Table 2: FDs for the Big Patient Table

|  |
| --- |
| PatNo → PatAge |
| PatZip9 → PatCity |
| VisitNo → VisitDate  PatNo → PatZip9  ProvNo → ProvSpecialty |
| VisitNo → PatNo |
| VisitNo, ProvNo → Diagnosis  ProvNo → ProvEmail  ProvEmail → ProvNo |

ANSWER

FUNCTIONAL DEPENDIES ARE LISTED BELOW

PatNo → PatAge, PatZip

PatZip → PatCity

VisitNo → PatNo, VisitDate

ProvNo→ ProvSpecialty, ProvEmail

ProvNo, VisitNo → Diagnosis

**BCNF TABLES**

**Table 1** (PatNo, PatAge, PatZip)

FOREIGN KEY (PatZip) REFERENCES Table1.1

**Table 1.1** (PatZip, PatCity)

**Table 2** (VisitNo, PatNo, VisitDate)

FOREIGN KEY (PatNo) REFERENCES Table 1

**Table 3** (ProvNo, ProvSpecialty, ProvEmail)

UNIQUE (ProvEmail)

**Table 4**(ProvNo, VisitNo, Diagnosis)

FOREIGN KEY (ProvNo) REFERENCES Table 3

FOREIGN KEY (VisitNo) REFERENCES Table 2