Hosted by Sam Hamilton, PhD
Chair of the CORE Reference Project

ICH M11:
an integrated and forward-looking CeSHarP perspective

Live Webinar: Wednesday, 17 June 2026

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Legal disclaimer

The views expressed by the presenters are their own, and do not necessarily reflect the views or positions of argenx.

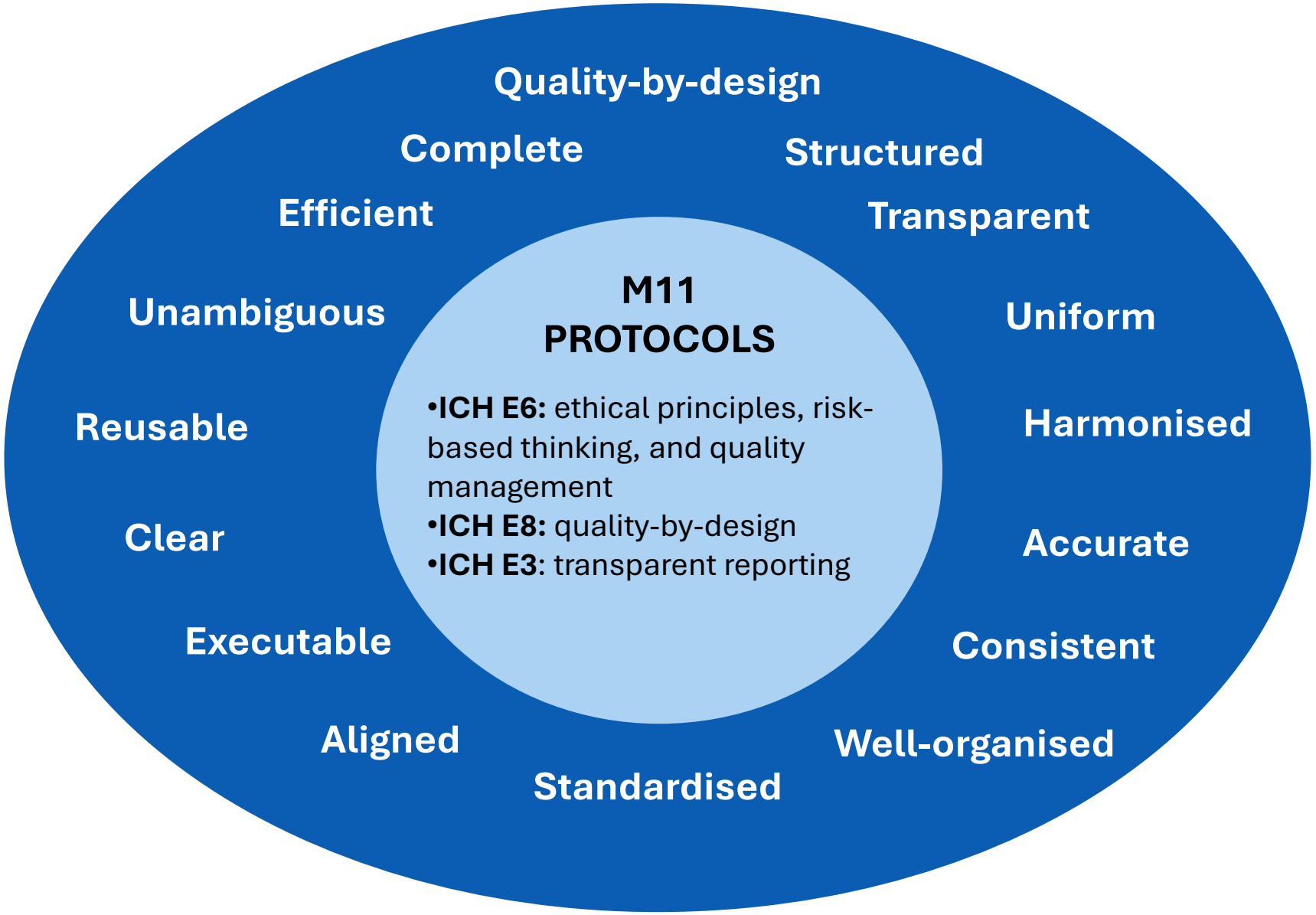
Agenda

- **ICH M11**: why it matters now
- **Protocol Development**: what changed
- **Protocol Template Realignment**: ICH M11 and TransCelerate
- **Medical Writers**: evolving role
- **Implementation**: from concept to practice

