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**"STUDY OF CLINICAL PROFILE AND ITS CORRELATION  
WITH PLATELET INDICES IN PATIENTS INFECTED  
WITH SARS-COV2: A ONE-YEAR CROSS SECTIONAL  
STUDY DONE IN KLES DR. PRABHAKAR KORE  
HOSPITAL AND MEDICAL RESEARCH CENTRE.  
BELAGAVI."**

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**BY  
REG NO: BG0120008**

# **Dissertation**

*Submitted to  
KAHER, Belagavi, Karnataka,  
In partial fulfilment of the requirements for the degree of*

**M.D.  
IN  
GENERAL MEDICINE**

**JAWAHARLAL NEHRU MEDICAL COLLEGE, KAHER,  
BELAGAVI – 590010 KARNATAKA.**

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**JUNE/JULY 2023**

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With reference to the above, we wish to inform you that your proposed research project titled "STUDY OF CLINICAL PROFILE AND ITS CORRELATION WITH PLATELET INDICES IN PATIENTS INFECTED WITH SARS-CoV2 : A ONE YEAR CROSS SECTIONAL STUDY DONE IN KLES DR. PRABHAKAR KORE HOSPITAL AND MEDICAL RESEARCH CENTRE. BELAGAVI.", is ethical and justifiable. The proposed research project has been cleared by the JNMC Institutional Ethics Committee on Human Subjects Research.

  
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## ABSTRACT

**Background:** Platelets have their involvement in both; the processes of haemostasis and coagulation. Apart from these, they play a significantly important role in the process of inflammatory response and the innate immunity of the human body. Excess production of acute phase reactants and the cytokines directly affects megakaryopoiesis. As a direct result of these cytokines, immature platelets are released from the “bone marrow”, which in turn leads to an alteration in the platelet indices. The aim of this study is to assess the clinical profile of patients suffering from the novel COVID 19 infection and its relationship with Platelet indices and its various prognostic implications.

**Materials & Methods:** This hospital based cross-sectional study was conducted among the patients admitted in the COVID 19 dedicated wards of KLES Dr PRABHAKAR KORE HOSPITAL, BELGAUM and patients fulfilling the inclusion criteria of the study were included. Assessment of the blood biomarkers, complete blood picture, platelet indices as well as clinical parameters was done and was correlated with COVID-19 infection severity and outcome among the patients.

**Results:** In present study, the mean age of patients was found to be  $57.35 \pm 16.59$  years with 84% were male patients and 16% were female patients with male preponderance. Out of all the platelet indices assessed, Mean Platelet Volume (MPV) and Platelet Large Cell Ratio (PLCR) had significant effect on the mortality with odds of death increasing by 1.43 and 1.06 respectively with a unit increase in each. Additionally, Platelet count, MPV and PLCR had significantly higher discriminant power as compared to other platelet indices in predicting the mortality among COVID 19 patients.

**Conclusion:** The present study documented that amongst all the platelet indices, MPV and PLCR had significant association with mortality of the patient infected with COVID 19 pneumonia.

**Keyword:** COVID-19, Mortality, Survived, Platelet, Platelet Indices, MPV.

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## ABBREVIATIONS

ACE-2	ANGIOTENSIN-CONVERTING ENZYME 2 RECEPTOR
AUC	AREA UNDER CURVE
CFR	CASE FATALITY RATE
DIC	DISSEMINATED INTRAVASCULAR COAGULATION
HFO	HIGH FLOW OXYGENATION
HIF	HYPOXIA INDUCIBLE FACTOR
ICU	INTENSIVE CARE UNIT
INR	INTERNATIONAL NORMALISED RATIO
IL	INTERLEUKIN
LDH	LACTATE DEHYDROGENASE
MERS	MIDDLE EAST RESPIRATORY SYNDROME
NIV	NON-INVASIVE VENTILATION
NRBM	NON-RE- BREATHER MASK
PLCR	PLATELET LARGE CELL RATIO
PLCC	PLATELET LARGE CELL COUNT
PDW	PLATELET DISTRIBUTION WIDTH
RAT	RAPID ANTIGEN TEST

RBS	RANDOM BLOOD SUGAR
RNA	RIBONUCLEIC ACID
RR	RESPIRATORY RATE
RTPCR	REVERSE TRANSCRIPTION POLYMERASE CHAIN REACTION
SARS	SEVERE ACUTE RESPIRATORY SYNDROME
SGOT	SERUM GLUTAMIC OXALOACETIC TRANSASMINASE
SGPT	SERUM GLUTAMIC PYRUVIC TRANSAMINASE
Sp02	OXYGEN SATURATION
MPV	MEAN PLATELET VOLUME
TMPRS	TRANSMEMBRANE PROTEASE SERINE
UTR	UNTRANSLATED REGION
WHO	WORLD HEALTH ORGANISATION

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## INTRODUCTION

Covid-19 is an infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). It was first identified in December 2019 in Wuhan, China. Common symptoms include fever, cough, headache, breathing difficulties and fatigue.<sup>1</sup> While most patients have mild symptoms, some may develop Kawasaki like disease, multi organ failure, septic shock, **Acute Respiratory Distress Syndrome** (ARDS) and also the **Cytokine Storm Syndrome**. The incubation period may range from 1 to 14 days.<sup>2,3</sup>

Severe acute respiratory syndrome coronavirus 2, coronavirus disease 2019 (COVID-19)-induced infection can be associated with coagulopathy and findings consistent with infection-induced inflammatory changes as observed in patients with **Disseminated Intravascular Coagulopathy** (DIC).<sup>4</sup>

Thrombocytopenia is very common among the patients who are critically ill. Low platelet count occasionally suggests serious physiologic decompensation and organ dysfunction as opposed to primary haematologic aetiology. It may also indicate the evolution of intravascular coagulopathy, often progressing towards Disseminated Intravascular Coagulation.<sup>5</sup>

It has also been observed that low platelet count can also be associated with three times the overall risk of having severe COVID-19 infection.<sup>6</sup>

There is an increased need of biomarkers which can help identify severe disease in the patients who are hospitalized with COVID 19 and prognosticate them.

Thus, it is imperative to find a relationship between the severity of the COVID 19 infection as well the clinical outcome with the platelet count.

This study can inquire into the hypothesis that whether platelet count has the potential to categorize the patients suffering from COVID 19 pneumonia in having severe or non-severe illness. In addition to that, it can evaluate if it is associated with severe COVID-19. This study will also help evaluate the relationship of severity of COVID 19 pneumonia with other platelet indices such as the mean platelet volume.

## **OBJECTIVES**

To assess the clinical profile of patients suffering from the novel COVID 19 infection and its relationship with Platelet indices and its prognostic implications.

## **REVIEW OF LITERATURE**

Coronaviruses have emerged as major diseases in both human beings and other animals.<sup>7</sup> Towards the end of 2019, a cluster of cases of pneumonia were discovered in Wuhan, Hubei province, China. This pneumonia was caused by a novelty Corona Virus. It rapidly spread, causing an epidemic in China and a growing number of cases in almost all the nations all across the world.<sup>8</sup> The World Health Organization (WHO) classified the disease COVID-19, which stands for coronavirus disease 2019, in February 2020. The virus that causes COVID-19 pneumonia is known as “**Severe Acute Respiratory Syndrome Coronavirus 2**” (SARS-CoV-2); it was formerly known as 2019-nCoV. On 11<sup>th</sup> March, 2020 the **COVID 19** was proclaimed as a **global pandemic** by the WHO.<sup>9</sup>

## **EPIDEMIOLOGY**

The first case of COVID 19 pneumonia was reported on December 31, 2019 in Wuhan. Following this, it quickly spread to different parts of China. It rapidly spread to the different parts of the world, affecting more than 185 countries as of April 23, 2020, resulting in the current global pandemic. COVID-19 was labelled as a **Public Health Emergency of International Concern** by the World Health Organization (WHO) on 30th January 2020. Following which, it was recognized as a pandemic on 11<sup>th</sup> March, 2020.

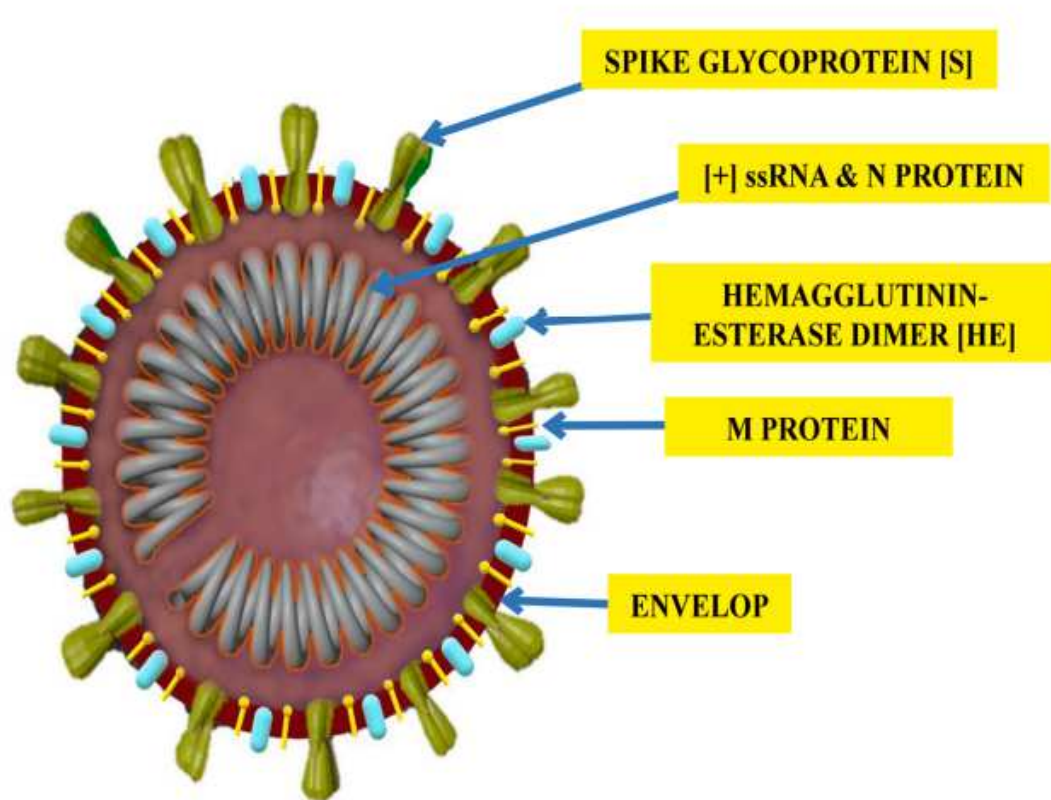
The SARS-CoV-2 basic reproduction number (R0) is predicted to lie anywhere between 1.9 to 3.4. This suggests its extremely contagious nature very strongly. The R0 may even be greater in public meeting venues such as business congregations, academic centres, political buildings, cruise ships and hospitals that do not comply with, or follow personal protective measures. The serial interval of the

SARS-CoV-2 is around 8 days, the incubation period being around 5 to 6 days, which can be considered to be comparable to “SARS CoV” and “MERS CoV”.<sup>1</sup> In the initial stages of the COVID-19 pneumonia pandemic, the **case-fatality rate** (CFR) was predicted to lie anywhere between 0.90 % to 3.0 %, which was lower than that of previous “HCoVs” SARS CoV (6% to 17 %) and “MERS CoV” (20% to 40%). However, by 24<sup>th</sup> May 2020, many countries faced an exponential increment in the CFR.

In contrast to SARS CoV, a sizable fraction of SARS CoV-2 infected individuals are asymptomatic or pauci-symptomatic, enabling them to elude detection and develop into potential carriers.<sup>10</sup> It is crucial to emphasise that not everyone who has a close relationship with another person contracts the disease, suggesting that each person's genetic predisposition plays a significant role.<sup>11,12</sup> In most cases, the upper aerodigestive tract is where the virus enters humans. It has recently been shown that SARS CoV-2 may even be found in the patient's faeces, suggesting that the virus may spread face-orally.<sup>13,14</sup>

Infection with SARS CoV-2 in women who are pregnant increases the risk of vertical transmission. Vertical transmission was ruled unlikely, however, due to negative virus testing on swabs recovered from the cord blood, amniotic fluid, neonate pharynx, and the breast milk of six women who were infected with virus.<sup>15</sup> According to one hypothesis, the virus can be transmitted across a long distance via the airborne route through droplets from an infected person. Such transmission depends on the ventilation of the said area and the flow dynamics of the virus.<sup>16</sup> Furthermore, mapping techniques like as cartograms can be used to depict the dissemination and expansion of COVID 19.<sup>17</sup> Understanding various pathways of

transmission of SARS-CoV-2 will pave way for the usage of appropriate containment measures.



**Figure 1: COVID-19 virus structure<sup>1</sup>**

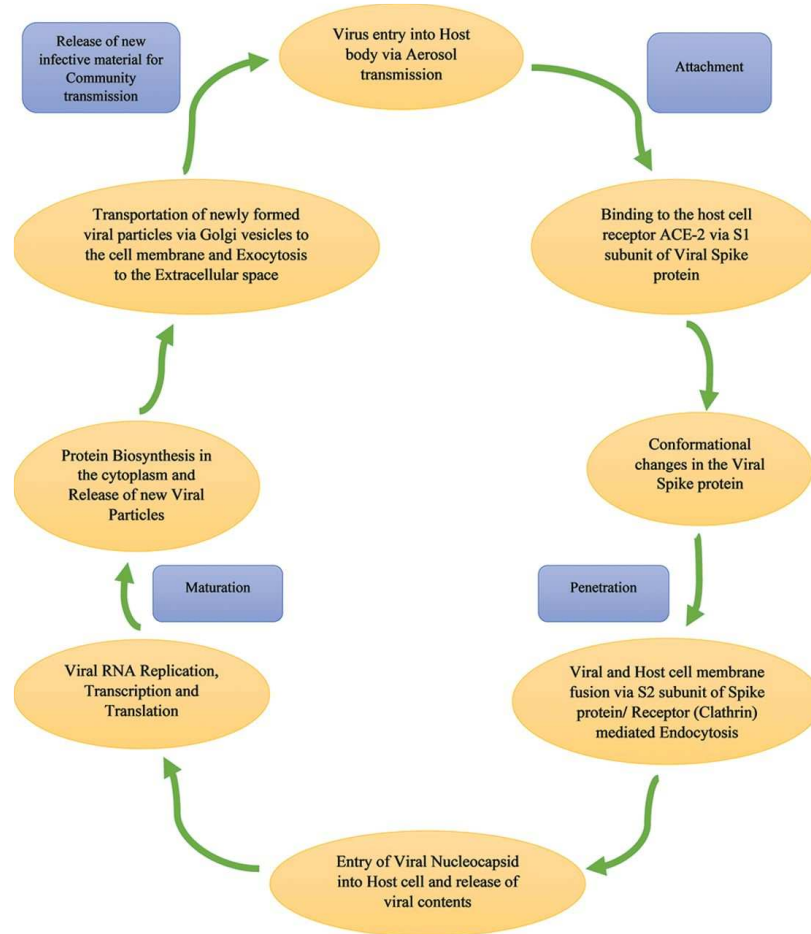
All age groups are susceptible to SARS-CoV-2 infection, however children are less likely to develop the illness and die from it.<sup>18</sup> Due to higher plasma ACE2 levels in women than in men, they often have less influence as they age.<sup>19</sup> The older population, in particular, with comorbidities such as stroke, hypertension, diabetes and long standing disorders of the heart, lungs or the kidneys, is especially very prone to severe infections due to insufficient body immunity against the infection along with the underlying age related break down of the organ system.<sup>20,21</sup> Individuals belonging to non-O blood groups are lacking the protective effects of the anti-A IgM antibodies. Notably, individuals with blood group A had an increase in both death and infection

rates due to COVID-19 according to a study conducted recently. Various uncertainties still remain in the epidemiology of SARS-CoV-2, particularly the ones pertaining to the various different interactions between the virus and the host, which also includes the host vulnerability and epidemic evolution.<sup>22,23</sup>

The corona viruses (CoVs) have been compartmentalized into two groups, namely “ $\alpha$ ” and “ $\beta$ ” (observed in mammals which also includes human beings); “ $\gamma$ ” and “ $\delta$ ” (observed in the various species of birds). Their name is derived from the Latin word **CORONAM**. This is due to the fact that these viruses very closely resemble crown at the electron microscopic level. This resemblance is because of spike proteins which are present on their envelopes. They have the capability of causing hepatic, central nervous system, gastrointestinal and most essentially respiratory infections in bird and mammal species including human beings.

In general, various estimates imply that roughly 2% of the human population is a healthy and asymptomatic carrier of corona viruses, and that these viruses cause about 5%–10% of acute infections involving the respiratory tract. According to one hypothesis, these viral organisms undergo rapid recombination as well mutation when they are passed on to humans, via an intermediate amplifying host, from their natural hosts. This results in the emergence of novel corona virus species that are comparatively more virulent and cause a diseased state in the human beings. In the recent few decades, novel CoVs have produced Middle East Respiratory Syndrome (MERS- MERS CoV) in Saudi Arabia in the year 2012 and severe acute respiratory syndrome (SARS- SARS CoV) in China in the years 2002 and 2003, culminating in global pandemics with pulmonary as well as extra pulmonary symptoms. While coinfections with other respiratory viral infections are the most common way that

CoVs affect children, they can also be the only pathogenic organism infecting children with other chronic conditions. As a result, CoVs have emerged as significant pathogens in rising respiratory illness outbreaks.



**Figure 2: Life cycle of the Corona virus<sup>24</sup>**

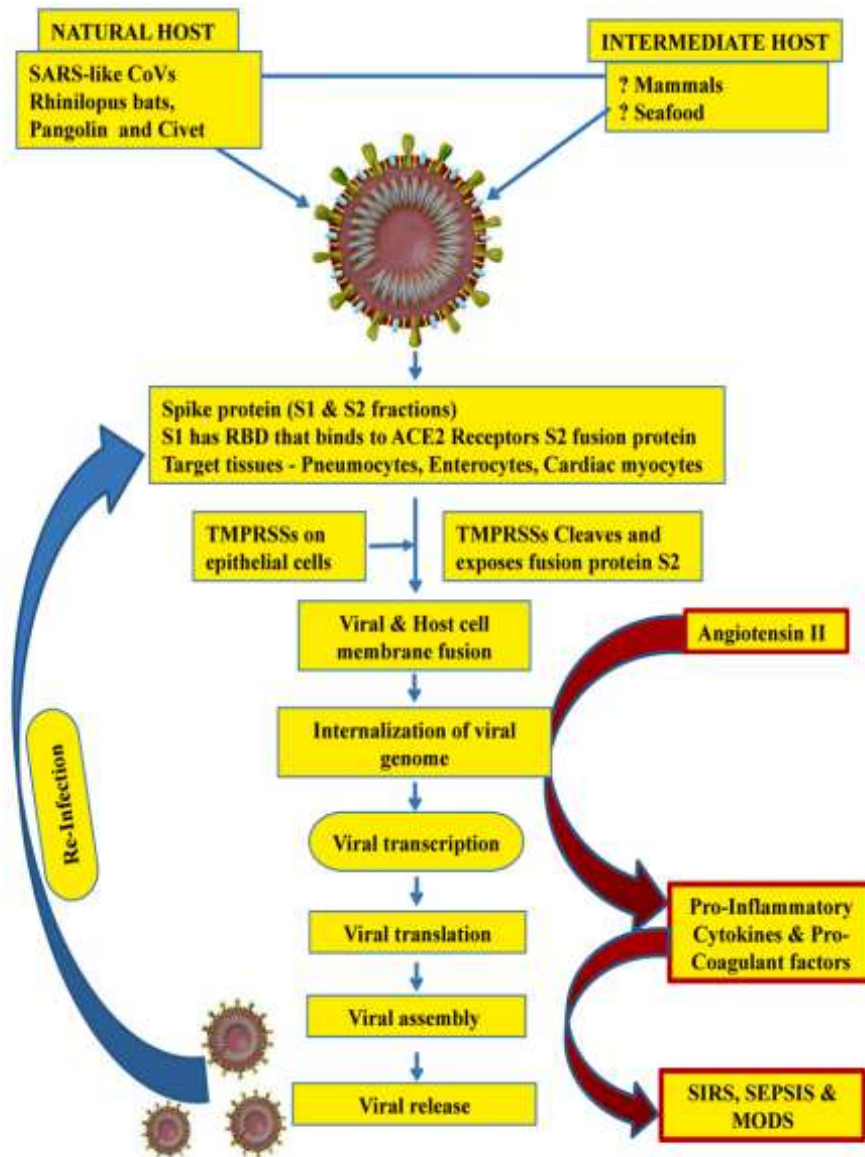
## **PATHOGENESIS**

SARS CoV-2 has many similarities in its structure with SARS CoV. SARS CoV-2 has an entity called as the **densely glycosylated spike protein (S)** S1 fraction along with a **receptor binding domain (RBD)**. These spike proteins bind to the **Angiotensin Converting Receptor 2 (ACE-2R)** with an affinity which is 10 to 20 times more than that of the one with SARS CoV and infect the human cell.<sup>25</sup>

ACE-2 R is found primarily in alveolar epithelial cells of the human lungs (type II greater than type I).<sup>26-28</sup> Endothelial cells, cardiac myocytes and gastrointestinal (both intestinal and oesophageal) epithelium, ACE-2 R.<sup>29</sup> After the virus binds to ACE-2 R, the SARS CoV 2 uses its distinctively polybasic S1/S2 protease cleavage site with SPRR insertion on the spike protein. The **Transmembrane Protease Serine (TMPRSSs)** expressed on the host cells identifies and degrades the binding site in order to disclose the fusion protein (S2 fraction) This enables the fusion of the virus with the host cell membrane. In type II pneumocytes of the lung alveoli, absorptive enterocytes, and the upper oesophageal epithelium, ACE-2 R and TMPRSSs are comparatively considerably co-expressed, according to a number of observations. This suggests that in addition to the alveolar epithelium, the intestine and oesophageal epithelium are additional entry sites for SARS CoV-2.<sup>1</sup>

As a result, potential SARS CoV-2 target tissues should express both TMPRSSs and ACE-2 R together. This membrane fusion allows viral RNA to be internalized into the host cell cytoplasm, where it is replicated and translated to generate new viral proteins. Before the virions are discharged from the cells which are infected, there comes a stage of viral assembly. This stage consists of the binding of **Nucleocapsid Protein (N)** with RNA molecules. These are then covered by

membrane proteins and an envelope to produce complete virions. These new virions possess the capability of infecting new cells.<sup>1</sup>



