



Comorbidities play an important role in hospitalized influenza mortality risk, Real World Evidence (RWE) study performed by Ariana and Sanofi Pasteur shows

Big Data analysis of over 125 Million patient hospitalization records using Ariana's data analytics and AI platform identifies significant factors increasing Case Fatality Rates

Paris and Boston, November 7th 2019. Ariana Pharma, a leading digital health Company announced the publication of an influenza Real World analysis in collaboration with Sanofi-Pasteur. Influenza-related mortality for hospitalized patients with and without comorbidities in Brazil and Mexico were analyzed using Ariana's RWE data analytics and presented at the Options X for the Control of Influenza international conference September 2019 – Singapore. <https://2019.isirv.org> - poster([link](#))

The study constructed a consolidated and curated database of 125 Million hospitalizations during the 2010-2018 period and demonstrated that comorbidities play an important role in hospitalized influenza mortality risk.

When comparing patients without and with comorbidities in Brazil, Case fatality rates (CFR) increased 2-fold (from 0.3% to 0.6%) for 0-5 years patients and 2-fold from 11.6% to 23.2% for 65+ years patients. In Mexico, CFRs increased 8.8-fold (from 0.5% to 4.4%) for 0-5 years patients and 1.13-fold (from 18.9% to 21.4%) for 65+ years patients.

Other outcomes such as length of hospital stay and intensive care unit admissions are also important outcomes to characterize the impact of comorbidities on the severity of influenza disease.

Additional machine learning analyses will be developed to support understanding of this association.

The studies were developed in collaboration with Sanofi Pasteur, scientific contributor and study sponsor with service provision of database construction and consolidation, data mining and statistical analysis performed by Ariana.

Ariana RWE platform has access to over 155 million anonymized patient hospitalization episodes which cover a very broad range of therapeutic areas, enabling advanced data analytics services to evaluate the impact of diseases, epidemics, or external events on hospitalization outcomes over a wide range of spatiotemporal granularities.

Influenza-related mortality for hospitalized patients with and without comorbidities in Brazil and Mexico

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About Ariana Pharma

Ariana Pharma is a leading digital health Company focused on developing advanced therapeutic decision support systems. Ariana helps its clients to introduce personalized medicine clinical trial design into their protocols and identify best clinical endpoints and best responders.

We routinely collect and combine clinical data with omic data, immunological readouts (FACS), microbiota as well as questionnaires.

Our experts have extensive experience in clinical trial design and complex data analytics, modeling and simulation. Combining our data analytics with our regulatory expertise, we help translate our findings into innovative clinical plans. We have a track record of fast-tracking Oncology, neurodegenerative and metabolic disease clinical trials into the Precision Medicine realm. With a growing number of successful therapeutic development applications, KEM® is the only FDA-reviewed technology that systematically explores combinations of biomarkers, producing more effective biomarker signatures for precision medicine. Ariana has developed Onco KEM®, the most advanced, clinically tested, oncology treatment selection system. Founded in 2003 as a spin-off of the Institut Pasteur, Paris, France, the company opened a subsidiary in the United States in 2012. Further information is available at www.arianapharma.com.

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