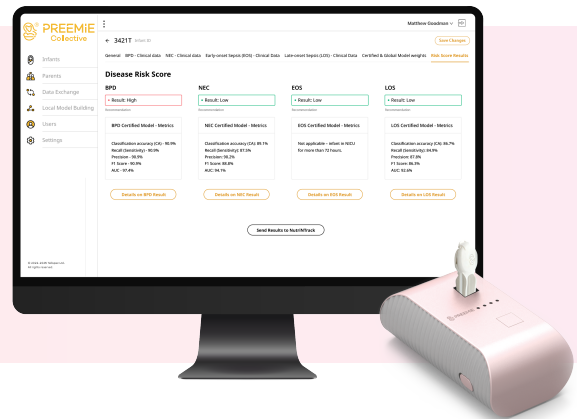


Premie Collective platform Neonatal Software

Premie Collective is a platform that enables neonatal units and researchers to collaboratively build powerful AI models for predicting preterm infant diseases like BPD, NEC, and neonatal sepsis. It functions as a standalone system or can be integrated with the Premie Sensor and NutriNTrack.



Premie Collective is a secure, blockchain-based federated learning network that enables NICUs to collaboratively build powerful AI models for predicting preterm infant diseases. The platform analyzes EMR data without moving sensitive patient information, creating a growing repository of collective intelligence. This provides clinicians with critical, data-driven insights for risk stratification and personalized nutritional management, which integrate directly with our NutriNTrack software for precision fortification.

The system creates a powerful network effect: each participating hospital enhances the model's predictive capabilities for all users, building a scalable ecosystem that accelerates research and improves outcomes across the network. All outputs are advisory and intended to support, not replace, the clinical judgment of qualified healthcare professionals.

● Premie Collective software features

- The Premie Collective software is installed within each hospital's secure IT environment;
- It analyses local, de-identified patient data from the EMR (e.g., Epic, Cerner) to retrain AI models locally;
- Instead of sharing raw data, each hospital's system sends only encrypted mathematical updates (model weights) to the central server;
- The central server receives encrypted model updates from all participating hospitals in the network and aggregates these updates to retrain the Global AI model;
- This model has learned from the diverse experiences of a vast population of infants, making it more accurate and robust than any model trained on a single hospital's data.

