

Case Study

Advanced Care Planning:

Leveraging Generative AI for Continuously Effective Patient-Centered Care



Client Context

Continuous, personalized care is a key priority in the United States patient-centric healthcare system, especially for patients with chronic ailments, transitioning from hospitalization, or requiring palliative care. Customized care plans based on the patient's unique needs and provider insights are essential tools to deliver effective long-term care. By leveraging detailed medical information, it ensures thorough, real-time, and personalized patient care. A failure to incorporate these notes can result in fragmented care, communication gaps, reduced personalization, and increased risk of errors and legal liabilities. The absence of well-integrated provider notes complicates healthcare quality measurements, care transitions, and essential preventive care procedures. Such oversights could ultimately reduce patient satisfaction, compromise healthcare resource utilization, and limit valuable data for analysis and quality improvement.

The Challenge

Drawing up care plans and altering them depending on the patient's progress is a time-consuming task that:



Hampers Productivity

Healthcare professionals may spend considerable time composing these plans instead of deeply engaging with the patient.



May lack accuracy and comprehensiveness

Non-standardized processes for drafting these plans can mean providers may miss out on key information, miscommunicate instructions, or record erroneous entries.

It ensures thorough, real-time, and personalized patient care by leveraging detailed medical information. A failure to incorporate these notes can result in fragmented care, communication gaps, reduced personalization, and increased risk of errors and legal liabilities. The absence of well-integrated provider notes complicates healthcare quality measurements, care transitions, and essential preventive care procedures. Such oversights could ultimately reduce patient satisfaction, compromise healthcare resource utilization, and limit valuable data for analysis and quality improvement.

Tredence Solution

The goal was to rapidly develop tailored, HIPAA-compliant, and comprehensive care plans based on the patient's most recent and previous interactions with the provider. These care plans had to be continuously refined based on the patient's current progress, medical history, and preferences, the latest provider insights, and up-to-date learnings from effective care plans for thousands of patients—all to optimize long-term patient outcomes.

The Approach

Within one month, we built and delivered a fully functional 'MVP Advanced Care Plan feature'. Tredence professionals created a wish list of requirements by combining industry best practices with client objectives. We also performed a technical assessment of rich data sources on numerous client systems. This was followed by a strategy for utilizing cutting-edge Gen AI LLMs to construct the tool. A powerful Azure GPT 3.5 Turbo model quickly analyzes provider notes after each patient interaction and combines them with insights from a vast repository of related care plans and outcomes to create a comprehensive, accurate HIPAA-compliant care plan. These plans are continuously optimized to achieve targeted results throughout the patient journey. They are downloadable and shareable, maintaining consistency of care across providers.

In a span of one month, an 'MVP Advanced Care Plan feature' was cultivated. Essential elements were meticulously picked, combining industry best practices and specific client objectives, ensuring the meticulous inclusion of detailed provider notes in the care plans. Generative AI, specifically the robust Azure GPT 3.5 Turbo model, plays a crucial role, meticulously analyzing provider notes post each patient interaction, enriching the care plans with comprehensive insights and maintaining HIPAA compliance.

Business Impact



Productivity Optimization

Providers can navigate the care planning process quickly and effectively, saving time and costs, because of smooth, accurate information flows, standardization, and quick personalization.



Boost to Patient Satisfaction

Access to updated care plans based on their latest progress and the opportunity to have meaningful interactions with providers freed from administrative tasks promote patient trust and confidence.



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