

Technology solutions advances to automatize the application of TDABC using real-world data

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Context:

-In 2021, a business intelligence platform including costs and PROM measures was created for the ischemic stroke care pathway

(<http://webavc.prologica.pt/>).



- Among the innovative characteristics of the solution is the report of cost results measured by **Time-driven Activity-based Costing (TDABC)**, which has its limitations the challenge to facilitate data collection and analysis processes to allow its scalability.

Motivated by the results achieved with the research, **Prologica advanced in developing a cost assessment solution based on TDABC principles and easily integrated into hospital enterprise systems.**

Method:

Clinicians, data scientists and cost engineers worked on the TDABC solution co-creation and development processes, which involved 6 phases.

Diagnosis of the current cost system in use and data structure.

Identification of the main care pathways and its activities.

Definition of digital integrations that are already available to be done to estimate the resource consumption per activity.

Parametrization of all the activities, and its resource consumption.

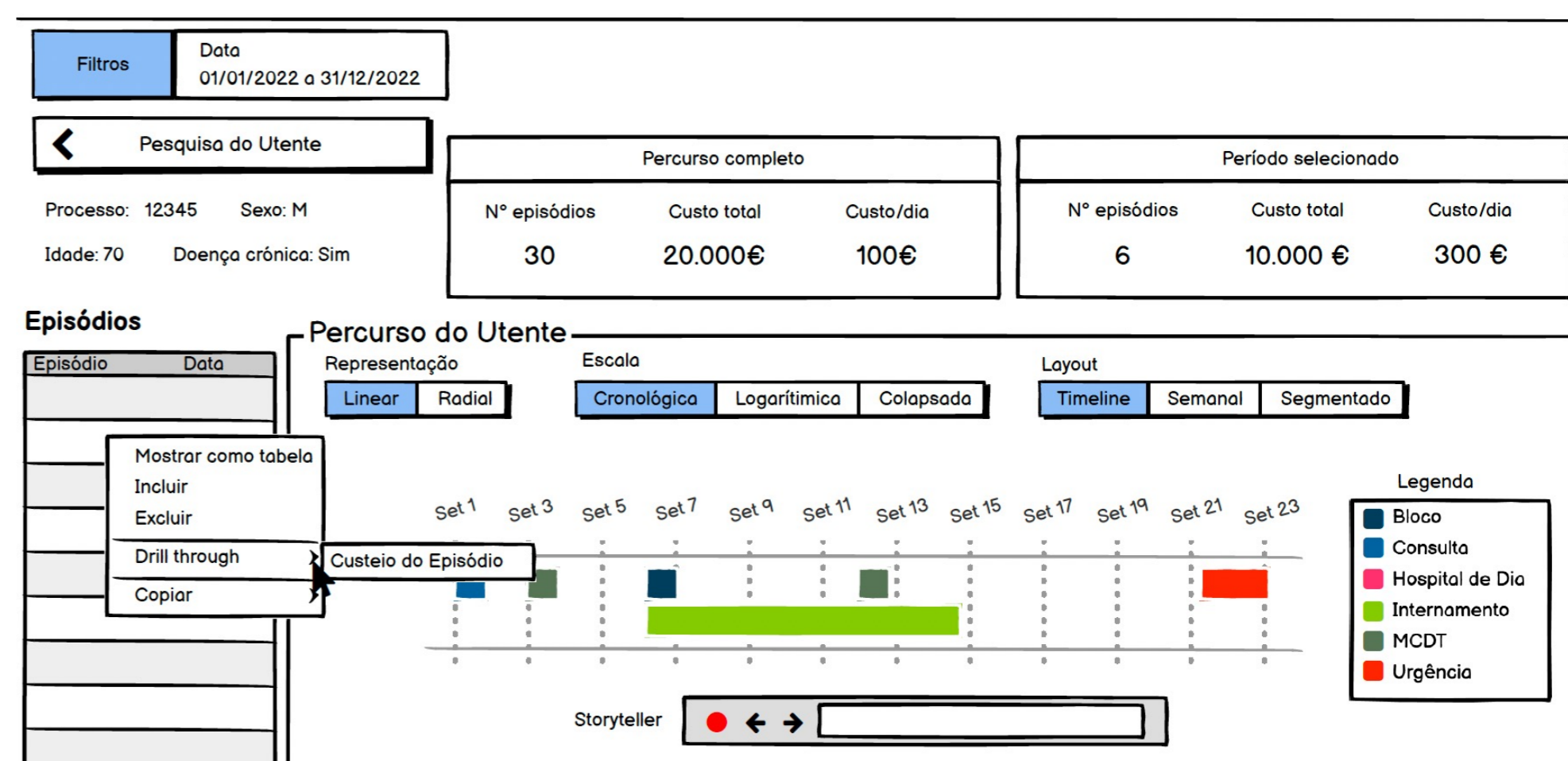
Coding the equations to estimate costs per care pathway and developing computational capacity to run all the equations coded with real-world-data.

