

# PATIENT CENTRIC HEALTHCARE DATABASE

## Description:

This database provides a comprehensive overview of hospital management, including patient demographics, medical conditions, financial data, and operational metrics. It encompasses key details such as patient information, admission and discharge dates, room assignments, doctors, hospitals, insurance providers, and billing amounts. The dataset is designed to facilitate in-depth analysis of healthcare operations, patient trends, and financial performance, enabling insights into resource utilization and medical care distribution.

## Data:

1. **PatientID:** Unique identifier for each patient.
2. **Name:** Name of the patient (randomly generated).
3. **Age:** Age of the patient.
4. **Gender:** Gender of the patient (Male/Female).
5. **BloodGroup:** Blood group of the patient (e.g., A+, O-, etc.).
6. **MedicalCondition:** The diagnosed condition (e.g., Arthritis, Diabetes, etc.).
7. **AdmissionDate:** The date the patient was admitted.
8. **Doctor:** The doctor assigned to the patient.
9. **Hospital:** The hospital where the patient is admitted.
10. **InsuranceProvider:** The insurance company covering the patient.
11. **BillingAmount:** Total bill amount for the patient.
12. **RoomNumber:** Room number where the patient is admitted.
13. **AdmissionType:** The type of admission (Elective/Emergency/Urgent).
14. **StayDuration:** Number of days the patient stayed in the hospital.
15. **TestResult:** Result of diagnostic tests (e.g., Normal, Abnormal, Inconclusive).

## AVERAGE BILLING AMOUNT

```
28      -- Average Billing Amount
29 •    select avg(BillingAmount) as Average_Bill_Amount
30      from HospitalAdmissions;
```

Result Grid		Filter Rows:	Export:	Wrap Cell C
	Average_Bill_Amount			
▶	5579.825747			

## AVERAGE AGE OF PATIENT

```
24      -- Average age of Patient
25 •    select round(avg(Age),0) as Average_Patient_age -- round fuction is used to round of decimal
26      from HospitalAdmissions;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content: <a href="#">IA</a>
	Average_Patient_age			
▶	36			

## AVERAGE STAY OF PATIENT

```
40      -- Average Stay
41 •    SELECT AVG(DATEDIFF(DischargeDate, DateOfAdmission)) AS Average_Stay
42      FROM HospitalAdmissions;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content: <a href="#">IA</a>
	Average_Stay			
▶	7.1922			



## BILL AMOUNT SPLIT BY YEAR

```
105      -- Bill Amount Each Year
106 •    select year(DischargeDate) as year, sum(BillingAmount) as Bill
107      from HospitalAdmissions
108      group by year
109      order by year desc;
```

<		
Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cell Content: 		
	year	Bill
▶	2024	69481498.61
	2023	69694080.76
	2021	70166213.18
	2020	69649494.81


## NO OF PATIENTS ADDMITTED AS EMERGENCY IN YEARS

```
98      -- Emergencies in years
99 •    select year(DateOfAdmission) as year, count(AdmissionType) as Number_of_Emergencies
100      from hospitaladmissions
101      where AdmissionType='Emergency'
102      group by year
103      order by year desc;
```

<		
Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cell Content: 		
	year	Number_of_Emergencies
▶	2024	6346
	2023	6263
	2021	6248
	2020	6249


## PATIENT SPLIT BETWEEN GENDER

```
44 -- Patients Split Between Male & Female
45 • select
46     case
47         When Gender = 'Male' then 'Male'
48         when Gender = 'Female' then 'Female'
49     End as Gender,
50     count(gender) as Patient_Split
51 from hospitaladmissions
52 group by Gender;
```

<		
Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cell Cont		
	Gender	Patient_Split
▶	Male	28548
	Female	21452

## MOST COMMON MEDICAL CONDITION

```
33 -- Most Common Medical Condition
34 • SELECT MedicalCondition, COUNT(*) AS Condition_Count
35 FROM HospitalAdmissions
36 GROUP BY MedicalCondition
37 ORDER BY Condition_Count DESC
38 LIMIT 1;
```

<		
Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cell Center		
	MedicalCondition	Condition_Count
▶	Diabetes	10925

## NO OF PATIENTS ADMITTED BY YEAR

```
85  -- Number of Patients by Year
86 •  select year(DateOfAdmission) as year, count(name) as Patient_admitted
87  from hospitaladmissions
88  group by year
89  order by year desc;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
year	Patient_admitted			
2024	12466			
2023	12528			
2021	12545			
2020	12461			

## NO OF MALE AND FEMALE PATIENTS ADMITTED EVERY YEAR

```
91  -- Number of Male Female Patients admitted each year
92 •  select year(DateOfAdmission) as year, gender,
93  count(Name) as Patients_Admitted
94  from hospitaladmissions
95  group by year, gender
96  order by year desc;
```

Result Grid				Filter Rows:	Export:	Wrap Cell Content:
year	gender	Patients_Admitted				
2024	Female	5457				
2024	Male	7009				
2023	Female	5326				
2023	Male	7202				
2021	Female	5331				
2021	Male	7214				
2020	Female	5338				
2020	Male	7123				




## PATIENTS BY ADMISSION TYPE

