

INTEGRATION OF HEALTH SYSTEMS DATABASE

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Objectives

The objective of the research was to study advanced database concepts, data integration strategies and data quality to propose an integrated model of a health database originally available in several files. The generated model and the respective base created in PostgreSQL allow better understanding of the existing data in the different source files, besides facilitating the execution of different queries to extract information that allow investigating and analyzing patient journeys.

Materials and Methods

The research partnership with Fatec-SP and LNCC made possible to access data from medical care performed over a period of two years in the city of São Paulo, originally stored in different files. These data were studied, treated and integrated into a relational base (Figure 1), facilitating queries using SQL.

Results

The integrated database allowed tracing the journey of pregnant patients with diabetes (Figure 2), allowing to evaluate the patient's interaction with different actors, or the evolution of the disease. The new integrated database allows further analyses on other types of patients or health conditions to be performed.

Conclusions

The present work allowed the identification of the patient journey and obtaining information that can be used to support health management and health research.

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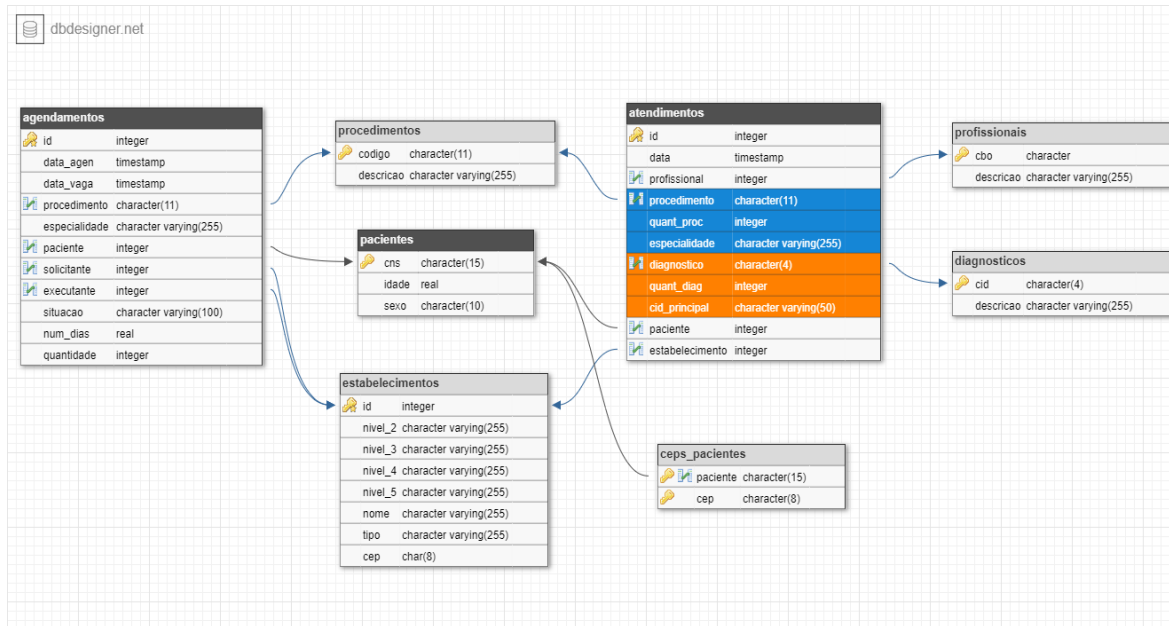


Figure 1: Entity-relationship model

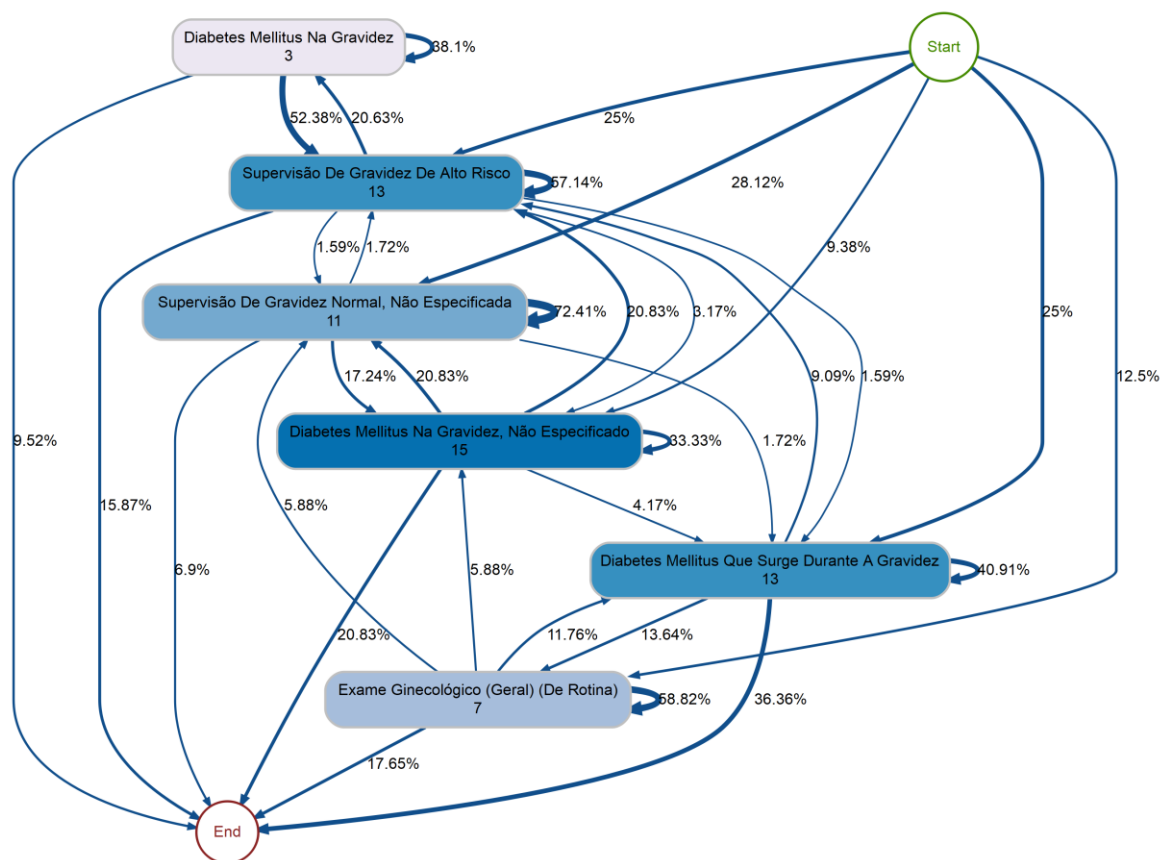


Figure 2: Patient journey: Process map of diagnoses of pregnant patients with diabetes