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Precision Insights, Transformative Impact

Health AI Solutions for Advancing Beyond the Limits of Others

Tele Critical Care Predictions Overview
March 2025

What Nobody Else Can Deliver

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Precise, massively scaled solutions that combine proven application of AI with contextual comprehension

While most healthcare AI models struggle to interpret the nuanced context of healthcare decisions, Cogitativo has cracked this fundamental challenge. Our breakthrough in contextual understanding allows us to capture subtle signals with precision and relevancy that other AI systems miss, revolutionizing healthcare AI.

We transform vast healthcare data into tailored solutions that deliver immediate impact, empowering organizations to scale individualized care and optimize operations in weeks, not quarters—because better healthcare can't wait.

Our clients see a *5x – 33x ROI* on services costs—using AI to improve patient and system of care outcomes.

Deployed healthcare systems

VA U.S. Department of Veterans Affairs
Geisinger
blue california
Quantum HEALTH
BlueCross BlueShield of Texas
KAISER PERMANENTE
Florida Blue
Cigna
Health Net
BlueCross BlueShield of Illinois

Proof points - precision. comprehension. scale

Developed an ML COVID risk model and successfully assessed and rated 40 million Americans for their risk of requiring ICU admission following a COVID-19 infection within 55 days.

“ how did you find these risks? These insights changed our plans”

Completed the development of a performant clinical vulnerability ML risk score and scored two million Veterans within 68 days.

“ these models are transformative”

Within 75 days, developed and deployed anomaly and explainability models that provided strategic insights into a $1.2B improvement in financial performance.

“ your insights restored the financial stability of our organization”

Background of ICU operations

High Complexity & Resource Intensity

- ICUs are among the most resource-intensive areas in healthcare

Rising Healthcare Costs

- Ventilated patients incur significantly higher costs (e.g., average ICU cost for ventilated patients vs. non-ventilated).
- The average cost of hospitalization for sepsis is $32,000, but for the more than 20% of patients who develop septic shock, expenses rise to $68,671.

Extended Patient Stays

- Complications such as respiratory failure prolong ICU stays and increase readmission rates

Economic Impact

- The high operational costs strain hospital budgets and affect overall healthcare spending – estimated at 30 – 35% of total medical center budgets

The Challenge

Operational Inefficiencies

Increased readmissions and inconsistent data management further inflate costs.

Patient Throughput

Extended ICU stays due to complication reduce capacity for new admissions by as much as 50%.

Staffing Shortages

Recruitment and retention of skilled ICU clinicians are increasingly difficult, leading to “bidding wars.”

Results in Financial Pressures
Operating costs are outpacing reimbursement rates, squeezing margins.

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Cogitativo's Solution : AI Predictive ICU Patient Alerts

AI Patient-specific models monitoring identify early signs of deterioration up to 48 hours in advance of the event.

Models accurately predict risks for septic shock and respiratory failures, enabling timely interventions.

Generative AI for dynamic creation of new insights to tackle causal events and trends. These validated insights can be incorporated into both patient-level interventions as well as process improvements for ICU department operations.

Seamless Workflow Integration is designed to seamlessly integrate with existing ICU systems without disrupting current practices.

Meets the clinical team where they are.

Significantly improved ROI based on early pro forma analysis of VA's TeleCritical Care program, which covers over 1,200 adult beds across 74 ICUs.

Strong potential benefit for rural and underserved areas.

VA Case Study: Optimizing ICU Care - Predictive Models and TeleCritical Care

Pilot with VA's ICU TeleCritical Care Program: Integrating our predictive models for respiratory failure and septic shock progression risk within 48 hours into the VA's TeleCritical Care (TCC) program, which enhances ICU care for Veterans through real-time support from expert intensivists and critical care teams. The TCC program encompasses 1,800 beds across 74 intensive care units (ICUs) nationwide.