CeSHarP

Clinical Electronic Structured Harmonised Protocol

Speaking Our Language



ICH M11 Tool Kit

Clinical Electronic Structured Harmonised Protocol (CeSHarP)
(Pronunciation: See Sharp 🧐)

Guideline developed by M11 Expert Working Group
Adopted on 19 November 2025

1. **Guideline**: principles and approach
2. **Template**: format, structure, headings, and instructions for content placement
3. **Technical specifications**: data elements and technical attributes enabling electronic content exchange (ie, blueprint for programmers)

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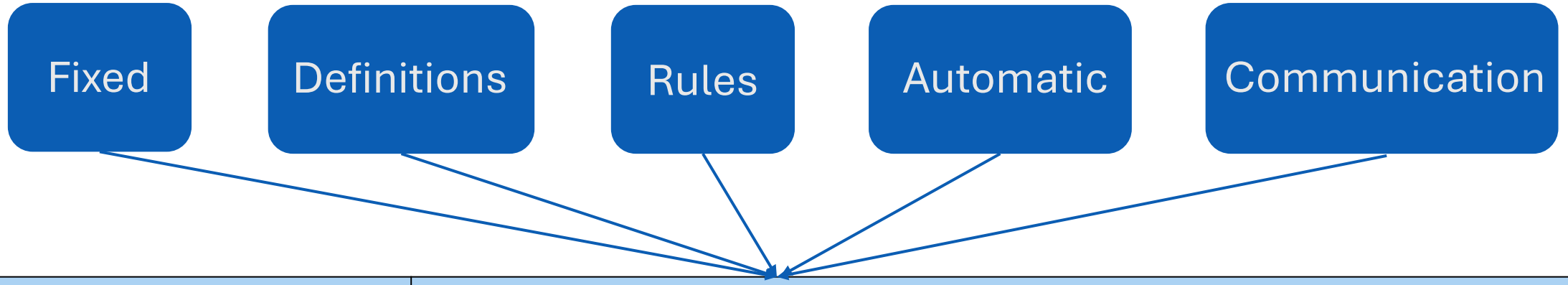
ICH M11: Why It Matters Now

Protocol Modernization

What problem does it solve?	**Variable** structure, terminology, and content across sponsors and regions **slow regulatory and ethics review**	**Single-use**, narrative documents prevent **electronic information exchange**
What is the benefit?	**Globally harmonised** template standardizes organization, terminology, and content placement **across ICH regions**	**Clear guidance** on essential elements supports scientific rationale and **risk-based design**
What does it facilitate?	**Structured data elements** enable automation, system integration, and improved data quality for use with emerging **digital and AI-enabled regulatory tools**	
What does it improve?	**Streamlined and accelerated** preparation, execution, reviews, and electronic information exchange	

“Write-once, use many."

Essential Definitions



Term	Definition
Controlled terminology (CT)	Standardised terms ensuring consistent meaning across protocols and systems
Digital Data Flow (DDF)	Data flow from upstream (study specifications) to downstream (execution) systems
Interoperability	Data exchange across systems without re-entry or reformatting
Structured content	Organization of information into defined fields and reusable components
Technical specifications (TS)	Machine-readable elements, rules, and format defining how data are structured and transmitted
Unified Study Definition Model (USDM)	Study definitions model according to the Clinical Data Interchange Standards Consortium (CDISC)

ICH M11 and TransCelerate CPT V11 Evolution

(2010-2026)

TransCelerate CPT
Matches study designs with regulatory expectations (ICH E3, E6)

2010s

ICH guideline
Development initiated (2018)

2016–2021

CPT iterations
improve alignment with inspection readiness, clarity, and traceability

ICH M11 (CeSHarP)
Guideline for globally harmonised, structured protocol guideline enabling consistency, transparency, and interoperability

2019–2025

ICH M11 Step 4 adoption
Global standard for regulatory review and regional alignment

19 November 2025

TransCelerate CPT (v11) matches ICH M11
Industry practice and regulatory expectations are aligned

