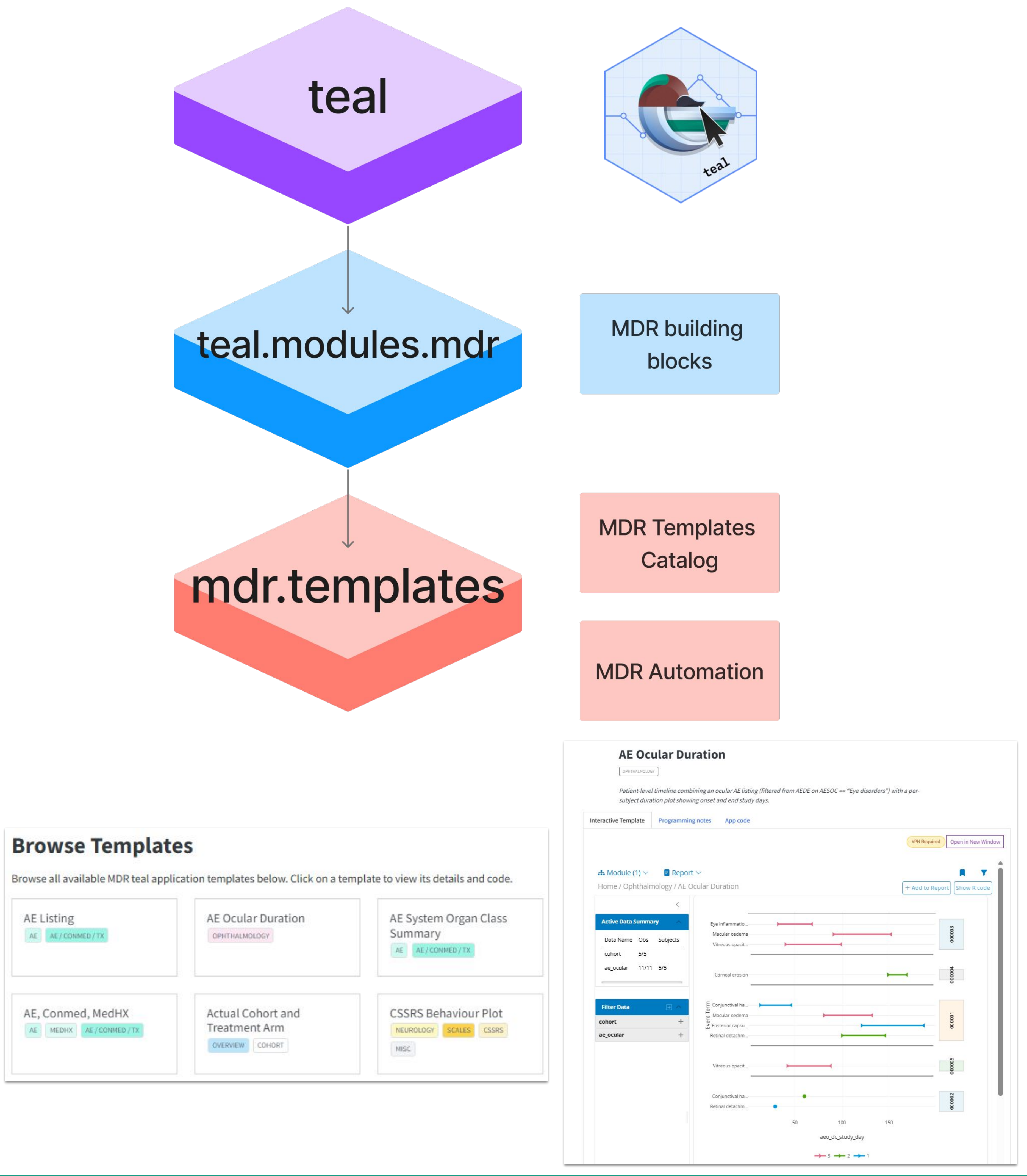


Exception-Driven Medical Data Review with Teal and AI

What is Medical Data Review?

- Medical Data Review (MDR) involves the systematic evaluation of clinical data by qualified healthcare professionals to ensure patient safety, data accuracy, and protocol compliance.
- Clinical teams must examine complex patient-level data across numerous CRF domains, such as adverse events, laboratory results, vital signs, and ECGs.
- Current processes rely on inflexible, visually limited, and static listings generated for individual studies.
- The workflow imposes a heavy manual burden, requiring custom setup for every study and exhaustive line-by-line inspection.



Embedded AI Assistant

Connected directly to the live Shiny session via the **Model Context Protocol (MCP)**.

Enables reviewers to query complex clinical data conversationally, transforming how teams interact with trial results.

"Which subjects have grade 4 AEs without drug withdrawal?"

✓ Answers are grounded securely in the actual filtered dataset.

Impact & KPIs

> 80 %

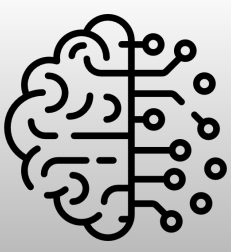
Setup Time Reduction

Early results show massive reductions in setup and review time through scalable scaffolding and reusable templates.

Zero

Unflagged Discrepancies

Automated verification minimizes human errors, ensuring missed cross-domain discrepancies are a thing of the past.



The Intelligence Layer



Audit Trail Integration

Detects records changed since a specified cutoff date and highlights modified cells along with their previous values.



Cross-Referencing

Intelligent verification layers cross-reference domains, such as flagging Adverse Events that lack corresponding lab entries.



Proactive Exception Surfacing

Color-codes severity grade escalations and automatically surfaces serious AE indicators, drug withdrawals, and suspect drug flags.



Exception-Driven Review

Shifts the entire review paradigm from exhaustive line-by-line scanning to targeted, high-impact investigation.