Expanding Access through Telehealth: The program extends critical care to Veterans, especially in rural or underserved areas, by leveraging telemedicine technology.

Improving Outcomes: Our predictive risk models will enable timely interventions, development of care plans, optimize resource use, and support on-site healthcare teams with advanced decision-making tools.

Proven Results: Driving efficiency, throughput, and quality

- Reduce length of stay
  A 36% reduction in average hospital length of stay post-TeleCritical Care implementation, resulting in over 20% reduction in annual costs.

- Increase Patient Throughput
  TeleCritical Care programs enable ICUs to manage over 20% more cases after implementation.

- Improved Financial Performance:
  Hospitals implementing TeleCritical Care programs have experienced a **376% profitability increase per patient** (from $1,667 to $6,568).

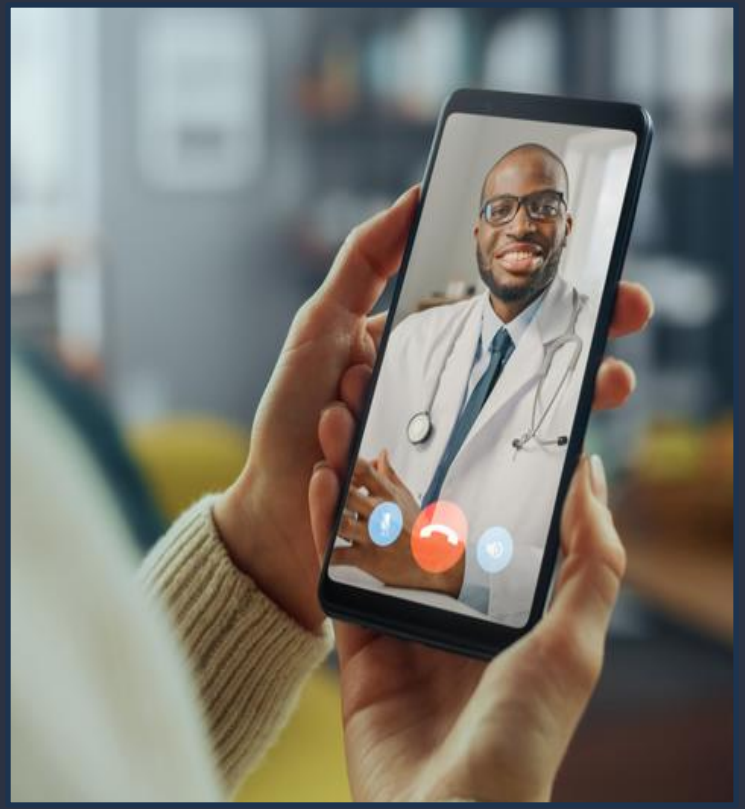
AI-Powered Foresights Enable Robust Remote Care

Hospital-at-Home

Early Deterioration Detection: AI continuously monitors vital signs to predict worsening conditions, enabling proactive intervention.

Personalized Care Adjustments: Predictive insights optimize medication adjustments and telemedicine check-ins.

Readmission Prevention: Identifies high-risk patients who require in-person care, thereby reducing unnecessary hospital and emergency room visits.

