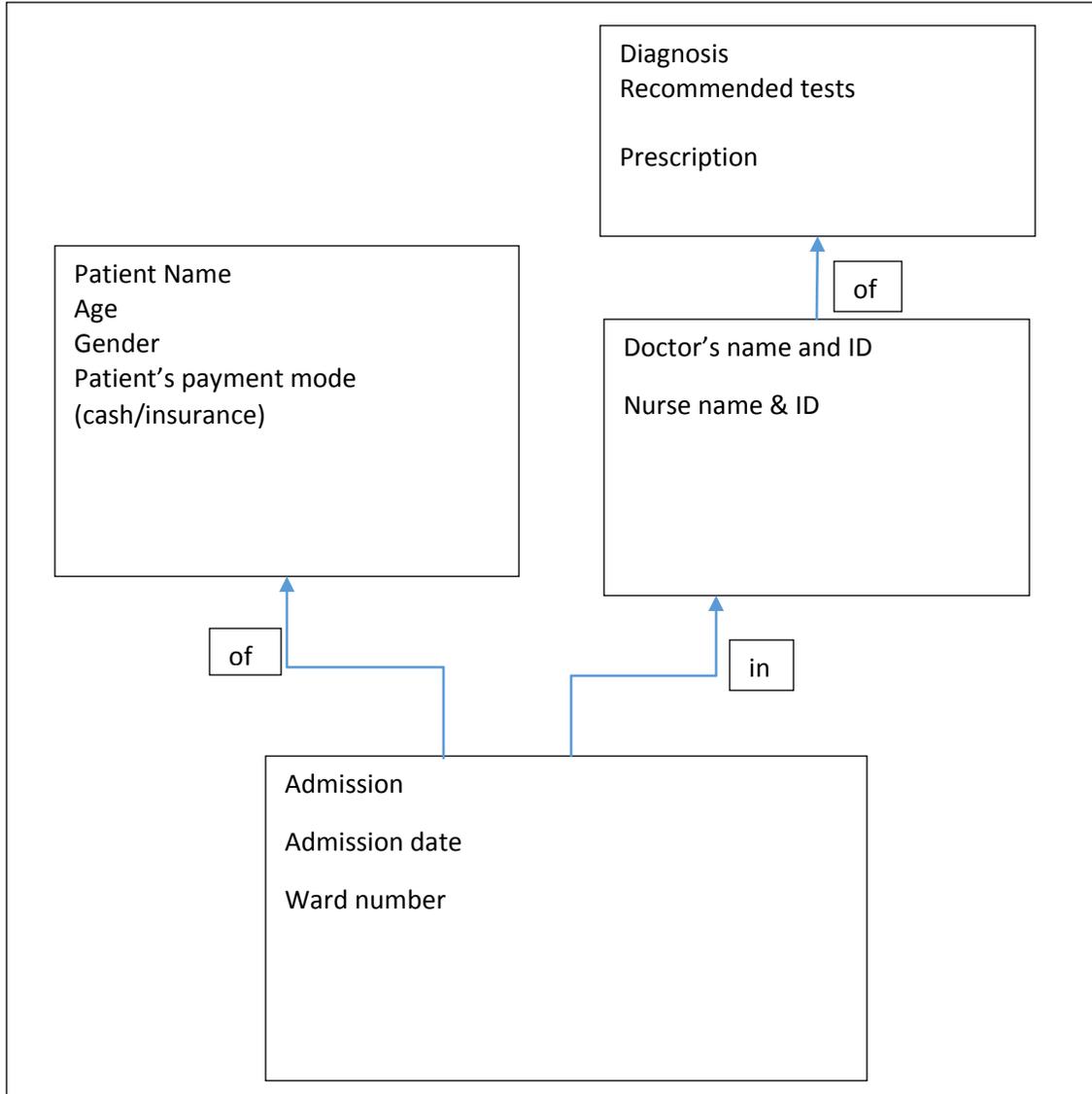


Data Model



Component	Description	Notes
Actor	Surgeons, ER scheduling staff, physician and Nurses, Admissions Personnel and EKG Dept.	Other actors can be included, notably external actors like patient's next of kin.
Use case	Patient admission	
Actor goal	To admit the patient successfully in the right level of care.	
Stakeholder Interest	There is a need to ensure patient satisfaction and precise to avoid these occurrences and to safeguard patient safety.	There have been concerns about the decreasing ER process over time, due to longer waits, and busy staff.
Abstract	The admission process begins with receiving the patient in the hospital, due to an emergency or voluntarily (walk-ins).	
Trigger	The moment a patient enters the hospital, it signals the admission process.	
Milestones or steps	<ul style="list-style-type: none"> • A Patient brought in by EMS bypasses the triage process and is seen at the bedside by the ER nurse, registration department and the ER physician. • A walk-in patient sign-ins at the front desk, is pre-assessed by the triage nurse. • If the patient does require immediate attention, a room is provided for the patient to be seen immediately by an ER nurse and ER physician. • If the patient's condition 	

	is considered a non-emergent, the patient will wait in the waiting room, to be called in and then seen by the ER nurse and physician.	
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Component	Description
Name	Patient Admission
Expected Result	There are two major types of hospital admissions, emergent and elective. In Emergent admissions, the patient is brought to the hospital due to a life-threatening event, which usually follows an admission. An elective admission is considered, when the patient or the primary doctor plans a day for the patient to be directly admitted to the hospital.
Input message	Patient name, number
Validation	The system provides patient details
Functions	If new patient the clerk in charge registers the patient in the system.
Data Updates	Ascertain patient's details and condition before admission the right level.
Output message	Patient successfully admitted, with details of patient name, admission level e.t.c.

Service Name
Patient Admission
Result (Description)
A patient's admission in one of the wards is complete and a transfer process is initiated.
Input Message
Patient number. From Ward ID. To Ward ID
Output Message
Result Code. Confirmation Number
Actions—Validation
<ul style="list-style-type: none"> • Patient must be 'registered' • "from" ward must be "filled" or "available" state • "from" Ward admission must be in "active" state • "to" Ward must be in "available" state • Transaction date must be after securing payment
Actions—Operations and calculations
