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Case Study

Accelerating Recruitment Efforts in a Complex Small Cell Lung Cancer Study

Leveraging Citeline PatientMatch to Identify Protocol-matched Patients



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The Challenge

A study sponsor faced patient identification and recruitment roadblocks for a Phase II clinical trial. The study focused on treatment for extensive-stage small cell cancer and previously treated small cell lung cancer.

Here's what the study team was up against:

- Traditional recruitment methods weren't cutting it, so they sought a unique approach that represented out-of-the-box thinking.
- Under-qualified referrals would burden sites.
- Trial sites were already struggling with reduced bandwidth.



The Solution

To address these recruitment challenges, we leveraged Citeline PatientMatch, our patient recruitment solution that helps sponsors and sites efficiently identify protocol-matched patients using Citeline's proprietaryreal-world data (RWD) and longitudinal data assets along with natural language processing (NLP).

Citeline's PatientMatch provided custom RWD analysis for optimal site and patient selection, as well as an alerting framework and emailing service to enhance patient identification. With our customer-first approach, we crafted a clinical algorithm and married it to physician identification methodologies to achieve success.

Citeline PatientMatch: Data- and AI-powered Insights to Pinpoint the Right Patients

How it works:

- Calls upon Citeline's various integrated data sources, including **EMR, open claims, and lab data** to accurately identify highly qualified patients
- Utilizes NLP to comb through data for **valuable patient journey insights**
- Provides actionable, **de-identified patient details** to investigators and study staff informing them of highly qualified potential participants
- Targets patients who are either:
  - Under the care of the study PI
  - Located at the study site but under the care of another HCP
  - Seeing a treating physician in the study PI's network
  - Located within configurable geotargeted radius around the study site

From alert to enrollment:

- The site coordinator or PI receives a de-identified alert, contacts the treating physician, who then discusses the trial with the patient. If the patient is interested, they move forward with enrollment.

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Accelerating Recruitment Efforts in a Complex Small Cell Lung Cancer Study

Algorithm Creation
Build an algorithm to target focused patient populations

Data Monitoring
Algorithm and NLP monitor data sources to detect relevant medical activities

Match
Citeline algorithm recognizes protocol aligned patient activity

Alert
Alert is shared with site PI and/or study coordinator

Citeline's Proprietary Data | RWD Longitudinal Patient Data

Why it matters:

- Surfaces **hard-to-find, highly qualified** patients
- Sends **custom-timed alerts** as well as **historical data files** for ongoing recruitment opportunities
- Uncovers and highlights **the most relevant candidates**

Turning Strategy into Reality

Citeline's robust and diverse data sources and its AI capabilities empowered its team of medical and clinical experts to deliver solutions that optimize site performance.

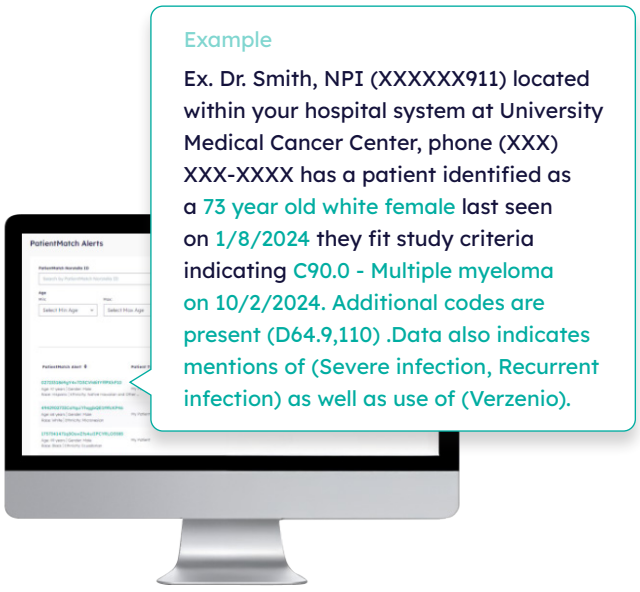
Leveraging these extensive datasets, the team designed, developed, and deployed an advanced algorithm that alerts study PIs to patients who meet the protocol's stringent eligibility criteria.

The Citeline team was then able to deliver weekly patient alerts on basis of qualifications for site reference and outreach.

Targeted Alerts to Enhance Patient Recruitment Efficiency

To keep stakeholders informed of developments in real time, the platform delivered custom alerts of protocol-matched patients for study site reference and outreach.

Approximately one third of all total alerts with directly under the care of a PI or within their affiliate network.



Example of the type of alert received.

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The Impact

Alerts were perfectly matched to site coverage among all US-based sites, meaning that every single trial site would receive alerts as part of their participation in the PatientMatch program.

Just one week after Citeline deployed Citeline PatientMatch, study sites began receiving high-quality patient referrals — accelerating the path to randomization. By surfacing prescreened patients through a data- and AI-driven alerting framework, PatientMatch reduced site burden, minimized screen-fail rates, and kept recruitment efforts moving swiftly forward. With each avoided screen fail saving the sponsor time and money, the impact was both immediate and meaningful. This streamlined process for identifying highly qualified patients not only enhanced prescreening precision but also helped the sponsor hit critical enrollment milestones — faster and more efficiently than before.

