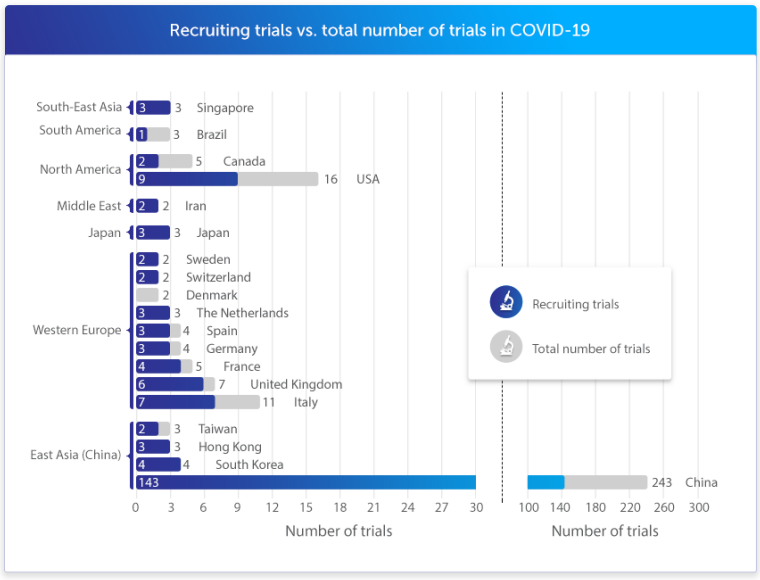
Clinical Data Analysis on the Novel Coronavirus (COVID-19)

Analysis performed by Anju Software via ta-Scan

TEMPE, AZ, UNITED STATES, April 7, 2020 /EINPresswire.com/ -- Currently, over a third of the world's population is under lockdown due to a novel coronavirus (COVID-19). The virus, causing respiratory and flu-like symptoms, emerged in late 2019 in the Chinese city of Wuhan. The disease is already considered a pandemic due to the rapid spread across six continents. In response, researchers are focusing on finding a cure for COVID-19 as evidenced by the number of clinical trials initiated since the start of this year.



Active Clinical Trials - click pic to enlarge

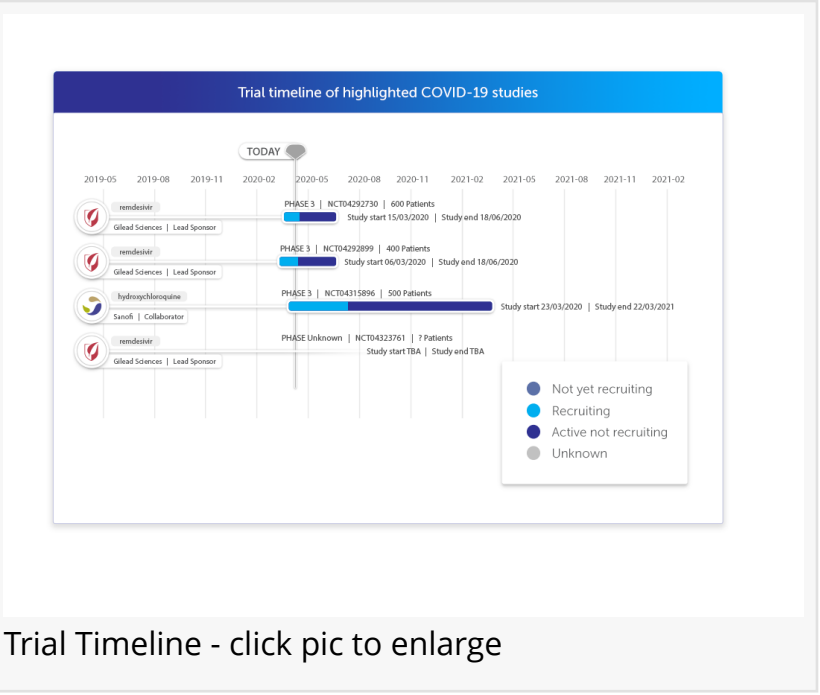
Global Distribution Map - click pic to enlarge

This report is based on the public data already available for these trials. The data was analyzed in Anju Software's ta-Scan to identify promising compounds and track the overall progress toward developing an effective treatment of the virus. ta-Scan is a clinical business intelligence software platform that semantically links, analyzes, and visualizes clinically relevant public domain data using dashboards, graphs and maps. During this global health crisis, real-time data resources are essential to contextualize information and make informed decisions.

