Clinical decision support system for patients with chronic diarrhea.

ER model.

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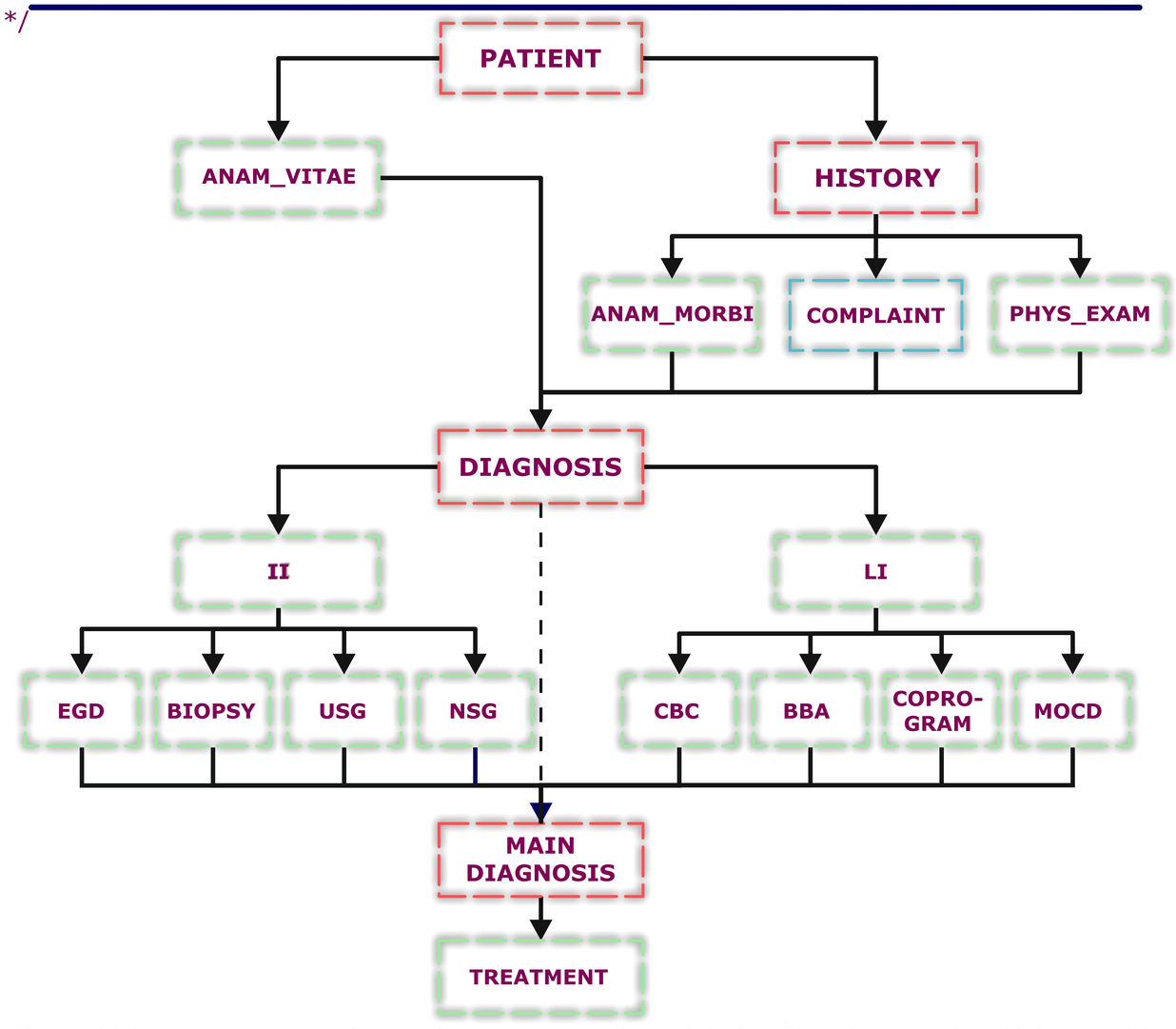
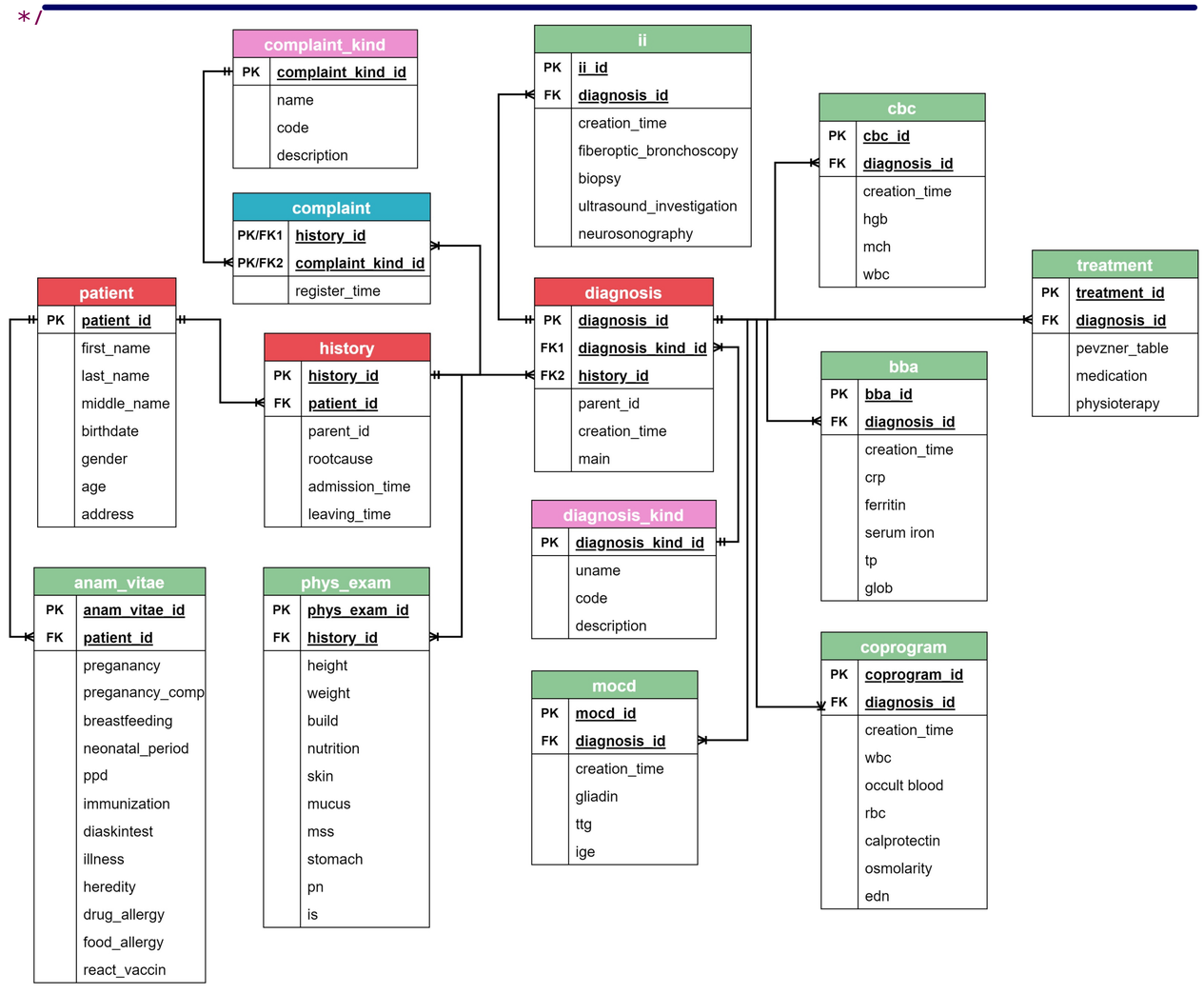
MAIN CONCEPT



