**In the world of clinical trials, the loss of specimens can be catastrophic. Not only the financial implications, but especially the scientific value of a unique specimen can make them priceless. And yet, many clinical trials still rely on specimen collection containers that are labeled at the site using blank labels and sharpies.**

Handwritten specimen labels have the highest failure rates when it comes to sample loss[[1]](#footnote-1). But the problem doesn’t stop with just the labels. When the samples are shipped to the laboratory for analysis, a handwritten requisition form generally accompanies them. So, even though Clinical Trial Management Software (CTMS) is implemented in order to manage, track and report on collected sample data, there is still a blind spot from the moment the sample is collected, until it is entered into the Laboratory Information Management System (LIMS).

**Identified Problems in the Industry today:**

* Over half of all identification errors in the lab result from bad specimen labels (i.e., illegible handwriting, spelling errors, inconsistent date notation, wrong subject ID, etc.)
* Few or no barcodes on specimen labels. Barcodes allow for subject/specimen information to be transmitted and stored electronically, reducing the need for human manual data entry, and centralizing the information in a secure database
* Insufficient number of barcodes complicates the process of correlating information to provide a clear chain-of-custody record, which in turn complicates attempts to identify and correct errors that may already exist but have gone undetected
* Clinical trial sites must allocate valuable site space to accommodate influx of study-specific collection kits and materials. This is not a smart or efficient use of lab space.
* Following or amending protocol is time-consuming, slow, and expensive (i.e., in the event of a change of protocol, current kits must be discarded, and new kits must be sourced, packed, and shipped to the site, old protocol binders must be discarded, and new protocol binders must be printed and shipped to the site, etc.)
* Project managers cannot get real-time, up-to-date insight into the progress of all sites participating in the study. The transfer of information is delayed.
* Laboratories miss the opportunity to conserve valuable time because they are not provided with accurate forecasts regarding when certain samples will be arriving at their facility

RF Eezee was designed to fill the information gap between the time of sample collection and arrival at the lab.

**What is RF Eezee?**

In search of a workflow to reduce errors because of manual data entry, the MediCapital Group developed a new application, called “RF Eezee”, which is a mobile application designed to streamline, facilitate, and simplify the sample collecting process. It is a sample management tool built specifically to:

● Reduce errors caused by following incorrect instructions at the collection site

● Reduce errors caused by incorrect reentry of handwritten data

● Reduce need for manual data entry the investigator site

● Reduce required storage space at the investigator site

● Reduce waste from visit-specific kits in the event of protocol amendment

● Provide real-time, high-level insight into site progress

● Provide more detailed chain-of-custody information for data-analysis teams

The application captures basic information about subjects at the initial stage of a clinical trial and then makes this information readily available for future use, on demand, during every follow-up visit. The application stores this information locally and, in a cloud-based database, thereby reducing the risk of future errors caused by redundant manual data entry.

The RF Eezee application is designed to ensure the preservation of accuracy, security, and consistency of specimen information every step of the way.

**How does it work?**

During the visit, the application will guide the user through which samples need to be collected and how they will need to be processed, stored, and shipped. All specimen labels are printed instantly. When samples are ready to be shipped, the application allows the user to select the samples contained in the shipment and print a requisition form, containing all sample related information.

The application will use a unique subject ID (provided by the CTMS) to determine what visit the subject is coming in for. Since the application “knows” the subject has already completed 3 visits, it can now pull up all the details for visit 4. It will show what samples need to be collected, which containers need to be used and how the samples will have to be processed. At the same time the application will utilize a wireless label printer, to print all labels needed for the various containers.

Upon completion of the visit, the investigator can indicate whether the specimens will be stored at the site for a consolidated shipment to the lab or if they will be shipped right away. The application will capture the shipment tracking details and printing the requisition form that will go with the shipment. This information will be posted to the database, which allows the Project Manager to gain real-time insight into collection progress and sample locations.

**Why use RF Eezee?**

The RF Eezee application is the smart solution for managing samples. It provides a simplified and seamless user experience while securing valuable information gathered during clinical trials. Using this application provides the following benefits:

* Fewer errors caused by incorrect manual data entry
* Reduced risk of incorrect dates or sample types
* More reliable backup, storage, and accessibility with cloud-based technology
* Saves time and money by reducing costly mistakes
* Obviates handwritten labels/forms; risk of misreading is reduced. Since all data is collected from the application database, there is a reduced risk of incorrect dates or sample types indicated on the documents.
* Users have access to up-to-date protocol. Any protocol amendment will ensure all sites have access to the latest protocol
* Obviates visit-specific kits. All materials needed for the visit are displayed. All disposables can be provided to sites in bulk, reducing packing and shipping costs
* Project managers can view status of all samples collected for the study in a one-stop, centralized, cloud-based system. Logistical issues can be detected and fixed; users can have access to real-time status of site progress.
* Instant electronic notification of shipments to destination with sample details included, improving forecasting

**More Information**

To learn more about the RF Eezee application and how it can help you, visit www.medicapitalrent.com or call +1 (888) 663 2105.

1. Peter M.Hill, Darren Mareiniss, Paula Murphy, Heather Gardner, Yu-Hsiang Hsieh, Frederick Levy, Gabor D. Kelen, Significant Reduction of Laboratory Specimen Labeling Errors by Implementation of an Electronic Ordering System Paired With a Bar-Code Specimen Labeling Process. Annals of Emerging Medicine 2010;56(6):630-636 [↑](#footnote-ref-1)