**Figure 3: Pathogenesis of COVID-19 infection<sup>1</sup>**

Type II pneumocytes, which are responsible for tissue healing as well as surfactant biosynthesis, are destroyed as a result of SARS CoV 2 infection, resulting in increased surface tension which in turn leads to development of dyspnoea. The immunological balance function of the alveoli is considerably impaired by the type II pneumocytes which are damaged by the virus. The excess synthesis and release of cytokines by the activated inflammatory cells as a result of the accumulation of angiotensin II leads to the improper induction of a number of local as well as systemic inflammatory responses. This phenomenon is known as the **Cytokine Storm**.<sup>1</sup>

### **TRANSMISSION**

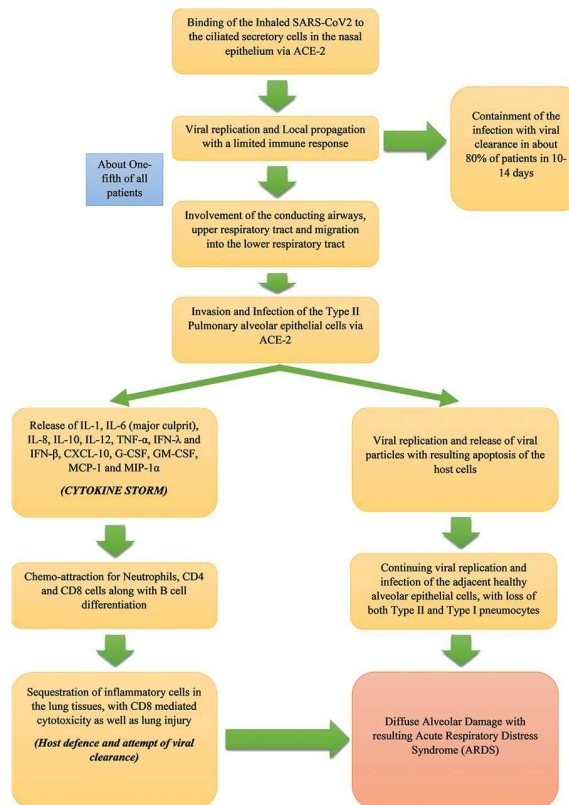
Before the emergence of variations, the secondary attack rate ranged from 4 to 57 % in observational studies of household transmission.<sup>30-35</sup> The secondary attack rate among adults who came into touch with infected people was 30%, according to a meta-analysis of 87 research on COVID 19 transmission in common households that involved 12,49,163 household links from different countries. Secondary attack rate was high as 90% in adults according to a study which was conducted during the dominant circulation of **Alpha (B.1.1.7 Lineage)** variant. This particular above mentioned study comprised of familial clusters.<sup>36,37</sup>

A case-control study found that SARS CoV 2 infection in adults and children was associated with close contact with COVID 19-infected individuals (typically a member of the same household), participation in social events with people from outside the home (for example, social activities and functions with other infected family members), and receiving visitors.<sup>38</sup>

There have also been reports of health care associated epidemics and cases of potential transmission from school employees or teachers to kids and among students

in the school context.<sup>39–42</sup> Irregular usage of masks at school was found to be associated with SARS CoV 2 infection, but not with attendance at school, according to a case control investigation.<sup>38</sup>

Although not much is known about SARS CoV 2 transmission by a truly asymptomatic (in contrast to pre-symptomatic) transmission with confirmed asymptomatic SARS-CoV-2 to the contacts of the household.<sup>43</sup> Furthermore, there have been instances of familial clusters involving asymptomatic, as well as probable spread from asymptomatic adult to other adults belonging to different families.<sup>43–46</sup> According to these reports, asymptomatic patients might have a definitive role with regards to the transmission.<sup>47,48</sup> Adults asymptomatic transmission has been documented well.



**Figure 4: Pathophysiology of COVID-19<sup>24</sup>**

**CLINICAL FEATURES**

Headache, muscle pain and cough have been observed to be the most common symptoms to be reported amongst the patients who are symptomatic. Sore throat, diarrhoea, dysgeusia and anosmia can also be present. The most commonly seen grave manifestation of the infection is pneumonia. It is primarily characterized by cough, dyspnoea and fever. Chest imaging shows bilateral infiltrates.

<b>Patients with COVID-19 may have the following symptoms.<sup>49</sup></b>
Cough
Fever
Myalgias
Headache
Dyspnea (new or worsening over baseline)
Sore throat
Diarrhea
Nausea/vomiting
Anosmia or other smell abnormalities
Lack of taste or other taste abnormalities
Rhinorrhea and/or nasal congestion
Chills/rigors
Fatigue
Confusion
Chest pain or pressure

**Severe complications:**

The complications described as

- Respiratory failure
- Cardiac and cardiovascular complications
- Thromboembolic complications
- Neurologic complications
- Inflammatory complications
- Secondary infections

**INFECTION FATALITY RATE**

Infection fatality rate is defined as the estimated mortality rate among all the persons who are infected with a certain disease. Infection fatality rate is significantly lower as many SARS-CoV-2 infections do not have any significant presenting symptoms and diagnoses of mild cases are many a times missed. According to one analyses, which was performed on unvaccinated individuals, infection fatality rate was estimated to lie anywhere from 0.5% to 1.0%, with considerable heterogeneity by location and across risk various groups.<sup>50</sup>

The infection fatality rate was estimated to increase exponentially by age in a meta-analysis and systematic review of 27 studies. These were performed in resource rich settings. These studies employed the calculation of the sum-total of community infections via surveys of seroprevalence or comprehensive training programmes till September, 2020 (0.002 % at age 10, 0.01 % at age 25, 0.4 % at age 55, 1.4 % at age 65, 4.6 % at age 75, 15 % at age 85, and >25 % at age 90 years). These age-related variances appeared to account for the majority of the geographic variation in infection

mortality rates reported (ie, locations with a higher median population age reported higher fatality rates).<sup>51</sup>

**Table 1. Comorbidities the CDC classifies as risk factors for severe COVID-19<sup>52,53</sup>**

Established, probable, and possible risk factors (comorbidities that have been associated with severe COVID 19 in at least 1 meta-analysis or systematic review, in case series or in observational studies):

- HIV
- Heart conditions (such as cardiomyopathies, coronary artery disease, or heart failure)
- Down syndrome
- Diabetes Mellitus (both type I and II)
- Chronic liver disease (autoimmune hepatitis, alcoholic liver disease, non-alcoholic fatty liver disease, cirrhosis)
- Chronic lung disease (cystic fibrosis, bronchiectasis, bronchopulmonary dysplasia, pulmonary hypertension, pulmonary embolism, interstitial lung disease, COPD)
- Chronic kidney disease
- Cerebrovascular disease
- Cancer
- Mental health disorders (mood disorders including depression, schizophrenia spectrum disorders)
- Use of corticosteroids or other immunosuppressive drugs
- Tuberculosis

- Substance abuse
- Solid organ or blood stem cell transplant
- Sickle cell disease or thalassemia
- Smoking (current or former)
- Pregnancy or recent pregnancy
- Obesity (BMI above 30 kg/m<sup>2</sup>) and overweight (BMI of 25-29 kg/m<sup>2</sup>)
- Neurologic disorders including dementia

Evidence for several risk variables is conflicting (comorbidities have been linked to severe COVID-19 in at least one meta-analysis or systematic review, while other studies had come to different results):

- Hypertension
- Asthma
- Other immune deficiencies

### **Risk factors for severe illness**

Severe illness can strike otherwise healthy people of any age, but it is most common in persons over the age of 65 or with specific underlying medical conditions. Severe illness has also been linked to specific demographic characteristics and test abnormalities.

Identification of the patients more likely to suffer from more severe disease can be done with the help of several prediction tools which have been developed on the basis of various laboratory, clinical and epidemiological features of COVID 19 pneumonia. However, these tools have not been validated adequately for clinical management.

- Increasing age
- Comorbidities
- Socioeconomic background and gender

### **Viral factors**

On one hand, some investigations have found that the amount of viral RNA present in the respiratory samples is directly proportional to severity of the disease, while on the other hand, various other studies have not been able to find a relation between the amount of viral RNA in the respiratory specimen and the severity of the disease. Severe disease, associated with organ damage (for example kidney, heart, lung), coagulopathy and even fatality, has been linked with presence of the viral RNA in the blood. <sup>54-56</sup>

### **Genetic factors**

Studies evaluating the association of the genetic predisposition of a host to have a severe disease are also underway. The genome wide association study identified a relationship between polymorphism in the gene encoding the ABO blood group and respiratory failure from COVID-19. Blood group O has been associated with lower risk of both infection and severe disease. <sup>57,58</sup>

### **Laboratory findings**

The findings of laboratory are variable. In a meta-analysis, the data of following laboratory abnormalities were noted down

- Elevated C-reactive protein: 54%
- Elevated serum ferritin: 47%
- Elevated lactate dehydrogenase: 37%
- Elevated D-dimers: 35%

- Elevated procalcitonin: 21%
- Elevated erythrocyte sedimentation rate: 19%
- Leukocytosis: 20%
- Lymphocytopenia: 19%
- Lymphocytosis: 8%
- Elevated serum aminotransferases: 30%
- Elevated creatine kinase myocardial bands: 25%

**Table 2: Diagnostic tests for COVID<sup>19</sup>**

<b>Test category</b>	<b>Primary clinical use</b>	<b>Specimen type</b>	<b>Performance characteristics</b>	<b>Comments</b>
NAATs (including RT-PCR)	Diagnosis of current infection	Respiratory tract specimens*	High analytic sensitivity and specificity in ideal settings.  The <b>type</b> and <b>quality</b> of the specimen, as well as the severity of the sickness at the time of testing, all affect clinical performance.  Reported false-negative rate ranges from <5 to 40%, depending on the test used.	Time to perform the test ranges from 15 minutes to 8 hours. <sup>Δ</sup>  Turnaround time is influenced by the test used and laboratory workflow.  Some assays allow home collection of specimens that are mailed in.
Serology (antibody detection)	Diagnosis of prior infection (or infection of at least 3 to 4 weeks' duration)	Blood	Sensitivity and specificity are highly variable.  IgG typically develops 14 days following the beginning of symptoms, but detectable antibodies typically take several days to weeks to develop.	The test can be completed in 15 minutes to 2 hours.  The procedure followed in the lab and the test employed have an impact on turnaround time.

			<p>There have been reports of cross-reactivity with other coronaviruses.</p> <p>Individual results should be interpreted with caution in settings of low seroprevalence; serologic tests that have high specificity still have a low positive predictive value.</p>	<p>It is still unclear if a positive antibody test results in protection to subsequent infections.</p>
Antigen tests	Diagnosis of current infection	Nasopharyngeal or nasal swabs	<p>Antigen tests are generally less sensitive than nucleic acid tests.</p> <p>Sensitivity is highest in symptomatic individuals within 5 to 7 days of symptom onset.</p>	<p>Time to perform the test is &lt;1 hour.</p>

**Table 3. Laboratory features associated with severe COVID-19 infection<sup>20,21,59,60</sup>**

<b>Abnormality</b>	<b>Possible threshold</b>
<b>Elevations in:</b>	
CPK	>2× the upper limit of normal (normal range: 40 to 150 units/L)
Ferritin	>500 mcg/L (normal range: females 10 to 200 mcg/L; males 30 to 300 mcg/L)
Troponin	>2× the upper limit of normal (normal range for troponin T high sensitivity: females 0 to 9 ng/L; males 0 to 14 ng/L)

LDH	>245 units/L (normal range:110 to 210 units/L)
CRP	>100 mg/L (normal range: <8.0 mg/L)
D dimer	>1000 ng/mL (normal range: <500 ng/mL)
<b>Decrease in:</b>	
Absolute lymphocyte count	<800/microL (normal range for age $\geq 21$ years: 1800 to 7700/microL)

A study conducted by Connors, J.M et al., in 2020 has discussed about the association of the novel COVID 19 infection with coagulopathy. Various tests, such as fibrinogen levels and D-dimer, which screen the coagulation profile of the patients are recommended. Patients suffering from coagulopathy associated with COVID-19 should be treated like any other ill patient, which includes employing prophylactic measures against thromboembolism. Normal supportive care must be given to the patients who are critically ill and to individuals who have sepsis induced coagulopathy or DIC. Current evidence, does not recommend the usage of full intensity anticoagulation dosages if there are no clinical indications, in spite of the fact that sepsis and DIC are predictors of mortality. Despite the fact that COVID-19 is related with coagulopathy, bleeding symptoms, even in individuals with DIC, have not been recorded. If bleeding occurs, conventional DIC and bleeding control recommendations should be followed.<sup>4</sup>

In contrast to a primary haematologic illness, thrombocytopenia in the Intensive Care Unit (ICU) typically denotes physiologic decompensation and severe organ system damage, according to 2017 research by Zarychanski R et al. Even while only a tiny portion of fatalities are directly connected to bleeding, low platelet counts are linked to bleeding, transfusion, and poor clinical outcomes, which also includes mortality. The patient's medical history and present condition are reviewed to begin the examination of thrombocytopenia. This past knowledge offers hints to the diagnosis and prognosis when combined with meticulous monitoring of the platelet trajectory in the context of the patient's clinical state. In order to prevent or treat symptomatic bleeding, treatment concentrates on the underlying condition and platelet transfusion. A cautious approach is suggested because there are no ideal platelet transfusion procedures.<sup>5</sup>

A Meta-analytic study conducted by Lippi, G., et al., in March 2020 has showed that thrombocytopenia is associated with severe COVID 19 infection and is associated with increased mortality. The meta-analysis comprised nine trials with 1779 COVID-19 participants, 399 (22.4%) of whom had severe illness. Platelet count was considerably lower in individuals with more severe COVID-19, according to the pooled study. Four trials with a sample size of 1427 reported data on the rate of thrombocytopenia. These studies revealed that low platelet count was associated with five times the risk of contracting severe COVID 19. Thrombocytopenia can be used as an indicator of worsening condition of the patient with COVID-19 during the course of the hospital stay, as it is linked with mortality and the risk of severe disease.<sup>6</sup>

81 patients were categorized as having moderate disease whereas 134 patients were categorized as having severe disease in a study by Guclu E et al. based on the

oxygen saturation of the patients. The same study showed that MPV difference between the first and third day of hospital admission and patient oxygen saturation were crucial factors in COVID 19 patients and assisted in the prediction of death. Mortality increased by 1.76 times if there was an increase in a unit of MPV. If at the time of admission, if the oxygen saturation of a patient was less than 90%, they had 8.4 times more chance of dying as compared to the patients with saturation greater than 90%. Prediction of mortality can be done with the help mean platelet volume as a supplementary test to the lung capacity.<sup>61</sup>

To evaluate the changes in platelet indices in patients with COVID 19 illness, Mazgebe M et al. conducted research in 2021. Routine platelet metrics changed in COVID-19 participants, and these changes were more pronounced in those with elevated D-dimers, although this difference failed to achieve statistical significance. Although the D-dimers were greater in patients with COVID-19 than in those without it, the changes in platelet indices were statistically different, suggesting that platelets are involved in the immunothrombotic process in COVID-19. The predictive value of changes in platelet parameters in COVID-19 patients has to be evaluated through additional multicenter studies on larger cohorts, including %IPF analysis.<sup>62</sup>

The platelet parameters in patients with and without COVID were evaluated in research by Shankaralingappa A et al. in 2022. When compared to controls, platelet counts in COVID-19 patients were considerably lower. Plateletcrit (PCT) was also considerably lower. PLCR, PDW and MPV were considerably higher in COVID-19 patients compared to controls, although not in a majority of the cases. There were no significant differences between the values of PLCC in cases and controls. Employment of platelet indices such as PLCR, PDW, MPV, PCT and platelet counts

can be done as the biomarkers of COVID 19 severity as their values show significant changes in COVID 19 patients. More study is required to see if these basic, low cost criteria can be utilised to predict the severity and also prognostication of “COVID 19”.<sup>63</sup>

64 patients were assessed in a prospective cohort study carried out by Quispe-Pari JF et al., in 2022 to assess the MPV as the predictor of COVID 19 severity. 51.6% of the subjects were females and the median age was 48.5 years (IQT 39-64.5). The median period from the beginning of symptoms to the development of a severe form was 11 days (IQT 10.5–13). In the first week of an illness at higher elevations, an MPV of more than 10.15fL indicated severity regardless of age or gender. MPV in the first week of the disease has the potential to predict the severity in COVID 19 patients at higher altitudes; however there is a requirement of prospective studies assessing bigger populations and at varied altitude levels.<sup>64</sup>

## MATERIALS AND METHODS

**Source of data:** Patients who met the inclusion criteria for the research and were hospitalised to one of the COVID 19 specialised wards at KLES Dr. Prabhakar Kore Hospital in Belgaum were included.

**Study Design:** One Year hospital based Cross-Sectional study.

**Study Period:** January 2021 to December 2021 (One year).

**Sample Size:** 144

**Sample Method:** The formula for the minimal sample size based on the prevalence rate is

$$n = \frac{z_{\alpha}^2 P(1-P)}{d^2}$$

where P is the prevalence percentage and d is the likelihood of the difference in prevalence expressed as a percentage.

Z and significance level are related. Z = 1.96 at a 5% level of significance.

Reference: The sample size is 144 with P = 72.7% and d = 10% of P = 7.27%.<sup>65</sup>

### INCLUSION CRITERIA:

- RTPCR Status positive patients.
- Rapid Antigen Test status positive patients.
- Age of the patient more than 18 Years.

**EXCLUSION CRITERIA:**

- Pregnant patients.
- Patients who have undergone Splenectomy.
- Patients suffering from disorders such ITP, Aplastic Anemia or Leukemia.
- Patients undergoing Chemotherapy or Radiotherapy.
- Patients with HIV status positive.

**METHODOLOGY:**

Patients admitted in the COVID 19 dedicated wards of KLES Dr PRABHAKAR KORE HOSPITAL, BELAGAVI and fulfilling the inclusion criteria of the study were included after taking prior consent.

- Routine workup for COVID 19 including Complete Blood Count, Liver function tests, Renal function Tests, D dimer level, Serum Ferritin level, IL-6 levels, Blood Grouping, LDH levels, Urine Routine and Microscopy, and HRCT thorax was done.
- Platelet count and its indices including Mean Platelet Volume and Platelet Distribution width was obtained.
- Detailed admission data, including demographic information, comorbidities, signs and symptoms, laboratory test results, and imaging reports, of each patient was collected.
- Radiological reports, nursing reports, laboratory findings, medical records and clinical notes were obtained for patients with confirmed COVID-19 .
- After admission, treatment, disease severity, outcomes, and length of stay in hospital was also recorded.

Those with a fever, respiratory symptoms, and radiological pneumonia characteristics are considered to have a mild illness. Patients who meet any of the following criteria are considered to have severe disease: respiratory distress (respiratory rate 30 breaths/min), oxygen saturation 93% at rest, arterial partial pressure of oxygen/fraction of inspired oxygen 300 mmHg, and >50% obvious lesion progression on chest imaging within 24-48 h. Individuals who fit any of the following descriptions are considered to have critical disease: shock and other types of organ failure needing acute care, such as respiratory failure and the need for artificial ventilation.<sup>66</sup>

**Does the study require any investigations or interventions to be conducted on patients or other humans or animals? If so, please describe briefly**

1. Complete blood counts (including Platelet Indices)
2. Random Blood Sugars.
3. Blood Urea.
4. Liver Function Tests.
5. Renal Function Tests.
6. Urine Routine and Microscopy.
7. D-dimer.
8. IL-6.
9. Serum Ferritin

10. Serum LDH.

11. Blood Grouping.

12. Serum Procalcitonin.

13. CRP with Titres.

14. HRCT Thorax.

## STATISTICAL ANALYSIS

Data is analysed using statistical software R version 4.2.1 and Microsoft Excel. Categorical variables given in the form of frequency tables. Continuous variables given in Mean  $\pm$  SD / Median (Min, Max) form. Chi square test is used check the association between categorical variables. Mann Whitney U test is used to compare the distribution of variables over outcome. Applicability of different platelet indices to predict outcome is checked by Logistic regression and Receiver Operating Characteristic (ROC) curves. Pairwise comparisons of the ROC curves are performed. P-value less than or equal to 0.05 indicates statistical significance.

## RESULTS

Data contains assessment of clinical profile and laboratory parameters, including platelet indices of 168 subjects. Out of them, 4 (1.79%) subjects from the patients who survived, worsened clinically and were discharged against medical advice. Hence, remaining 164 subjects are considered whose age ranges from 20 to 90 years with mean age of  $57.35 \pm 16.59$  years. The following table gives the distribution of demographic variables over outcome.