DETAILS



This moodel shows a storage system information fragments represented in a tabular form. The pediatrician makes a life history and this information is stored in the **anam_vitae** table. Similarly, the complaints made by the patient are stored in the **complaint** table. Information about the history of this disease is recorded in the **anam_morbi** table. When performing a physical examination, the necessary data is entered in **phys_exam**. Based on the results obtained, the CDSS (using AI tools) offers options for a preliminary **diagnosis**. The pediatrician chooses the most appropriate for the patient's condition. In accordance with the preliminary diagnosis, the necessary laboratory and instrumental studies are offered for its verification. The results obtained are transferred to the corresponding tables: **egd**, **nsg**, **usg**, **cbc**, **bba**, etc. Based on the results obtained, the **main** (clinical) **diagnosis** will be formed, which will be the starting point for the formation of the list of appointments (**treatment**). The diagnosis previously formulated at the early stages of the patient's observation can have a direct impact or be canceled on the basis of newly identified data.

The following notions were used in the implementation of the ER-model:

1. The **core entity** is an atomic, indivisible concept, which is a uniquely identifiable correspondence between a fragment of the subject area and the future design of the storage system. For example, patient, history, diagnosis.
2. An **associative entity** is one that organizes the support of many-to-many relationships between two or more entity instances and has attributes that provide the semantics of representing a particular type of relationship. For example, complaint.
3. **Characteristic entity** - maintaining a one-to-many or one-to-one relationship in most cases to clarify information about some already existing other entity. For example, anam_vitae, anam_morbi, phys_exam, ii, bba, etc.
4. **Denoting entity** - to represent repeated values and control the lack of redundancy in data associated with it through one-to-one or one-to-many relationships of entities of other classes. For example, diagnosis_kind, complaint_kind.