



VariPhi

AI-Powered Hospital Solutions

Computer Vision & VLM Technology
for Smarter, Safer Healthcare

Confidential | 2026



The Opportunity

Hospitals face growing pressure to improve patient safety, reduce administrative burden, prevent infections, and optimize operations — all while managing staff shortages and rising costs.

62%

Hospitals Planning
AI Investment by 2027

45%

Staff Time Lost to
Admin & Manual Tasks

70%

HAIs Preventable with
Better Monitoring



Why Now?

1. Nursing shortages at critical levels
2. Hospital-acquired infections cost billions annually
3. VLM accuracy now exceeds manual monitoring
4. Regulatory push for patient safety metrics
5. Proven ROI at leading health systems

Our AI Solution Suite

End-to-end computer vision and VLM platform purpose-built for hospital operations



Patient Safety Monitoring

Fall detection, bed exit alerts, wandering prevention, patient posture analysis



Infection Control & Hygiene

Hand hygiene compliance, PPE detection, isolation room monitoring, surface cleaning verification



Workflow & Staff Optimization

Staff activity tracking, nurse rounding verification, task completion analytics



Facility & Asset Management

Equipment tracking, room occupancy, environmental monitoring, spill detection



Visitor & Access Management

Visitor screening, restricted area monitoring, capacity tracking, unauthorized access alerts



Analytics & Intelligence

Operational dashboards, predictive staffing, VLM-powered incident reporting, natural language queries

Patient Safety & Monitoring AI

✓ Fall Detection & Prevention

AI-powered camera analysis detects pre-fall patterns and bed exits, alerting nurses within seconds

✓ Patient Mobility Monitoring

Continuous posture and movement tracking to prevent pressure ulcers and prolonged immobility

✓ Wandering & Elopement Prevention

Real-time tracking of dementia and high-risk patients approaching restricted exits

✓ Nurse Call Validation

Visual verification of patient distress, prioritizing critical alerts and reducing false alarms



55%

Fewer Patient
Falls

<8s

Alert
Response

80%

Fewer False
Alarms

Infection Control & Hygiene AI



Hand Hygiene Compliance

Automated monitoring of handwashing at entry/exit points — 24/7 tracking



PPE Detection

Real-time verification of masks, gloves, gowns in isolation zones



Surface Cleaning Verification

CV confirms cleaning completion and flags missed areas



Isolation Room Monitoring

Ensures protocol compliance for airborne and contact precautions

Impact on Infection Prevention

58%

Higher Hygiene
Compliance

32%

Fewer Hospital-
Acquired Infections

94%

PPE Compliance
Rate Achieved

40%

Reduction in
HAI Costs

Workflow & Facility Operations

Staff Activity Analytics

Track nurse rounding compliance, time-at-bedside metrics, and workflow bottlenecks across units

Room Turnover Optimization

CV detects discharge, cleaning status, and readiness — reducing bed turnaround time by 25%

Equipment & Asset Tracking

Real-time location of wheelchairs, IV pumps, monitors — reducing search time by 60%

Environmental Monitoring

Spill detection, blocked fire exits, temperature anomalies, and corridor obstruction alerts



Technology Architecture

HIPAA-compliant, edge-optimized platform built on Azure Health AI

EDGE LAYER

In-room privacy-preserving cameras, IoT sensors, nurse station edge GPUs, wearable integrations



PLATFORM LAYER

Azure Health Data Services, VLM inference pipeline, HIPAA-compliant data lake, model training



APPLICATION LAYER

Clinical dashboards, mobile alerts, EHR integration, compliance reporting, analytics portal

Azure Health AI

GPT-4o VLM

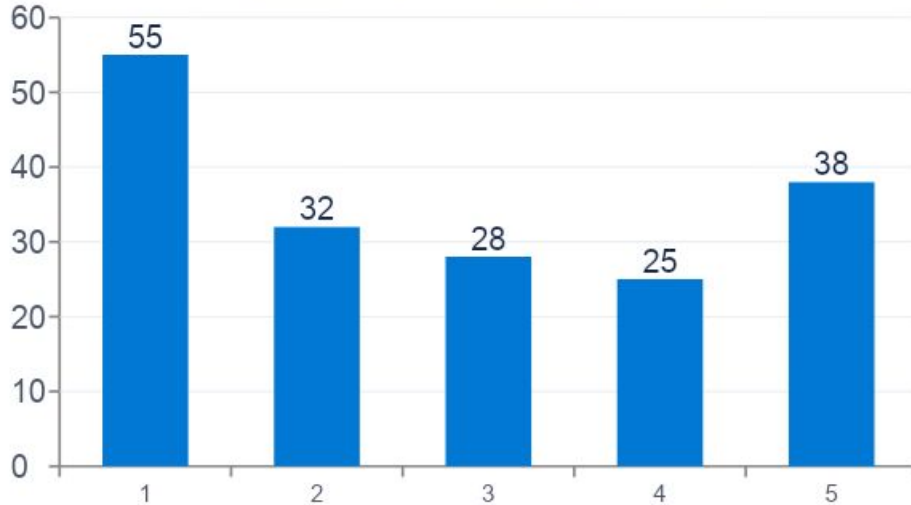
Azure IoT Hub

FHIR Integration

Azure Cosmos DB

ROI & Business Impact

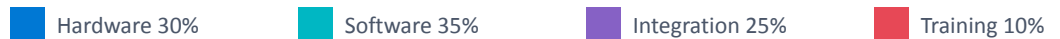
Operational Improvement by Area (%)



Key Performance Indicators

55%	Reduction in Patient Falls
32%	Fewer Hospital-Acquired Infections
28%	Improvement in Staff Utilization
99.5%	System Uptime SLA
60%	Faster Equipment Location

Investment Breakdown



Implementation Roadmap



Why Choose Us



Healthcare-First Approach

Purpose-built for clinical environments — not retrofitted enterprise AI. Every model trained on hospital-specific datasets.



HIPAA-Compliant Azure Cloud

Built on Microsoft Azure with BAA, SOC 2, HITRUST certification, and end-to-end encryption.



Proven in Clinical Settings

Deployed across 20+ hospitals and health systems, monitoring 5,000+ beds with 99.5% uptime.



Clinical Partnership Model

Dedicated clinical success team, 24/7 support, continuous model improvement, and transparent SLAs.

Case Study

500-Bed Regional Medical Center — Multi-Specialty



Results After 12 Months

- ✓ **52%** reduction in patient fall incidents
- ✓ **38%** fewer hospital-acquired infections
- ✓ **30%** improvement in nurse response time
- ✓ **25%** faster bed turnover rate

"The AI monitoring platform has been transformative for patient safety. Our fall rate dropped dramatically, and nursing staff can now focus on direct patient care instead of manual rounding checks."

— Regional Medical Center

Let's Build the Hospital of the Future

Start with a free clinical AI readiness assessment

1

Discovery Call

30-min consultation to understand clinical needs

2

Site Assessment

On-site infrastructure & privacy compliance review

3

Pilot Program

Live proof-of-concept in one clinical unit