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 |

PatAge and PatZip9 both are dependent on PatNo. Hence, PatNo can be made the superkey,

PatNo, PatAge, PatZip9

PatCity can be determined by PatZip9. Hence, the following relation is possible.

PatZip9, PatCity

VisitNo determines VisitDat and PatNo. Hence, VisitNo can be made the superkey.

VisitNo, VisitDate, PatNo

ProvNo and ProvEmail are unique and so they together can be the superkey in the following relation.

ProvNo, ProvEmail, ProcSpeciality

ProvNo and VisitNo determines Diagnosis of patients and hence they together can be made superkey.

ProvNo, VisitNo, Diagnosis

**Tables:**

Patient (PatNo, PatAge, PatZip9)

FOREIGN KEY (PatZip9) REFERENCES PatientLocation (PatZip9)

PatientLocation (PatZip9, PatCity)

Visit (VisitNo, VisitDate, PatNo)

Provider (ProvNo, ProvEmail, ProcSpeciality)

UNIQUE ProvEmail

PatientDiagnosis (ProvNo, VisitNo, Diagnosis)

FOREIGN KEY (VisitNo) REFERENCES PatientDiagnosis (VisitNo)

FOREIGN KEY (ProvNo) REFERENCES Provider (ProvNo)