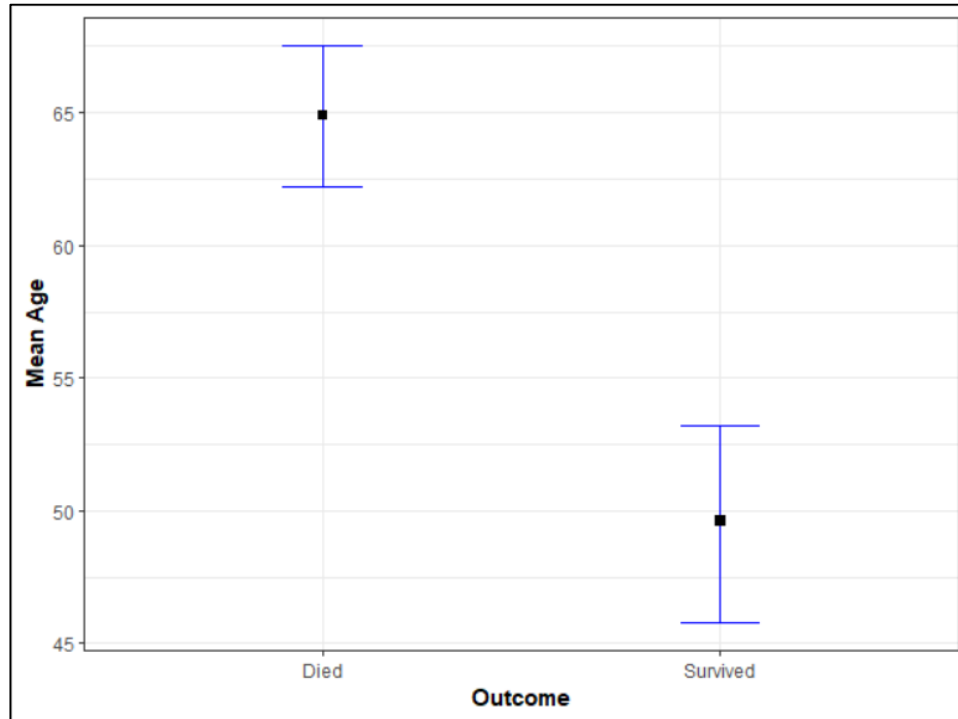
**Table 4: Distribution of demographic variables over outcome.**

Variables	Sub Category	Outcome		Total	p-value
		Died	Survived		
Age (years)	Mean $\pm$ SD	64.93 $\pm$ 12.09	49.59 $\pm$ 17.03	57.35 $\pm$ 16.59	< <b>0.001</b> <sup>MW*</sup>
	Median (Min, Max)	66 (32, 90)	52 (20, 85)	60 (20, 90)	
Gender	Female	10 (12.05%)	16 (19.75%)	26 (15.85%)	0.1768 <sup>C</sup>
	Male	73 (87.95%)	65 (80.25%)	138 (84.15%)	

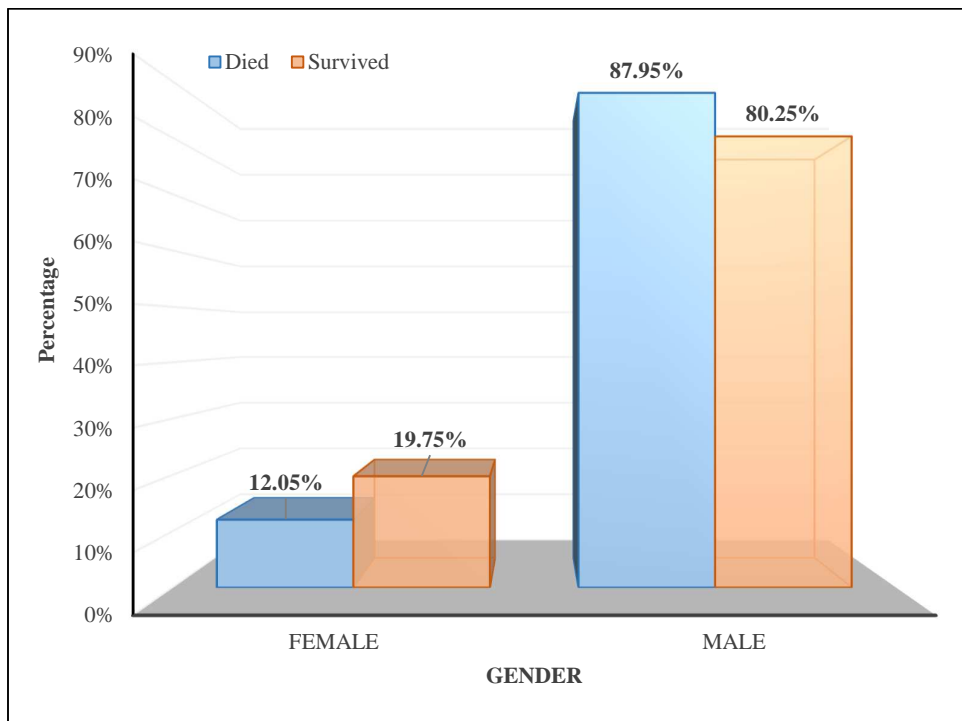
*Abbreviation: MW – Mann Whitney U test, C – Chi square test, \* indicates statistical significance.*

From Mann Whitney U test, it is observed that, there is significant difference in the distribution of age over outcome. Further, it can be observed that, the mean age of mortality group is more than the survival group.

From Chi square test, it is observed that, there is no significant difference in the distribution of gender over outcome.



Graph 1: Mean plot of age over outcome.



Graph 2: Distribution of gender over outcome.

The following table gives the comparison of symptoms with outcome.

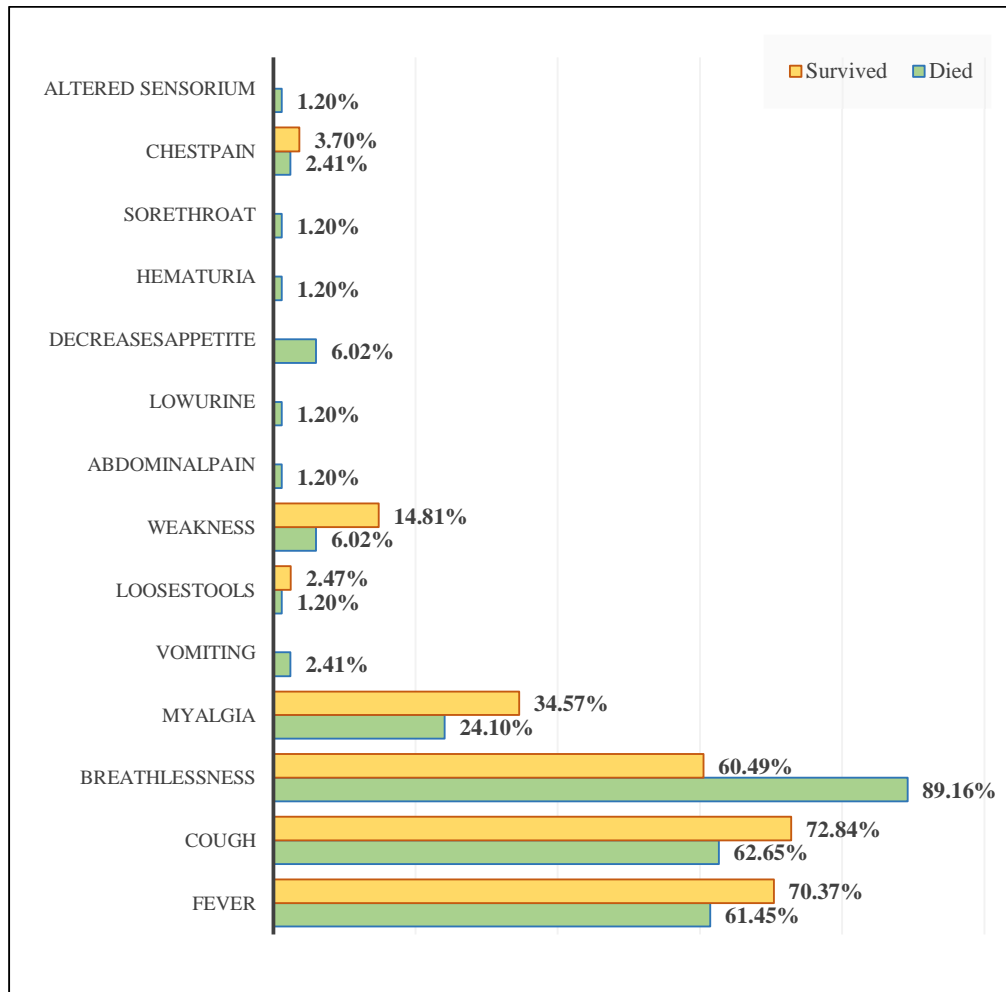
**Table 5: Comparison of symptoms over outcome.**

Symptoms	Outcome		Total	p-value
	Died	Survived		
Fever	51 (61.45%)	57 (70.37%)	108 (65.85%)	0.2282 <sup>C</sup>
Cough	52 (62.65%)	59 (72.84%)	111 (67.68%)	0.1631 <sup>C</sup>
Breathlessness	74 (89.16%)	49 (60.49%)	123 (75%)	< <b>0.001</b> <sup>C*</sup>
Myalgia	20 (24.1%)	28 (34.57%)	48 (29.27%)	0.1406 <sup>C</sup>
Vomiting	2 (2.41%)	0	2 (1.22%)	0.5067 <sup>MC</sup>
Loose Stools	1 (1.2%)	2 (2.47%)	3 (1.83%)	0.6192 <sup>MC</sup>
Weakness	5 (6.02%)	12 (14.81%)	17 (10.37%)	0.0648 <sup>C</sup>
Abdominal Pain	1 (1.2%)	0	1 (0.61%)	1 <sup>MC</sup>
Low Urine Output	1 (1.2%)	0	1 (0.61%)	1 <sup>MC</sup>
Decreased Appetite	5 (6.02%)	0	5 (3.05%)	0.069 <sup>MC</sup>
Hematuria	1 (1.2%)	0	1 (0.61%)	1 <sup>MC</sup>
Sore Throat	1 (1.2%)	0	1 (0.61%)	1 <sup>MC</sup>
Chest Pain	2 (2.41%)	3 (3.7%)	5 (3.05%)	0.6917 <sup>MC</sup>
Altered sensorium	1 (1.2%)	0	1 (0.61%)	1 <sup>MC</sup>

Abbreviation: C – Chi square test, MC – Chi square test with Monte Carlo simulation, \* indicates statistical significance.

From Chi square test, it is observed that, there is significant difference in the distribution of breathlessness over the outcome. Further, it can be notes that breathlessness symptom was observed more in case of subjects who didn't survive.

There is no significant difference in the distribution of other symptoms over outcome.



**Graph 3: Distribution of symptoms over outcome.**

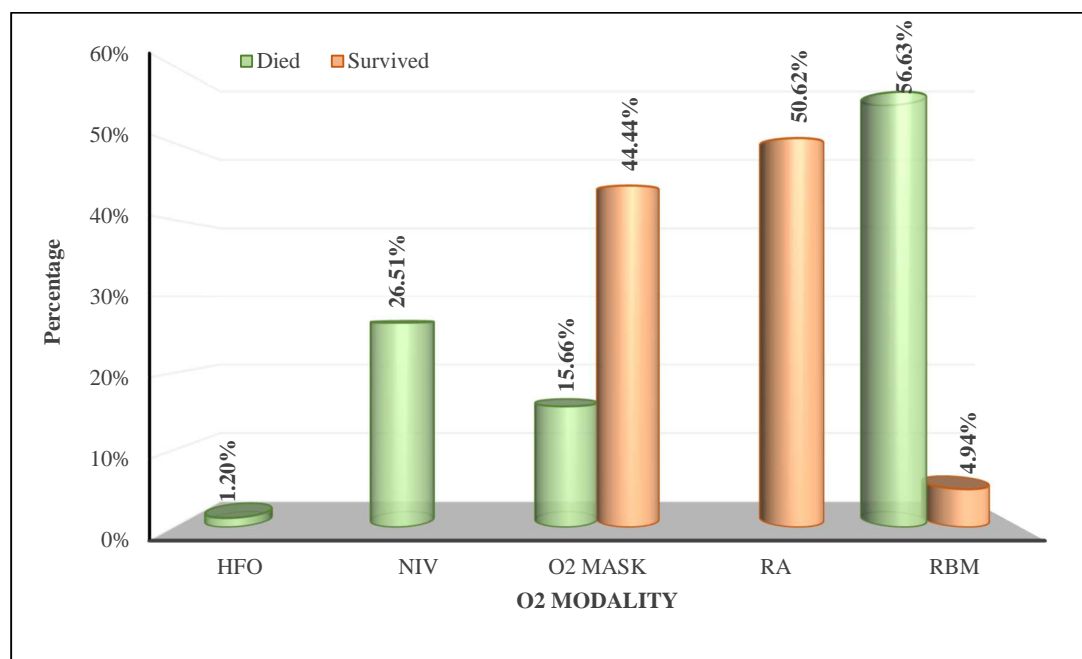
The following table gives the comparison of O2 modality over outcome.

**Table 6: Comparison of O2 modality used at admission over outcome.**

O2 Modality	Outcome		Total	p-value
	Died	Survived		
HFO	1 (1.2%)	0	1 (0.61%)	<b>&lt; 0.001<sup>MC*</sup></b>
NIV	22 (26.51%)	0	22 (13.41%)	
O2 MASK	13 (15.66%)	36 (44.44%)	49 (29.88%)	
Room Air	0	41 (50.62%)	41 (25%)	
NON RE BREATHHER MASK	47 (56.63%)	4 (4.94%)	51 (31.1%)	

Abbreviation: MC – Chi square test with Monte Carlo simulation, \* indicates statistical significance.

From Chi square test, it is observed that, there is significant difference in the distribution of O2 modalities over the outcome.



**Graph 4: Distribution of O2 modality over outcome.**

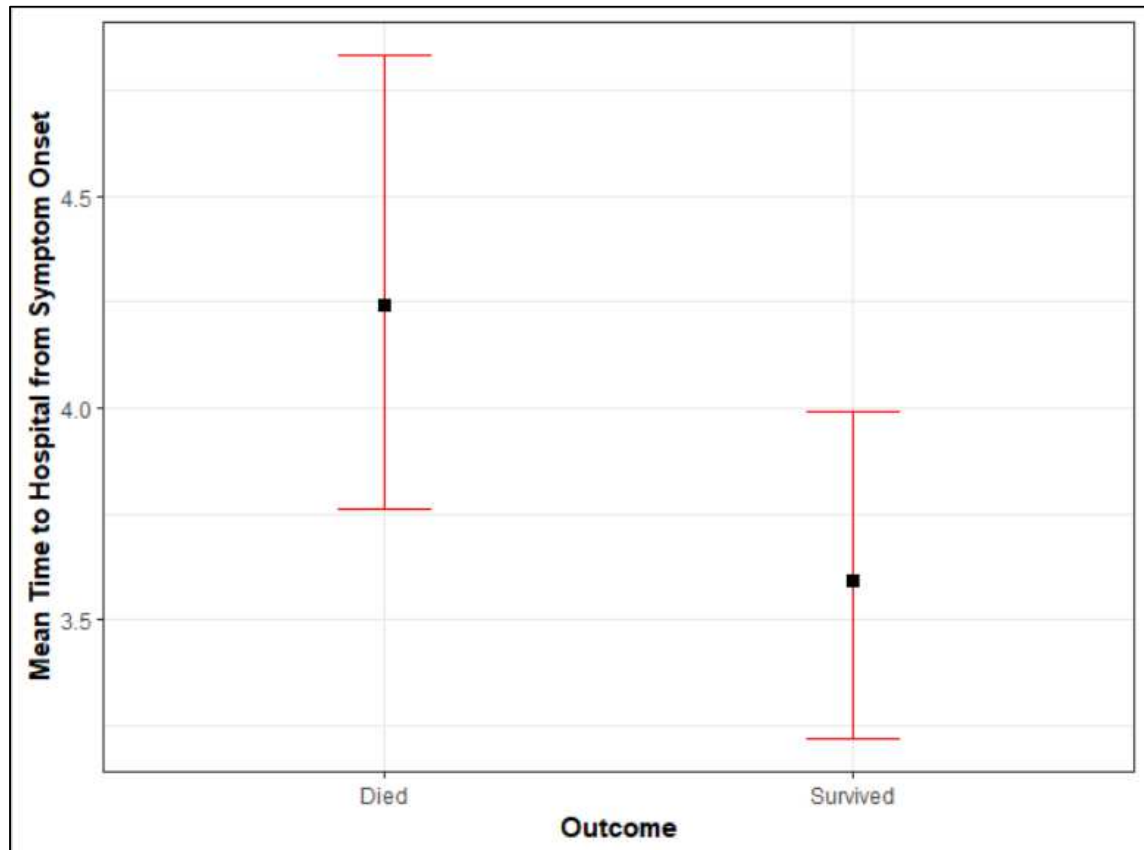
The following table gives the comparison of time to Hospital from Symptom Onset over outcome.

**Table 7: Comparison of time to Hospital from Symptom Onset over outcome.**

Variable	Outcome		Total	p-value
	Died	Survived		
Time to Hospital from Symptom Onset	4.24 ± 2.51 4 (1, 20)	3.59 ± 1.74 3 (1, 10)	3.92 ± 2.18 3 (1, 20)	0.0583 <sup>MW</sup>

Abbreviation: MW – Mann Whitney U test.

From Mann Whitney U test, it is observed that, there is no significant difference in the distribution of time to hospital from symptoms onset over outcome.



**Graph 5: Mean plot of time to Hospital from Symptom Onset over outcome.**

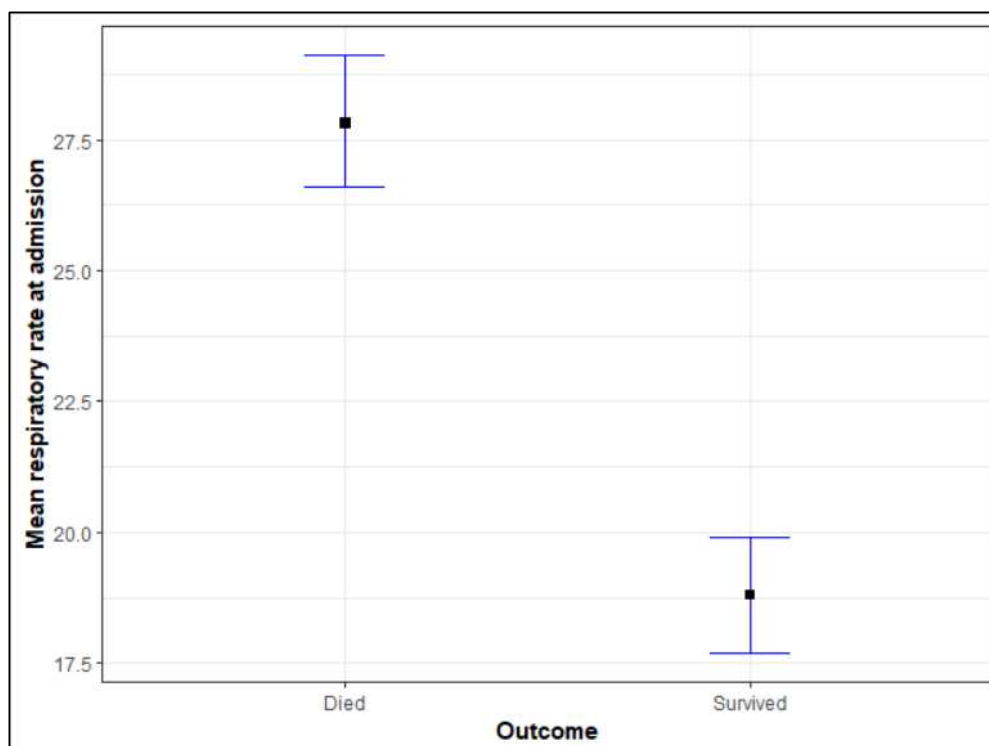
The following table gives the comparison of Respiratory rate and SPO2 at admission over outcome.

**Table 8: Comparison of Respiratory rate and SPO2 at admission over outcome.**

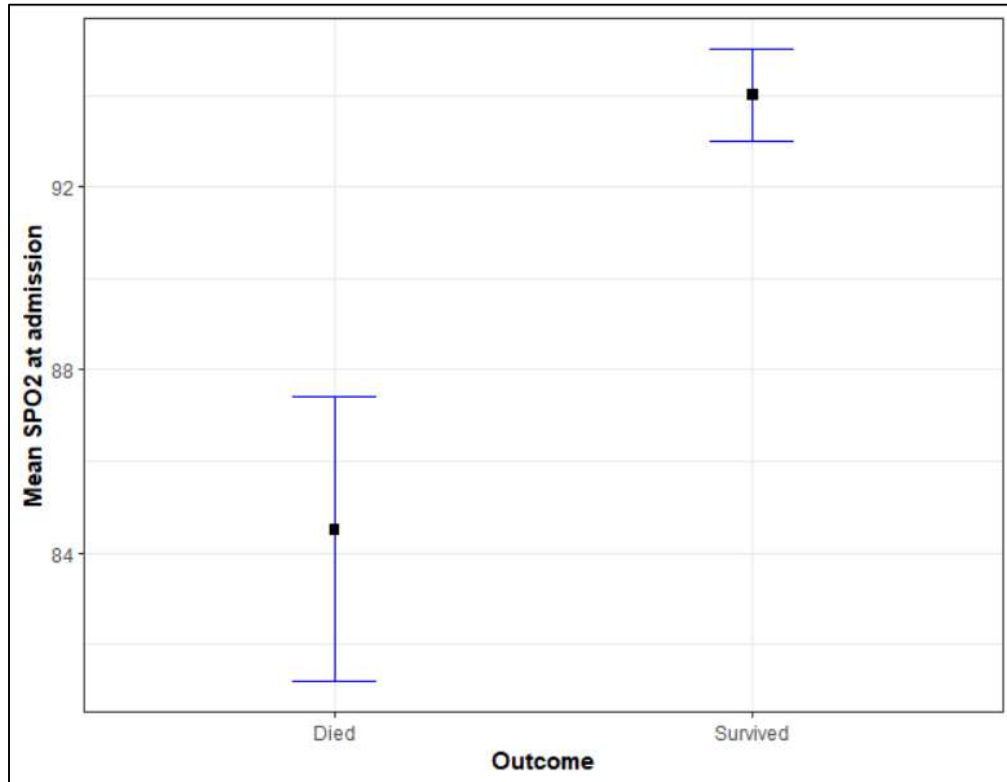
Variable	Outcome		Total	p-value
	Died	Survived		
Respiratory rate	27.81 ± 5.86	18.8 ± 5.16	23.36 ± 7.12	< 0.001 <sup>MW*</sup>
	27 (12, 45)	18 (9, 32)	23 (9, 45)	
SPO2	84.52 ± 14.82	94.05 ± 4.47	89.23 ± 11.96	< 0.001 <sup>MW*</sup>
	88 (31, 100)	96 (77, 100)	93 (31, 100)	

Abbreviation: MW – Mann Whitney U test, \* indicates statistical significance.

From Mann Whitney U test, it is observed that, there is significant difference in the distribution of respiratory rate and SPO2 at admission over outcome. Further, it can be noted that mean respiratory rate and mean SPO2 admission is more in those who did not survive.



**Graph 6: Mean plot of Respiratory rate at admission over outcome.**



Graph 7: Mean plot of SPO2 at admission over outcome.