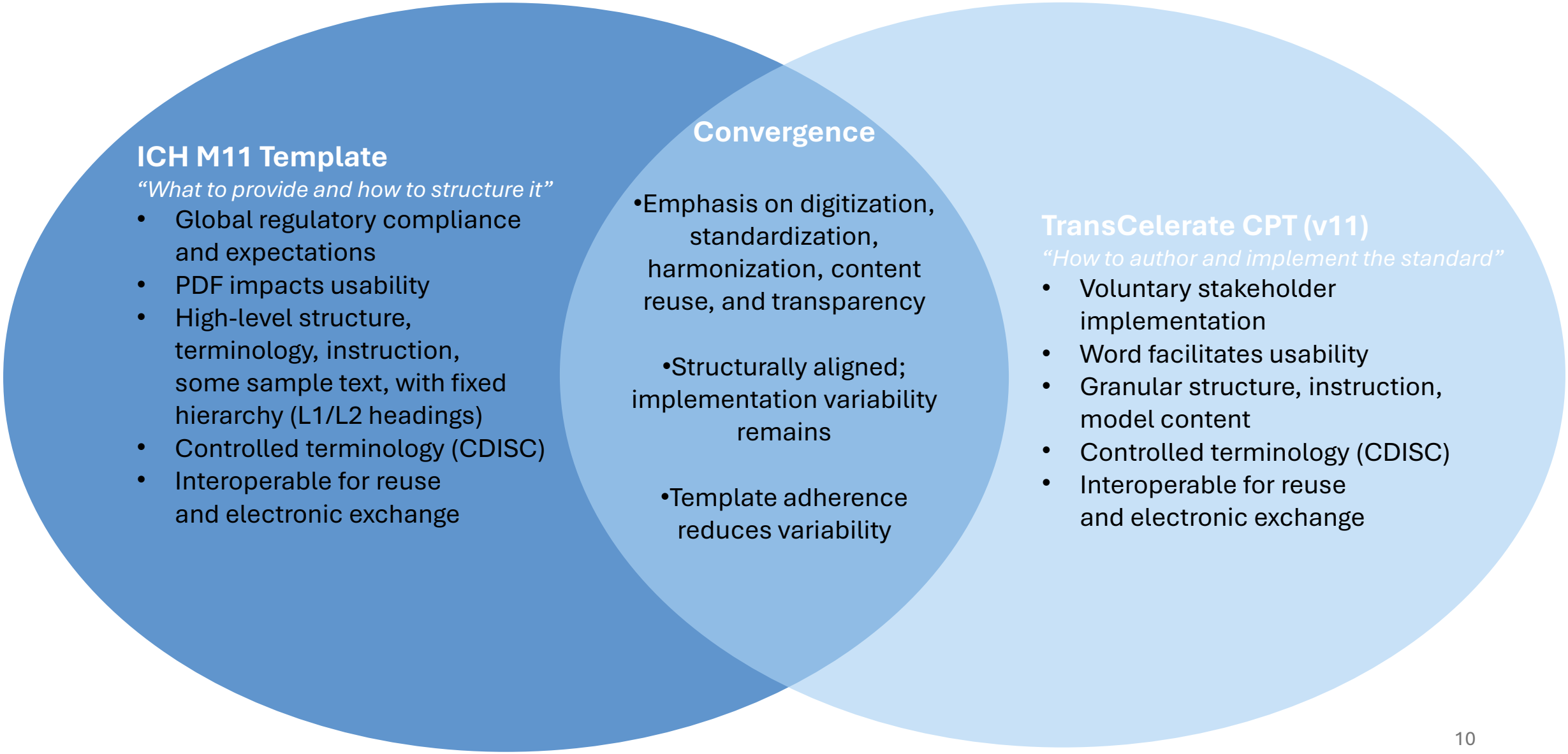
2026

USDM, ICH M11, and TransCelerate CPT v11
End-to-end automation is emerging, not universal

22 May 2026: FDA issued M11 as a final guidance
11 June 2026: ICH M11 Step 5 EMA date for coming into effect

CPT=Common Protocol Template

Convergence: ICH M11 and TransCelerate CPT v11



Impact on Transparency and Disclosure

- M11 architecture **directly supports** modern disclosure mandates (eg, EMA Policy 0070)
- Structured **data maps directly** to ClinicalTrials.gov and EudraCT fields.
- Avoid confidential names or proprietary assay **details in core methodology**.
- Use **Appendices** for sensitive administrative details.
- Always use **lean, factual narratives** that are easier to disclose.

