**Medical History related use cases in the Patient Management Application**

Here are key use cases related to the Medical History module in a Patient Management Application. These use cases focus on capturing, managing, and utilizing patients' medical histories to support clinical decision-making and care continuity.

Medical History Module Use Cases

* Add New Medical History Record  
  *Actors:* Doctor, Nurse, Receptionist  
  *Trigger:* A patient visits or a new condition/event needs recording  
  *Description:* Capture diagnoses, surgeries, allergies, chronic diseases, vaccinations, and relevant notes in the patient’s medical history.
* View Medical History  
  *Actors:* Doctor, Nurse, Patient  
  *Trigger:* User requests to review a patient’s medical background  
  *Description:* Retrieve and display chronological medical records, test results, prescriptions, and past treatments for clinical assessment.
* Update Medical History  
  *Actors:* Doctor, Nurse  
  *Trigger:* Changes or new findings occur during treatment or follow-up  
  *Description:* Modify existing entries or add new information to ensure the medical history remains current and accurate.
* Attach Supporting Documents  
  *Actors:* Doctor, Nurse, Lab Technician  
  *Trigger:* New lab reports, imaging, or prescriptions become available  
  *Description:* Upload and link documents like lab results, radiology images, pathology reports, and prescriptions to the medical history.
* Flag Important Alerts in Medical History  
  *Actors:* Doctor, Nurse, Admin Staff  
  *Trigger:* Critical conditions or allergies identified  
  *Description:* Add flags or alerts to highlight allergies, adverse reactions, or significant medical events for quick clinician awareness.
* Search and Filter Medical History  
  *Actors:* Doctor, Nurse, Admin Staff  
  *Trigger:* Need to locate specific medical events or conditions  
  *Description:* Enable search by diagnosis, treatment date, medication, or keywords within the medical history records.
* Generate Medical History Summary  
  *Actors:* Doctor, Nurse, Patient  
  *Trigger:* Need a concise overview of patient medical background  
  *Description:* Provide a summary report highlighting key diagnoses, treatments, allergies, and important notes; possibly enhanced by AI summarization.
* Audit Medical History Changes  
  *Actors:* Admin Staff, Compliance Officer  
  *Trigger:* Reviewing data integrity or investigations  
  *Description:* Track and log all additions, deletions, and updates to medical history records with timestamps and user details.
* Share Medical History with Authorized Entities  
  *Actors:* Doctor, Nurse, Patient  
  *Trigger:* Referral to specialists or other healthcare providers  
  *Description:* Securely share medical history information with external providers or systems, adhering to privacy regulations.
* Patient Access to Medical History  
  *Actors:* Patient  
  *Trigger:* Patient reviews own records through portal or app  
  *Description:* Allow patients to view their medical history data and download summaries for personal use.

These use cases ensure the Medical History module supports comprehensive, accurate, secure, and accessible patient medical information management, enhancing effective clinical care and patient empowerment.

Here is a **detailed use case table** for the **Medical History module** in your Patient Management Application. Each use case includes Actors, Triggers, Preconditions, Main Flow, Alternate Flows, and Postconditions for clear system design and development reference.

**Medical History Module – Detailed Use Case Table**

| **Use Case ID** | **Use Case Name** | **Actors** | **Trigger** | **Preconditions** | **Main Flow** | **Alternate Flows** | **Postconditions** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| MH-01 | Add New Medical History Record | Doctor, Nurse, Receptionist | Patient visit or new medical event | User authenticated; Patient profile exists | 1. Actor selects "Add Medical History". 2. Enters diagnosis, event details, dates. 3. System validates entries. 4. Record is saved and linked to patient profile. | AF1: Missing required fields → prompt for completion. AF2: Duplicate event detected → confirm or edit. | New medical event record added to patient history. |
| MH-02 | View Medical History | Doctor, Nurse, Patient | User requests medical history view | User authenticated; History exists for patient | 1. Actor searches/selects patient. 2. System displays chronological history. 3. User browses or filters events. | AF1: No history found → display message. AF2: Limited fields for patient role. | Patient medical history displayed as per user permissions. |
| MH-03 | Update Medical History | Doctor, Nurse | Change or new findings during care | User authorized; Record exists | 1. Actor selects history record. 2. Edits details. 3. System validates changes. 4. Updates saved; audit log entry created. | AF1: Unauthorized edit → access denied and logged. AF2: Validation error → prompt to correct. | Medical history record updated and logged for compliance. |
| MH-04 | Attach Supporting Documents | Doctor, Nurse, Lab Technician | New supporting document available | User authenticated; Patient profile exists | 1. Actor selects "Attach Document". 2. Uploads file. 3. System checks format/size. 4. Document is stored and indexed. | AF1: Format/size error → prompt retry. AF2: Duplicate file detected → confirm or skip. | Medical documents linked to medical history for future reference. |
| MH-05 | Flag Important Alerts in History | Doctor, Nurse, Admin Staff | Critical alert or condition identified | User authorized; Patient profile exists | 1. Actor selects "Flag Alert". 2. Specifies alert type/details. 3. System saves and highlights alert on history display. | AF1: Duplicate alert → prompt merge or confirm. AF2: Expired alert → system suggests removal. | Alert/flag visible in medical history until resolved/expired. |
| MH-06 | Search and Filter Medical History | Doctor, Nurse, Admin Staff | Need to locate specific events or conditions | User authenticated; History exists | 1. Actor enters search criteria. 2. System performs attribute/semantic search. 3. Displays filtered results and supports navigation. | AF1: No results found → suggest related terms. AF2: Too many results → system prompts for more filters. | Relevant records surfaced for review or action. |
| MH-07 | Generate Medical History Summary | Doctor, Nurse, Patient | Need concise overview (referral, discharge, review) | User authenticated; History exists | 1. Actor selects "Generate Summary". 2. System compiles key diagnoses, treatments, alerts. 3. User reviews and downloads summary (PDF/print). | AF1: Too few records → system flags for manual update. AF2: System-generated summary requires editing. | Summary generated and available for review, download, or sharing. |
| MH-08 | Audit Medical History Changes | Admin Staff, Compliance Officer | Data integrity check or investigation | Audit logging enabled; Access permissions granted | 1. Actor opens audit log. 2. Filters by patient, date, event. 3. System displays history of changes with timestamps/user IDs. | AF1: Unauthorized access → denied and logged. AF2: No changes exist → display message. | Audit history accessed for compliance and integrity checks. |
| MH-09 | Share Medical History (External) | Doctor, Nurse, Patient | Referral or data sharing need | User authenticated; Consent obtained; Integration available | 1. Actor requests "Share History". 2. Specifies recipient/system. 3. System encrypts and sends history. 4. Confirmation received. | AF1: Missing consent → prompt obtain. AF2: Integration error → notify and log issue. | Medical history securely shared with authorized external entity. |
| MH-10 | Patient Access to Medical History | Patient | Patient requests own data via portal/app | Patient authenticated; History exists | 1. Patient logs in. 2. System displays accessible records. 3. Patient reviews/downloads summary. | AF1: Incomplete history → system prompts for update. AF2: Download error → prompt retry. | Patient can view/download personal medical history as permitted. |