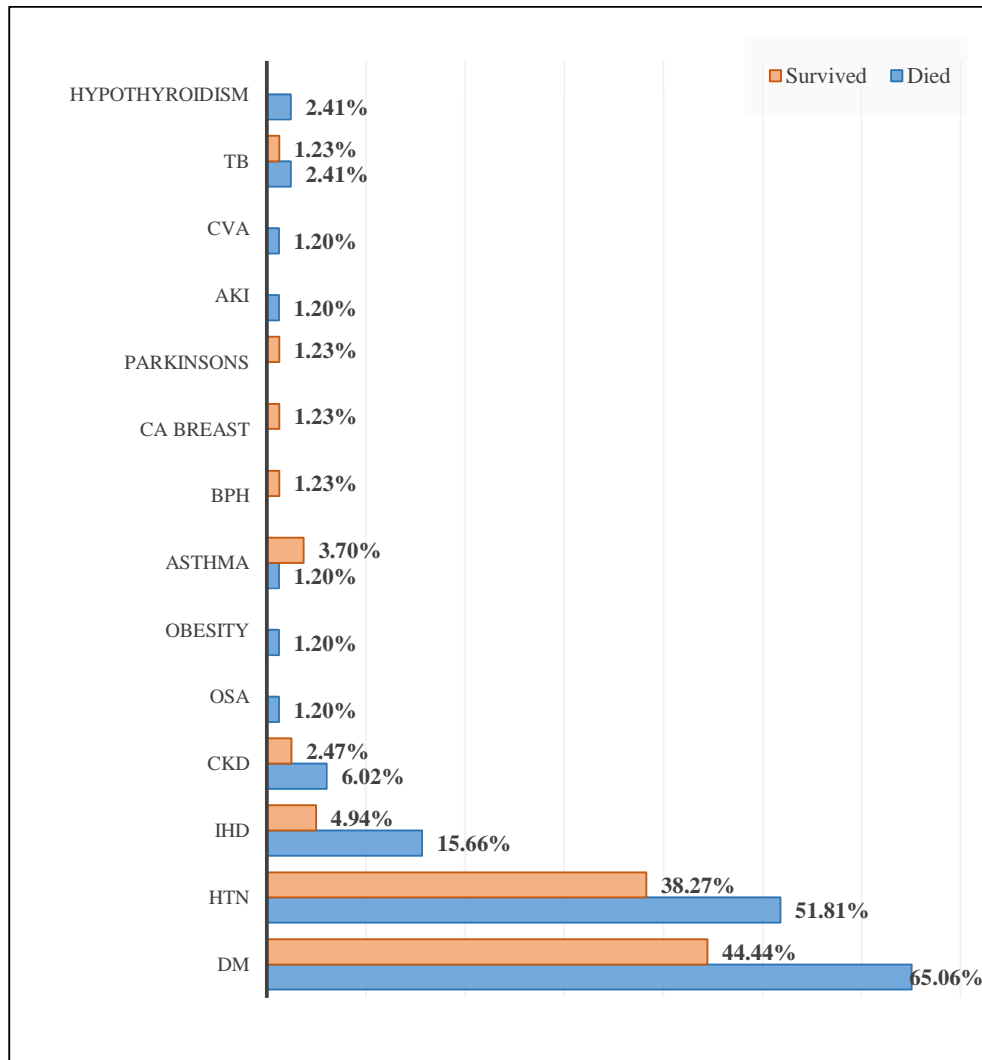
The following table gives the comparison of various comorbidities over outcome.

**Table 9: Comparison of comorbidity over outcome.**

Comorbidity	Outcome		Total	p-value
	Died	Survived		
DM	54 (65.06%)	36 (44.44%)	90 (54.88%)	<b>0.008<sup>C*</sup></b>
HTN	43 (51.81%)	31 (38.27%)	74 (45.12%)	0.0816 <sup>C</sup>
IHD	13 (15.66%)	4 (4.94%)	17 (10.37%)	<b>0.0243<sup>C*</sup></b>
CKD	5 (6.02%)	2 (2.47%)	7 (4.27%)	0.4598 <sup>MC</sup>
OSA	1 (1.2%)	0	1 (0.61%)	1 <sup>MC</sup>
Obesity	1 (1.2%)	0	1 (0.61%)	1 <sup>MC</sup>
Asthma	1 (1.2%)	3 (3.7%)	4 (2.44%)	0.3638 <sup>MC</sup>
BPH	0	1 (1.23%)	1 (0.61%)	0.5062 <sup>MC</sup>
CA Breast	0	1 (1.23%)	1 (0.61%)	0.5062 <sup>MC</sup>
Parkinson's	0	1 (1.23%)	1 (0.61%)	0.5062 <sup>MC</sup>
AKI	1 (1.2%)	0	1 (0.61%)	1 <sup>MC</sup>
CVA	1 (1.2%)	0	1 (0.61%)	1 <sup>MC</sup>
TB	2 (2.41%)	1 (1.23%)	3 (1.83%)	1 <sup>MC</sup>
Hypothyroidism	2 (2.41%)	0	2 (1.22%)	0.5067 <sup>MC</sup>

*Abbreviation: C – Chi square test, MC – Chi square test with Monte Carlo simulation, \* indicates statistical significance.*

From Chi square test, it is observed that, there is significant difference in the distribution of DM and IHD over the outcome. Further, it can be noted that the proportion of DM and IHD is more in case of subjects who didn't survive. There is no significant difference in the distribution of other comorbidities over outcome.



**Graph 8: Distribution of comorbidities over outcome.**

The following table gives the comparison of different laboratory parameters at admission over outcome.

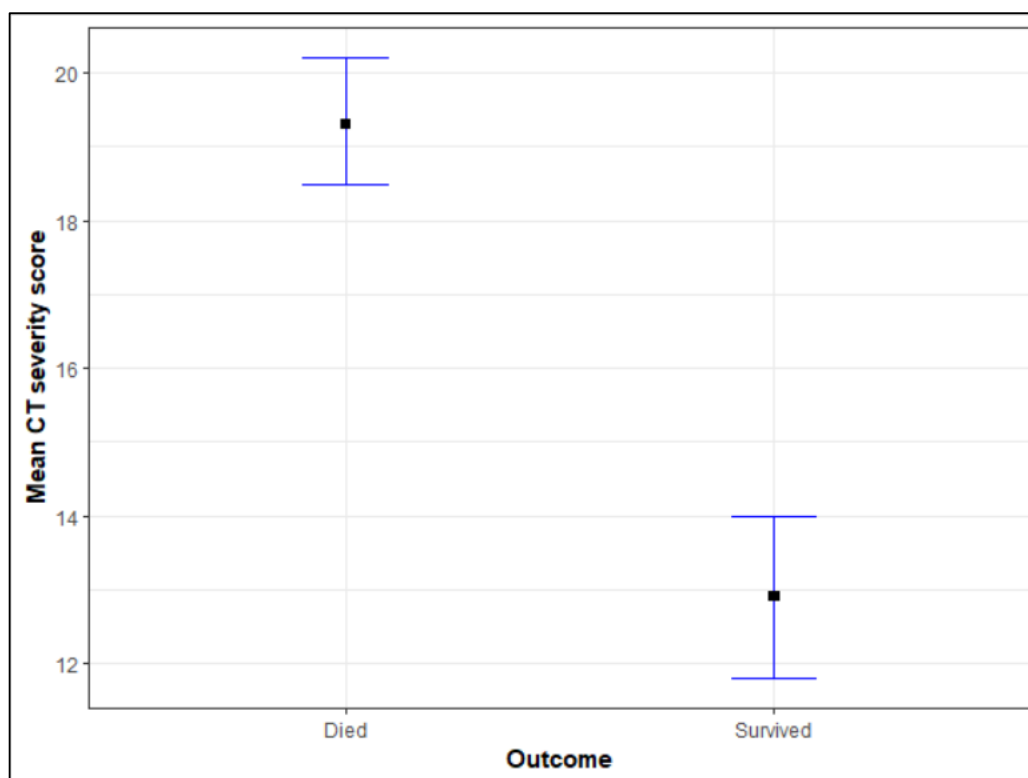
**Table 10: Comparison of different laboratory parameters at admission over outcome.**

Variable	Outcome		Total	p-value
	Died	Survived		
CT severity score	19.35 ± 4.12 20 (5, 25)	12.91 ± 5.11 13 (4, 26)	16.17 ± 5.64 16 (4, 26)	< 0.001 <sup>MW*</sup>
Hb	13.08 ± 2.03 12.9 (8.5, 18)	13.13 ± 2.24 13.5 (7.3, 18.3)	13.11 ± 2.13 13.3 (7.3, 18.3)	0.5781 <sup>MW</sup>
TLC	12.47 ± 7.58 11.45 (2.6, 47.1)	8.26 ± 3.5 7.2 (4.1, 21.6)	10.38 ± 6.26 9 (2.6, 47.1)	< 0.001 <sup>MW*</sup>
Neutrophil %	84.16 ± 10.1 87.5 (62, 98)	69.26 ± 13.57 70 (41, 95)	76.75 ± 14.06 77 (41, 98)	< 0.001 <sup>MW*</sup>
Lymphocyte %	11.43 ± 10.14 7.5 (1, 64)	22.53 ± 12.2 20 (3, 48)	16.94 ± 12.49 14 (1, 64)	< 0.001 <sup>MW*</sup>
Ferritin	893.55 ± 898.39 548 (46.52, 4583)	371.82 ± 402.69 267 (4, 2000)	634.29 ± 743.03 385.3 (4, 4583)	< 0.001 <sup>MW*</sup>
LDH	673.76 ± 435.42 630 (126.1, 3650)	369.37 ± 160.3 353 (105, 1012)	522.5 ± 361.65 425 (105, 3650)	< 0.001 <sup>MW*</sup>
hsCRP	209.69 ± 177.05 204.65 (9.3, 874)	19.4 ± 6.76 19 (5.4, 57)	115.13 ± 157.49 27 (5.4, 874)	< 0.001 <sup>MW*</sup>
IL-6	247.43 ± 713.43 50.7 (1.52, 4470)	71.57 ± 81.24 40.27 (1.15, 516.1)	156.7 ± 505.83 46.8 (1.15, 4470)	0.0523 <sup>MW</sup>
d-Dimer	1909.52 ± 1702.99 1249.5 (103, 7028)	862.91 ± 1129.45 521 (101, 5000)	1389.43 ± 1534.78 785 (101, 7028)	< 0.001 <sup>MW*</sup>
Urea	64.34 ± 44.16 48.5 (18, 265)	32.53 ± 16.09 31 (8, 85)	48.53 ± 36.84 36 (8, 265)	< 0.001 <sup>MW*</sup>
Creatinine	1.54 ± 1.72 1.1 (0.6, 11.2)	1.1 ± 0.71 0.98 (0.49, 6.4)	1.32 ± 1.33 1.02 (0.49,	0.0020 <sup>MW*</sup>

			11.2)	
Bilirubin	1.01 ± 1.31 0.68 (0.14, 8.26)	0.84 ± 0.99 0.68 (0.13, 9)	0.93 ± 1.16 0.68 (0.13, 9)	0.793 <sup>MW</sup>
SGOT	146.68 ± 818.43 40.5 (12, 7437)	31.86 ± 19.13 28 (11, 116)	89.63 ± 581.73 32 (11, 7437)	< 0.001 <sup>MW*</sup>
SGPT	102.79 ± 583.85 31.5 (11, 5318)	29.38 ± 16.51 27 (10, 116)	66.31 ± 414.65 29 (10, 5318)	0.0433 <sup>MW*</sup>
RBS	223.66 ± 100.12 212 (45, 509)	163.9 ± 73.69 137 (26, 380)	193.96 ± 92.69 175 (26, 509)	< 0.001 <sup>MW*</sup>

Abbreviation: MW – Mann Whitney U test, \* indicates statistical significance.

From Mann Whitney U test, it is observed that, there is significant difference in the distribution of CT severity score, TLC, Neutrophil, Lymphocyte, Ferritin, LDH, hsCRP, d-Dimer, Urea, Creatinine, SGOT, SGPT and RBS over outcome. There is no significant difference in the distribution of Hb and Bilirubin over outcome.



**Graph 9: Mean plot of CT severity score over outcome.**

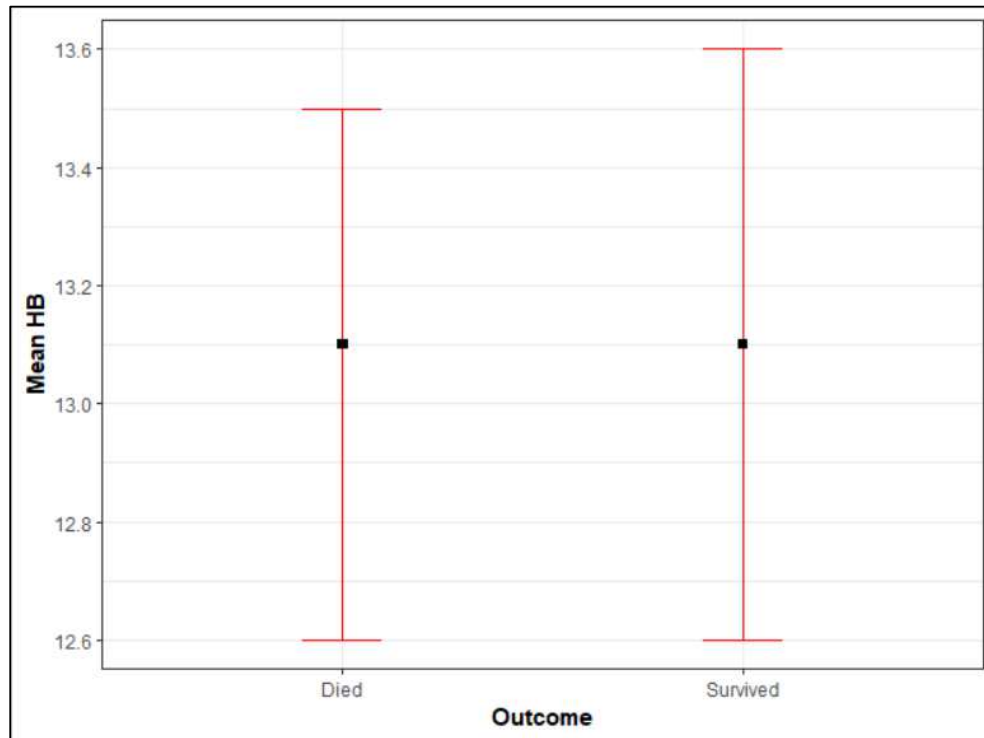


Figure 10: Mean plot of Hb over outcome.

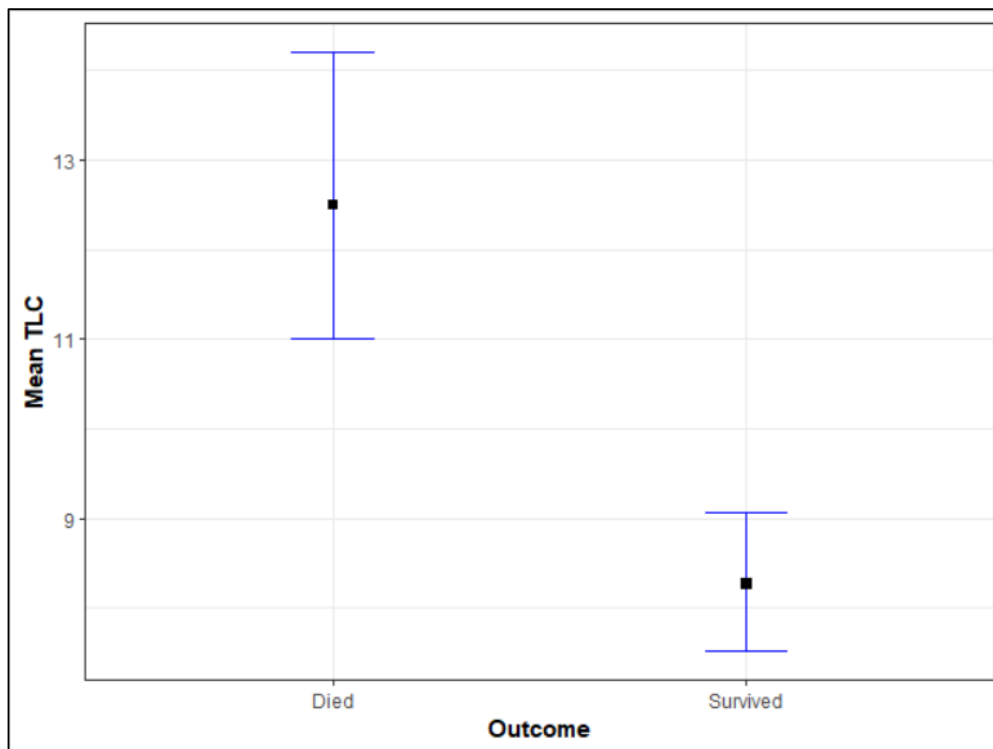
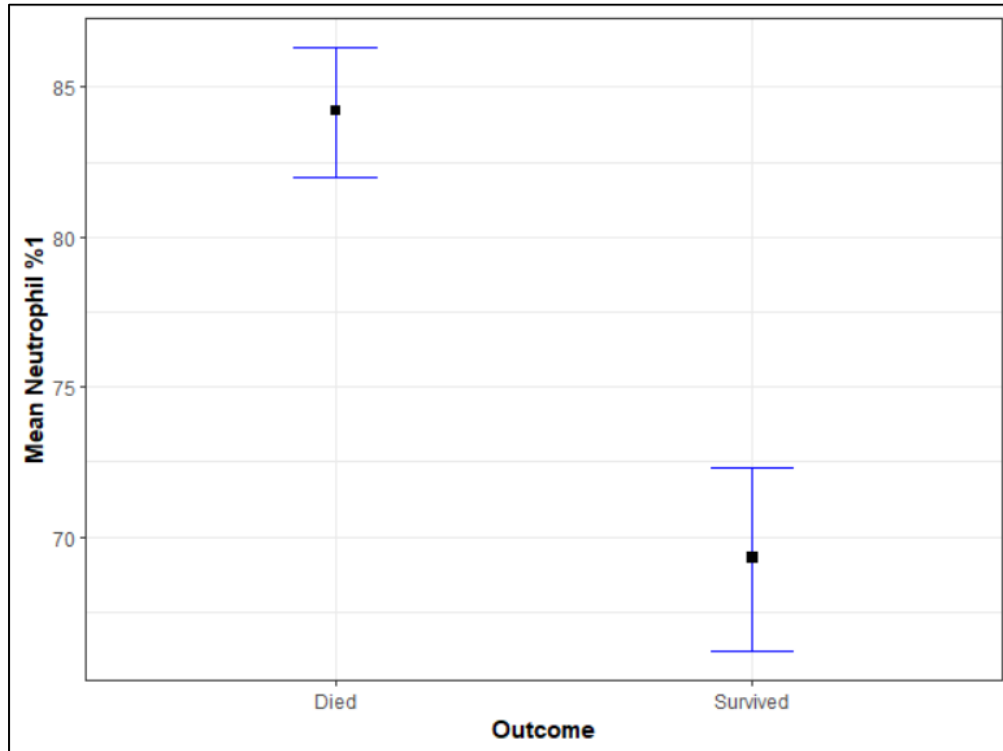
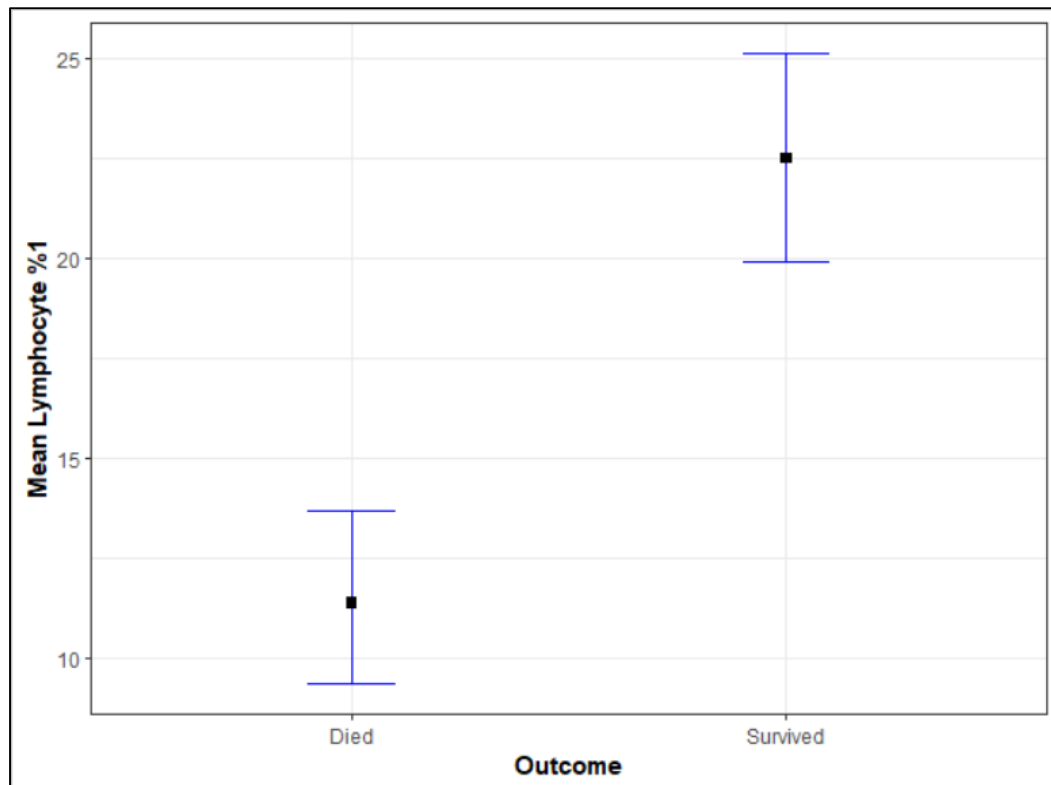


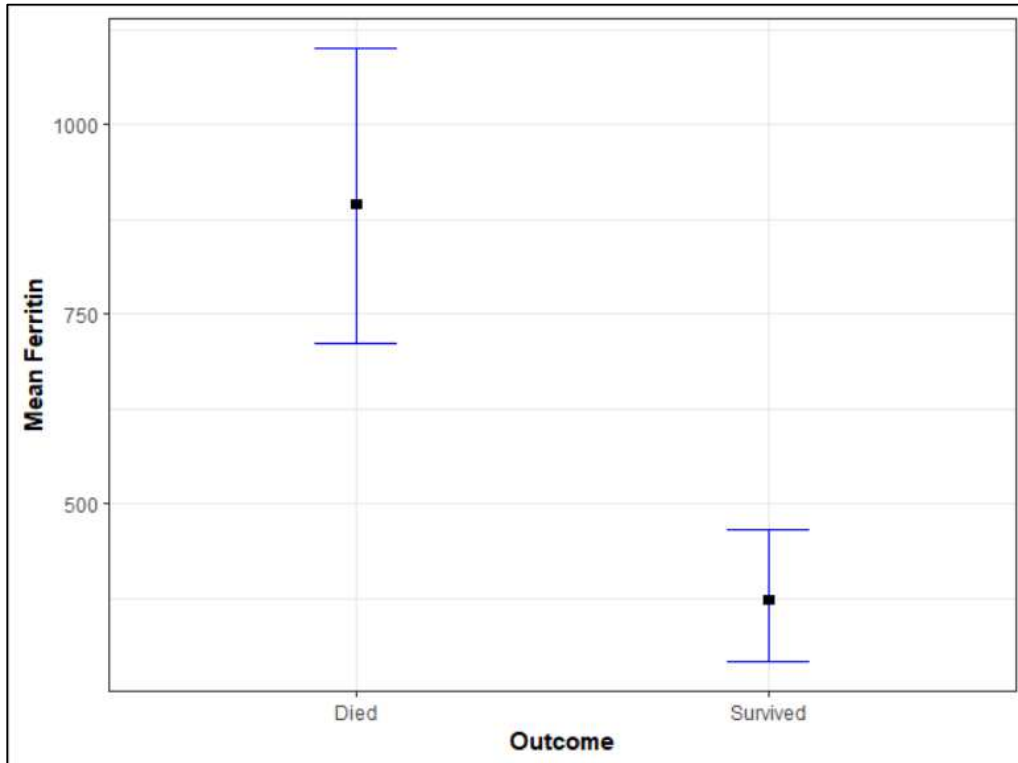
Figure 11: Mean plot of TLC over outcome.



