

3rd Annual CTSI Clinical Informatics Short Course Request for Applications

The Biomedical Informatics Program in the CTSI will be conducting the annual Clinical Informatics Short Course starting in July and running through December 2018. The program will be led by Brian Wells, MD, PhD and Kristin Lenoir, MPH and will be organized as a hands-on, experiential course. Participants will work together to create a risk prediction model from clinical data stored in the Electronic Health Record (EHR). The risk prediction model that will be used in the course has been endorsed by the President of the Health System, Kevin High, MD, MS. Dr. High will support the implementation of the Clinical Decision Support tool into the EHR and clinical work flow.

Clinical Scenario

Excess 30-day readmissions after a hospitalization for pneumonia result in CMS financial penalties for the medical center as well as negative publicity around quality of care metrics. A substantial proportion of these readmissions are unnecessary and represent significant morbidity to the patients.

Risk Model

We will create a model for the prediction of 30-day readmission risk at the point of discharge for patients hospitalized with pneumonia. An example of methods can be seen in [this paper](#) published by Hatipoglu and Wells (2018). The model will be used to target resources available through the Patient Navigator to help keep the patient out of the hospital.

Course Objectives

- Learn the characteristics of a good Clinical Decision Support (CDS) tool
- Recognize the barriers to the creation and implementation of CDS tools
- Learn the steps to request data from the EHR
- Participate in the creation of a mathematical prediction equation using multiple regression
- Become acquainted with statistical techniques for the validation of risk models
- Collaborate on the development of an academic paper describing the results
- Discuss different methods for implementing risk tools into the EHR

Participants

The course will be limited to no more than 10 participants and will be open to faculty, trainees, and staff. Potential participants will need to submit a short application that includes their background and reason for their interest in the course. The course leaders will consider skills/experiences when determining the composition of the course. Participants will be expected to actively participate in 2-hour meetings on a bi-weekly basis for 6 months. Additional work will also be necessary outside of the meetings. Engaged participants will be offered the opportunity to be included on the submission of a research publication.

Application

To apply, please submit the [online application form](#). Applications will be accepted through **June 15, 2018**. Please apply even if you have limited experience with academic writing, research, and/or statistical programming. We are looking for a mix of participants to maximize the learning and productivity of the group.

The course will run from **July 2018 through December 2018**. Exact meeting dates will be determined once participants are selected.