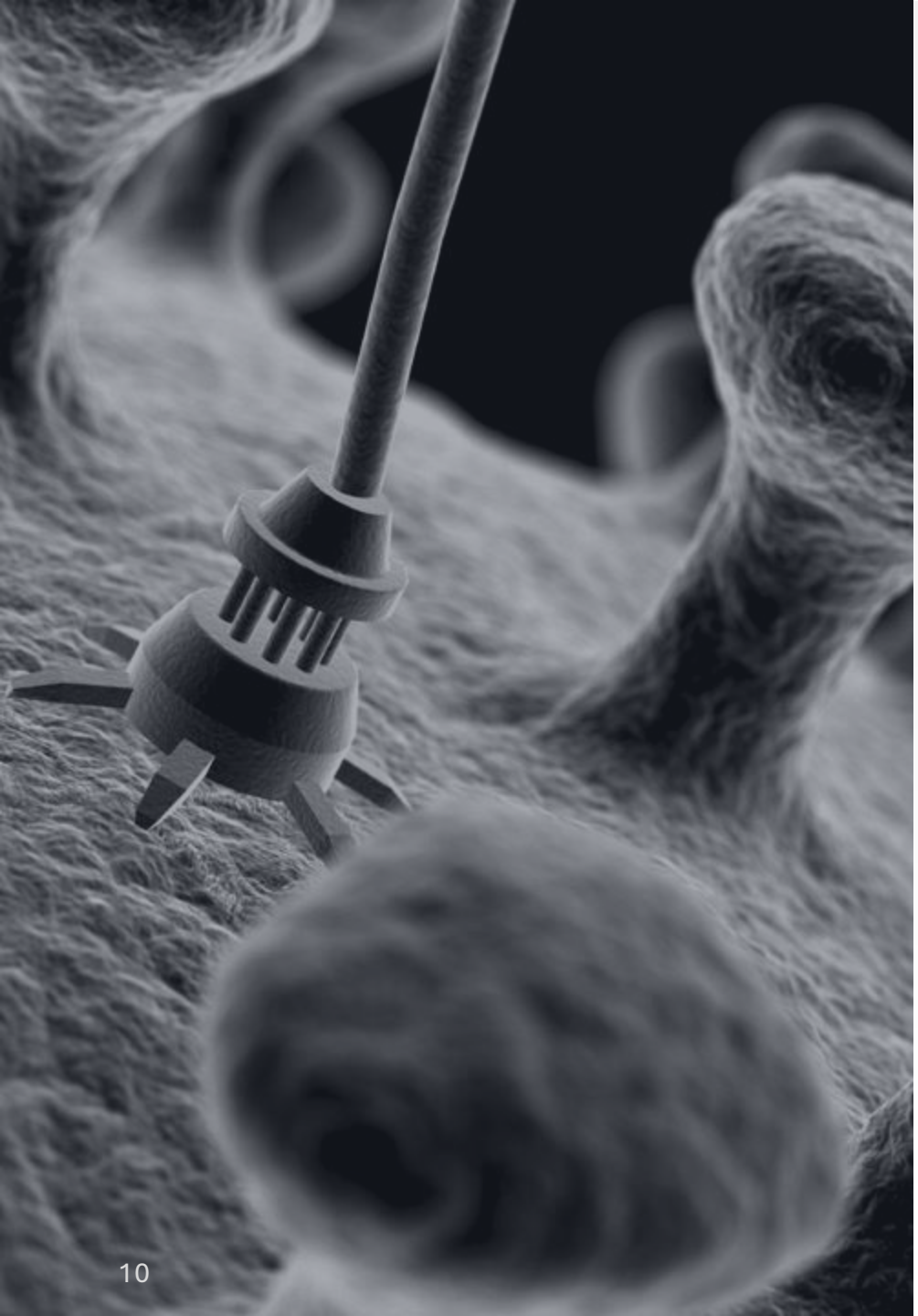


Skilled Nursing Facility

Fall and Injury Risk Prediction: Movement pattern detection indicating increased fall risk, triggering early interventions.

Sepsis and Infection Monitoring: Identifies subtle signs of infections before symptoms become severe.

Rehabilitation Optimization: Predicts therapy progress and adjusts rehabilitation plans to improve recovery outcomes.



What makes us unique

- Linking AI-generated knowledge with contextual understanding – critically important for healthcare.
- Deep hands-on experience and understanding of healthcare clinical and business operations.
- Proven experience in deploying precise, massively scale healthcare models.
- Propriety challenge question framework that solves bespoke client challenges
- **Over twenty years of private market ML/AI experience focus on healthcare delivery and affordability challenges**

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NASA SEWP

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SMB

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