Statistical Analysis Plan for Clinical Study Report

Treatment of Covid-19 With a Herbal Compound, Xagrotin

NCT05017493

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Study Type: **Interventional**

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Board Approval Number: **118/KRGJUL/CH/ADM/ 09**

Board Name: **Institutional Ethical Committee**

Board Affiliation: **Directorate of health of Sulaimani, Iraq -KRG**

Study start Date:	July 1, 2020	[Actual]
Primary Completion Date:	December 7, 2020	[Actual]
Study Completion Date:	February 8, 2021	[Actual]

Sponsor: Biomad AS

Responsible Party: Sponsor

Collaborators: Directorate of health of Sulaimani, Iraq -KRG

Sample size calculation

The aim of this clinical trial was to evaluate the short-term effects of Xagrotin in improving Covid-19 symptoms in patients as well as reducing mortality in Covid-19 patients.

Out of the 11000 eligible patients, we selected 539 patients. The 539 patients were divided into two groups. The sample size is calculated by following formula:

Parameter	Value
Study population	10000
Confidence interval 95 % (Z)	1.96
Margin of Error (e)	0.05
Uncertainty sample ratio (P)	0.5
Sample ratio	0.05

Sample size: $N \times \frac{\frac{Z^2 \times p \times (1-p)}{e^2}}{[N-1+\frac{Z^2 \times p \times (1-P)}{e^2}}$

= (10000 × (1.96^2) × 0.5 × (1-0.5)/ (10000 – 1) + (1.96^2) × 0.5 × (1- 0.5) / (0.05^2)

Sample size= 370

To confirm the sufficient sample size of the study, we compared the results of the two groups. Comparison of the results of the two study groups showed that the statistical difference between the two groups was significant (< 0.001). The Pocock boundary and the O'Brien-Fleming boundary consider P-value= 0.02 as strength of evidence to stop a trial for benefit. However, the Haybittle-Peto boundary has shown that if data has a statistical difference at the level of P <0.001, it can be considered as evidence for stopping an early trial for benefit. Most of the results of our study had a P-value <0.001 that allowed us to stop sampling. On the other hand, our results showed a major therapeutic advancement. Given the high mortality rate of Covid-19 in the world, we ethically needed to stop random sampling in current clinical trial study and publish the results as soon as possible.

During the onset of Covid-19 pandemic, the Xagrotin drug has been synthesized and made available continuedly to the indigenous people. Since the initial statistical outcomes showed the

satisfactory results; we have not stopped collecting new data. The new collected data and analysis confirms the previous results.

Randomization and blinding

Among over 11000 eligible Covid-19 patients who had taken Xagrotin for their Covid-19 infections, we randomly selected 361 patients to be included in the study group where 178 eligible Covid-19 patients were randomly recruited to the control group.

Populations and subgroups to be analyzed

-Populations

All randomized study subjects will be included in an “intention to treat” analysis. This will be seen as the primary population for the analysis.

-Analysis

This analysis evaluates the efficiency and safety of Xagrotin, a herbal combination drug, in treatment of patients with covid-19 compared to routine drugs used for coronavirus in hospitals. Statistical analysis was carried out by Statistical Package for the Social Sciences (SPSS, V.23). At first, the Kolmogorov–Smirnov test was used to analyze the distribution normality of data. Data with normal distribution were shown as mean ± SD. An Independent t-test was used to perform mean comparisons for normally distributed data. Mann-Whitney and Kruskal-Wallis tests were used for the analysis of non-normal data. Correlations between variables were measured using Pearson correlation and Spearman rank correlation tests for normal and non-normal data, respectively, with a 95% confidence interval. Regression analysis was used to evaluate the effect of Xagrotin on the risk of mortality and hospitalization in Covid-19 patients.