



**BIGRIO**  
EMPOWERING DATA

## CASE STUDY

# USING A LARGE LANGUAGE MODEL (LLM) TO ASSIST WITH THE INEFFICIENCIES IN END-TO-END LONGITUDINAL CARE MANAGEMENT

## CHALLENGE

Our client, Vivid Health wanted to build a solution for workflow efficiencies that would assist with clinical staff shortages, administrative burden and the need for patient engagement.

The client approached BigRio with the desire to create a multi-tenant patient care application that could do the following:

1. Comprehend patient assessments across 16 specialties and 100 conditions to assess a patient's medical status and provide care accordingly.
2. Capture patient assessment responses via mobile and desktop devices 24 hours a day, 7 days a week.
3. Collaborate with providers to provide personalized care plans for each patient that the doctors and nurses could adjust and approve rather than having to build themselves.
4. Automate creation at scale to significantly reduce provider time in front of the computer.
5. A seamless tracking solution for patient follow up based on the needs of each patient.

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“BigRio was fundamental in designing of our technical architecture and the software development of our MVP solution.”



**Laura Bagnoli**  
Co-Founder and Chief Product Officer  
Vivid Health

# SOLUTION: END-TO-END CARE MANAGEMENT PLATFORM THAT DRIVES EFFICIENCIES FOR CARE TEAMS

BigRio worked with the client to design and implement a novel multi-tenant system that leverages Generative AI to provide a better, more comprehensive patient care journey that benefits both the patient and the care team.

We created a system that utilizes a Large Language Model to extract pertinent information and generate actionable recommendations that guides healthcare professionals in developing the best plan of action for patients. Our approach included:

- **Collaborating** with client and healthcare professionals to develop requirements that would meet the needs of end users
- **Designing** an architecture that allowed user access through either direct login or via SSO from external EHRs.
- Creating capabilities for **efficient patient intake** for pre-defined conditions.
- Building an application that could **seamlessly integrate** the LLM within existing infrastructure and workflows.
- Ensuring **scalability, security and compliance** with healthcare data regulations (HIPAA, etc.).

## RESULTS: A POWERFUL AI-DRIVEN LONGITUDINAL CARE MANAGEMENT PLATFORM

The resulting solution delivers powerful capabilities for improving the patient journey through an efficient and easily accessible platform for both the patient and care team. This platform allows for patient care to be continuous and distributed per the needs required by each patient.

- Assesses status on more than 100 chronic conditions across 16 medical specialties
- Reduces input time to under 5 minutes
- Generates draft personal care plans at scale in under 30 seconds
- Capable of providing over 75 Million individualized care plan combinations
- Automates 365-day a year care management outreach, communicating to 1000s of patients per day
- Ensures care plan accuracy by keeping providers "in the loop" 100% of the time
- Allows on demand prioritization of patient follow-up based upon automated continuous outreach

## LET'S CONNECT

If you want to learn more about transforming your digital health and AI offerings, please write to us at [info@bigr.io](mailto:info@bigr.io) or [click here](#).