```
60  -- Patients by admission type
61  •  select admissiontype, count(admissiontype) as count
62     from hospitaladmissions
63     group by admissiontype;
```

Result Grid    Filter Rows: <input type="text"/>   Export:    Wrap Cell Content: 		
	admissiontype	count
▶	Urgent	22526
	Emergency	25106
	Elective	2368



## NO OF PATIENTS BY BLOOD TYPE

```
78  -- Split by Blood Type
79  •  select Bloodtype, count(Bloodtype) as No_of_Bloodtype
80     from hospitaladmissions
81     group by Bloodtype
82     order by No_of_Bloodtype desc;
```

Result Grid    Filter Rows: <input type="text"/>   Export:    Wrap Cell Content: 		
	Bloodtype	No_of_Bloodtype
▶	B+	19462
	A+	14896
	AB+	10142
	A-	4081
	B-	1226
	AB-	193


## TOP INSURANCE PROVIDERS

```
65 -- Split in Insurance
66 • select InsuranceProvider, count(InsuranceProvider) as Number_of_Insurance
67 from hospitaladmissions
68 group by InsuranceProvider
69 order by Number_of_Insurance desc;
```

<		
Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cell Content: 		
	InsuranceProvider	Number_of_Insurance
▶	Cigna	13628
	Aetna	12442
	United Healthcare	9076
	Blue Cross	7514
	Humana	4772
	Anthem	1876
	Kaiser Permanente	591
	Health Net	92
	Oscar Health	9

## TOP 5 HOSPITAL WITH MOST PATIENTS



```
4 -- Top 5 Hospital by Most Patients
5 • select hospital, count(name) as no_of_patients
6 from hospitaladmissions
7 group by hospital
8 order by no_of_patients desc
9 limit 5;
```

<		
Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cel		
	hospital	no_of_patients
▶	CarePlus Hospital	9330
	City Medical Center	9221
	St. John's Medical	7931
	General Healthcare	6819
	BrightCare Clinic	5952





## TOP 5 MOST CONSULTED DOCTORS

```
71      -- Top 5 Consulting Doctors
72 •    select doctor, count(doctor) as Patients_Consulted
73      from hospitaladmissions
74      group by doctor
75      order by Patients_Consulted desc
76      limit 5;
```

<		
Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cell Content: 		
	doctor	Patients_Consulted
▶	Dr. James Taylor	6073
	Dr. David Wilson	6052
	Dr. Linda Green	5751
	Dr. Sarah Harris	5506
	Dr. Robert Brown	4867

## TOTAL AMOUNT SPENT ON EACH MEDICAL CONDITION




```
55      -- Medication Bill spent on each Medical Condition
56 •    select MedicalCondition, sum(BillingAmount) as Amount_Spent
57      from hospitaladmissions
58      group by MedicalCondition;
```

<		
Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cell Content: 		
	MedicalCondition	Amount_Spent
▶	Asthma	27397370.43
	Obesity	64201262.93
	Cancer	66201916.83
	Diabetes	57363414.93
	Other	25016730.10
	Hypertension	18021590.89
	Arthritis	20789001.25



## TOTAL AND AVG BILL BY EACH HOSPITAL

```
5  -- Bill analysis by hospital
6  •  select hospital,
7      sum(billingamount) as total_billing,
8      avg(billingamount) as average_billing
9      from hospitaladmissions
10     group by hospital
11     order by total_billing desc;
```

<			
Result Grid     Filter Rows: <input type="text"/>   Export:    Wrap Cell			
	hospital	total_billing	average_billing
▶	City Medical Center	51846564.29	5622.661782
	CarePlus Hospital	51675969.73	5538.689146
	St. John's Medical	43997265.90	5547.505472
	General Healthcare	37695145.43	5527.957975
	BrightCare Clinic	33285069.54	5592.249587
	Sons and Miller	21173804.13	5538.531031
	Elite Medical Center	20990377.77	5615.403363
	Sunrise Hospital	11418752.04	5761.227064
	Parkview Health	4680615.89	5778.538136
	Greenfield Hospital	1720519.02	5659.602039

## TOTAL DOCTORS

```
11  -- Total Doctors
12  •  SELECT COUNT(DISTINCT Doctor) AS Total_Doctors
13      FROM HospitalAdmissions;
```

<	
Result Grid     Filter Rows: <input type="text"/>   Export:    Wrap C	
	Total_Doctors
▶	20

## TOTAL HOSPITALS IN RECORD

```
1  -- total hospital in record
2 • use hospitaldata;
3 • select count(distinct hospital) as total_hospital from hospitaladmissions;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	total_hospital			
▶	13			

## TOTAL INSURANCE COMPANIES

```
20  -- Total Insurance Companies
21 • select count(distinct InsuranceProvider) as Total_Insurance_Companies
22  from HospitalAdmissions;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	Total_Insurance_Companies			
▶	9			

## TOTAL MEDICATION BILL

```
16  -- Total Medication Bill
17 • select sum(BillingAmount) as Total_Medication_Bill
18  from HospitalAdmissions;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	Total_Medication_Bill			
▶	278991287.36			

## TOTAL NUMBER OF PATIENTS

```
6
7      -- Total number of Patients
8 •    select count(Name) as Total_Patients
9      from hospitaladmissions;
```



Result Grid



Filter Rows:

Export:

	Total_Patients
▶	50000