

HealthWeave Pilot Program

Proposal for Erie County Medical Center

AI-Powered Patient Data Synthesis for Complex Chronic Conditions

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Prepared by: Garot Conklin

ECMC Patient ID: M000943022

Email: [Your email]

Phone: [Your phone]

Executive Summary

As an ECMC patient with complex chronic conditions (CLL and advanced liver disease), I have developed an AI-powered tool that synthesizes patient health data with current medical research to generate actionable clinical insights. After successfully using this tool to improve my own clinical discussions, I am proposing a no-cost pilot program at ECMC to evaluate its potential benefit for other complex patients.

Pilot Overview

- **Duration:** 3-6 months
- **Patient Population:** 100-200 patients with complex chronic conditions
- **Cost to ECMC:** \$0 - Completely free pilot
- **Technical Integration:** Works with existing FollowMyHealth patient portal
- **Support:** Full technical support provided by developer
- **Success Metrics:** Patient satisfaction, physician feedback, engagement rates
- **Outcome:** Detailed case study for potential expansion

The Problem We're Solving

ECMC serves a patient population with high complexity and multiple chronic conditions. These patients face specific challenges that current patient portal technology does not address:

- Lab results and test data scattered across multiple visits and specialists
- No way to understand trends or correlations across different conditions
- Difficulty preparing informed questions before appointments
- Limited understanding of how multiple conditions interact
- Medical research is inaccessible and difficult to apply to personal situation
- Current portal (FollowMyHealth) displays data but provides no analysis or insights

Impact on ECMC

- Patients arrive at appointments uninformed or misinformed
- Significant physician time spent explaining basic test results
- Lower patient portal engagement despite investment
- Patient satisfaction scores affected by communication gaps
- Missed opportunities for patient engagement that impact CMS reimbursement

The Solution: HealthWeave

HealthWeave is an AI-powered platform that synthesizes patient data from multiple sources and correlates it with current medical literature to generate easy-to-understand insights and doctor-ready reports.

How It Works for Patients

- 1. Log into existing FollowMyHealth portal (no new app to download)
- 2. Click "Generate Health Insights" button
- 3. System analyzes all available health data automatically
- 4. AI identifies trends, correlations, and key findings
- 5. Patient receives easy-to-understand dashboard
- 6. Can generate detailed PDF report for physician with citations
- 7. Report includes suggested questions to ask doctor

How It Works for Physicians

- 1. Patient generates report before appointment
- 2. Physician receives notification that report is available
- 3. Quick 1-2 page summary with key findings highlighted
- 4. Full report with proper citations available if needed
- 5. More efficient, informed appointment discussions
- 6. Report automatically added to patient chart

Key Features

- **Proper Citations:** All clinical claims backed by peer-reviewed literature - physicians can verify
- **Multi-Condition Analysis:** Understands complex interactions between multiple chronic conditions
- **Trend Identification:** Tracks changes over time and flags concerning trajectories
- **Doctor-Ready Output:** Professional reports that physicians appreciate, not "Dr. Google" printouts

- **Portal Integration:** Works within existing FollowMyHealth portal - no new system to learn
- **Privacy-First:** HIPAA-compliant, data never shared or sold
- **Research Synthesis:** Connects patient data to latest medical research

Proof of Concept: My Personal Case

I developed this tool to help manage my own complex medical situation: Chronic Lymphocytic Leukemia (CLL) with NOTCH1 mutation, F3 liver fibrosis with severe steatosis (>67%), and MTHFR polymorphism.

What the Tool Did for My Case

- Integrated data from: Bone marrow biopsy, liver FibroScan, ultrasound, multiple lab results
- Identified critical connection: CLL cells depend on lipid metabolism, and my F3 liver fibrosis with 67% fat creates metabolically favorable environment
- Found relevant research: Synthesized 8 peer-reviewed studies (2022-2025) on CLL metabolic pathways, liver infiltration patterns, and MTHFR implications
- Generated actionable report: Professional document with proper citations that I'm bringing to my hepatology appointment this week
- Prepared informed questions: Specific, research-backed questions to ask both hepatologist and oncologist
- Enabled coordination: Highlighted need for hepatology-oncology coordination given metabolic interactions

Physician Response

The tool generated a comprehensive report that my physicians can actually use:

- Synthesizes my complex, multi-system condition into coherent narrative
- Cites actual peer-reviewed literature (not internet searches)
- Identifies clinically relevant connections I wouldn't have found
- Prepares me to have informed discussion rather than basic education
- Saves physician time by arriving at appointment already understanding my situation
- Facilitates better coordination between my specialists

This transforms me from a passive patient waiting for explanations to an active partner in my care. That's the experience we want to provide to other ECMC patients.

Pilot Program Details

Proposed Pilot Structure

Component	Details
Duration	3-6 months (flexible based on ECMC preference)
Patient Population	100-200 patients with complex chronic conditions
Recruitment	Identify high-complexity patients through: <ul style="list-style-type: none">• Oncology department• Patients with multiple chronic conditions• High healthcare utilizers• Patients already engaged with portal
Cost	\$0 to ECMC - Completely free pilot
Technical Requirements	<ul style="list-style-type: none">• API access to FollowMyHealth• Ability to add feature to patient portal• Minimal IT resources for integration
Timeline	<ul style="list-style-type: none">• Month 1: Technical integration & testing• Month 2: Launch with initial 50 patients• Months 3-4: Expand to full 100-200 patients• Months 5-6: Data collection & analysis
Support	<ul style="list-style-type: none">• Full technical support provided• On-call for any issues• Regular check-ins with ECMC team• Training for staff if needed
Data Collection	<ul style="list-style-type: none">• Patient satisfaction surveys• Physician feedback surveys• Usage analytics (engagement rates)• Qualitative feedback interviews

