



Driving Efficiencies in Patient Recruitment & Unlocking Deep Insights Using EHR Surveillance



CLIENT

Large pharmaceutical organization



THERAPEUTIC AREA

Infectious Disease, Pediatrics (Infant Respiratory Syncytial Virus)



CLINETIC SOLUTIONS

- Virtual prospective study execution (Clinetic Investigate)
- Passive surveillance dashboard (Clinetic Inform)

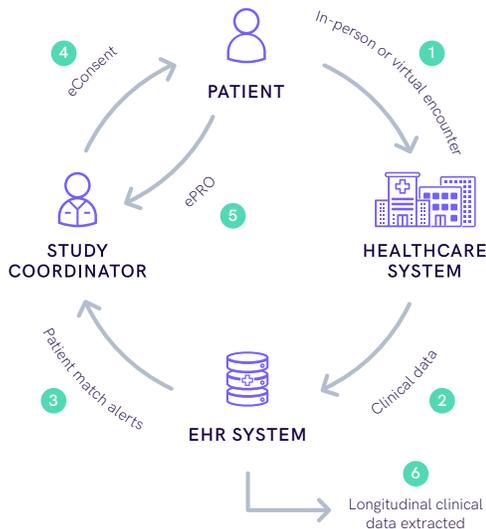
Client Objectives

To support the development and launch of a new vaccine, the client sought to better understand the epidemiology and burden of disease for lower respiratory tract infections (LRTIs) caused by respiratory syncytial virus (RSV) in infants. Previous literature had focused primarily on the inpatient setting, which was thought to represent only a small percentage of relevant patient encounters. Through this study, the client wanted to understand the number of patient encounters across care settings (e.g., outpatient, telemedicine, inpatient, etc), the frequency of RSV lab testing, and the burden of disease both in terms of direct healthcare utilization and quality of life (QoL). In the midst of the COVID-19 pandemic, the client also needed the ability to track the dynamic epidemiology of LRTI and RSV.

Our Approach

The COVID-19 pandemic dramatically impacted the normal pattern of seasonal respiratory illnesses in 2020-2021. The lower prevalence of LRTI and RSV during the normal season (November-March) combined with the highly distributed nature of LRTI patient encounters challenged the feasibility of conducting a surveillance study through a traditional in-person, in-clinic strategy.

Clinetic’s software and capabilities were used to overcome these challenges and achieve successful study enrollment and completion. The software identified potentially eligible patients based on several different data elements captured in the electronic health record system (e.g. chief complaint, symptoms, lab tests ordered), generating a daily list of patients based on the prior day’s encounters. This list was provided to a centralized study coordinator to confirm eligibility and conduct outreach. Eligible patients presented at over 70 physical locations across a variety of care settings - it would not have been cost effective or possible with COVID-19 restrictions to place research staff at each location.





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Results

With Clinetic's novel software-enabled approach, 100% of patients who met study criteria were identified across all care settings (including telemedicine). Over a four month period, 48% of those eligible patients were successfully contacted, consented, and enrolled; of those, 97% completed the study. Patient reported outcomes were combined with detailed longitudinal data from the subjects' medical records to provide a robust data set for the client.

Additionally, the passive surveillance dashboard, powered by timely EHR data, continues to provide the client with a near-real time view into LRTI and RSV trends. The interactive dashboard includes daily case counts and testing patterns, and can be filtered by patient characteristics such as demographics, care setting, insurance status, and gestational age. While historical data in the dashboard showed very defined seasonal patterns, post-pandemic onset, seasonal infant LRTI and RSV LRTI activity was substantially below levels observed during previous seasons. A significant interseasonal spike was then observed starting in June 2021; the study team was immediately able to explore detailed characteristics of the spike to inform future planning.

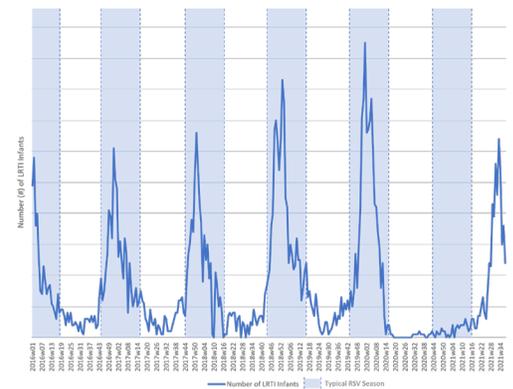


Figure 1: Weekly tracking of infant LRTI cases across 70+ locations within the Duke University Health System. Dashboards providing the ability to filter on 10 data elements in real time provided further insights on subpopulations of patients and changes in healthcare utilization patterns during COVID-19.



READY TO LEARN MORE ABOUT CLINETIC'S CAPABILITIES?

Contact us to learn about how Clinetic can help you unlock novel insights and efficiently execute your next study.

CONTACT US TODAY: SALES@CLINETIC.COM