NYULH Tools for Electronic Health Record (EHR) Recruitment Best Practices Brief

Electronic Recruitment Background

“Direct recruitment” refers to the recruitment of study subjects via direct patient contact without requiring prior permission from the subjects’ physicians. This is in contrast to indirect recruitment, which may be achieved through the posting of study flyers, website advertisements, referrals from other physicians or initial patient contact via healthcare provider. Electronic recruitment is the direct recruitment of patients by research teams using electronic communication, such as MyChart messages, email, and/or telephone. The purpose of this best practice brief is to describe the NYU Langone Health (NYULH) tools and procedures for all research projects that involve the use of electronic recruitment.

The NYULH Clinical and Translational Science Institute (CTSI) provides researchers with access to a variety of data sources to identify potential research participants. Potential research participants can typically be identified through their electronic health records (EHR). This EHR data can be accessed through a variety of ways (see figure 1).

**Figure 1. EHR Tool Comparison Chart**

<table>
<thead>
<tr>
<th>EHR Tool</th>
<th>Tool Research Use</th>
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</thead>
<tbody>
<tr>
<td>DataCore</td>
<td>Retrospective EHR cohort data</td>
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<tr>
<td>Slicer Dicer</td>
<td>NYULH patient/population demographic/outcome data</td>
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<tr>
<td>INSIGHT</td>
<td>NYC patient/population demographic/outcome data</td>
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<td>iConnect</td>
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Tools for Identifying Potential Patient Study Participants

Using NYULH’s Epic EHR System, PIs can access EHR for patients that may be eligible participants for their research studies. DataCore, Slicer Dicer, INSIGHT, and iConnect are all the Epic tools that can be used for direct electronic recruitment. DataCore provides researchers access to clinical data from NYULH’s Epic EHR system, with queries ranging from cohort identification for clinical trials to retrospective observational studies. Slicer Dicer is a self-service cohort exploration tool embedded in Epic that is available to researchers. The INSIGHT Clinical Research Network (CRN) is a data repository that brings together data from the five top academic medical centers in New York City. iConnect is a directory of clinical research studies at NYULH.

**DataCore**

DataCore is an institutional resource that provides a variety of research data services, which include querying the electronic health records of patients seen by NYULH providers to identify participants for research studies. Data is available on a variety of patient characteristics, including demographics, behaviors (such as smoking), vital signs, labs, procedures, medications, and diagnoses.
Researchers must have IRB approval to allow DataCore to provide your study team with the ability to send study-related messages to patients who have an active MyChart account – Epic’s patient portal. These messages allow patients the ability to respond if they are interested in potentially participating in a study. Any study-related messages sent to patients via MyChart must undergo IRB review and approval.

DataCore’s services are available for trials of all sizes and sponsorship, and range from Case Report Form (CRF) and study database design to standard reports programming. Some of the process improvements for clinical trials implemented by DataCore include: improved process workflows for study support in areas such as data specifications; improved data management plans to enhance data quality and study project management; and standardizing data fields to meet CDASH (Clinical Data Acquisition Standards Harmonization) specifications when possible, so that the use of data will be vendor-agnostic. In addition to its work in clinical trials, DataCore’s curation services are available to researchers who wish to submit their datasets to public databases such as clinicaltrials.gov or who wish to publish the metadata related to their datasets to make them more accessible to the broader research community.

DataCore is the MCIT home for NYULH’s Predictive Analytics Unit, which uses predictive models, machine learning, and other advanced analytic techniques to support research and improve clinical care. The functional organization chart for DataCore may be seen in Figure 2.

**Figure 2. DataCore Functional Organization Chart**

Researchers may request a DataCore service [here](#) (login required). If you have any questions or need assistance with DataCore services, contact the DataCore liaison at datacore@nyulangone.org.

**EPIC Slicer Dicer**

This tool allows researchers to identify patients based on criteria entered into the user interface without needing to write code. The user interface displays counts of patients that meet specified criteria and allows for these aggregate counts to be displayed in several ways. For example, one can see counts of patients broken down using patient characteristics like age groupings, gender, ethnicity, and others. Slicer Dicer includes a derived set of patient characteristics based on the Centers for Disease Control and Prevention’s Social Vulnerability Index. For more information about Slicer Dicer, download the EPIC Slicer Dicer workshop presentation for information on how to use the tool [here](#).
INSIGHT Clinical Research Network (CRN)

INSIGHT CRN’s central repository contains clinical data on patients drawn from electronic health records across Albert Einstein School of Medicine Montefiore Medical Center, Columbia University, Weill Cornell Medicine New York-Presbyterian Hospital, Icahn School of Medicine Mount Sinai Health System, and NYULH. The data is used to support a wide range of large-scale, multi-site research. The repository offers 11 years of demographic, diagnosis, encounter, vitals, prescribing, labs, and procedure data. It also includes zip codes, addresses, administrative and clinical data, and patient records from the greater New York City area. The database is helpful during the planning stages of a study, the grant application process, or recruiting patients into open clinical trials and health research studies. Researchers can submit requests to the INSIGHT Clinical Research Network for secondary data analysis or to invite patients to participate in specific clinical trials and health research studies. For more information about requesting information from the INSIGHT Clinical Research Network, contact insightcrn@med.cornell.edu.

iConnect

iConnect is a directory of clinical research studies at NYULH that lists and connects potential research participants and researchers and clinicians who are conducting research studies and clinical trials. iConnect lists recently added and updated clinical trials that are eligible for enrollment. It has a frequently asked questions page that provides background on clinical trials, their purpose, the consent process, the recruitment process and instructions on how volunteers can participate. Once a participant registers for study enrollment, iConnect creates a referral for any qualifying participant to the relevant study PIs. All PIs can register their studies on iConnect for study enrollment and recruitment here. For more information on iConnect, contact iConnect@nyulangone.org.

NYULH Policies for Recruitment

For more information on NYULH policies related to participant recruitment, please see the relevant links below:

- Email, Telephone
- IRB policies
- MyChart
- Subject Recruitment Policies

Contact Info

To schedule a consult with the NYULH CTSI’s Recruitment and Retention Core, complete a research request form here. For more information on recruitment assistance, check the Recruitment and Retention Core section of the NYU Clinical & Translational Science Institute Research Support webpage here. You can also contact the RRC coordinator at #CTSI-RRC@nyulangone.org and/or the ISP coordinator at #CTSI-ISP@nyulangone.org for a consult.