Generative AI Can Handle The ”Manual" Parts

Auto-populate fields, formatting, cross-checking, and routine drafting

- Deep foundational knowledge of medical writers and human oversight is required for accuracy and compliance
- Humans need to evaluate and refine AI-generated outputs
- **CORE Reference** principles and human critical thinking remain the primary hallmarks of the profession

Scientific Rigor Requirements

Justification of Design Decisions

Regulatory Scrutiny

Paradigm Shift

What's Changed?

From: static, narrative documents

- Variability in protocol structure and content placement
- Duplication across study documents
- Limited traceability of key decisions

To: structured, data-informed, reusable content

- Clarity of scientific intent
- Consistency across documents
- Transparent decision-making
- Variables (endpoints, populations) are defined once and referenced everywhere
- Sentences are containers for data elements

What CeSHarP Really Means: Content Flow in Both Directions

Target product profile
Clinical development plan
Investigator's Brochure
Nonclinical study report
Clinical study report
PK/PD modelling and simulation
Health authority interactions
CMC formulation and data
Biomarker strategy
Risk management framework
Disease epidemiology
Literature/standard of care
Participant input
Prior program protocols

ICH M11 STRUCTURED PROTOCOL

Single, reusable, machine-readable single source of truth

Documents:
Statistical Analysis Plan
Informed Consent Form
Clinical Study Report
Data Management Plan
Charters/manuals
Training materials
Systems and Data:
eCRF/EDC build
IRT (randomization/supply)
Safety database
Datasets and TFLs
Registries:
ClinicalTrials.gov/EU CTIS
Submissions:
IND/CTA/IMPD
EC/IRB packages

Experience Sharing
Quick poll

1. Who has used or is using the ICH M11 protocol template?
- Me
- Not me

2. Who has adapted or is starting to adapt a protocol template to align with the ICH M11 protocol template?
- Me
- Not me

3. Has your company or client implemented the ICH M11 technical specifications?
- Yes
- No

Experience Sharing
Poll Results

Meeting poll ended | 3 questions | 125 of 158 (79%) participated

1. Who has used or is using the ICH M11 protocol template? (Single choice)

124/125 (99%) answered

Me	(42/124) 34%
Not me	(82/124) 66%

2. Who has adapted or is starting to adapt a protocol template to align with the ICH M11 protocol template? (Single choice)

123/125 (98%) answered

Me	(60/123) 49%
Not me	(63/123) 51%

3. Has your company or client implemented the ICH M11 technical specifications? (Single choice)

120/125 (96%) answered

Yes	(35/120) 29%
No	(85/120) 71%

Dismantle the Narrative

Legacy Protocol Templates		ICH M11 Protocol Template and Framework	
Document-centric	Information is trapped in **free-text** narratives, leading to inconsistent interpretations	**Data-centric**	Structured, standardized variables that treat protocol elements as **discrete data points**
Redundant refinement	Key variables are manually copied and **reworded** across sections	**Single-source harmonization**	Unified electronic structure where variables are **defined once** and populated systematically
Downstream friction	Protocol text requires **manual** translation and transcription to build systems and documents	**Upstream alignment**	Seamless metadata **mapping directly** to downstream outputs ensuring compliance by design

Out with the Old: Document-Centric Approach

Protocol Section X.X: Primary Efficacy Endpoint

The primary objective is to evaluate the efficacy of the ABC drug compared to placebo in patients with DEF disease. Efficacy will be assessed by measuring changes in the GHI score using the JKL value. Patients will be evaluated at screening, baseline, and through week ##. The primary endpoint is the change from baseline to the end of the study. The primary analysis will be performed on all randomized patients who received at least one study drug dose and have at least one post-baseline assessment.

Ambiguous: “end of the study" vs “week 24" conflates early discontinuation with end of study

and

Scattered: measure, timepoint, and population complicate interpretation and execution

In with the New: Data-Centric Approach

M11 Protocol Template

3.1.1 Primary Objective <#>

<Enter Primary Objective>

Enter information in table of estimand characteristics below including endpoint at a minimum.