Randomization in a Complex Phase II Study

Alerting Success

398
alerts to action on

38
alerts determined to be possible matches to screens

20%
Among 20% total trial randomized patients in the US were identified by the **Citeline PatientMatch** alert system

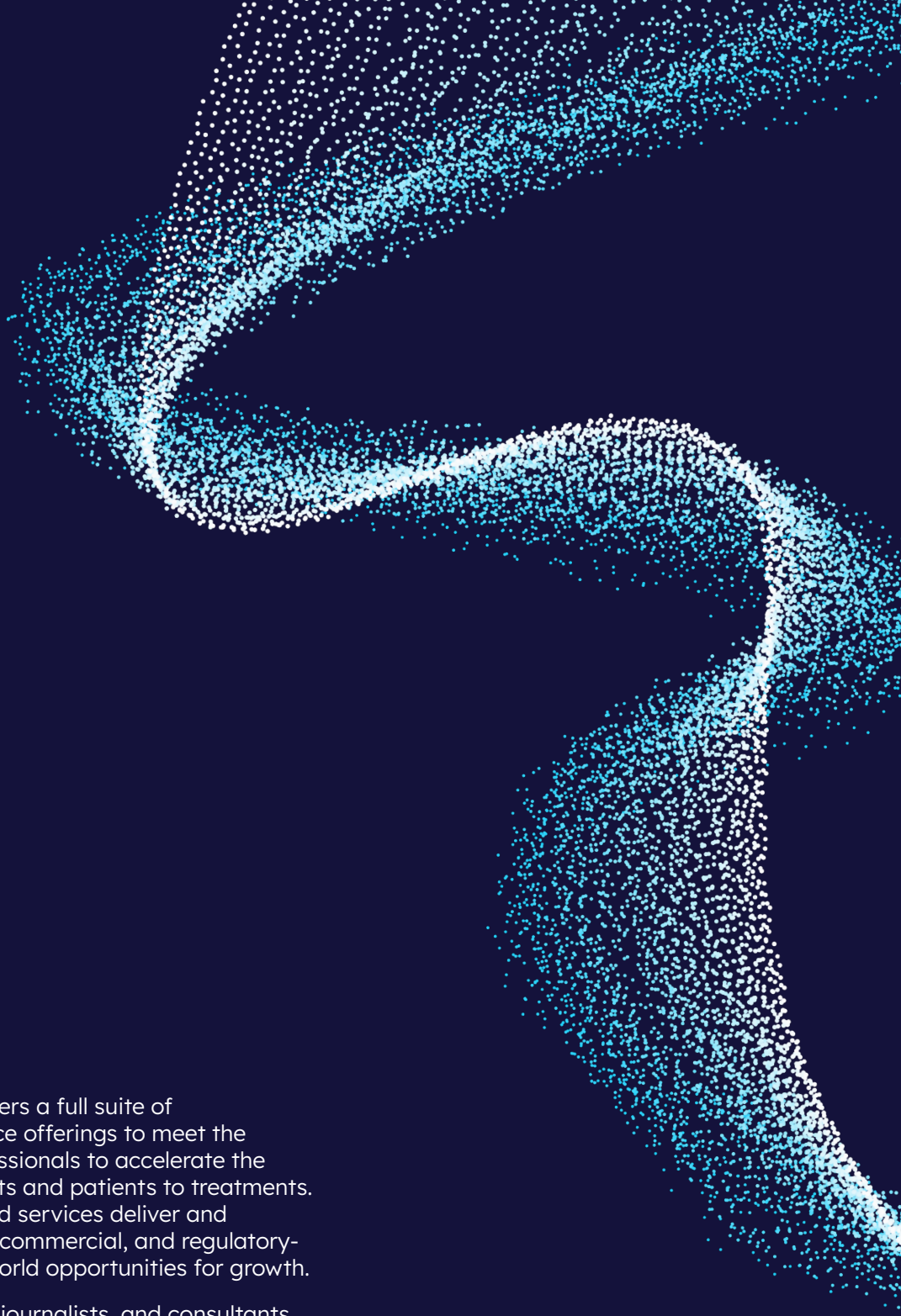
Most meanginfully, evidence of patient randomization was shown one week after implementing the alerting framework.

Due to the high quality of patient referrals, overall screen-fail rates were greatly reduced. Research has shown that each patient who screen fails costs a sponsor an average of $1,200. Not only did Citeline PatientMatch positively impact prescreening, it also helped the sponsor meet/exceed enrollment timelines. Studies indicate representative cost-savings of half a million dollars in loss for each day a trial is delayed. Citeline's approach to prescreening patients with the PatientMatch process provides direct value back to our clients as qualified patients are propelled into the recruitment lifecyle.



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