

# Artificial intelligence (AI) and machine learning considerations for effective trial management

### Accelerate customer speed to market

Al solutions deliver real-time data and insights through a modern, integrated experience, enabling drug developers to make decisions faster and reduce study timelines by 50% and bring therapies to market faster.

Four-pronged data/Al strategy enabling study acceleration



**Augmented** intelligence: AI + human intelligence

Force multiplier for key talent



Real-time data integration

Real-time data as a hard requirement



through data

Expand our deep pedigree in data and analytics



Site and patient tech

Reduce site burden and enhance patient reach

#### **Predict activation timelines**

A data-driven, automated process for predicting activation dates standardizes practices, using Al for unbiased, accurate assessments based on proven factors. This approach enhances transparency, accuracy and trust.

#### Source





experience





## **Variables**



**Historical data** and trends



**Custom or known** dates



Site and protocol specific data

Submit

date



Artificial intelligence layer



Qualify

date



**Approval** 

date



date

Predicted activation date

### **Proactively resolve issues**

Automated issue detection and enhanced mitigation improve system monitoring, accelerating negotiations by nearly a month, reducing escalations and accelerating the contracting pipeline.



- Negotiations are four weeks faster

templates

- 7,000+ document pairs analyzed Full customization of
- Reduction in sponsor
- escalations New master service agreements signed



# Focus on enrollment improvement efforts

Recruitment is crucial but inconsistent, with many sites underperforming or failing to enroll patients. Al enables early detection of enrollment risks, predicting issues before human recognition and guiding customized action plans to keep studies on track.



status: 60 days post activation

**Current site** 

Start conversations on when they would anticipate a warning letter and/or escalate to the clinical trial manager to discuss potential closure with client if continued non activity.



status: Activation

**Current site** 

Evaluate and discuss possible on-site booster event with primary investigator and study coordinator.



status: Pre-SIV

**Current site** 

The clinical research associate to contact primary investigator / study coordinator to confirm source of potential subjects, patient pathway, discuss site recruitment and activation plan, and to start to identify potential patients.

#### Modernize resource planning Al-driven automation of resource forecasting boosts productivity and ensures accurate,

timely data. Enhanced capacity predictions and redesigned, persona-based reporting streamline management and provide a comprehensive view.



**Resource forecasting** 



Resource / capacity reporting



Capacity management



Resource management

# Proactively re-forecasting enrollment activation for

#### Phase I cohorts and Phase II-III studies Machine learning, real-time data, and expertise give project delivery teams a more holistic approach to forecasting site activation and enrollment, enabling better

recruitment updates, client discussions and mitigation strategies. Simulation of different

scenarios visualizing the impact of country delays on site activation and patient enrollments - new baseline / forecasting for patient enrollment for ongoing studies.

