead be placed on the common principles associated with prolonged treatment.
- The WG agreed that examples of chronic diseases may be useful to illustrate long-term treatment considerations, but the section should focus primarily on common challenges including cumulative exposure, disease-related susceptibility, prolonged monitoring and interaction between underlying disease and treatment-related safety.
- Discussion also highlighted the need to distinguish long-term safety issues that extend beyond routine pharmacovigilance from those already addressed through established safety monitoring.

Action: Revise the section to focus on common principles associated with chronic treatment, using disease examples only where they illustrate unique long-term safety considerations.

Precision medicine

- Members recognised that personalised medicine, pharmacogenomics and predictive biomarkers are rapidly evolving fields with potential to improve prediction of long-term safety risks and identify patients requiring enhanced monitoring. However, discussion also acknowledged that current applications remain limited and that the chapter should avoid speculation.
- The WG therefore agreed that precision medicine should be discussed primarily as an emerging area with future potential for improving prediction, individualisation of monitoring strategies and long-term safety management, rather than as an established methodology.

Action: Develop a concise future-oriented section describing the potential contribution of precision medicine to prediction and management of long-term safety risks, while avoiding speculative conclusions.

DAY 2

- Lembit opened the second day of the meeting by resuming the chapter-by-chapter review of the draft report. Members briefly revisited the remaining subsection of Chapter 4 concerning illustrative examples and agreed that further examples should only be incorporated where they clearly support the discussion of long-term safety principles. Rather than embedding extensive examples within the narrative, the Group considered that representative case studies or use cases could be developed later in the drafting process to illustrate key concepts without disrupting the flow of the report.
- The WG reviewed the proposed structure of Chapter 5, noting that several sections remained under development. Members emphasised that the chapter should focus on long-term adverse reactions that present distinctive scientific or regulatory challenges, while maintaining consistency with the overall principles-based approach adopted throughout the report.
- Discussion recognised that some proposed topics overlapped with earlier chapters, particularly the sections addressing biological products, and should therefore be harmonised to avoid duplication.

Immune-mediated risks

- The proposed section on immunogenicity and autoimmune risks was reviewed in detail.
- The discussion highlighted that immunogenicity may lead not only to adverse reactions but also to reduced therapeutic efficacy through the development of anti-drug antibodies. Members considered that loss of efficacy following prolonged treatment represents an important aspect of long-term safety monitoring and should be recognised within the chapter.
- To better reflect the broader scope of the discussion, members supported replacing the proposed title with a broader heading encompassing immune-mediated risks: *Immune-mediated Risks*.

Carcinogenicity and genotoxicity

- Members commended the scientific quality of the chapter but agreed that it should be streamlined to align with the level of detail in the rest of the report.
- The chapter should focus on the implications of carcinogenicity and genotoxicity for long-term safety rather than routine non-clinical testing requirements.
- Examples, including secondary malignancies and GLP-1 receptor agonists, were discussed to illustrate the challenges of translating non-clinical findings into human risk assessment and the need for continued long-term evaluation where uncertainty remains.
- Members highlighted the potential role of emerging predictive biomarkers in long-term risk prediction.
- It was agreed that examples should illustrate key long-term safety principles and the integration of multiple evidence sources, rather than provide comprehensive reviews of individual products.

Actions:

- Reduce the level of technical detail to align with the remainder of the report.
- Shift emphasis from routine non-clinical testing towards prediction and monitoring of long-term carcinogenic risk.
- Include examples illustrating translation of non-clinical findings to long-term clinical safety where appropriate.
- Seek additional expert review of specialised scientific content before finalisation.

Chapter 6 – Planning long-term follow-up

- Members agreed that the chapter should provide practical guidance on planning long-term follow-up studies, focusing on considerations unique to long-term safety rather than existing pharmacoepidemiology or real-world evidence guidance.
- Different scientific objectives of long-term follow-up, including hypothesis testing, risk prediction and signal detection, were discussed, recognising that each requires different methodological approaches.
- Members emphasised the importance of planning long-term follow-up early in product development, including the use of prospective cohorts, disease registries, natural history studies and integration of retrospective and prospective data.
- Methodological challenges discussed included selection of appropriate comparators, synthetic controls, patient consent, long-term retention, cross-border follow-up and regional differences in access to longitudinal healthcare data.
- Members supported developing practical guidance, such as an appendix or checklist, to assist with the design and critical appraisal of long-term follow-up studies.
- The importance of integrating multiple healthcare data sources, including electronic health records, registries, genomics and imaging data, was recognised as an important future direction.
- Members also highlighted the role of patient engagement, patient-reported outcomes and patient support programmes in improving long-term follow-up and understanding treatment burden.

Organisation of methodology chapters

- The WG agreed to review the organisation of Chapters 6–8 to reduce overlap, improve the logical flow and better distinguish study design, data sources, methodology and statistical approaches.
- The chapter should focus on long-term safety rather than general pharmacovigilance principles.
- Members emphasised that robust evaluation of long-term safety signals requires integration of multiple evidence sources, including registries, observational studies and dedicated epidemiological research, recognising the limitations of spontaneous reporting for long time-to-onset events.
- The potential of predictive modelling, artificial intelligence, wearable technologies and integrated healthcare datasets to support long-term signal detection and risk evaluation was highlighted.
- Members also emphasised the importance of planning long-term risk management strategies early in product development while maintaining a principles-based approach.

Actions:

- Revise the chapters to focus on signal detection, assessment and management issues unique to long-term safety.
- Reduce discussion of routine pharmacovigilance activities already addressed elsewhere.
- Strengthen discussion of long time-to-onset signals and the complementary use of epidemiological studies and registries.
- Consider inclusion of principles for validation of predictive models and collaborative approaches to long-term signal evaluation.

