Safety Analytics

Table of Contents

Analyses & Displays for Hepatotoxicity

Description

This project produces two white papers providing recommendations for analyses and displays to assess hepatotoxicity in Phase II to IV clinical trials and integrated submissions.

Stage 1 focuses on a standardised set of analyses and outputs to evaluate whether there is reasonable medical evidence to rule out potential drug-induced liver injury (DILI). Stage 2 addresses situations where DILI cannot be excluded, outlining additional analyses needed to further characterise the safety signal and assess causality.

The project aims to improve consistency, transparency and efficiency in hepatotoxicity evaluation across the industry. As a value add, the team will also develop an open-source Hepatotox tool to support the generation of recommended analyses and outputs for both stages. This will enable practical implementation of the guidance and support more robust and reproducible safety assessments.

Q4 2026

Proposed End Date

Stage 2 white paper & updated Hepatotox tool

Deliverable

Presentation at MBSW (Statistics audience) in May of Stage 1 white paper and Hepatotox tool. Very well received and suggestions for modular programming and AI incorporation in the tool.

Key Achievements This Quarter:

Stage 2 white paper final draft incorporating input from liver safety experts.

Deliverables & Targets Planned for the Next Quarter:

Melvin Munsaka & Terry Walsh

Leads

Project Status: Green
Aceepting New Members – Physicians knowledgeable about liver safety assessment

- Stage 2 white paper draft in progress. Also, update to hepatotox tool for Stage 1 white paper ongoing.

Project Status

Estimands in Safety Analytics

Description

This project develops a user-friendly, centralised education portal on safety estimands, designed to support practical application across the industry. It will consolidate and reference existing guidance and insights from external groups, presenting them in a clear, complementary and accessible format.

A key objective is to deliver a structured education series that increases confidence among safety scientists in defining and applying appropriate safety estimands. The project also aims to expand their routine use in practice and broaden the range of estimators applied in safety analytics.

By combining curated content, practical examples and targeted training materials, the portal will serve as a comprehensive, one-stop resource. It will support consistent understanding, improve communication of estimands, and promote more robust and standardised approaches to safety analysis across organisations.

Q4 2026

Proposed End Date

Series of training modules & webinars

Deliverable

Presentation slides for all 5 safety estimand subtopics complete, and comments from clinical review incorporated. Slides and script for introductory video complete.

Key Achievements This Quarter:

Finalisation of speaker notes. PHUSE editorial review of presentation slides and speaker notes. Final rendering of materials.

Deliverables & Targets Planned for the Next Quarter:

Andreas Sashegyi & Michael Colopy

Leads

Project Status: Green

- Project team is nearing completion of its deliverables; current efforts are focused on fine-tuning.

Project Status

Interactive Analyses and Displays for Laboratory Data

Description

This project focuses on the development of interactive analyses and displays for laboratory data in Phase II to III clinical trials and integrated submissions. Interactive outputs provide a more flexible and user-friendly approach to reviewing laboratory data, enabling users to explore results without significantly increasing submission volume.

The initiative will define key features and best practices for interactive tools, ensuring they are fit for regulatory review and aligned with user needs. It also recognises that multiple groups are independently developing interactive solutions, creating an opportunity to align efforts and promote consistency.

In addition to defining desired functionality, the project will include educational materials to support interpretation and effective use of these analyses and displays. The resulting deliverable will provide guidance that supports improved data review, enhances usability, and advances the adoption of interactive approaches across the industry.

Q4 2026

Proposed End Date

Specification document

Deliverable

Christopher Smith

Lead

Finalised draft for upcoming blog post – getting ready to publish.

Key Achievements This Quarter:

Make progress towards an interactive display webinar and stakeholder survey.

Deliverables & Targets Planned for the Next Quarter:

Project Status: Green

- Preparing for an upcoming webinar and blog post.

Project Status

Process for Aggregate Assessment of Clinical Trial AE Data (PrOACTS)

Description

This project addresses the need for clear, practical processes for aggregate assessment of adverse event (AE) data during early clinical development, as encouraged by the FDA's 2021 draft update to the Final Rule, which provides limited methodological guidance.

The initiative will define approaches for AE assessment across development stages, recognising differences between early-phase studies and Phase III. It will establish consistent practices for grouping related preferred terms and align processes across analysis plans, SDTM/ADaM specifications, and output displays.

The project will identify key challenges in detecting safety signals, evaluate appropriate analytical methods, and clarify important concepts such as "significance" in a clinical (non-statistical) context. It will also address limitations such as small sample sizes and uncertain background rates.

Additionally, industry practices will be assessed through targeted surveys. The outputs will support more consistent, transparent and effective safety evaluations for both internal stakeholders and regulators.

Q4 2027

Proposed End Date

White paper

Deliverable

Survey of existing practices across the industry completed and draft of results prepared and added to the white paper. White paper Table of Contents and initial Definitions established and drafting of individual sections well underway.

- Agreed that "Significance/Significant" as stand-alone terms should be discouraged, with other words used to describe medical relevance, severity or impact. "Statistically significant" should be reserved for statistical results.

Key Achievements This Quarter:

Plan to have initial draft complete for review in 3rd quarter. Expect the analytical section, which includes both statistical and medical analysis sections, to take the longest.

Deliverables & Targets Planned for the Next Quarter:

Mac Gordon & Peg Fletcher

Leads

Project Status: Green
Accepting New Members

- Draft in progress.

Project Status

Safety Analytics Education

Description

This project focuses on the development and delivery of education for clinical trial safety analyses, with an emphasis on Phase II to III studies. It addresses a recognised gap in formal training, where the scientific expertise required for planning, interpreting and communicating safety analyses is often limited across roles such as medical, statistics and medical writing.

The initiative aims to improve the quality, consistency and understanding of safety analyses, enabling more efficient alignment on analysis plans and interpretation of results. As the field continues to evolve, ongoing education is essential to support best practices and informed decision-making.

Building on existing efforts - such as PHUSE CSS workshops, collaborations with external organisations, a dedicated Safety Analytics Education website, and a webinar series - the project will establish a coordinated platform for future educational activities. This will enhance capability across stakeholders and strengthen PHUSE's leadership in the safety analytics domain.

Proposed End Date

Ongoing

Deliverable

- Enhance the Safety Analytics Education website
- Webinar series

Key Achievements This Quarter:

Finished the draft of interactive tools in conjunction with the interactive tools WG project. Next step is working with PHUSE Comms on publishing. Updates to the Safety Library are ongoing in advance of the move to the main website. Finalising content for the upcoming webinar series with safety experts.

Deliverables & Targets Planned for the Next Quarter:

Publish the interactive tools blog post. Finish the logistics for the webinar series with safety experts.

Leads

Christopher Smith & William Palo

Project Status

Project Status: Green
Accepting New Members

- Everything moving forward.