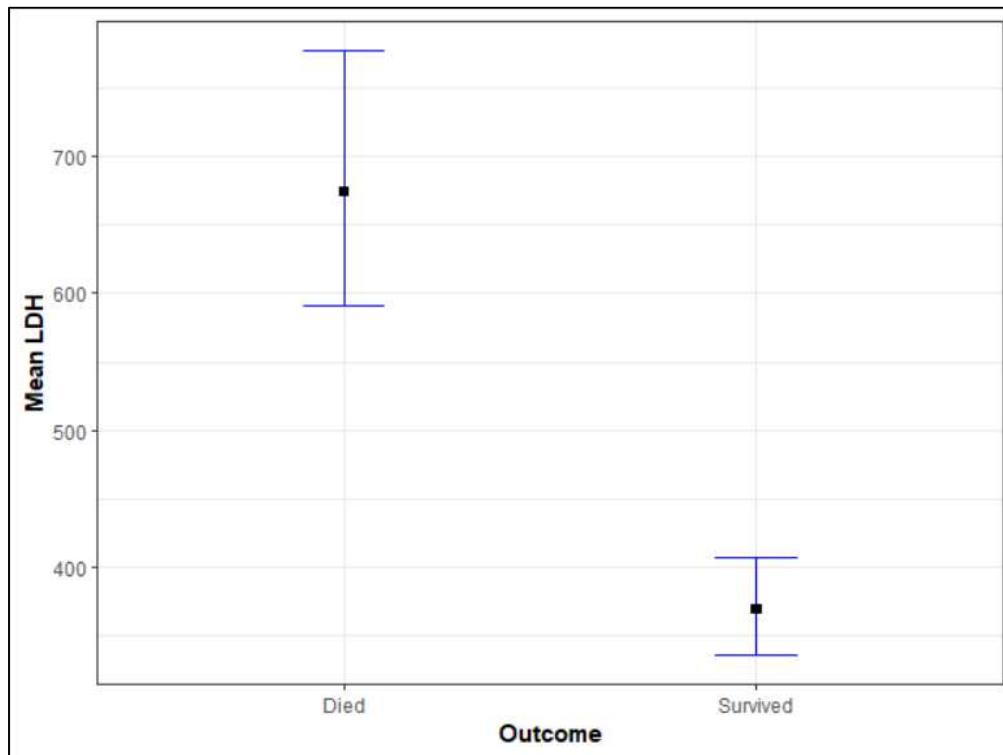
Graph 12: Mean plot of neutrophil % over outcome.



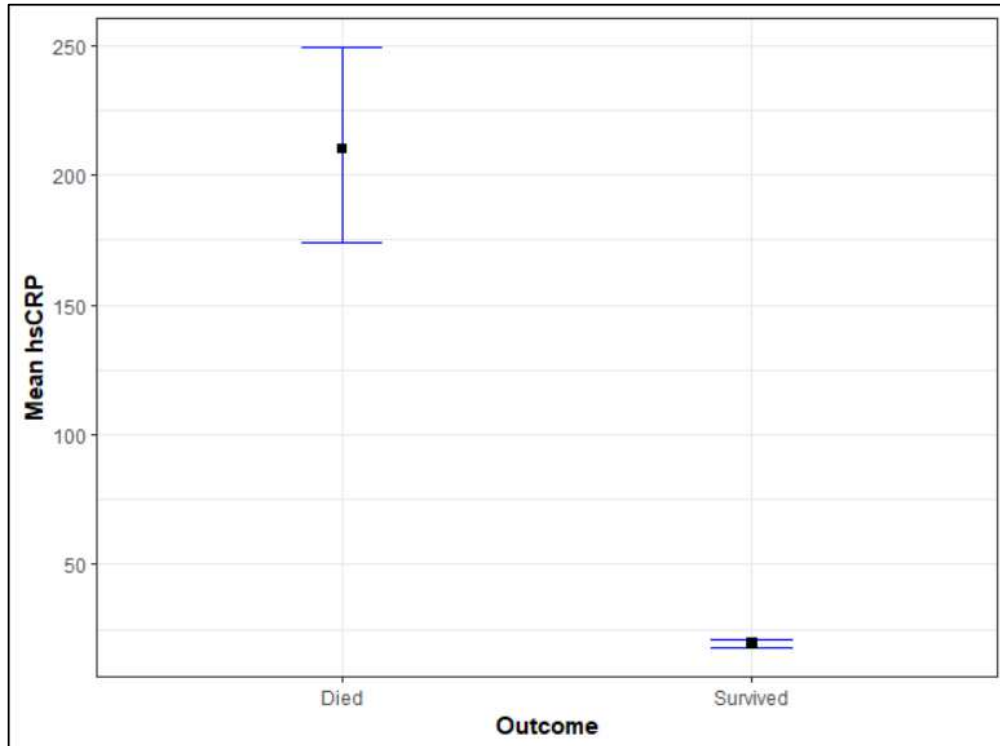
Graph 13: Mean plot of lymphocyte % over outcome.



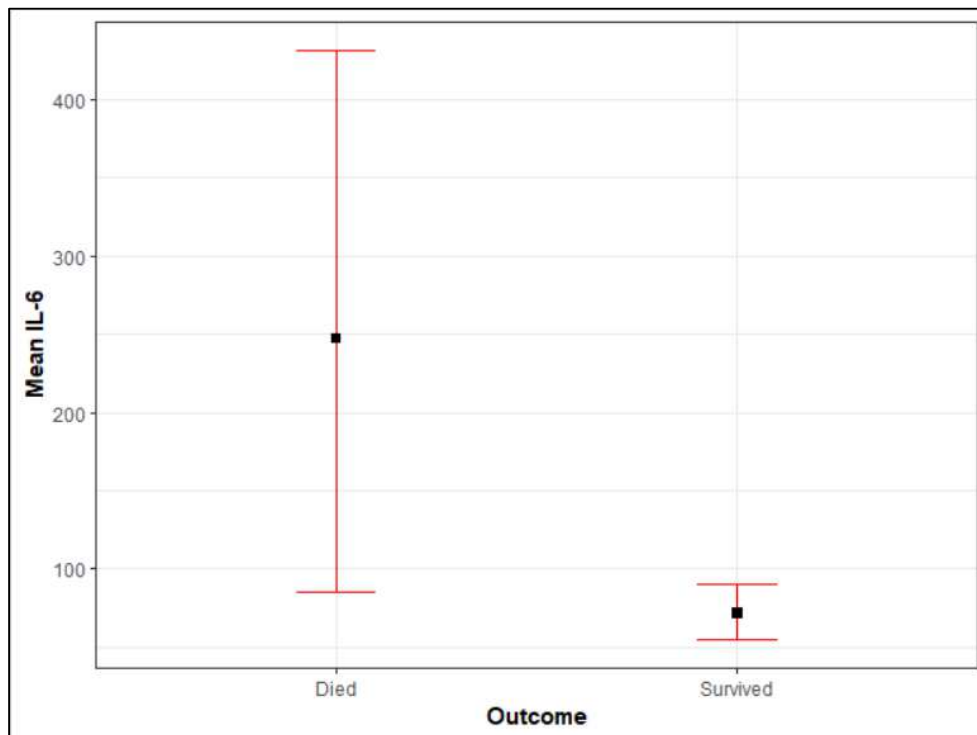
Graph 14: Mean plot of Ferritin over outcome.



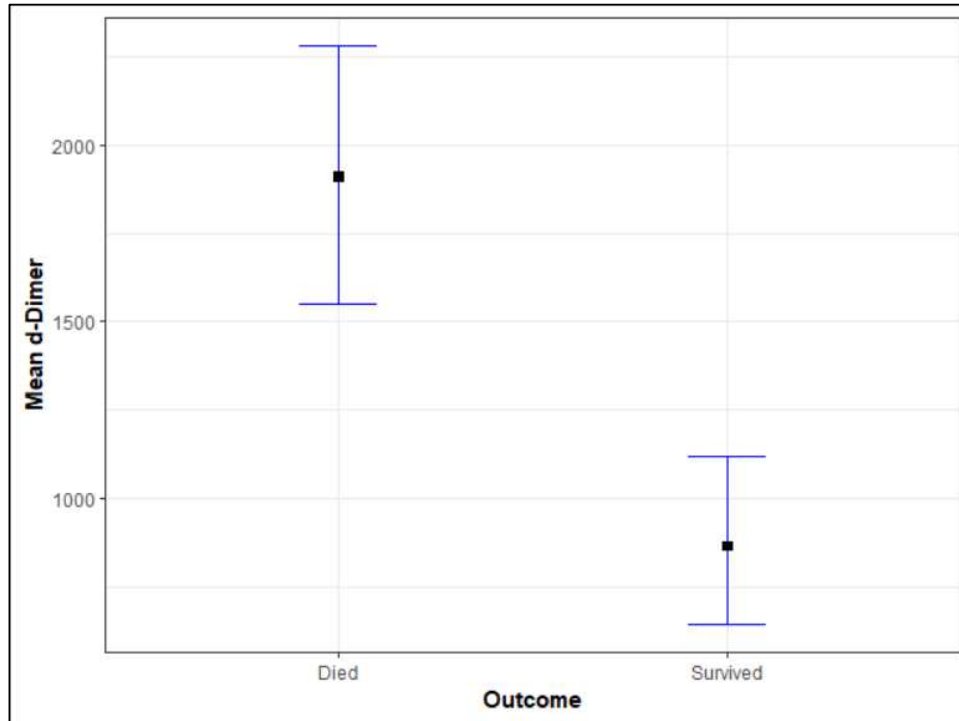
Graph 15: Mean plot of LDH over outcome.



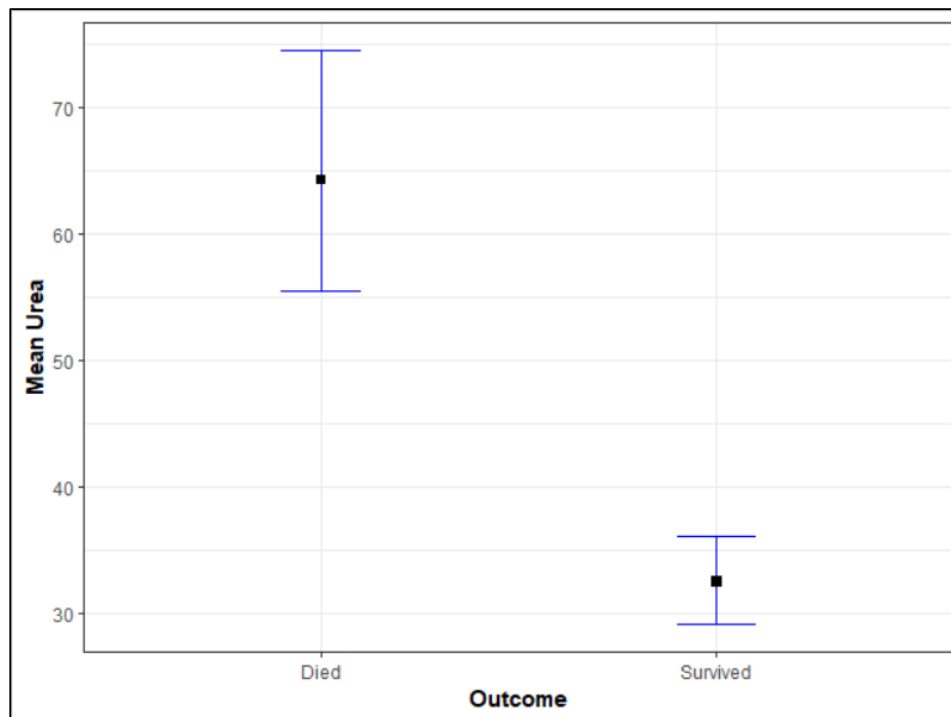
Graph 16: Mean plot of hsCRP over outcome.



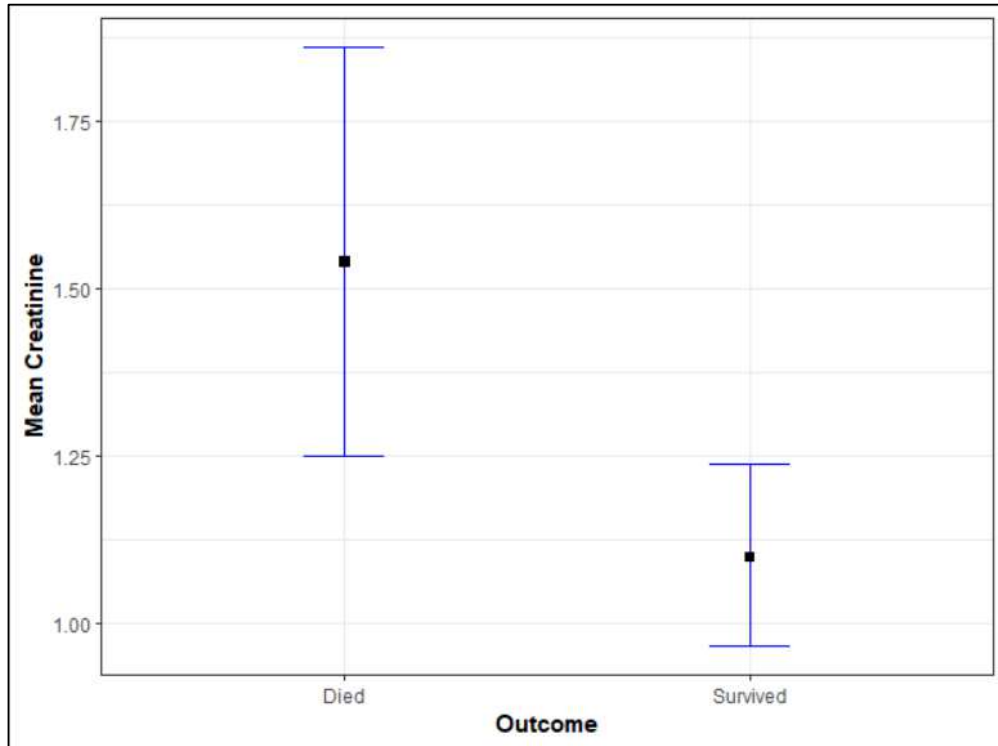
Graph 17: Mean plot of IL-6 over outcome.



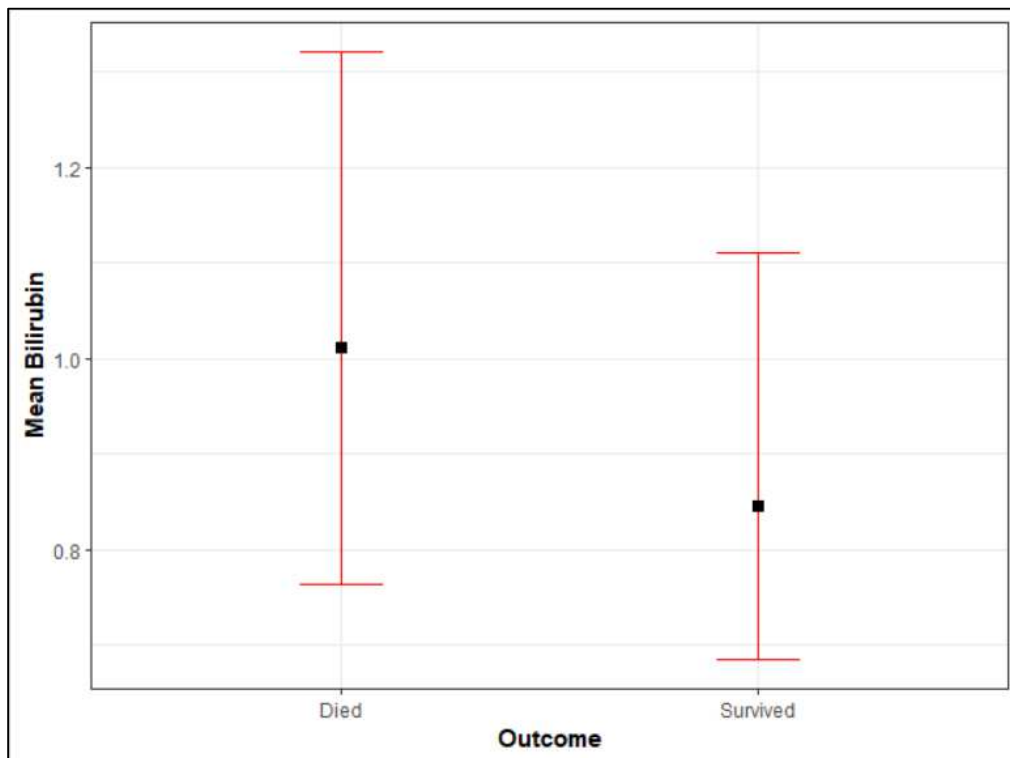
Graph 18: Mean plot of d-Dimer over outcome.



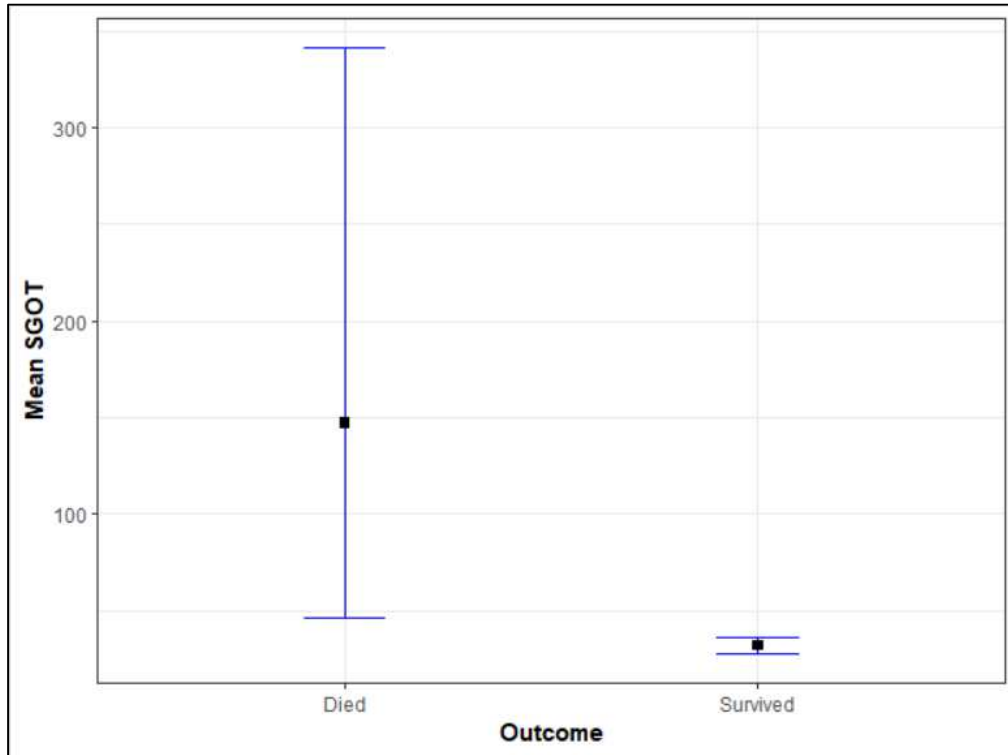
Graph 19: Mean plot of urea over outcome.



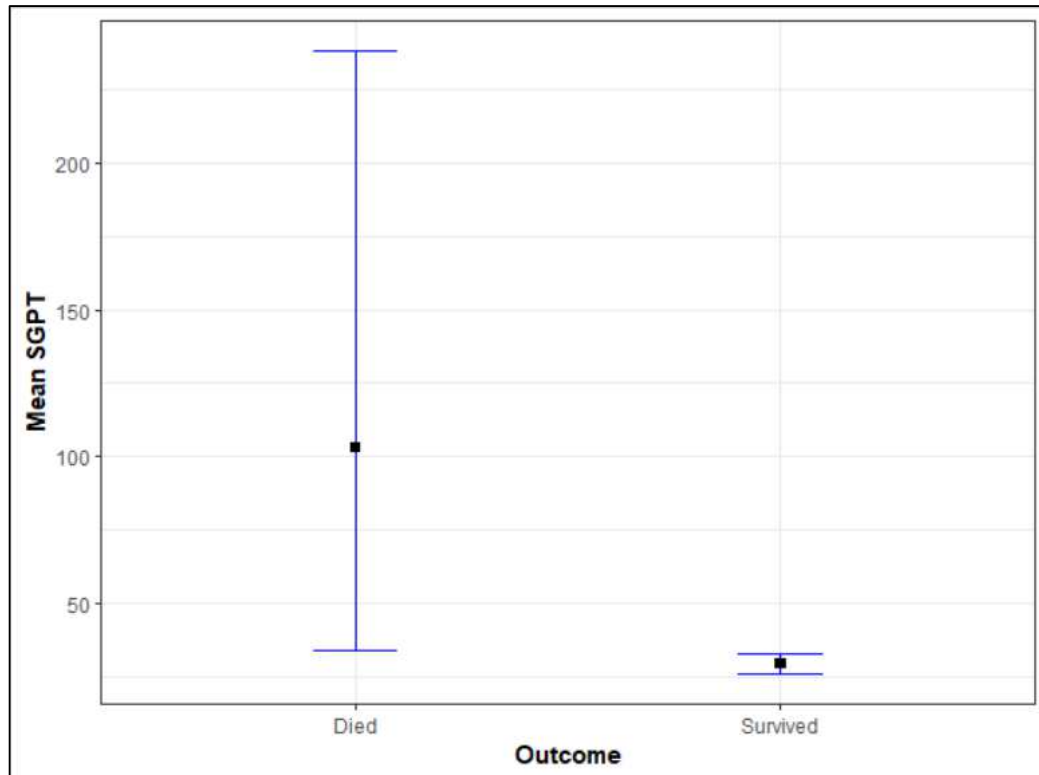
Graph 20: Mean plot of creatinine over outcome.