Success Metrics

The pilot will be considered successful if:

- 60%+ of enrolled patients actively use the tool (at least monthly)
- 80%+ patient satisfaction score
- 75%+ physician approval rating
- Measurable increase in patient portal engagement
- Qualitative feedback: Physicians report more informed patient conversations

- Zero security or privacy incidents
- 99%+ system uptime and reliability

Benefits to ECMC

Immediate Benefits

- **Improved Patient Engagement:** Increase patient portal utilization, which impacts CMS reimbursement scores
- **Enhanced Patient Experience:** Differentiate ECMC as innovative, patient-centered organization
- **Physician Efficiency:** Patients arrive more informed, reducing time spent on basic education
- **Better Outcomes:** Informed patients = better adherence, better outcomes, lower readmissions
- **Market Differentiation:** AI-powered patient tools as competitive advantage in Buffalo market
- **Media Opportunity:** Compelling story: ECMC patient builds tool, hospital pilots it - great PR

Strategic Benefits

- **Innovation Leadership:** Position ECMC as leader in AI-enabled patient care
- **Research Opportunity:** Potential for research publications on AI-assisted patient engagement
- **Grant Opportunities:** Pilot results could support future innovation grant applications
- **Scalability:** If successful, expand to entire patient population
- **Partnership Value:** Early adopter advantage if this becomes widely adopted
- **Staff Satisfaction:** Physicians appreciate informed patients - reduces burnout

Financial Impact

Potential ROI even in pilot phase:

- Patient engagement scores improvement → CMS bonus payments
- Reduced readmissions from better-informed patients → \$10K-30K saved per readmission avoided
- Physician time savings → 5-10 minutes per appointment = significant aggregate value
- Increased portal usage → Better patient retention

- Pilot is free → Zero investment risk for ECMC

Technical Integration

Integration Approach

The system is designed to integrate seamlessly with ECMC's existing FollowMyHealth patient portal:

- **Phase 1: Data Access:** API connection to FollowMyHealth to access patient data (with consent)
- **Phase 2: Portal Widget:** Add "Health Insights" button to patient portal dashboard
- **Phase 3: Report Delivery:** Generated reports appear in portal and physician dashboard
- **Phase 4: Chart Integration:** Reports automatically added to patient EHR

Technical Requirements

- FollowMyHealth API access credentials
- HIPAA Business Associate Agreement
- IT liaison for integration support (estimated 10-20 hours total)
- Approval to add feature to patient portal interface
- Test environment for integration testing

Security & Compliance

- HIPAA-compliant architecture built on Microsoft Azure
- All data encrypted in transit and at rest
- No patient data stored outside ECMC's control without explicit consent
- Audit logging of all data access
- Regular security assessments
- Business Associate Agreement in place before pilot begins

Support & Maintenance

- Full technical support throughout pilot

- On-call availability for issues
- Regular updates and improvements based on feedback
- Training materials for staff
- Weekly or bi-weekly check-ins with ECMC team
- Detailed documentation provided

Proposed Timeline

Phase	Timeline	Activities
Initial Discussion	Week 1-2	<ul style="list-style-type: none"> • Present proposal to ECMC leadership • Answer questions • Get preliminary approval
Planning & Approvals	Week 3-4	<ul style="list-style-type: none"> • Finalize pilot scope • Get IT approval • Sign BAA • Identify patient cohort
Technical Integration	Week 5-8	<ul style="list-style-type: none"> • API integration with FollowMyHealth • Portal widget development • Testing in staging environment • Security review
Soft Launch	Week 9-10	<ul style="list-style-type: none"> • Launch with 25-50 initial patients • Monitor closely • Gather early feedback • Fix any issues
Full Pilot Launch	Week 11-12	<ul style="list-style-type: none"> • Expand to full 100-200 patients • Ongoing monitoring • Regular feedback collection
Active Pilot Period	Month 4-6	<ul style="list-style-type: none"> • Patients using system • Continuous improvement • Data collection • Monthly reporting to ECMC
Analysis & Reporting	Month 7	<ul style="list-style-type: none"> • Analyze all pilot data • Survey results compilation • Create detailed case study • Present findings to ECMC • Discuss expansion or partnership

Next Steps

To move forward with this pilot program:

- **Step 1:** Initial meeting with ECMC leadership (CMIO, CIO, Patient Experience team)
- **Step 2:** 15-minute demo of the tool using my personal case
- **Step 3:** Discussion of pilot parameters and timeline
- **Step 4:** Technical feasibility review with IT team
- **Step 5:** Approval and contracts (BAA, pilot agreement)
- **Step 6:** Begin technical integration
- **Step 7:** Launch pilot program

Contact Information

I am eager to discuss this opportunity further and demonstrate the tool in action. Please contact me at:

Garot Conklin
ECMC Patient ID: M000943022
Email: [Your email]
Phone: [Your phone]

I am available at your convenience for a meeting or demo.

Why This Matters

As both a patient and a software engineer, I have a unique perspective on healthcare technology. I built this tool because I desperately needed it - and after using it, I know other patients need it too.

ECMC has given me excellent care for my complex conditions. This is my way of giving back - by building a tool that could help other ECMC patients have the same kind of informed, collaborative discussions with their physicians that I've been able to have.

The pilot program represents zero financial risk to ECMC, minimal technical burden, and significant potential benefit. If successful, it could position ECMC as a leader in AI-enabled patient engagement.

If unsuccessful, we'll have learned valuable lessons at no cost, and I'll have gained important feedback to improve the tool.

Either way, it's a win-win opportunity.

Let's work together to empower ECMC patients with better health insights.

Sincerely,

Garot Conklin
ECMC Patient & HealthWeave Founder