Active Clinical
As expected, the majority of ongoing trials are in China (the country of origin), primarily conducted by academic hospitals and medical centers. After China, as shown in the below figure, dedicated COVID-19 research sites can mainly be found in the United States and Italy, the two countries hardest hit by this pandemic in terms of total confirmed cases (Source 1).

Global Distribution
While global governments and healthcare officials work tirelessly to control the spread of the

virus, an endeavor proving to be very challenging, pharma companies and academic researchers worldwide are mobilizing to identify a viable vaccine or effective treatment for COVID-19 to tackle the global pandemic. In addition to the large number of academically sponsored trials currently being conducted, the volume of studies sponsored by pharmaceutical companies is also growing rapidly. Roche S.A., Biovitrum AB, Pulmotect, Inc., and Ansun Biopharma, Inc. are among those companies with trials starting in April. With over 300 clinical trials investigating prophylactic measures as well as treatment options for patients already infected with COVID-19, the likelihood of finding an effective therapy in the near future is promising.



Trial Timeline - click pic to enlarge

Possible Treatments

An analysis of the available public data shows that over 100 different treatments are being evaluated globally. Owing to the novel nature of COVID-19, finding an effective treatment for this virus is a challenge. Several registered drugs are gaining interest as they already have proven efficacy in treating viral infections. Among them are ritonavir and lopimune, which primarily have been used to treat HIV. More recently, chloroquine and hydroxychloroquine, two mid-20th century antimalaria treatments, garnered renewed interest when the FDA issued an emergency authorization allowing these medications to be prescribed for the treatment of seriously ill COVID-19 patients. Historically, these therapies have shown an inhibitory effect on virus-cell fusion by changing the acidity at the surface of a cell, preventing a virus from infecting it (Source 2). Clinical benefit can already be achieved at previously approved doses, making these drugs an interesting candidate to treat COVID-19.

A double-blind, randomized study (NCT04315896, in collaboration with Sanofi S.A.) was launched on March 23 to investigate the security and efficacy of a 400 mg per day dose of hydroxychloroquine for a period of 10 days. The mortality rate in approximately 500 infected patients will be investigated during the course of this trial. Sanofi also initiated a triple-blind phase III trial (NCT04318015) targeting healthcare personnel exposed to infected patients. This study aims to prove the efficacy of longer exposure to a reduced dose of this drug (200 mg per day, for 60 days) on an estimated group of 400 participants (Source 3).

Among the investigational drugs, remdesivir has also gained recent attention. Three clinical trials (NCT04323761, NCT04292730, and NCT04292899) sponsored by Gilead Sciences, Inc. are evaluating the safety and antiviral activity of this intervention on SARS-CoV-2, the virus responsible for COVID-19 (Source 4). Remdesivir was originally developed for viral infections such as Ebola and Marburg, and has subsequently been found in pre-clinical studies to show promising antiviral activity against other members of the coronavirus family: MERS and SARS (Source 5&6). Moreover, a case study published in January reported improvement in clinical conditions after an infected patient was treated with intravenous remdesivir (Source 7). Several trials with sites in the UK, Europe, East Asia, and Japan focus on the efficacy of this drug in patients with and without severe symptoms.

Stay Safe and Informed

As the COVID-19 research landscape is evolving rapidly, weekly updates of the publicly available

data will be available in ta-Scan to enable close tracking of the most recent developments. Throughout the ongoing COVID-19 pandemic, Anju Software continues to follow the guidance and best practices established by the World Health Organization and Centers for Disease Control to ensure the safety and well-being of our employees. Additionally, we recognize that our customers have an enormous responsibility to patients and staff to minimize risk, mitigate impact, maintain productivity, and promote business continuity within their clinical trial and investigator site operations. We remain committed to providing our customers with the tools and expertise necessary to ensure the continued success of your business objectives. But most importantly, we hope you and your relatives stay safe during these difficult times.

If you are interested in getting updates on Anju's COVID-19 Analysis, please email us below to be included in future correspondence.

Sources

1 Source: https://doi.org/10.1016/S1473-3099(20)30120-1
2 Source: https://doi.org/10.1016/j.ijantimicag.2020.105938
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4 Source: https://clinicaltrials.gov
5 Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5567817/
6 Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5338263/
7 Source: https://www.nejm.org/doi/10.1056/NEJMoa2001191

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