Chapter 9 – Collaboration and partnerships

- The WG agreed to develop a dedicated chapter on Collaboration and Partnerships, recognising that effective long-term safety assessment requires sustained collaboration between regulators, industry, academia, healthcare professionals, patients and patient organisations.
- Members highlighted the importance of collaborative approaches to facilitate access to complementary data sources, including registries, electronic health records, healthcare databases and international research networks, particularly for rare diseases and advanced therapies.
- The role of healthcare professionals and patients in supporting long-term follow-up and data collection was emphasised.
- Members also highlighted the importance of international collaboration, data linkage and appropriate governance frameworks for evaluating rare adverse reactions and potential genetic susceptibility.
- Communication content should be streamlined and incorporated where relevant, with emphasis on issues specific to long-term safety, including communication of uncertainty, evolving evidence, benefit–risk considerations and patient engagement. Routine pharmacovigilance communication should be addressed elsewhere in the report.
- A new voluntary drafting subgroup was established to develop Chapter 9. Members interested in contributing to the chapter volunteered to join the subgroup and prepare the initial draft.

Actions:

- Prepare the initial draft of Chapter 9, focusing on collaboration and partnership principles relevant to long-term safety.
- Incorporate relevant long-term safety communication considerations and remove duplication with routine pharmacovigilance and risk management content.
- Include selected examples of collaborative networks, registries and other data-sharing initiatives where appropriate.

Chapter 10 – Conclusion

- The WG agreed that Chapter 10 should become the concluding chapter of the report, replacing the previously planned standalone Communication chapter.
- The chapter should bring together the principal conclusions and key messages arising from the preceding chapters and may incorporate relevant future perspectives.
- Benefit–risk considerations should be reflected where appropriate but were not considered to require a separate standalone chapter.

Actions:

- Prepare the initial draft of Chapter 10, consolidating the principal conclusions and future perspectives from across the report.

Structural review of earlier chapters

- The WG revisited the organisation of earlier chapters describing long-term safety events and product-specific considerations.
- Members agreed that the current sequence should be revised so that discussion of organ-specific long-term toxicities precedes product-specific examples. This structure was considered more intuitive for readers and better aligned with the educational objectives of the report.
- The Group recognised that examples should illustrate key concepts rather than provide exhaustive catalogues of adverse reactions. Organ-system approaches should therefore be

retained while using selected examples from different therapeutic modalities to demonstrate specific long-term safety challenges.

- It was agreed to reverse the order of the chapters describing organ-specific toxicities and product-specific examples.

Action: Subgroup 2 to revise the structure of Chapters 4 and 5 accordingly.

Way of working

Editorial process

- It was agreed that chapter authors would continue developing their assigned sections between meetings through virtual subgroup discussions. Once the report reaches a sufficiently mature stage, a small editorial team composed primarily of subgroup leads and active contributors will consolidate comments, harmonise content across chapters and prepare the draft for public consultation.
- Following incorporation of public consultation comments, the report will undergo final scientific editing by the editorial team before CIOMS undertakes language editing, layout and publication preparation.

Next steps / next meeting

- The WG agreed to continue holding regular virtual subgroup meetings between face-to-face meetings.
- Post-meeting decision: The next in-person WG meeting will be held in 26-27 January 2027. The venue is yet to be confirmed.

Closing remarks

- Lembit thanked participants attending both in person and virtually for their contributions. The meeting was considered to have made substantial progress in refining the report's focus, structure and drafting priorities.

Annex 1: List of participants

Attending in person

Samvel Azatyan (CIOMS), Mariette Boerstoeel-Streefland (Bristol Myers Squibb), Claire Brulle-Wohlhueter (Sanofi), Marie-Pierre Caby-Tosi (Moderna), Ian Douglas (London School of Hygiene & Tropical Medicine), Khedidja Hedna (International Society of Pharmacoepidemiology – ISPE / University of Gothenburg), Jean-Marie Heim (Takeda), Martin Huber (Federal Institute for Drugs and Medical Devices, Germany), Claudia Ianos (Pfizer), Nadiya Jirova (Health Canada), Susan Kaplan (Merck), Sheetal Khedkar (Johnson & Johnson), Yukiko Komori (Pharmaceuticals and Medical Devices Agency, Japan), Hussein Laljee (Gilead), Leila Larbi (AbbVie), Andrea Machlitt (Bayer), Christina Mahl (Eli Lilly Deutschland GmbH), Nokuthula Mayela (South African Health Products Regulatory Authority), Dimple Mirchandani (United Therapeutics), Monica Munoz (United States Food and Drug Administration), Lembit Rägo (CIOMS), Kateriina Rannula (CIOMS), Pilar Rayon (Spanish Agency of Medicines and Medical Devices), Esther Straghan (Pfizer), and Qun-Ying Yue (Uppsala Monitoring Centre).

Attending virtually

Leigh Henderson (Medicines and Healthcare products Regulatory Agency), Dirk Mentzer (Paul-Ehrlich-Institut), Maira Ribeiro (Nova Medical School), Judith Sanabria Cabrera (Hospital Universitario Virgen de la Victoria, Málaga), Agnieszka Szmigiel (European Medicines Agency), Panos Tsintis (CIOMS), and Wang Yi (Center for Drug Reevaluation, China).

Apologies

Andrea Best (Gilead), Mahlodi Moropa (South African Health Products Regulatory Authority), and Ravi Patel (United Therapeutics).