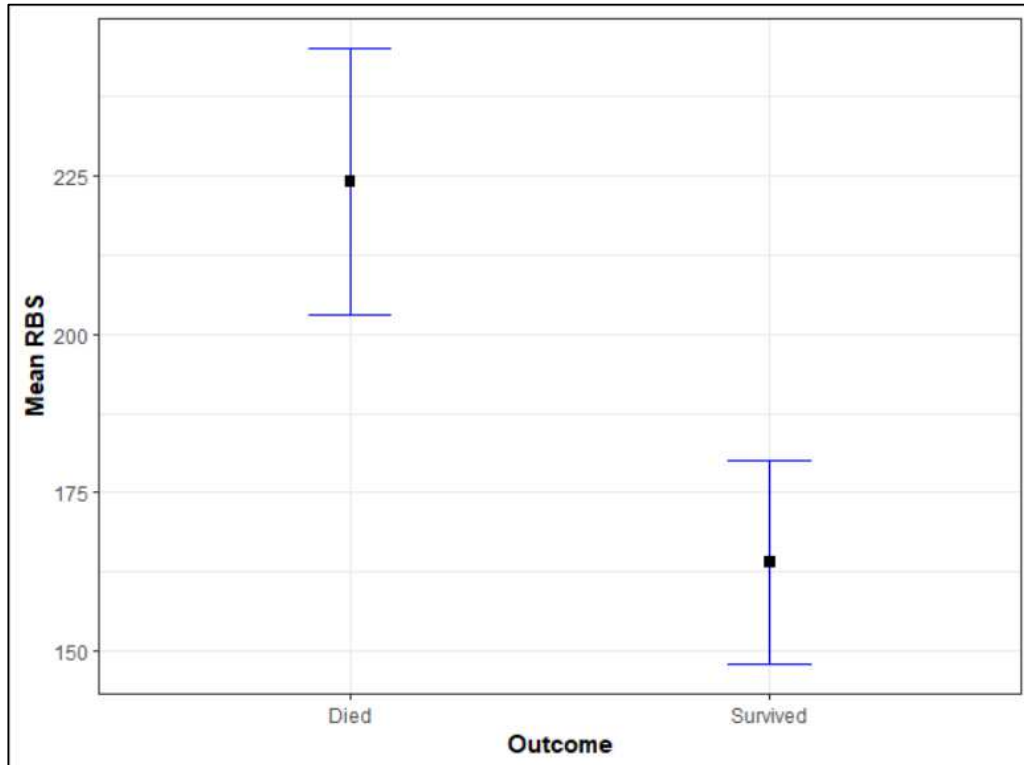
Graph 21: Mean plot of bilirubin over outcome.



Graph 22: Mean plot of SGOT over outcome.



Graph 23: Mean plot of SGPT over outcome.



Graph 24: Mean plot of RBS over outcome.

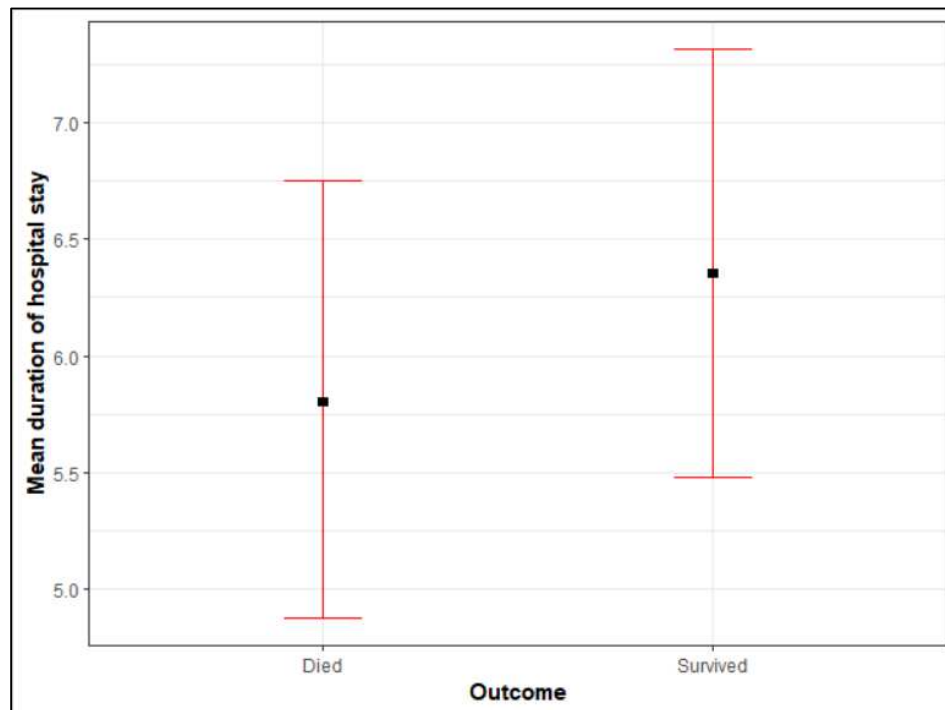
The following table gives the comparison of hospital stay over outcome.

**Table 11: Comparison of hospital stay over outcome.**

Variables	Outcome		Total	p-value
	Died	Survived		
Duration of Hospital stay	5.8 ± 4.31	6.35 ± 4.23	6.07 ± 4.27	0.294 <sup>MW</sup>
	5 (0, 19)	6 (1, 24)	5 (0, 24)	

Abbreviation: MW – Mann Whitney U test.

From Mann Whitney U test, it is observed that, there is no significant difference in the distribution of hospital stay over outcome.



**Graph 31:** Mean plot of duration of hospital stay over outcome.

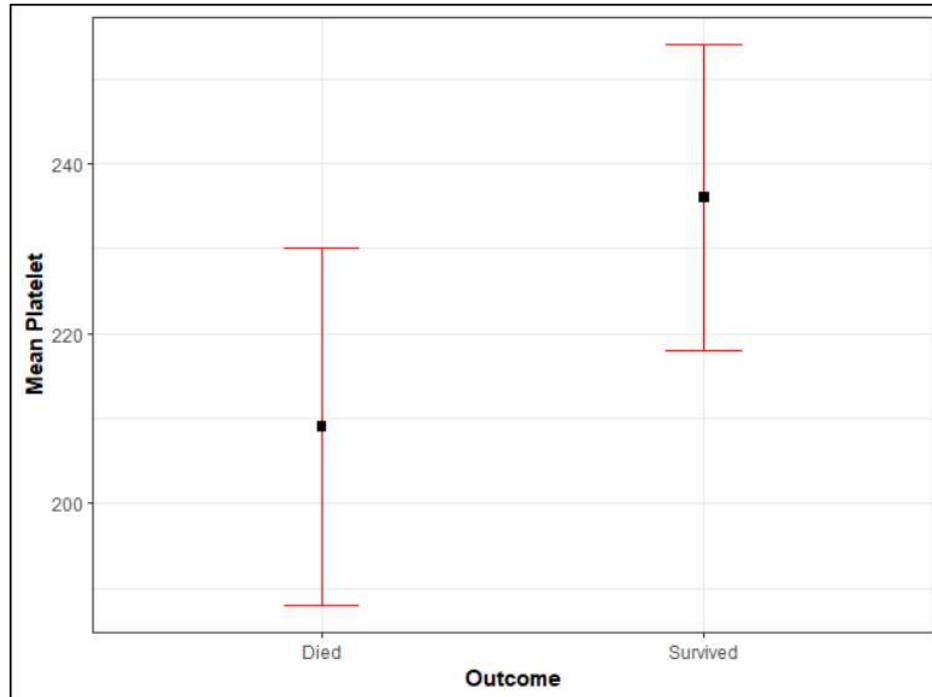
The following table gives the comparison of platelet indices over outcome.

**Table 12: Comparison of platelet indices over outcome.**

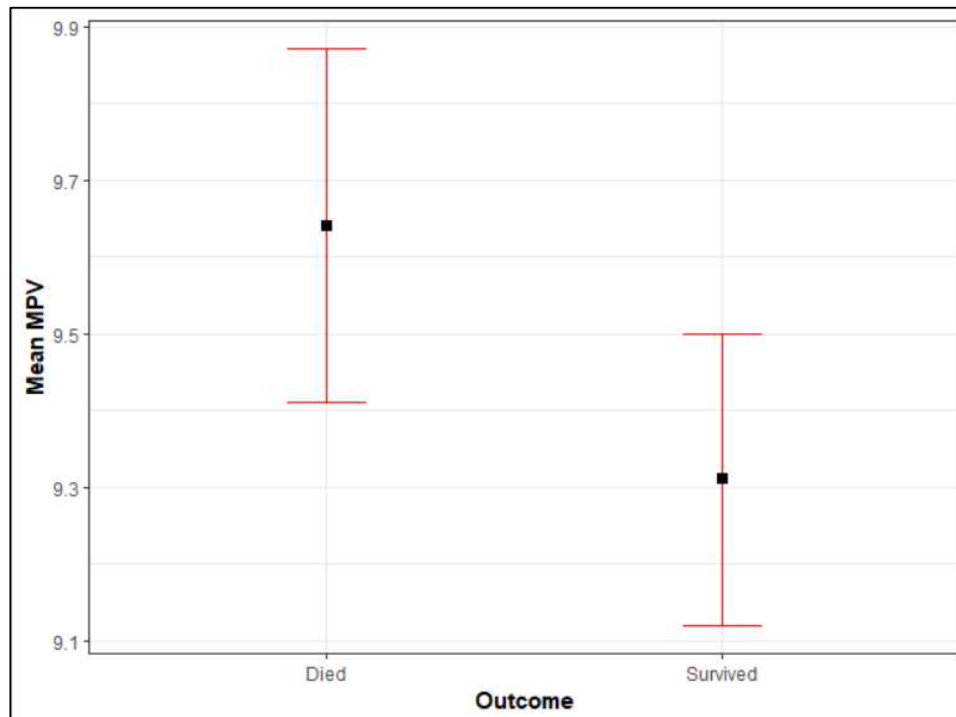
Platelet indices	Outcome		Total	p-value
	Died	Survived		
Platelet count	208.73 ± 98.5	235.76 ± 84.15	222.09 ± 92.41	0.055 <sup>MW</sup>
	195 (38, 464)	229 (2.29, 439)	214 (2.29, 464)	
MPV	9.64 ± 1.06	9.31 ± 0.86	9.48 ± 0.98	0.0858 <sup>MW</sup>
	9.5 (8, 12.7)	9.2 (7.3, 12)	9.3 (7.3, 12.7)	
Plateletcrit	0.22 ± 0.09	0.23 ± 0.06	0.22 ± 0.08	0.1018 <sup>MW</sup>
	0.2 (0.04, 0.59)	0.22 (0.12, 0.39)	0.21 (0.04, 0.59)	
PDW	16.04 ± 1.59	16.17 ± 0.45	16.11 ± 1.17	0.2352 <sup>MW</sup>
	16.3 (6.3, 17.7)	16.2 (15.1, 17.2)	16.2 (6.3, 17.7)	
PLCC	52.36 ± 19.2	54.52 ± 17.1	53.43 ± 18.17	0.6066 <sup>MW</sup>
	53 (15, 103)	51 (30, 98)	51 (15, 103)	
PLCR	25.57 ± 7.67	22.95 ± 5.86	24.27 ± 6.94	0.0575 <sup>MW</sup>
	24.2 (14.6, 45)	22.2 (11.8, 40.7)	22.9 (11.8, 45)	

Abbreviation: MW – Mann Whitney U test.

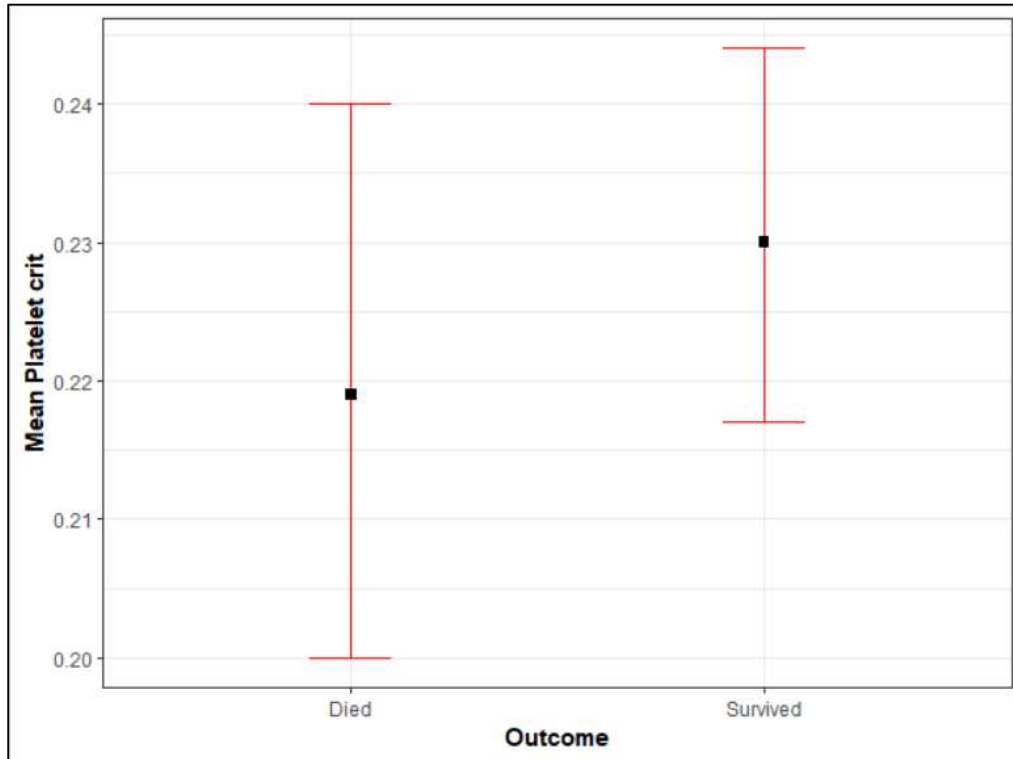
From Mann Whitney U test, it is observed that, there is no significant difference in the distribution of platelet, MPV, platelet crit, PDW, PLCC and PLCR over outcome.



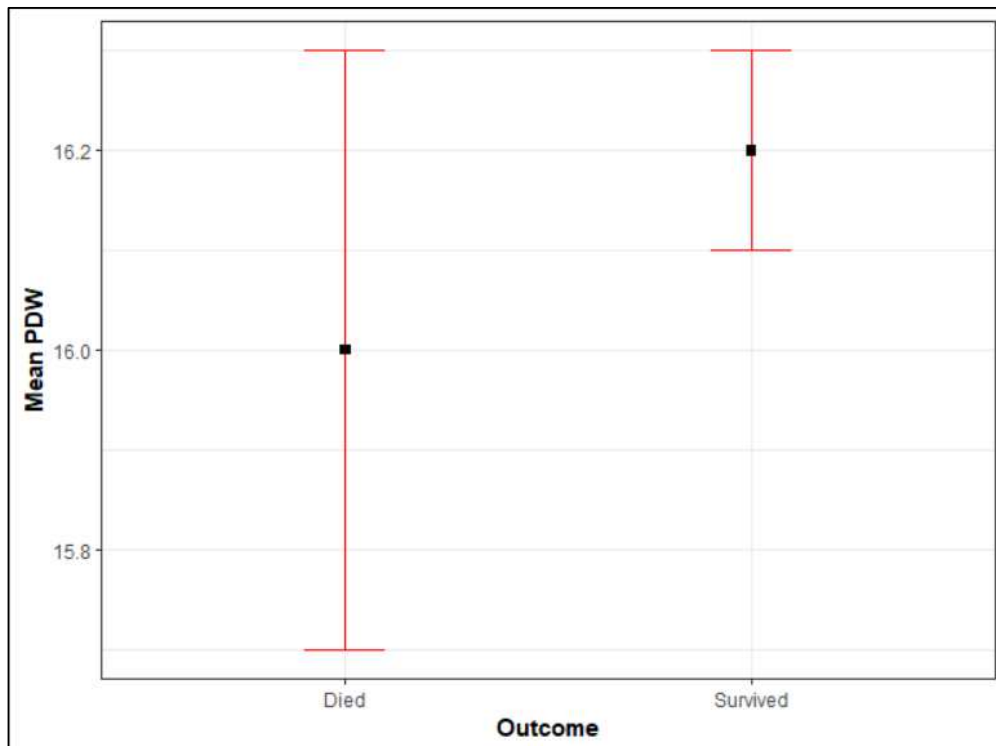
Graph 25: Mean plot of platelet count over outcome.



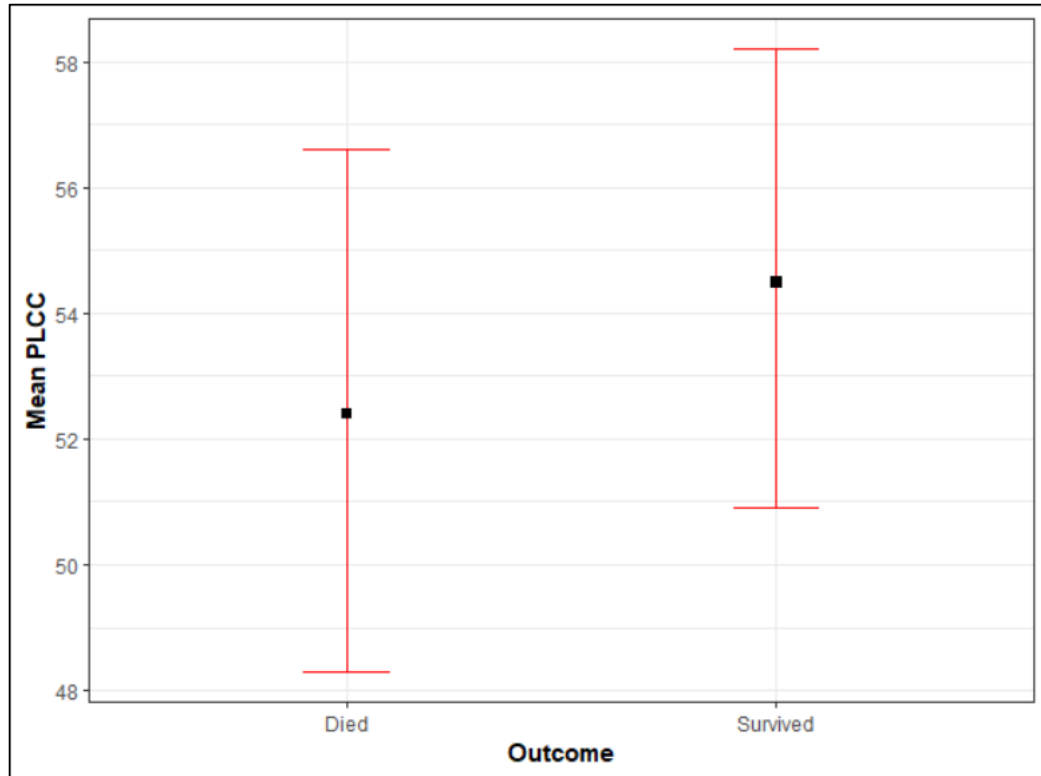
Graph 26: Mean plot of MPV over outcome.



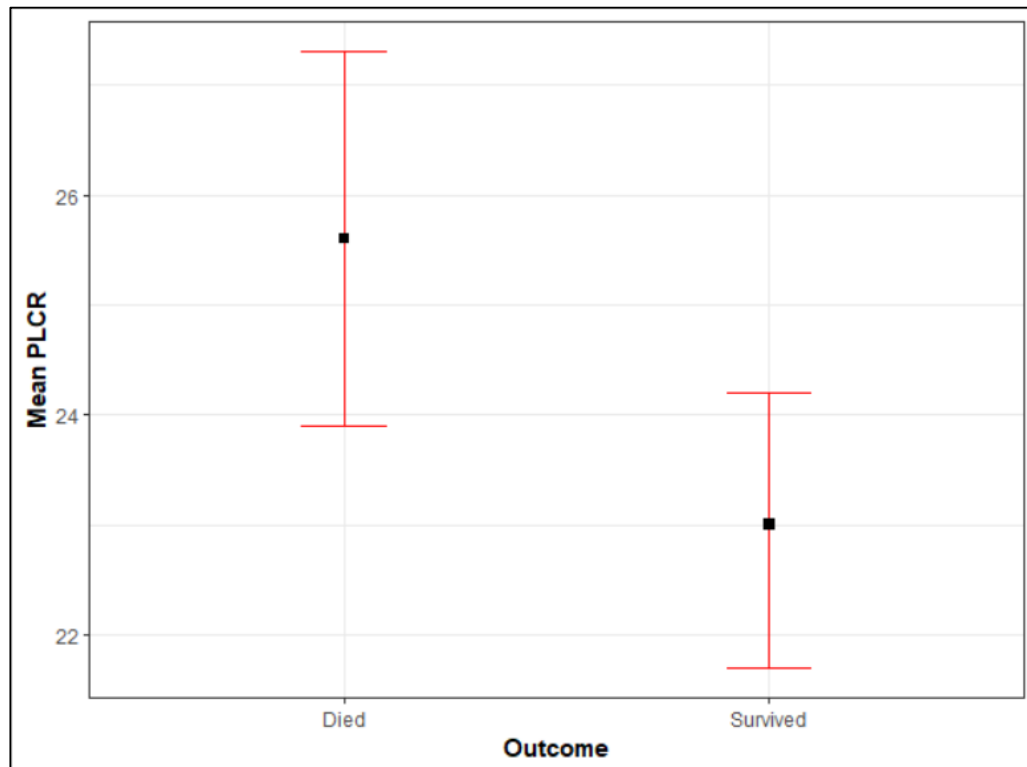
Graph 27: Mean plot of plateletcrit over outcome.



Graph 28: Mean plot of PDW over outcome.



Graph 29: Mean plot of PLCC over outcome.



Graph 30: Mean plot of PLCR over outcome.

The following table gives diagnostic analysis of platelet indices for outcome.

