**USER STORY AND ACCEPTANCE CRITERIA**

### **User Story 1: Patient Stratification for Preventive Care**

**As a** Gastroenterologist,

**I want to** identify patients at high risk of developing gastroenterological conditions,

**so that** I can provide early intervention and preventive care.

**Acceptance Criteria:**

1. The user can log in to the PPS Analytics Platform using secure authentication.
2. The system displays a dashboard summarizing the patient population with risk indicators based on predefined criteria (e.g., age, family history).
3. The user can filter patients by risk level (e.g., high-risk group).
4. Detailed profiles of the selected patients, including risk factors and care pathways, are available for review.
5. The user can schedule preventive screenings or consultations for patients from within the platform.
6. Notifications are sent to patients and healthcare teams upon scheduling.

### **User Story 2: Adherence to Clinical Pathways**

**As a** Clinic Administrator,

**I want to** monitor adherence to clinical pathways for patient care,

**so that** we can ensure our treatments align with the latest medical guidelines.

**Acceptance Criteria:**

1. The user can access clinical adherence reports through the platform.
2. The platform compares recent treatments with predefined clinical pathways.
3. Cases of deviation from clinical pathways are flagged for review.
4. The gastroenterologist can view flagged cases and update care plans if necessary.
5. The platform allows adjustments to the clinical pathways based on feedback from the gastroenterologist.
6. The adherence data is updated and reports are generated in real-time.

### **User Story 3: Operational Efficiency in Patient Management**

**As a** Clinic Administrator,

**I want to** use data-driven insights to optimize patient flow and resource utilization,

**so that** we can improve operational efficiency and reduce patient wait times.

**Acceptance Criteria:**

1. The user can access an operational dashboard that displays metrics like patient wait times and appointment no-show rates.
2. The platform highlights bottlenecks in clinic operations, such as patient flow inefficiencies.
3. The user can view resource utilization data, such as underutilized equipment or staff.
4. The platform suggests strategies to improve scheduling and resource allocation.
5. Medical billing specialists can access billing insights to optimize financial practices and reimbursement rates.

### **User Story 4: Personalized Patient Care Plans**

**As a** Gastroenterologist,

**I want to** create personalized care plans for my patients,

**so that** they receive treatment tailored to their individual health profiles and risk factors.

**Acceptance Criteria:**

1. The system allows entry of patient data, including medical history, lifestyle factors, and genetic information.
2. The platform uses algorithms to analyze patient data and generate personalized care recommendations.
3. The user can review the recommended care plans and make adjustments.
4. The system allows documentation and scheduling of the personalized care plans.
5. Automated reminders are sent to patients and healthcare teams to ensure adherence to care plans.
6. The system tracks and updates patient progress in adherence to the care plan.

### **User Story 5: Performance Reporting and Quality Improvement**

**As a** Clinic Administrator or Quality Improvement Team member,

**I want to** access performance reports and analyze the quality of patient care,

**so that** we can identify areas for improvement and implement necessary changes.

**Acceptance Criteria:**

1. The user can generate performance reports that aggregate patient outcome data and clinical pathway adherence.
2. The platform analyzes trends in patient satisfaction, care outcomes, and adherence to guidelines.
3. Reports identify areas for improvement and provide actionable insights for quality improvement.
4. The user can create action plans within the platform based on the analysis.
5. The system allows continuous monitoring of the impact of improvement initiatives.
6. The reports are customizable and exportable for further analysis or external reporting.

### **User Story 6: Patient Stratification for Preventive Care**

**As a** Gastroenterologist,

**I want to** use data analytics to identify patients who are at high risk of developing gastroenterological conditions,

**so that** I can provide early interventions to improve patient outcomes.

**Expanded Acceptance Criteria:**

1. The gastroenterologist must be able to log in securely with role-based access control (RBAC) that ensures only authorized users can view patient data.
2. The system should display a dashboard summarizing patient data, highlighting patients who meet the predefined risk criteria such as age, lifestyle, and medical history.
3. Users must be able to customize the risk factors used in the analysis, including adding, removing, or adjusting criteria (e.g., adding genetic markers).
4. The system should allow the gastroenterologist to filter the patient population by risk level (e.g., high-risk, medium-risk) and visualize trends (e.g., increasing risk over time).
5. Detailed patient profiles should include historical medical data, family history, lifestyle factors, and recommended preventive care options.
6. Users should be able to schedule preventive screenings and consultations from within the platform, with integration into the clinic's scheduling system.
7. Automated alerts or reminders should be sent to the gastroenterologist, nurse, and patient when preventive actions are due, with a tracking system for follow-ups.

### **User Story 7: Adherence to Clinical Pathways**

**As a** Clinic Administrator,

**I want to** ensure that our treatments are aligned with the latest clinical pathways,

**so that** we can provide standardized, evidence-based care for all patients.

**Expanded Acceptance Criteria:**

1. Clinic administrators must have access to a dashboard that displays clinical adherence rates for different gastroenterological conditions, broken down by treatment type or patient group.
2. The system should automatically compare patient treatment data with the latest clinical guidelines, and highlight any deviations from these guidelines.
3. The platform should flag deviations that are based on patient-specific reasons (e.g., comorbidities) and provide a way for the gastroenterologist to annotate the justification for the deviation.
4. Users should be able to review flagged cases and adjust the patient’s care plan or update the clinical pathway if needed, with full audit trail functionality.
5. The platform must provide alerts to the gastroenterologist when a flagged case needs review.
6. The system should allow reporting of clinical pathway adherence over time, identifying trends and areas where deviations frequently occur, to support process improvement.

### **User Story 8: Operational Efficiency in Patient Management**

**As a** Clinic Administrator,

**I want to** optimize clinic operations using data-driven insights from the platform,

**so that** I can reduce bottlenecks, improve resource utilization, and increase overall clinic efficiency.

**Expanded Acceptance Criteria:**

1. The clinic administrator must be able to view operational metrics such as patient wait times, appointment no-shows, and resource (staff and equipment) utilization in real time.
2. The system should provide predictive analytics to identify potential bottlenecks in patient flow based on historical data.
3. The administrator should be able to generate reports that highlight periods of underutilization of resources (e.g., idle diagnostic equipment) and recommend adjustments.
4. The platform must provide insights on patient scheduling patterns, suggesting changes such as appointment clustering or staggered shifts to better manage patient flow.
5. Medical billing specialists must have access to a dashboard that analyzes trends in billing practices, including reimbursement rates, denied claims, and common coding errors.
6. The system should provide recommendations on optimizing billing codes and practices to improve the clinic’s financial performance.

### **User Story 9: Personalized Patient Care Plans**

**As a** Gastroenterologist,

**I want to** generate personalized care plans for each patient,

**so that** I can ensure their treatment is based on their individual health data, leading to better outcomes.

**Expanded Acceptance Criteria:**

1. The platform should allow the entry of comprehensive patient data, including medical history, lifestyle factors, lab results, and genetic information.
2. The system must use advanced algorithms (such as machine learning models) to analyze patient data and suggest personalized care recommendations based on risk factors and clinical pathways.
3. The gastroenterologist should be able to review and adjust the recommended care plan, ensuring that it meets the specific needs of the patient.
4. The platform should allow the care plan to be documented, with automatic scheduling of any necessary tests, treatments, or follow-up consultations.
5. Both the healthcare team and the patient should receive automated notifications and reminders for upcoming tests, treatments, or follow-ups, ensuring adherence to the plan.
6. The system should provide a feedback loop, allowing the gastroenterologist to update the care plan based on patient response or changes in health condition.

### **User Story 10: Performance Reporting and Quality Improvement**

**As a** Quality Improvement Team member,

**I want to** monitor and assess the quality of care provided by the practice,

**so that** we can identify areas for improvement and implement effective changes to enhance patient outcomes.

**Expanded Acceptance Criteria:**

1. The quality improvement team must be able to generate customizable performance reports based on various metrics, including patient outcomes, adherence to clinical pathways, and patient satisfaction scores.
2. The platform should aggregate data across different time periods (e.g., weekly, monthly, annually) and display trends in the performance metrics.
3. Users should be able to drill down into specific metrics (e.g., adherence rates for a specific condition) and view underlying data to identify patterns.
4. The platform should allow users to set benchmarks for performance (e.g., 95% adherence to clinical pathways) and track progress against those benchmarks over time.
5. Users must be able to create action plans for quality improvement based on the data insights, and the platform should allow monitoring of the effectiveness of those changes.
6. The system must provide alerts when performance metrics fall below established thresholds, ensuring that immediate corrective actions are taken.