Cost calculations and data analytics allowing to evaluate cost consumption in a patient level.

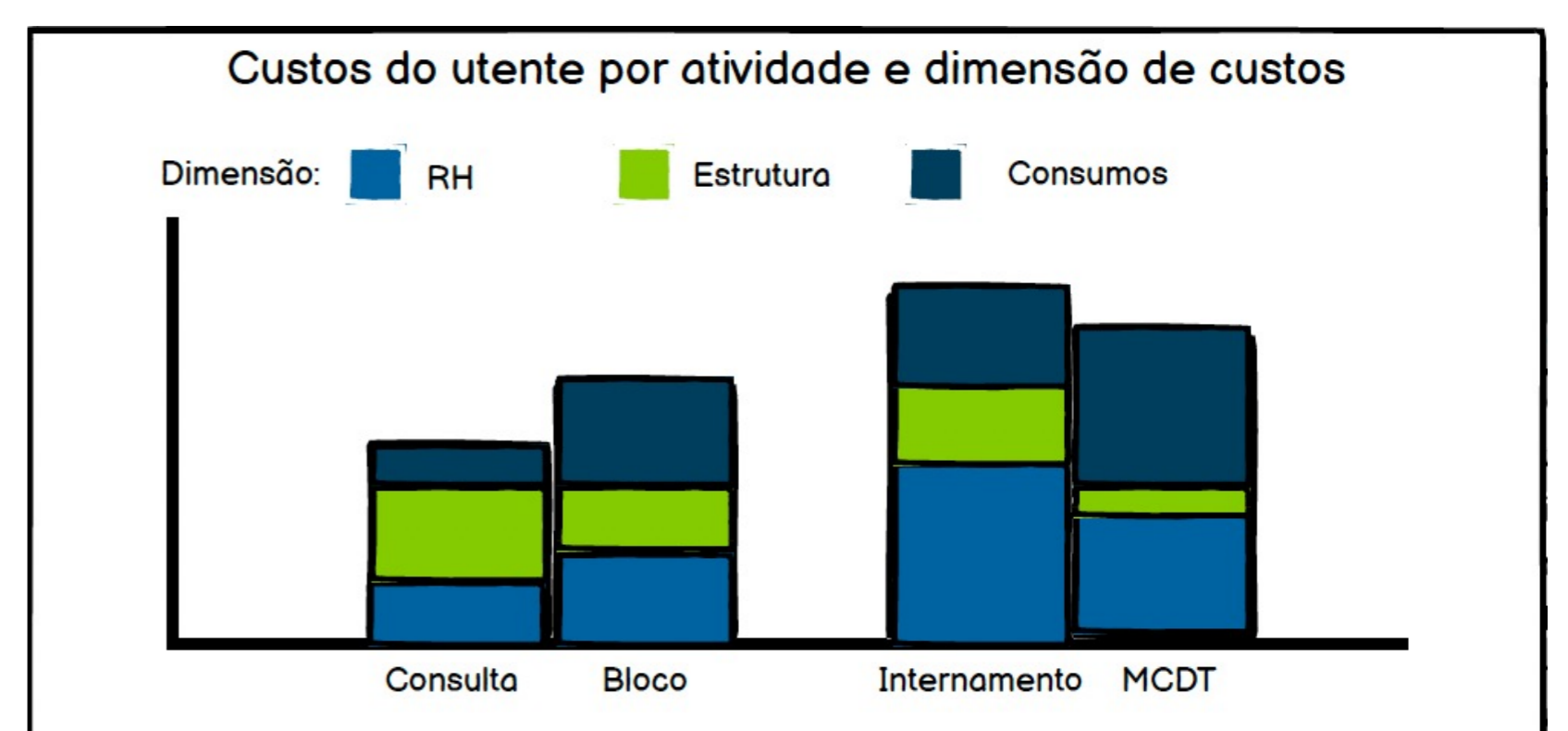
Results:

Using the new digital solution, it is possible to understand the real cost per patient, per pathway based on real-world data.

It allows hospital leaders (clinical and non-clinical) better understand and drill down or benchmark to understand in detail the patient's journeys and costs associated.



Patient-journey is designed based on patient consumption.



Cost composition is automatically updated based on real-world data from patients' consumption into the hospital.

Conclusions:

By introducing this cutting-edge technology solution, it will be feasible to scale agile the implementation of TDABC for multiple clinical conditions and, consequently, to generate more accurate cost information of complete care cycles.