**Table 13.1: Diagnostic analysis of platelet indices for outcome.**

	<b>Platelet Count</b>	<b>Plateletcrit</b>	<b>MPV</b>
<b>Sensitivity</b>	59.26%	86.42%	44.44%
<b>(95% CI)</b>	(47.77% - 70.05%)	(77% - 93.02%)	(33.4% - 55.91%)
<b>Specificity</b>	66.27%	27.71%	69.88%
<b>(95% CI)</b>	(55.05% - 76.28%)	(18.45% - 38.62%)	(58.82% - 79.47%)
<b>PPV</b>	63.16%	53.85%	59.02%
<b>(95% CI)</b>	(51.31% - 73.94%)	(44.89% - 62.62%)	(45.68% - 71.45%)
<b>NPV</b>	62.5%	67.65%	56.31%
<b>(95% CI)</b>	(51.53% - 72.6%)	(49.47% - 82.61%)	(46.18% - 66.06%)
<b>Accuracy</b>	62.8%	56.71%	57.32%
<b>(95% CI)</b>	(54.92% - 70.21%)	(48.76% - 64.41%)	(49.37% - 65%)
<b>AU-ROC</b>	0.6255	0.574	0.5776
<b>(95% CI)</b>	(0.5388 - 0.7123)	(0.4855 - 0.6625)	(0.4898 - 0.6655)
<b>p-value</b>	0.0635	0.361	<b>0.0330*</b>

*Abbreviation: \* indicates statistical significance.*

The AUC for platelet Count is 0.6255 with 59.26% sensitivity and 66.27% specificity in predicting mortality. The AUC for platelet crit is 0.574 with 86.42% sensitivity and 27.71% specificity in predicting mortality. The AUC for MPV is 0.5776 with 44.44% sensitivity and 69.88% specificity in predicting mortality.

From logistic regression, it is observed that, MPV has significant effect on mortality (p-value = 0.0330). The odds of death increase by 1.43 (95% CI: 1.04 - 2.01) with the unit increase of MPV.

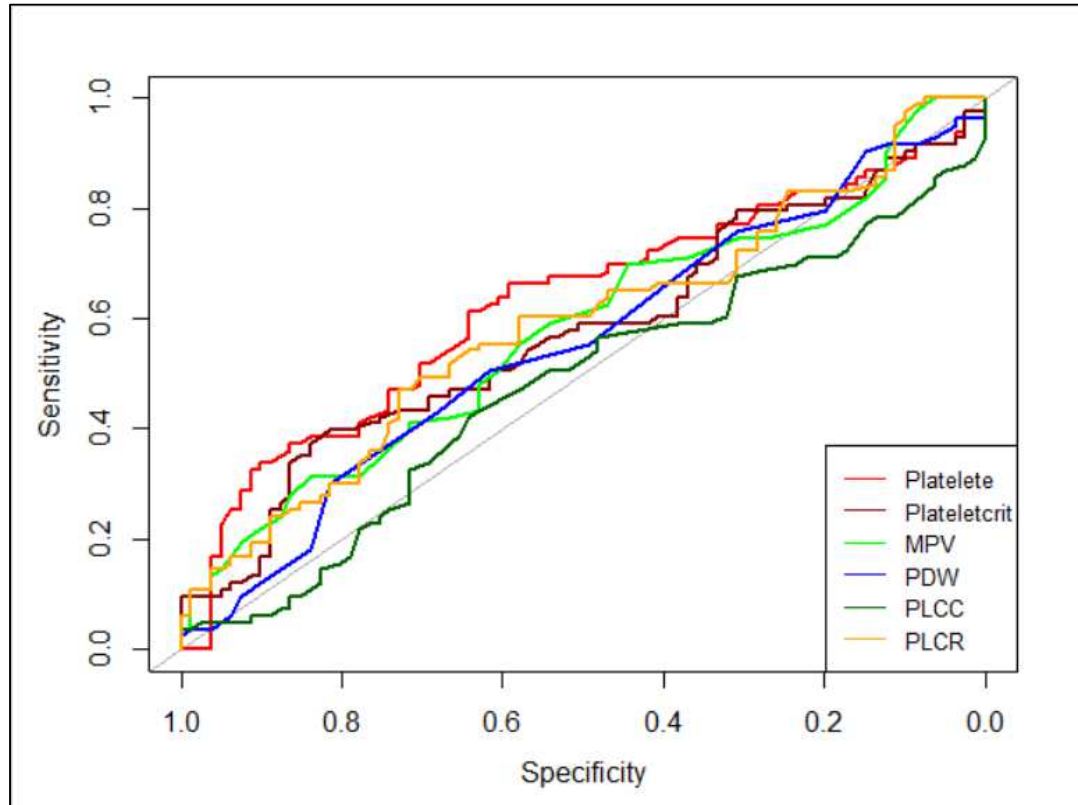
**Table 13.2: Diagnostic analysis of platelet indices for outcome.**

	<b>PDW</b>	<b>PLCC</b>	<b>PLCR</b>
<b>Sensitivity</b>	100%	81.48%	70.37%
<b>(95% CI)</b>	(95.55% - 100%)	(71.3% - 89.25%)	(59.19% - 80.01%)
<b>Specificity</b>	3.61%	28.92%	49.4%
<b>(95% CI)</b>	(0.75% - 10.2%)	(19.48% - 39.91%)	(38.24% - 60.6%)
<b>PPV</b>	50.31%	52.8%	57.58%
<b>(95% CI)</b>	(42.33% - 58.28%)	(43.67% - 61.79%)	(47.23% - 67.45%)
<b>NPV</b>	100%	61.54%	63.08%
<b>(95% CI)</b>	(29.24% - 100%)	(44.62% - 76.64%)	(50.2% - 74.72%)
<b>Accuracy</b>	51.22%	54.88%	59.76%
<b>(95% CI)</b>	(43.3% - 59.09%)	(46.93% - 62.65%)	(51.83% - 67.33%)
<b>AU-ROC</b>	0.5535	0.4767	0.5859
<b>(95% CI)</b>	(0.4652 - 0.6419)	(0.3874 - 0.5661)	(0.4982 - 0.6736)
<b>p-value</b>	0.508	0.447	<b>0.0177 *</b>

*Abbreviation: \* indicates statistical significance.*

The AUC for PDW is 0.5535 with 100% sensitivity and 3.61% specificity in predicting mortality. The AUC for PLCC is 0.4767 with 81.48% sensitivity and 28.92% specificity in predicting mortality. The AUC for PLCR is 0.5859 with 70.37% sensitivity and 49.4% specificity in predicting mortality.

From logistic regression, it is observed that, PLCR has significant effect on mortality (p-value = 0.0177). The odds of death increase by 1.06 (95% CI: 1.01 – 1.11) with the unit increase of PLCR.



Graph 32: ROC curve for predicting mortality outcome.

The following table gives comparison of ROC curves of different platelet indices in predicting mortality outcome.

**Table 14: Comparison of ROC curves of different platelet indices in predicting mortality.**

	<b>Platelet Count</b>	<b>Plateletrcrit</b>	<b>MPV</b>	<b>PDW</b>	<b>PLCC</b>
<b>Platelet crit</b>	0.1765	-	-	-	-
<b>MPV</b>	0.3639	0.9536	-	-	-
<b>PDW</b>	0.1701	0.7265	0.5796	-	-
<b>PLCC</b>	<b>0.0406*</b>	0.2375	<b>0.0496*</b>	0.2232	-
<b>PLCR</b>	0.4407	0.8428	0.7219	0.4729	<b>0.0409*</b>

*Abbreviation: \* indicates statistical significance.*

From pairwise comparison of the ROC curves, it is observed that, the discriminant power of platelet Count is significantly higher than PLCC (p-value = 0.0406), the discriminant power of MPV is significantly higher than PLCC (p-value = 0.0496) and the discriminant power of PLCR is significantly higher than PLCC (p-value = 0.0409).

There is no significant difference in the discriminant power between other platelet indices.

**Note:** The discriminant power of PLCC was observed to be the least.

## **DISCUSSION**

Thrombocytopenia is very common among the patients who are critically ill. Thrombocytopenia occasionally suggests grave physiologic decompensation and organ dysfunction as opposed to primary haematologic aetiology. It may also indicate the evolution of coagulopathy within the vascular compartment, often leading to Disseminated Intravascular Coagulation (DIC).<sup>5</sup>

In the present study, total of 164 patients with COVID 19 were evaluated. The mean age of patients was found to be  $57.35 \pm 16.59$  years of age. 84% were male and 16% were female. The study suggests that the average age of the patients who died was higher as compared to the patients who survived, i.e., the mortality was greater among the elderly patients. However, there is no significant difference in the mean statistically. Among the study participants, the gender distribution was comparable between the two groups.

On assessment of days of admission after onset of symptoms to hospital, no statistically significant difference was found in the distribution of time to the hospital from the point of symptom onset amongst the two groups of our study. Analysis of the patients' respiration rates and oxygen saturation upon admission revealed that the patients who died had considerably greater mean respiratory rates and significantly lower mean oxygen saturation. It was noted that patients who did not survive were administered oxygen at higher rates and modalities such as the high flow oxygenator as well the mechanical ventilators were employed to deliver oxygen. Significant number of patients (50.62%) who survived maintained their oxygen saturation on ambient air at admission.

It was observed in our study that there was a significant difference in the distribution of breathlessness over outcome. Breathlessness was observed more in the patients who did not survive (89.16% of the patients who died).

Among the comorbidities, it was observed that there was a significant difference in the distribution of DM and IHD over the outcome. Further, it was noted that the proportion of DM and IHD was more in cases of subjects which didn't survive. There was no significant difference in the distribution of other comorbidities over outcome.

In the study, the CT severity score was significantly higher among the patients with mortality compared to the patients who survived at the time of admission. ( $p < 0.05$ ). Significantly higher neutrophil counts are observed in patients who died. Other laboratory parameters such as LDH, hsCRP, IL-6, d-Dimer, Urea, Creatinine, SGOT, SGPT and RBS had significant distribution over the outcome.

The mean level of ferritin was significantly higher in the patients who expired as compared to the patients who survived. ( $p < 0.05$ ) Yanling LV et al., documented that the patients with low serum iron levels were more likely to have a severe condition and multiple organ injury in COVID-19. Iron metabolism characteristics may be risk factors and can be used as clinical biomarkers for the prognosis of COVID-19.<sup>67</sup>

The predictive value of changes in platelet parameters in COVID-19 patients has to be evaluated through additional multicentre studies on larger cohorts, including %IPF analysis. Platelet count was considerably lower in individuals with more severe COVID-19, according to a pooled study done previously. Thrombocytopenia was related with a five times increased risk of severe COVID 19 in four trials with a

sample size of 1427. Low platelet count is associated with increased risk of severe disease and mortality in patients with COVID 19, and thus should serve as clinical indicator of worsening illness during hospitalization.<sup>6</sup> Although D-dimer, sepsis physiology, and consumptive coagulopathy are all predictors of death, current evidence does not support the use of full-intensity anticoagulation dosages unless clinically needed. Despite the fact that COVID-19 is related with coagulopathy, bleeding symptoms, even in individuals with DIC, have not been recorded. If bleeding occurs, conventional DIC and bleeding control recommendations should be followed.<sup>4</sup>

In our study, it was found that many patients who expired were found to have thrombocytopenia on admission. But these numbers failed to achieve statistical significance. However, the AUC for MPV is 0.5776 with 44.44% sensitivity and 69.88% specificity in predicting mortality. From logistic regression, it is observed that, MPV has significant effect on mortality (p-value = 0.0330). The odds of death increase by 1.43 (95% CI: 1.04 - 2.01) with the unit increase of MPV. Similarly, the AUC for PLCR is 0.5859 with 70.37% sensitivity and 49.4% specificity in predicting mortality. From logistic regression, it is observed that, PLCR has significant effect on mortality (p-value = 0.0177). The odds of death increase by 1.06 (95% CI: 1.01 – 1.11) with the unit increase of PLCR. Additionally, from pairwise comparison of the ROC curves, it is observed that, the discriminant power of platelet count is significantly higher than PLCC (p-value = 0.0406), the discriminant power of MPV is significantly higher than PLCC (p-value = 0.0496) and the discriminant power of PLCR is significantly higher than PLCC (p-value = 0.0409). Thus, it can be inferred that platelet count can be employed to prognosticate and predict mortality in patients suffering from COVID 19 pneumonia.

In high altitudes, regardless of age or gender, an MPV of more than 10.15 fL during the first week of sickness indicated severity. We need prospective studies with a larger population and at different altitude levels in order to determine if MPV in the first week of the illness can predict severity in COVID-19 patients at high elevations.<sup>64</sup> In contrast to controls, plateletcrit (PCT) was also significantly reduced in COVID-19 patients. Though not consistently, MPV, PDW, and PLCR were significantly greater in COVID-19 patients as compared to controls. The values of the platelet large cell count (PLCC) between COVID-19 patients and non-COVID-19 controls did not differ substantially. Infection with COVID-19 causes significant changes in platelet indices as platelet count, PCT, MPV, PDW, and P-LCR, which makes them useful as COVID-19 biomarkers.

A positive correlation between MPV and platelet activation and function has been observed in earlier studies. Inflammatory cytokines, which also indicate circumstances that are prothrombotic and proinflammatory, control MPV and thrombopoiesis.<sup>20</sup> MPV and COVID-19 severity were shown to be correlated in a Turkish study.<sup>68</sup> Platelets play an important role in the processes of haemostasis, the coagulation cascade, maintaining vascular integrity, neo angiogenesis, inflammatory response, innate immunity, and tumour biology. According to recent studies, platelets have a crucial role in controlling thrombosis, vascular inflammation, and microbial infection..<sup>69</sup>

According to Guclu E et al., COVID-19 patients' oxygen saturation at admission and the MPV difference between the first and third days of hospitalisation were useful markers for predicting mortality. A unit increase in MPV increased mortality 1.76 times whereas the risk of death was 8.4 times higher in patients whose oxygen saturation was below 90% at the time of admission. The mean platelet volume

of patients may be used as an adjunct test to lung capacity in order to predict mortality in COVID-19 patients.<sup>61</sup>

## **CONCLUSION**

The present study documented the significant correlation of platelet indices with COVID-19 infections. The study found predictability in using the platelet indices as biomarkers to classify and prognosticate the severity of the COVID 19 infections. Pairwise comparison of the ROC curves of various platelet indices predicting mortality was suggestive of higher discriminant function of platelet count as compared to other platelet indices. There was significant rise in mortality with each unit rise in MPV and PLCR.

## **SUMMARY**

This cross-sectional study was conducted among the Patients admitted in the COVID 19 dedicated wards of KLES Dr Prabhakar Kore Hospital, Belgaum and fulfilling the inclusion criteria were included. Pregnant women, patients who had undergone splenectomy, patients suffering from disorders such as ITP, aplastic anaemia, patients on chemotherapy, patients positive for HIV were excluded from the study. Patients were assessed for the Complete Blood Count, Liver function tests, Renal function Tests, D dimer level, Serum Ferritin level, IL-6 levels, Blood Grouping, LDH levels, Urine Routine and Microscopy, and HRCT thorax was done. Platelet count and its indices including Mean Platelet Volume and Platelet Distribution width was obtained.

- In the present study, total of 168 patients with COVID 19 were evaluated, out of which 4 patients worsened clinically and were discharged from the hospital against medical advice. Hence the study was carried out on 164 patients suffering from COVID 19 pneumonia.
- In the present study, the mean age of patients was found to be  $57.35 \pm 16.59$  yrs of age.
- Male patients made up 84.15% of the study's patient population, while female patients made up 15.85%.
- The mean age of the patients who passed away in the current research was greater than that of the patients who lived, but statistically, there was no significant difference in the mean.
- Among the study participants, the gender distribution was comparable between the groups.

- There was no statistically significant difference between the days passed after the onset of the symptoms to the day of admission between the two groups.
- Upon evaluation, it was shown that individuals who passed away had much greater respiratory rates than those who survived. When compared to those who lived, the oxygen saturation of patients who died was considerably lower at admission. (p<0.05)
- It was found in the study that patients who died required higher rates of oxygen delivery as compared to those who survived. Modalities such as the high flow oxygenator and non-invasive ventilators were employed in a greater number of patients who expired.
- Around 41 patients (50.62%) from the survival group were comfortable and maintained oxygen saturation at ambient air on admission, whereas none of the patients from the mortality group maintained normal oxygen saturation on ambient air. They invariably required one or the other oxygen delivery modalities on admission.
- In the research, the CT severity score was considerably greater in patients who died than in those who survived. (p<0.05)
- Inflammatory markers were significantly increased in the patients who passed away as compared to the patients who survived.
- In the current study, patients who died had much greater neutrophils than those who survived, while patients who died had significantly fewer lymphocytes than those who lived.

- From logistic regression, it is observed that, MPV has significant effect on mortality (p-value = 0.0330). The odds of death increase by 1.43 (95% CI: 1.04 - 2.01) with the unit increase of MPV. From logistic regression, it is observed that, PLCR has significant effect on mortality (p-value = 0.0177). The odds of death increase by 1.06 (95% CI: 1.01 – 1.11) with the unit increase of PLCR.
- The area under curve for the PLCR was 0.5859, for the PLCC it was 0.4767, MPV was 0.582, PDW 0.5535 and plateletcrit was 0.425. All the platelet indices were comparable to predict the mortality.
- In the present study, the mean level of ferritin was significantly higher (p<0.05)
- In the present study, the mean dose of steroids was significantly higher among the patients with mortality compared to those who survived.

LIMITATIONS OF THE STUDY:

- This was a single center observational study with a small sample size.
- The study involved greater number of subjects from the older age group. Thus, further studies with inclusion of the patients from the younger age group must be carried out.

FUTURE PERSPECTIVES:

- Further studies are required to assess the role of platelet indices, especially MEAN PLATELET VOLUME, as biomarkers to gauge the severity of COVID 19 infection and firmly establish the role of these indices in predicting the outcome of the patients.
- Platelet indices have the potential to be used as the biomarkers to assess the severity of COVID 19 pneumonia and prognosticate the patients in resource poor settings where assessing the levels of other inflammatory markers might not be possible due to the lack of resources or financial constraints of the patients.

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**ANNEXURE I**  
**INFORMED CONSENT**

Dear Mr./Mrs./Dr. \_\_\_\_\_, you are kindly requested to enroll yourself in a research study titled, **“Study of Clinical Profile and its correlation with Platelet Indices in patients infected with SARS-CoV2: A One year Cross Sectional Study done in KLES Dr. Prabhakar Kore Hospital and Medical Research Centre, Belagavi.”** being conducted by Dr. Yoshaan Amit Joshi, a post graduate student in M.D. General Medicine and the study will be carried out under the direct supervision and guidance of Dr. Anjali Metgudmath, Professor, Department of General Medicine, Jawaharlal Nehru Medical College, Belgaum.

You have been requested to participate in this as you fit into the laid out criteria for a study ‘subject’/ participant.

Your participation in study is voluntary. During the study you will be asked some questions and you are supposed to answer to the best of your knowledge. Your decision whether or not to participate in the study will not affect your treatment in any form. If you decide to participate you are free to withdraw at any time.

**TITLE OF THE STUDY:**

**“Study of Clinical Profile and its correlation with Platelet Indices in patients infected with SARS-CoV2: A One-year Cross Sectional Study done in KLES Dr. Prabhakar Kore Hospital and Medical Research Centre. Belagavi.”**

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**PURPOSE OF THE STUDY:**

To study the Clinical profile and its correlation with Platelet Indices in patients infected with SARS-CoV2.

**PROCEDURES INVOLVED:**

If you agree to enroll yourself in my study, you will be interviewed regarding your present, past and family history then you will be clinically examined in detail and investigated accordingly.

Then you will be subjected to a few blood investigations, namely complete blood counts, random blood glucose, renal function tests, liver function tests, urine routine and microscopy, D dimer, LDH, serum ferritin, IL-6, hsCRP.

**RISKS AND BENEFITS:**

There are no potential risks involved in this study.

**Benefits of taking part in this research:**

By taking part in this study, correlation between the platelet indices and prognosis of the patient suffering from COVID-19 infection can be found out.

**VOLUNTARY PARTICIPATION / WITHDRAWAL FROM THE STUDY:**

Taking part in the study is voluntary. You may choose not to enroll yourself in this study and may choose to leave the study anytime in between.

**ALTERNATIVES:**

Your decision regarding participation in study will not change present or future health care services offered to you at KLES Dr. Prabhakar Kore Hospital and Medical Research Centre, Belagavi. You would simply be excluded from the study if you wish to, and all your details shall be kept confidential and you will get the routine line of management.

**PRIVACY AND CONFIDENTIALITY:**

All data collected or disclosed by you during the course of participation of study, will be kept fully confidential. If however during the course it becomes necessary for the progress of the course to disclose the identity, it would be done so only after your informed & written consent.

The only people to know that you are a research subject are members of the research team. No information about you will be disclosed to other without your written permission except:

- In emergency to protect your rights AND welfare.
- If required by law.

**AUTHORIZATION TO PUBLISH RESULT:**

The results of the study may be used to publish an article. When the results of research published or discussed, in a conference, no information will be displayed that would disclose your identity. Any information obtained in connection with this study and that can be identified with you will remain confidential.

**FINANCIAL INCENTIVES FOR PARTICIPATION:**

No additional costs shall be incurred upon you for the purpose of this study.

It is purely being done with the idea of research and all the cost of study will be borne by the investigator.

**COMPENSATION:**

In the event that you become injured as a result of taking part in this study, treatment will be offered to you at KLES Dr. Prabhakar Kore Hospital and Medical Research Centre, Belgaum, or you will be given information about where to receive medical care. However, no reimbursement, compensation or free medical care will be given.

**QUESTIONS/CONTACT DETAILS:**

You shall be free to contact the below mentioned name & addresses anytime during the study period for any clarification or help as you may desire for.

In case of the queries during study or in future you may contact following persons,

1. Dr. Roopa M Bellad, Chairman,  
J.N.M.C Ethical Committee for  
Human Research  
9448113403

2. Dr. Arathi Darshan, MD, FICP  
Professor and HEAD OF  
DEPARTMENT,  
Dept. of General Medicine,  
JNMC, Belgaum.  
9448845883

3. Dr. Anjali Metgudmath, MD,  
FGSI, FICP  
Guide,  
Professor,  
Dept. of General Medicine,  
JNMC, Belgaum.  
9019276822

4. Dr. Suvarna V. Pai, M.D  
(Pathology)  
Consultant In charge Pathology,  
Hi-Tech Laboratory,  
KLES Dr. Prabhakar Kore Hospital  
and MRC,  
Belagavi-590010  
9945988163

4. Dr. Yoshaan Amit Joshi  
Investigator,  
PG in General Medicine,  
JNMC, Belgaum.  
7069994847

**CONSENT FORM**

I voluntarily agree to take part in this study by signing below. I may withdraw at any time. I am not giving up any of my legal rights by signing this form. My signature below indicates that I have read this consent form, or it has been read to me, this consent form and have had all the questions answered.

Signature / Left Thumb print of the Participant or legally authorized representative

Participant's name

.....

Signature / Left thumb impression  
.....  
of the participant

Name of the legally authorized  
.....  
representative / guardian

Signature / Left thumb impression  
.....

Witness' name

.....

Signature / Left thumb impression  
.....

Investigator's name and signature  
.....

Date:

Place:

## ತಿಳುವಳಿಕೆಯ ಸಮ್ಮತಿ

ಆತ್ಮೀಯ ಶ್ರೀ / ಶ್ರೀ. / ಡಾ. \_\_\_\_\_, ಓರೆಯಾಗಿರುವ  
ಸಂಶೋಧನಾ ಅಧ್ಯಯನಕ್ಕೆ ನಿಮ್ಮನ್ನು ಸೇರಿಸಲು ನಿಮ್ಮನ್ನು ದಯೆಯಿಂದ ವಿನಂತಿಸಲಾಗಿದೆ ,  
"ಕ್ಲಿನಿಕಲ್ ಪ್ರೊಫೈಲ್‌ನ ಅಧ್ಯಯನ ಮತ್ತು ಸಾರ್ಸ್ -ಸಿಒವಿ 2 ಸೋಂಕಿತ ರೋಗಿಗಳಲ್ಲಿ ಫ್ಲೇಟ್‌ಲೆಟ್  
ಸೂಚ್ಯಂಕಗಳೊಂದಿಗೆ ಅದರ ಪರಸ್ಪರ ಸಂಬಂಧ: ಒಂದು ವರ್ಷದ ಕ್ರಾಸ್ ಸೆಕ್ಷನಲ್ ಸ್ಟಡಿ." ಕೆ ಎಲ್ ಇ  
ಎಸ್ ಡಾ. ಪ್ರಭಾಕರ್ ಕೋರೆ ಅವರ ಆಸ್ಪತ್ರೆ ಮತ್ತು ವೈದ್ಯಕೀಯ ಸಂಶೋಧನಾ ಕೇಂದ್ರ, ಬೆಳಗಾವಿ "  
ಎಂ.ಡಿ. ಜನರಲ್ ಮೆಡಿಸಿನ್‌ನಲ್ಲಿ ಸ್ನಾತಕೋತ್ತರ ವಿದ್ಯಾರ್ಥಿ ಡಾ. ಯೋಶಾನ್ ಅಮಿತ್ ಜೋಶಿ, ಅವರು  
ನಡೆಸಲಿದ್ದಾರೆ ಮತ್ತು ಬೆಳಗಾವಿನ ಜವಾಹರಲಾಲ್ ನೆಹರು ವೈದ್ಯಕೀಯ ಕಾಲೇಜಿನ ಜನರಲ್ ಮೆಡಿಸಿನ್  
ವಿಭಾಗದ ಪ್ರೊಫೆಸರ್ ಡಾ.ಅಂಜಲಿ ಮೆಟ್‌ಗುಡ್‌ಮರ ಅವರ ನೇರ ಮೇಲ್ವಿಚಾರಣೆ ಮತ್ತು  
ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ಈ ಅಧ್ಯಯನವನ್ನು ನಡೆಸಲಾಗುವುದು.

ಅಧ್ಯಯನದ 'ವಿಷಯ' / ಭಾಗವಹಿಸುವವರಿಗೆ ನೀವು ನಿಗದಿಪಡಿಸಿದ ಮಾನದಂಡಗಳಿಗೆ ಸರಿಹೊಂದುವಂತೆ ಇದರಲ್ಲಿ  
ಭಾಗವಹಿಸಲು ನಿಮ್ಮನ್ನು ವಿನಂತಿಸಲಾಗಿದೆ .  
ಅಧ್ಯಯನದಲ್ಲಿ ನಿಮ್ಮ ಭಾಗವಹಿಸುವಿಕೆ ಸ್ವಯಂಪ್ರೇರಿತವಾಗಿದೆ. ಅಧ್ಯಯನದ ಸಮಯದಲ್ಲಿ ನಿಮ್ಮನ್ನು ಕೆಲವು ಪ್ರಶ್ನೆಗಳನ್ನು  
ಕೇಳಲಾಗುತ್ತದೆ ಮತ್ತು ನಿಮ್ಮ ಉತ್ತರವು ಜ್ಞಾನಕ್ಕೆ ನೀವು ಉತ್ತರಿಸಬೇಕಾಗುತ್ತದೆ. ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸಬೇಕೆ ಅಥವಾ  
ಬೇಡವೇ ಎಂಬ ನಿಮ್ಮ ನಿರ್ಧಾರವು ನಿಮ್ಮ ಚಿಕಿತ್ಸೆಯ ಮೇಲೆ ಯಾವುದೇ ರೂಪದಲ್ಲಿ ಪರಿಣಾಮ ಬೀರುವುದಿಲ್ಲ. ನೀವು  
ಭಾಗವಹಿಸಲು ನಿರ್ದರಿಸಿದರೆ ನೀವು ಯಾವುದೇ ಸಮಯದಲ್ಲಿ ಹಿಂತೆಗೆದುಕೊಳ್ಳಬಹುದು .

ಅಧ್ಯಯನದ ಶೀರ್ಷಿಕೆ :

"ಕ್ಲಿನಿಕಲ್ ಪ್ರೊಫೈಲ್‌ನ ಅಧ್ಯಯನ ಮತ್ತು ಸಾರ್ಸ್ -ಸಿಒವಿ 2 ಸೋಂಕಿತ ರೋಗಿಗಳಲ್ಲಿ ಫ್ಲೇಟ್‌ಲೆಟ್  
ಸೂಚ್ಯಂಕಗಳೊಂದಿಗೆ ಅದರ ಪರಸ್ಪರ ಸಂಬಂಧ: ಒಂದು ವರ್ಷದ ಕ್ರಾಸ್ ಸೆಕ್ಷನಲ್ ಸ್ಟಡಿ." ಕೆ ಎಲ್ ಇ  
ಎಸ್ ಡಾ. ಪ್ರಭಾಕರ್ ಕೋರೆ ಅವರ ಆಸ್ಪತ್ರೆ ಮತ್ತು ವೈದ್ಯಕೀಯ ಸಂಶೋಧನಾ ಕೇಂದ್ರ, ಬೆಳಗಾವಿ "

ಅಧ್ಯಯನದ ಉದ್ದೇಶ :

ಸಾರ್ಸ್ -ಸಿಒವಿ 2 ಸೋಂಕಿತ ರೋಗಿಗಳಲ್ಲಿ ಕ್ಲಿನಿಕಲ್ ಪ್ರೊಫೈಲ್ ಮತ್ತು ಫ್ಲೇಟ್‌ಲೆಟ್ ಸೂಚ್ಯಂಕಗಳೊಂದಿಗೆ ಅದರ ಪರಸ್ಪರ  
ಸಂಬಂಧವನ್ನು ಅಧ್ಯಯನ ಮಾಡಲು .

ಒಳಗೊಂಡಿರುವ ಕಾರ್ಯವಿಧಾನಗಳು:

ನನ್ನ ಅಧ್ಯಯನಕ್ಕೆ ನಿಮ್ಮನ್ನು ಸೇರಿಸಲು ನೀವು ಒಪ್ಪಿದರೆ, ನಿಮ್ಮನ್ನು ಪ್ರಾಯೋಗಿಕವಾಗಿ ವಿವರವಾಗಿ ಪರಿಶೀಲಿಸಲಾಗುತ್ತದೆ  
ಮತ್ತು ಅದರ ಪ್ರಕಾರ ಈ ಕೆಳಗಿನ ತನಿಖೆಗಳಿಗಾಗಿ ತನಿಖೆ ಮಾಡಲಾಗುತ್ತದೆ .

ನಂತರ ನೀವು ಕೆಲವು ರಕ್ತ ತನಿಖೆಗೆ ಒಳಪಡುತ್ತೀರಿ, ಅವುಗಳೆಂದರೆ ಸಂಪೂರ್ಣ ರಕ್ತದ ಎಣಿಕೆಗಳು, ಯಾದೃಚ್ ಕ ರಕ್ತದ  
ಗ್ಲೂಕೋಸ್, ಮೂತ್ರಪಿಂಡದ ಕಾರ್ಯ ಪರೀಕ್ಷೆಗಳು, ಪಿತ್ತಜನಕಾಂಗದ ಕಾರ್ಯ ಪರೀಕ್ಷೆಗಳು, ಮೂತ್ರದ ದಿನಚರಿ ಮತ್ತು  
ಮೈಕ್ರೋಸ್ಕೋಪಿ, ಡಿ ಡೈಮರ್, ಎಲ್‌ಐಜಿ, ಸೀರಮ್ ಫೆರಿಟಿನ್, ಐಎಲ್ -6, ಎಚ್‌ಎಸ್‌ಸಿಆರ್‌ಪಿ .

**ಅಪಾಯ ಮತ್ತು ಪ್ರಯೋಜನಗಳು :**

ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಯಾವುದೇ ಸಂಭಾವ್ಯ ಅಪಾಯಗಳಿಲ್ಲ.

**ಈ ಸಂಶೋಧನೆಯಲ್ಲಿ ಪಾಲ್ಗೊಳ್ಳುವ ಪ್ರಯೋಜನಗಳು :**

ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಪಾಲ್ಗೊಳ್ಳುವ ಮೂಲಕ, ಪ್ಲೇಟ್‌ಲೆಟ್ ಸೂಚ್ಯಂಕಗಳು ಮತ್ತು ಕೋವಿಡ್ -19 ಸೋಂಕಿನಿಂದ ಬಳಲುತ್ತಿರುವ ರೋಗಿಯ ಮುನ್ನರಿವಿನ ನಡುವಿನ ಪರಸ್ಪರ ಸಂಬಂಧವನ್ನು ಕಂಡುಹಿಡಿಯಬಹುದು.

**ಸ್ವಯಂಪ್ರೇರಿತ ಭಾಗವಹಿಸುವಿಕೆ / ಅಧ್ಯಯನದಿಂದ ಹಿಂತೆಗೆದುಕೊಳ್ಳುವಿಕೆ:**

ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವುದು ಸ್ವಯಂಪ್ರೇರಿತವಾಗಿದೆ. ಈ ಅಧ್ಯಯನಕ್ಕೆ ನಿಮ್ಮನ್ನು ಸೇರಿಸಿಕೊಳ್ಳದಿರಲು ನೀವು ಆಯ್ಕೆ ಮಾಡಬಹುದು ಮತ್ತು ಈ ನಡುವೆ ಯಾವುದೇ ಸಮಯದಲ್ಲಿ ಅಧ್ಯಯನವನ್ನು ಬಿಡಲು ಆಯ್ಕೆ ಮಾಡಬಹುದು.

**ಪರ್ಯಾಯಗಳು :**

ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವ ಬಗ್ಗೆ ನಿಮ್ಮ ನಿರ್ಧಾರವು ಕೆಎಲ್‌ಇಎಸ್ ಡಾ. ಪ್ರಭಾಕರ್ ಕೋರೆ ಆಸ್ಪತ್ರೆ ಮತ್ತು ಬೆಳಗಾವಿ ವೈದ್ಯಕೀಯ ಸಂಶೋಧನಾ ಕೇಂದ್ರದಲ್ಲಿ ನಿಮಗೆ ನೀಡುತ್ತಿರುವ ಪ್ರಸ್ತುತ ಅಥವಾ ಭವಿಷ್ಯದ ಆರೋಗ್ಯ ಸೇವೆಗಳನ್ನು ಬದಲಾಯಿಸುವುದಿಲ್ಲ. ನೀವು ಬಯಸಿದರೆ ನಿಮ್ಮನ್ನು ಅಧ್ಯಯನದಿಂದ ಹೊರಗಿಡಲಾಗುವುದು, ಮತ್ತು ನಿಮ್ಮ ಎಲ್ಲಾ ವಿವರಗಳನ್ನು ಗೌಪ್ಯವಾಗಿಡಲಾಗುತ್ತದೆ ಮತ್ತು ನೀವು ವಾಡಿಕೆಯ ನಿರ್ವಹಣೆಯನ್ನು ಪಡೆಯುತ್ತೀರಿ.

**ಗೌಪ್ಯತೆ ಮತ್ತು ಗೌಪ್ಯತೆ :**

ಅಧ್ಯಯನದ ಭಾಗವಹಿಸುವಿಕೆಯ ಸಮಯದಲ್ಲಿ ನೀವು ಸಂಗ್ರಹಿಸಿದ ಅಥವಾ ಬಹಿರಂಗಪಡಿಸಿದ ಎಲ್ಲಾ ಡೇಟಾವನ್ನು ಸಂಪೂರ್ಣವಾಗಿ ಗೌಪ್ಯವಾಗಿಡಲಾಗುತ್ತದೆ. ಕೋರ್ಸ್ ಸಮಯದಲ್ಲಿ ಪ್ರಗತಿಗೆ ಗುರುತನ್ನು ಬಹಿರಂಗಪಡಿಸುವುದು ಅಗತ್ಯವಿದ್ದರೆ, ನಿಮ್ಮ ಮಾಹಿತಿ ಮತ್ತು ಲಿಖಿತ ಒಪ್ಪಿಗೆಯ ನಂತರವೇ ಇದನ್ನು ಮಾಡಲಾಗುತ್ತದೆ.

ನೀವು ಸಂಶೋಧನಾ ವಿಷಯ ಎಂದು ತಿಳಿದುಕೊಳ್ಳುವ ಏಕೈಕ ಜನರು ಸಂಶೋಧನಾ ತಂಡದ ಸದಸ್ಯರು. ನಿಮ್ಮ ಲಿಖಿತ ಅನುಮತಿಯಿಲ್ಲದೆ ನಿಮ್ಮ ಬಗ್ಗೆ ಯಾವುದೇ ಮಾಹಿತಿಯನ್ನು ಇತರರಿಗೆ ಬಹಿರಂಗಪಡಿಸಲಾಗುವುದಿಲ್ಲ:

- ನಿಮ್ಮ ಹಕ್ಕುಗಳು ಮತ್ತು ಕಲ್ಯಾಣವನ್ನು ರಕ್ಷಿಸಲು ತುರ್ತು ಪರಿಸ್ಥಿತಿಯಲ್ಲಿ.
- ಕಾನೂನಿನ ಪ್ರಕಾರ ಅಗತ್ಯವಿದ್ದರೆ.

**ಫಲಿತಾಂಶಗಳನ್ನು ಪ್ರಕಟಿಸಲು ಅಧಿಕಾರ:**

ಅಧ್ಯಯನದ ಫಲಿತಾಂಶಗಳನ್ನು ಲೇಖನವನ್ನು ಪ್ರಕಟಿಸಲು ಬಳಸಬಹುದು. ಸಂಶೋಧನೆಯ ಫಲಿತಾಂಶಗಳು ಪ್ರಕಟವಾದ ಅಥವಾ ಚರ್ಚಿಸಿದಾಗ, ಸಮ್ಮೇಳನದಲ್ಲಿ, ನಿಮ್ಮ ಗುರುತನ್ನು ಬಹಿರಂಗಪಡಿಸುವ ಯಾವುದೇ ಮಾಹಿತಿಯನ್ನು ಪ್ರದರ್ಶಿಸಲಾಗುವುದಿಲ್ಲ. ಈ ಅಧ್ಯಯನಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ವಡೆದ ಯಾವುದೇ ಮಾಹಿತಿಯು ಮತ್ತು ಅದನ್ನು ನಿಮ್ಮೊಂದಿಗೆ ಗುರುತಿಸಬಹುದು.

**ಭಾಗವಹಿಸುವಿಕೆಗೆ ಆರ್ಥಿಕ ಪ್ರೋತ್ಸಾಹ:**

ಈ ಅಧ್ಯಯನದ ಉದ್ದೇಶಕ್ಕಾಗಿ ಯಾವುದೇ ಹೆಚ್ಚುವರಿ ವೆಚ್ಚಗಳು ನಿಮ್ಮ ಮೇಲೆ ಆಗುವುದಿಲ್ಲ.

ಇದನ್ನು ಸಂಪೂರ್ಣವಾಗಿ ಸಂಶೋಧನೆಯ ಆಲೋಚನೆಯೊಂದಿಗೆ ಮಾಡಲಾಗುತ್ತಿದೆ ಮತ್ತು ಅಧ್ಯಯನದ ಎಲ್ಲಾ ವೆಚ್ಚವನ್ನು ತನಿಖಾಧಿಕಾರಿ ಭರಿಸುತ್ತಾರೆ.

**ಪರಿಹಾರ :**

ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಪಾಲ್ಗೊಂಡ ಪರಿಣಾಮವಾಗಿ ನೀವು ಗಾಯಗೊಂಡರೆ ಬೆಳಗಾವಿ ಕೆಎಲ್‌ಇಎಸ್ ಡಾ. ಪ್ರಭಾಕರ್ ಕೋರೆ ಆಸ್ಪತ್ರೆ ಮತ್ತು ವೈದ್ಯಕೀಯ ಸಂಶೋಧನಾ ಕೇಂದ್ರದಲ್ಲಿ ನಿಮಗೆ ಚಿಕಿತ್ಸೆ ನೀಡಲಾಗುವುದು ಅಥವಾ ವೈದ್ಯಕೀಯ ಆರೈಕೆಯನ್ನು ಎಲ್ಲಿ ಪಡೆಯಬೇಕು ಎಂಬ ಬಗ್ಗೆ ನಿಮಗೆ ಮಾಹಿತಿ ನೀಡಲಾಗುವುದು. ಆದಾಗ್ಯೂ, ಯಾವುದೇ ಮರುಪಾವತಿ, ಪರಿಹಾರ ಅಥವಾ ಉಚಿತ ವೈದ್ಯಕೀಯ ಸೌಲಭ್ಯವನ್ನು ನೀಡಲಾಗುವುದಿಲ್ಲ .

**ಪ್ರಶ್ನೆಗಳು / ಸಂಪರ್ಕ ವಿವರಗಳು:**

ನೀವು ಬಯಸಿದಂತೆ ಯಾವುದೇ ಸೃಷ್ಟಿಕರಣ ಅಥವಾ ಸಹಾಯಕ್ಕಾಗಿ ಅಧ್ಯಯನದ ಅವಧಿಯಲ್ಲಿ ಯಾವುದೇ ಸಮಯದಲ್ಲಿ ಈ ಕೆಳಗಿನ ಹೆಸರು ಮತ್ತು ವಿಳಾಸಗಳನ್ನು ಸಂಪರ್ಕಿಸಲು ನೀವು ಮುಕ್ತರಾಗಿರಬೇಕು .

ಅಧ್ಯಯನದ ಸಮಯದಲ್ಲಿ ಅಥವಾ ಭವಿಷ್ಯದಲ್ಲಿ ನೀವು ಈ ಕೆಳಗಿನ ವ್ಯಕ್ತಿಗಳನ್ನು ಸಂಪರ್ಕಿಸಬಹುದು ,

**ಡಾ.ರೂಪಾ ಎಂ ಬೆಲ್ಲದ**

ನೈತಿಕ ಸಮಿತಿಯ ಮುಖ್ಯಸ್ಥ  
ಮಾನವ ಸಂಶೋಧನೆ ಜೆಎನ್‌ಎಂಸಿ , ಬೆಳಗಾವಿ .  
ಮೊಬೈಲ್ - 9448113403

**ಡಾ.ಆರತಿ ದರ್ಶನ್ ಎಂಡಿ ಎಫ್ ಐಸಿಪಿ**

ಪ್ರೊಫೆಸರ್ ಮತ್ತು ಮುಖ್ಯಸ್ಥ  
ಜನರಲ್ ಮೆಡಿಸಿನ್ ಇಲಾಖೆ ,  
ಜೆಎನ್‌ಎಂಸಿ , ಬೆಳಗಾವಿ .  
ಮೊಬೈಲ್ - 9448845883

**ಡಾ.ಅಂಜಲಿ ಮೆಟ್‌ಗುಡ್‌ಮರ**

ಎಫ್‌ಜಿಎಸ್‌ಐ, ಎಫ್‌ಐಸಿಪಿ  
ಮಾರ್ಗದರ್ಶಿ ,  
ಪ್ರೊಫೆಸರ್ ಜನರಲ್ ಮೆಡಿಸಿನ್ ಇಲಾಖೆ ,  
ಜೆಎನ್‌ಎಂಸಿ , ಬೆಳಗಾವಿ .  
ಮೊಬೈಲ್ -9019276822

**ಡಾ. ಯೋಶಾನ್ ಅಮಿತ್ ಜೋಶಿ**

ತನಿಖಾಧಿಕಾರಿ, ಸ್ನಾತಕೋತ್ತರ ವಿದ್ಯಾರ್ಥಿ  
ಜನರಲ್ ಮೆಡಿಸಿನ್ ಇಲಾಖೆ ,  
ಜೆಎನ್‌ಎಂಸಿ , ಬೆಳಗಾವಿ .  
ಮೊಬೈಲ್ -7069994847

## ಒಪ್ಪಿಗೆ ಪತ್ರ

ಕೆಳಗೆ ಸಹಿ ಮಾಡುವ ಮೂಲಕ ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸಲು ನಾನು ಸ್ವಯಂಪ್ರೇರಣೆಯಿಂದ ಒಪ್ಪುತ್ತೇನೆ. ನಾನು ಯಾವುದೇ ಸಮಯದಲ್ಲಿ ಹಿಂತೆಗೆದುಕೊಳ್ಳಬಹುದು. ಈ ಫಾರ್ಮ್ ಸಹಿ ಮಾಡುವ ಮೂಲಕ ನಾನು ನನ್ನ ಯಾವುದೇ ಕಾನೂನು ಹಕ್ಕುಗಳನ್ನು ಬಿಟ್ಟುಕೊಡುತ್ತಿಲ್ಲ. ಕೆಳಗಿನ ನನ್ನ ಸಹಿ ನಾನು ಈ ಒಪ್ಪಿಗೆಯ ಫಾರ್ಮ್ ಅನ್ನು ಓದಿದ್ದೇನೆ ಅಥವಾ ಈ ಸಮ್ಮತಿಯ ಫಾರ್ಮ್ ಅನ್ನು ನನಗೆ ಓದಿದ್ದೇನೆ ಮತ್ತು ಎಲ್ಲಾ ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿದೆ ಎಂದು ಸೂಚಿಸುತ್ತದೆ

ಭಾಗವಹಿಸುವವರ ಅಥವಾ ಕಾನೂನುಬದ್ಧವಾಗಿ ಅಧಿಕೃತ ಪ್ರತಿನಿಧಿಯ ಸಹಿ / ಎಡ ಹೆಬ್ಬೆರಳು ಮುದ್ರಣ ಭಾಗವಹಿಸುವವರ ಹೆಸರು: .....

ಸಹಿ / ