

COVID-19 PeRTICA Analytics

Understand better. Save time. Act soon.



What is COVID-19 PeRTICA Analytics?

COVID-19 PeRTICA Analytics is a quick but long-range application designed for clinical researchers, to be used as a research instrument, for hospital resources optimization and clinical management of COVID-19 patients.

Why PeRTICA?

PeRTICA has a clinical division that accumulates more than 12 years of experience in HealthCare and Life Sciences advanced analytics projects, with multiple experiences in Epidemiology and Respiratory Diseases using the best specialized technologies in statistics applied to clinical research, as the SAS analytics platform.

() PeRTICA is currently involved in several projects focused on Coronavirus for hospitals as well as for other health/medical research institutions. Acting as a hub of learnings, can share each recent insight, analytics models and data visualization best practices, contributing to the most efficient understanding and control of the epidemic.*

Overview

The **COVID-19 PeRTICA Analytics** tool is giving pre-built visualization dashboards on SAS Viya, with data explorations easy to be used by multiple roles of the medical staff, describing the disease profile to manage and optimize hospital resources related to patients affected by the Coronavirus SARS-CoV-2.

It provides a repository optimized for HCIS data standardization that could be enriched with external information to feed and improve both the dashboards the insights accuracy of its predictive models, through SAS Visual Data Mining y Machine Learning, included in the tool to understand the actual root causes for the worst outcomes, even applying computer vision over pulmonary CT images with AI deep learning techniques.

It follows all data security requisites, providing different deployment and access ways as well as patient anonymization techniques to assure all personal data protection compliance.



Benefits & Values

- **Quick wins** strategy through phases that can contribute to the decision-making of clinicians and hospital managers during the evolution of the epidemic:
 - Giving some preliminary reports and insights directly from the clinical data standards (such as I2B2, CDISC...).
 - Providing a successive accuracy improvement in the predictive models, through adding more advanced techniques and the enrichment of new data (patients location behavior and lung images).
- **Automate processes**, lowering cost and increasing speed and efficiency in clinical research, critical given the urgent global demands of information in regards COVID-19.
- **Easy-to-use tool**, less spent time on operational data management activities, and more spent time on exploring, monitoring epidemic evolution data and executing advanced analytics and statistics.
- **Approachable analytics** for different team members, access rights and context-specific privileges, empowering **multiple roles** to knowledge workers in areas such as pre-clinical, clinical operations and medical affairs to drive global collaboration between internal team members, consultants, contractors and partners.
- **Import learnings** from other concurrent COVID-19 PeRTICA projects, applying the most recent insights, analytics models and data visualization best practices (*Agile methodology*).

Key Features

Purpose:

Exploitation of Pneumology data related to COVID-19 for clinical and scientific purposes.

Solution:

Generation of a Dynamic System of Visualization and Analytical Exploration, on SAS Viya, based on the HCIS structured information, allows the clinician to interrelate the situation of the different types of patients with the outcome of the disease.

Outcome:

Better patient management and optimization of hospital resources, based on disease risk factors.

Contact

Juan F. Dorado
covid19@pertica.net
T: +34 91 137 75 57
Pertica.es