<ul style="list-style-type: none"> • If payment is not secure, calculate account balance and confirm the source of payment • Calculate new ward stay count for "from" section, and set state to "available" • Calculate new ward stay "to" ward, and set state to "filled" if admission count is at maximum • Set Result code • Set confirmation number (based on the model rules) • Etc.
<ul style="list-style-type: none"> • Set "from" ward (number) to "ended" state, and set state change date • Create "to" ward (number) in "active" status • Update "from" Ward (number) as determined • Update patient account balance due
Notes
<ul style="list-style-type: none"> • Investigate need to waive ward transfer costs • Investigate related costs and doctor assigned

Use Case Name
Hospital clerk completes admission (of patients in wards)
Description
When the doctor on duty decides that a patients needs to be admitted the clerk on duty will facilitate the enrollment process for the patient.
Actors
Clerk, nurse on duty, doctor, patient's next of kin
Distinctions from the essential use case (optional)
Clerk has the ability to override some of the rules depending on the patient's status
Preconditions (optional)
<ul style="list-style-type: none"> • Clerk is logged on, and can access menu of functions available • The patient (of their next of kin) has completed the appropriate form and the clerk has it.
Primary, Course (Normal success steps)
<ol style="list-style-type: none"> 1. When the clerk enters patient number and selects "admit patient", the system should verify student and account status and display basic data. 2. When clerk selects the ward where the patient is being admitted, the system should verify that the ward is available. 3. Etc.
Ward Transfers (Alternate and failure steps)
<ol style="list-style-type: none"> 1. The patient is new and requires fresh registration <ul style="list-style-type: none"> • Register the patient and issue new patient number 2. When the preferred ward is full <ul style="list-style-type: none"> • Provide alternative ward
Comments Issues and Design notes
For patients search, provide various alternatives from including by surname and patient number

6. Use case Scenario

Use case(s)	Scenario description
Clerk admits patient in ward Clerk searches for patient using name and/or number	Clerk admits patient into a ward successfully
Precondition	Impact
1) Patient is new, register in the system and issue new patient number 2) Patient is not new, search using	1) All new patients are identified by their patient numbers 2) Directly search for patient number
Condition	Expected handling
When the clerk selects "admit" from the system's menu, the system generates the option to click yes if all conditions are met.	The system displays the patient's key information.
When the clerk enters the first five characters of the patient's surname, they should have the rest of the information presented.	