Using a REDCap database for research, education and quality improvement projects

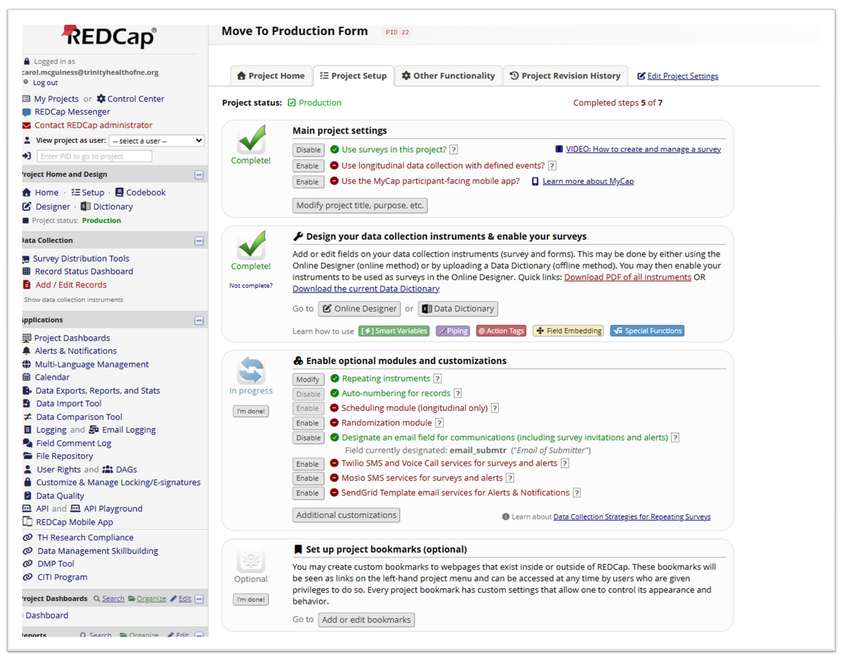
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Introduction

In January of 2026 Trinity Health launched the Enterprise REDCap (Research Electronic Data Capture) platform across all hospital systems. REDCap is a secure, HIPAA-compliant data capture platform designed primarily for research data collection but also supports operational and quality initiatives. This software platform was originally created in 2004 by Vanderbilt at Vanderbilt University but is now the gold standard by which research data is collected and shared.

The Saint Francis Department of Surgery welcomed this new addition and is actively using it for clinical studies and as a platform for teaching and quality initiatives.



Department of Surgery REDCap Usage

The Saint Francis Department of Surgery actively uses REDCap for the collection of research data in numerous projects, especially in multicenter collaborative efforts.

REDCap is also being used to maintain clinical databases for future research studies including:

- **Massive Transfusion Protocol Database Using REDCap**
- **Surgical Rescue Event Database Using REDCap**

Both databases will be used in a variety of ways, including for research, quality improvement projects evaluating our processes and delivery of care and identifying systems-level gaps in care. These efforts may potentially lead to changes in the management of trauma patients and promote the development of evidence-based practice guidelines crucial to providing quality care to this patient population.

Teaching and Education

Our trauma surgeons have also incorporated the use of REDCap into their teaching methods. A recent Tracheostomy Education symposium utilized a survey linked via a QR code to our REDCap application.

The goal was to voluntarily and anonymously survey all healthcare providers in attendance (nurses, APPs, residents, respiratory therapists) before and after the educational presentation to gauge their knowledge regarding tracheostomy management. The aim was to identify clear gaps in knowledge that could be addressed through further education. This potentially may lead to more comprehensive, timely, and safe care for our patients and the creation of protocols to guide healthcare providers.

Future Potential

The Department of Surgery is exploring the potential for utilizing REDCap for ERAS tracking and tumor board quality metrics.

Resident Involvement

These databases have QR code links that are posted in the resident rooms and on the phones carried by resident services. When a patient meets criteria for either database, residents are requested to enter that information via the code so that the attending surgeon may ensure the patient or event is captured.





How this Works

It is not necessary to have IRB approval or a determination to build the structure of a database/registry; **The IRB documentation would apply when the database is moved to production and populated.**

Any future research studies emanating from a REDCap database will be a retrospective analyses of this collected data and **require a separate IRB designation.**

Acknowledgements