Estimand Characteristic	Description
{Population}	List of key characteristics, such as demographic characteristics (e.g., age, sex) and clinical characteristics (e.g., prior therapies, symptoms, severity, biomarker status) {<Enter Population>}
{Treatment}	List of key aspects of treatment regimens in each treatment group, including at least investigational agents, dosage, and administration route {<Enter Treatment>}
Endpoint	Definition of the endpoint <Enter Endpoint>

3.1.1 Primary Objective

The primary objective is to demonstrate the effect of ABC drug compared with placebo on disease severity in patients with DEF disease.

Estimand Characteristic	Description
Population	Adult participants with DEF disease
Treatment	ABC drug 5 mg/kg IV weekly compared with placebo IV weekly
Endpoint	Change from baseline to week XX in GHI score using the JKL value

To better grasp the flow of information, open the template and the technical specifications simultaneously. The structural outline is in the template, and the user guidance is in the technical specifications.

M11 protocol template page 19/67

ICH M11 Technical Specifications

Primary objective guidance

Reuse Rules

3.1.1 Primary Objective <#>

Term (Variable)	3.1.X Primary Objective <#>
Data Type	Text
Data (D), Value (V) or Heading (H)	H
Definition	Heading
User Guidance	For all trials, precisely state each primary trial objective by providing a meaningful and concise description of the treatment effect of interest using natural, nontechnical language for clear understanding by sponsors, investigators, clinical site personnel, trial participants, ethics committees, and regulators.
	For trials intended to estimate a treatment effect or test a hypothesis related to a treatment effect, use the table to precisely describe the associated estimand(s). This includes specification of the population targeted by the clinical question, the treatment condition(s), the endpoint (or variable), and the population-level summary. Precise specifications of treatment, population, and variable are likely to address many of the intercurrent events. Other intercurrent events not already addressed in the clinical question of interest by the aforementioned attributes should be described with their associated strategies. For other types of trials not intended to estimate a treatment effect or test a hypothesis related to a treatment effect, describe additional information relevant to the clinical question(s) of interest (at a minimum, present the endpoint(s) associated with each objective). No text is intended here (heading only)
Conformance	Required
Cardinality	One to one
Relationship content from ToC representing the protocol hierarchy	3.1.X where X is a unique number for each Primary Objective
Value	Primary Objective <#>: # is a unique number for each Primary Objective; if there is only one Primary Objective, # is blank. If more than one Primary Objective, add sequential unique number for each objective
Business rules	**Value Allowed**: No **Relationship**: 3.1 Primary Objective and Associated Estimand(s); 3. TRIAL OBJECTIVES AND ASSOCIATED ESTIMAND; Table of Contents **Concept:** Heading
Repeating and/or Reuse Rules	Yes, repeatable for each numbered Primary Objective. Yes, reuse to the table in Section 1.1.1.for each Primary Objective

M11 TS page 74-75/245

Term (Variable)	<Primary Objective>
Data Type	Text
Data (D), Value (V) or Heading (H)	D
Definition	C85826
User Guidance	N/A
Conformance	Required
Cardinality	One to one; One to Table of Contents Number 3.1.X; One to Estimand Characteristics Table, Primary Objective <#>, Protocol Identifier
Relationship content from ToC representing the protocol hierarchy	3.1.X where X is a unique number for each Primary Objective
Value	Text and unique integer which is same as Level 3 number for the section.
Business rules	**Value Allowed**: Yes **Relationship**: 3.1.X Primary Objective <#> **Concept:** C85826 ICH OID 2.16.840.1.113883.3.989.2.3.3.3
Repeating and/or Reuse Rules	Yes, repeatable for each numbered Primary Objective. Yes, reuse to the table in Section 1.1.1.for each Primary Objective

All content is assigned a unique identifier and uses controlled terminology according to predefined standards:

- Defined once, in one place
- Automatically reused across documents and systems (eg, databases, analyses, tables)

Implementing the M11 Method

Template (what the author sees)	Technical Specification (what the system sees)
Section 3.1.1 Primary Objective	Data element: <Primary Objective>
Free text entry	C-code: C85826
The primary objective is to demonstrate the effect of ABC drug compared with placebo on disease severity in patients with DEF disease.	OID: 2.16.840.1.113883.3.989.2.3.3.3
	Conformance: Required
	Reuse: auto-populated to Section 1.1.1 Synopsis
	Downstream: extractable to registries, SAP, CSR

Written once in Section 3.1.1 -> reused verbatim in Section 1.1 Synopsis -> communicated electronically to downstream documents and systems

Each data element in the specification includes a corresponding Object Identifier (OID) linked to its code list, enabling unambiguous identification in electronic systems.

