

**Project Initialization and Planning Phase**

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| Team ID | LTVIP2025TMID45588 |
| Project Name | Revolutionizing Liver Care |

**Define Problem Statements:**

The current approach to liver disease management faces significant challenges. Healthcare providers struggle to accurately identify high-risk patients for liver cirrhosis, leading to delayed diagnosis and suboptimal treatment. Patients with a family history of liver disease feel anxious about their health and uncertain about the diagnostic process. Healthcare facilities and payers also face difficulties in efficiently allocating resources and determining appropriate coverage for liver disease patients. To address these issues, there is a pressing need to develop a predictive model using advanced machine learning techniques that can accurately forecast the onset and progression of liver cirrhosis, enabling timely intervention and improved patient outcomes.

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| **Proble m**  **Stateme nt (PS)** | **I am (Customer)** | **I’m trying to** | **But** | **Because** | **Which makes me feel** |
| PS-1 | A healthcare professional  managing liver patients | Identify high-risk patients for liver cirrhosis | my current  diagnostic tools  are limited and outdated | this makes me feel uncertain about  making accurate diagnoses | me feel concerned about patient  outcomes and treatment effectiveness |
| PS-2 | A patient with a family history of liver disease | Secure a timely diagnosis and  treatment for liver cirrhosis | my current healthcare provider lacks advanced diagnostic tools | this makes me feel anxious about the diagnosis and treatment process | me feel uncertain about my health and well-being |
| PS-3 | A healthcare payer  (insurance provider) managing liver disease patients | Optimize the allocation of resources and coverage for liver cirrhosis patients | the current risk assessment methods are not accurate enough | this makes it difficult to determine appropriate coverage and treatment plans | me feel unsure about  the cost-effectiveness of our liver disease management program |







