

Use of REDCap Data Resolution Workflow to Facilitate and Track Internal Quality Assurance Queries at an Academic Site

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1. Background

At The University of Kansas Cancer Center, quality assurance (QA) staff are responsible for conducting reviews of clinical research documentation and providing feedback to clinical trials office (CTO) staff. Historically, unsatisfactory methods were used to deliver queries. Email or Excel spreadsheets were clunky and unsophisticated; querying directly in the CRIS/Velos electronic data capture (EDC) for investigator-initiated trials (IITs) presented several recurring challenges, including long loading times, unreliable history functionality and difficulties accessing forms or generating results. QA ultimately transitioned to a system that takes advantage of the Data Resolution Workflow in REDCap.

2. Goals

- Improve tracking of query resolution and responsible parties
- Collect data about QA queries
- Survey clinical trial office (CTO) staff on satisfaction with the query system

3. Solutions and Methods

REDCap's data resolution workflow supports field level querying within projects and includes a robust data resolution dashboard for centralized management. The dashboard can be exported into a standardized report containing key information such as record identification (ID), queried field, assigned user, and time to resolution. To take advantage of this feature, QA developed a simple REDCap project with a single form used solely for issuing and managing queries. One project houses all IIT auditing and monitoring queries; a separate project houses all federally funded research quality checks.

Form fields were labeled with categories, allowing query categories to appear in the report. Record IDs were standardized, enabling efficient sorting and filtering.

QA staff were trained to input and manage the queries. As the process was rolled out, key operations staff were provided training (clinical program management managers, IIT teams).

After approximately two years of continuous use, CTO users were surveyed about their experiences and satisfaction with the system.

4. Outcomes

All queries are in one place and can be instantaneously searched or filtered to identify unresolved queries and the responsible parties.

Category: Quality Assurance – Completed Project

The data resolution dashboard report provided useful metrics such as total queries issued—sortable by protocol, participant, time period, assigned user, or query category—and time to resolution.

Survey responses from CTO staff reflected mixed attitudes. Multiple respondents indicated that the system was better than previous methods. One comment noted “it reduces the amount of email communication. As a manager, it's also helpful for me to see what queries have been answered by my staff and what is still outstanding.”

Concerns included difficulty viewing all queries for a specific review simultaneously, being limited to one response comment before QA responds, and lack of automated notifications when QA adds comments. Some concerns—such as not recognizing available reporting functionality for reviewing historical queries—suggest a need for further training and guidance.

5. Lessons Learned and Future Directions

Although the current REDCap based system is not without limitations, it offers a no cost, readily accessible solution compared to commercial quality management platforms. The transparency in the system has been invaluable for ensuring oversight and resolution of issues. In the future, we would like to enhance user experience with the system by providing training and potentially developing a user guide.

Figure 1

Data Resolution Dashboard		Filters: All status types (340)				
Export		All fields and rules				
		User assigned (all users) or not assigned				
Click button to view data query	Record	Data Quality rule and/or Field	User Assigned	Days Open	First Update	Last Update
3 comments	AUG2025 (145220-A031801-9149502)	Field: e_q1 (Eligibility Query 1)	[Redacted]	0	(08/14/2025 1:27pm): "The OPEN Registration complete form needs to be filed in the chart along with the summary page"	(08/14/2025 2:58pm): "Thank you"
3 comments	AUG2025 (145220-A031801-9149502)	Field: i_q1 (Data Quality-Errors/Inaccuracies Query 1)	[Redacted]	13.7	(08/14/2025 2:40pm): "The current Cycle number for the 3-month QOL visit is documented as C4; it should be C3. Please co..."	(08/28/2025 8:44am): "Thank you for checking"
3 comments	AUG2025 (145220-A031801-9149502)	Field: ic_q1 (Informed Consent Query 1)	[Redacted]	26.9	(08/14/2025 1:26pm): "The reconsent ICF dated 12/23/2024 has not been scanned into the EMR. Please ensure it is uploaded."	(09/10/2025 11:24am): "Thank you"