Four Pillars of M11 Technical Specifications

STRUCTURE

Standardized Framework

Headers and instructions

Structured Content Organization

Information in fields and reusable components

Consistent Data Elements

Discrete information captured uniformly

Standardization Benefits

Less variability, improved quality, automation, and facilitate review

EXCHANGE

Seamless Data Transfer

System-to-system data transfer without manual intervention

Machine-Readable Data

Defined rules and formats for electronic transmission

Non-Proprietary Standard

Broad platform compatibility

Global Harmonization

Direct integration with controlled terminology and definitions

CONSISTENCY

Uniform Interpretation

Clarity throughout the trial lifecycle

Controlled Terminology

Eliminate ambiguity

Metadata and Traceability

Data clarity, traceability, and electronic exchange

Global Standard Alignment

Improved reliability and reduced errors

EFFICIENCY

Content Reuse

Reuse without manual effort

Automation Using Structured Formats

Data capture and submission automation

Integration with Clinical Systems

Trial platforms interact

Operational Efficiency Benefits

Accelerate startup, real-time review, and improve quality

Strategic Medical Writing in ICH M11

Topic	Impact		
	Protocol	Medical Writer	Participant
Objectives	Questions and results interpretation	**Clear and consistent translation**	Outcomes reflect meaningful clinical benefit
Risk-benefit	Ethical and regulatory acceptability	**Defensible justification**	Informs willingness to participate
Design and rationale	Fit-for-purpose	**Design features are coherent with objectives**	Questions answered by the study
Population	Who is included and excluded	**Feasible and non-ambiguous**	Representative patients
Schedule of activities	Data collection and procedures	**Mapped endpoints without redundancy**	Patient burden and experience
Safety strategy	Safety definitions and interpretation	**Adverse event framework and risks**	Detection and characterization of harm
Statistical considerations	Results credibility	**Translate methods into regulator language**	Confidence in effects and conclusions

Thinking Backward to Write Forward

CSR ↔ SAP ↔ Protocol

If the Clinical Study Report were due tomorrow,
would the protocol support the analysis and transparent reporting?

- *Do you have all the elements of the tables?*
- *Did you collect the assessment supporting the endpoints?*
- *Is the analysis strategy explicit?*
- *Is the loop complete?*

1 **Claim it**

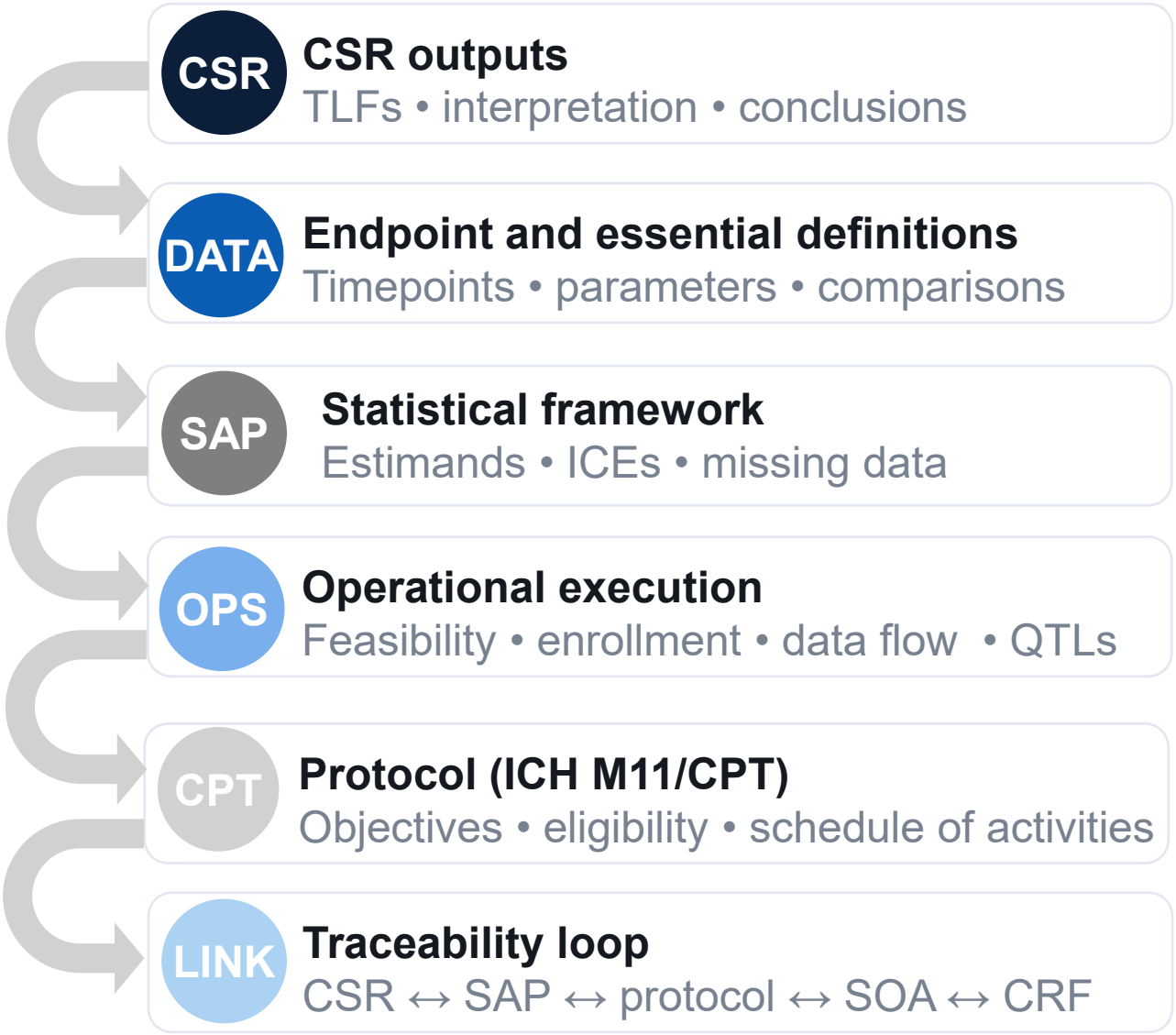
2 **Prove it**

3 **Design it**

Outcome:
A complete, unambiguous, and traceable protocol.

Reverse-Engineered Protocol Design

Start with the end in mind (ie, CSR)



Evolving Role of the Medical Writer

- From document author to content architect: protocol <-> SAP <-> CSR
- Consider a new approach to protocol authoring
- Incorporate concepts into templates and processes
- Understand the downstream implications of content selection

A protocol can be 100% technically M11 compliant yet scientifically worthless.
The intellectual framework makes the difference.

Strategic Positioning

Critical Thinking

Cross-functional Mediation

Operational Realities

M11 template adherence forces logical links between key study design elements:

- **~30%** of non-core information is in an average phase 3 protocol
- **~45%** of substantial phase 3 amendments are avoidable because they are due to inconsistencies and design flaws (median cost $535,000)

$2.5 million (US dollars) estimated initial costs for automating M11

"Large pharma" TransCelerate member already adopted Digital Data Flow because they have the resources and infrastructure (2025)

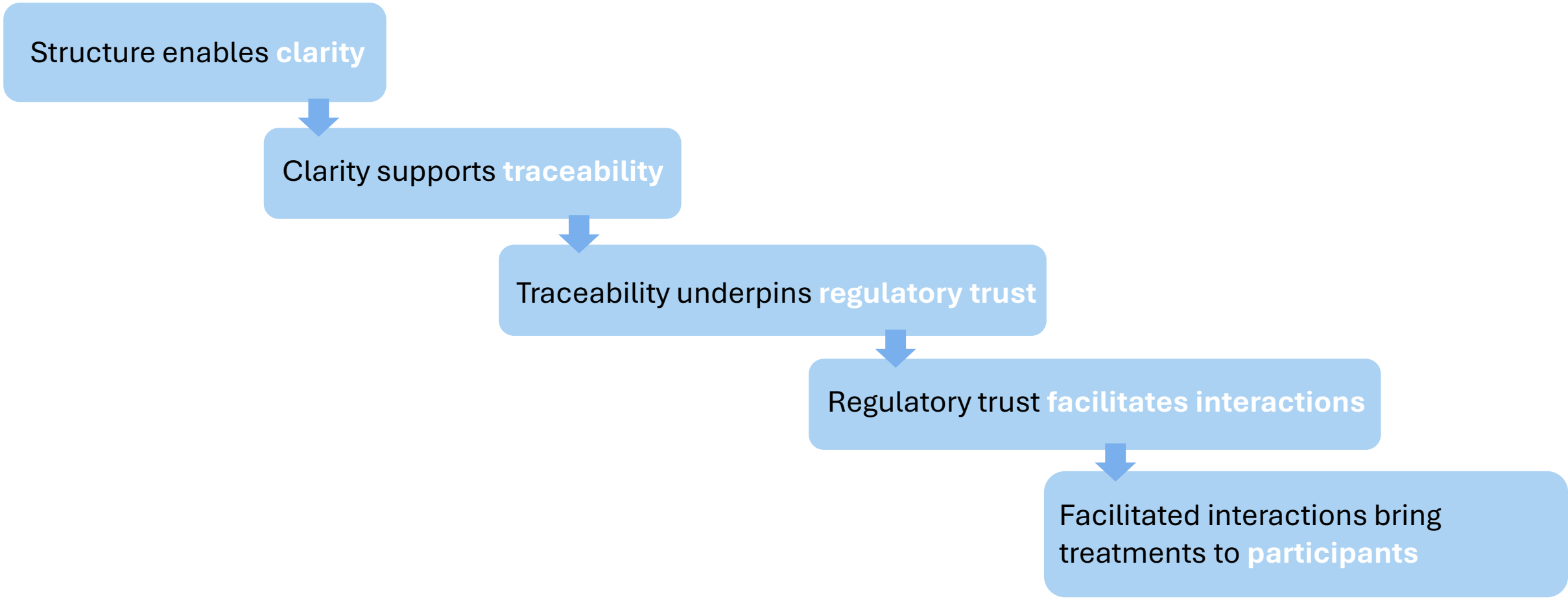
78% of 2024 drug approvals were developed by SME biopharma, with only 11 owned by the top 20 pharma.

"SMEs" can adopt the template itself and gain structural consistency, reuse, and regulatory alignment

SME=small and medium-sized enterprises

Getz KA, et al. The Impact of Protocol Amendments on Clinical Trial Performance and Cost. Ther Innov Regul Sci. 2016 Jul;50(4):436-441.
https://www.mckinsey.com/industries/life-sciences/our-insights/faster-smarter-trials-modernizing-biopharmas-r-and-d-it-applications

Medical Writers Operationalise Practical Implications



Key Takeaways

- **Evolution** from the narrative (static text) to a data-centric lens
- ICH M11 considers protocols as **structured source documents** within a framework
- ICH M11 reduces variability, improves quality, and lays the foundation for **efficient data exchange and reuse**
- Alignment with the M11 template requires **medical writing judgment**, not simply template adherence
- **Update** your existing template or use the TransCelerate template

M11 does not make protocols better; it makes weaknesses harder to hide.

Questions and Answers

1. What is your experience with implementing digital protocols?
2. What challenges have you encountered when authoring using the new standards?
3. Have you encountered “resistance to change” in cross-functional teams?
4. How is this shifting your approach to protocol development or review?

Useful Resources

CORE Reference:
CORE Reference
CORE Reference Project Team Compare TransCelerate CPT (v009) and Draft ICH M11 Step 2 Templates: A Comparison of Level 2 Headings

TransCelerate Common Protocol Template:
TransCelerate - Clinical Content & Reuse Assets - Clinical Studies

ICH M11 final guideline:
ICH Official web site : ICH
ICH_M11_Step_4_Presentation_2026_04_15.pptx

ICH M11 terminology:
https://www.cdisc.org/standards/terminology/cdisc-ich

ICH M11 object identifier (OID) lists per Electronic Standards for the Transfer of Regulatory Information (ESTRI):
ICH Official web site : ICH

The webinar PDF and recording will be shared via LinkedIn and CORE Reference.

Thank you!