**Notes for Implementation:**

* **Role-Based Access:** Each use case strictly enforces permissions and patient data privacy.
* **Validation:** Include checks for field completeness, format, and consistency.
* **Integration:** Medical history updates reflect in related modules (EHR, billing, profile).
* **UX:** Inline error messages, progress bars for uploads, preview of summary before export.

If you need visual workflows (step-by-step diagrams for any use case), let me know the specific ones, and I’ll create those as well!

**comprehensive list of key fields** for the Medical History page in your Patient Management Application, along with appropriate **validation rules** for each. This structure ensures accuracy, completeness, and compliance in clinical workflows.

**Medical History Page – Fields & Validations**

**1. Medical Event/Diagnosis Fields**

* **Diagnosis/Condition Name**
  + *Validation:* Required; select from standardized list (ICD-10/SNOMED) or free text if allowed. Minimum 2 characters.
* **Date of Diagnosis**
  + *Validation:* Required; valid date format; must not be in the future.
* **Clinical Notes/Description**
  + *Validation:* Optional; free text; max 2,000 characters.
* **Severity**
  + *Validation:* Optional; select from predefined options (Mild, Moderate, Severe, Chronic).
* **Status**
  + *Validation:* Required; selection (Active, Resolved, Ongoing, In Remission).

**2. Surgical History**

* **Procedure/Surgery Name**
  + *Validation:* Optional; select from list or free text. If filled, minimum 2 characters.
* **Date of Procedure**
  + *Validation:* Optional; valid date format; must not be in the future.
* **Surgeon/Doctor Name**
  + *Validation:* Optional; select from faculty list or free text.

**3. Allergies**

* **Allergy Name**
  + *Validation:* Optional; free text or select from standardized list.
* **Reaction Description**
  + *Validation:* Optional; free text; max 500 characters.
* **Date Noted**
  + *Validation:* Optional; valid date format; not in the future.

**4. Chronic Conditions/Diseases**

* **Condition Name**
  + *Validation:* Optional; select from list or free text.
* **Diagnosis Date**
  + *Validation:* Optional; valid date format; not in the future.
* **Status**
  + *Validation:* Optional; selection (Active, Resolved, Ongoing).

**5. Medications**

* **Medication Name**
  + *Validation:* Optional; select from formulary or free text.
* **Dosage**
  + *Validation:* Optional; numeric + units (e.g., mg, mL); sensible ranges.
* **Frequency**
  + *Validation:* Optional; select (Once Daily, Twice Daily, PRN, etc.).
* **Start Date**
  + *Validation:* Optional; valid date format; not in the future.
* **End Date**
  + *Validation:* Optional; cannot precede Start Date.

**6. Vaccinations & Immunizations**

* **Vaccine Name**
  + *Validation:* Optional; select from list.
* **Date Administered**
  + *Validation:* Optional; valid date; not before patient birthdate.
* **Next Dose Date**
  + *Validation:* Optional; valid date; not before administration date.

**7. Lab Reports & Imaging**

* **Test Name**
  + *Validation:* Optional; select from standard list or free text.
* **Test Date**
  + *Validation:* Optional; valid date format; not in the future.
* **Result Summary**
  + *Validation:* Optional; free text; max 1,000 characters.
* **File Upload**
  + *Validation:* Optional; file type restriction (PDF, JPEG, PNG); max size (e.g., <5MB).

**8. Flags & Alerts**

* **Alert Type**
  + *Validation:* Optional; select from predefined list (Allergy, Condition, Consent).
* **Description**
  + *Validation:* Optional; free text; max 250 characters.
* **Expiration Date**
  + *Validation:* Optional; valid date; must be after current date.

**9. General Fields**

* **Entered By**
  + *Validation:* Auto-fill with current user’s name and role; read-only.
* **Entry Date**
  + *Validation:* Auto-generated with current system date/time; read-only.

**General Validation Principles**

* Required fields must be completed to save records.
* Drop-downs or auto-complete used for standard fields to reduce errors.
* Real-time field validation prompts for corrections.
* Date fields use date pickers and restrict future dates where not allowed.
* File uploads are validated for type and size, with error feedback.
* Numeric fields set realistic minimum and maximum values.
* All entries and changes are audit-logged for compliance.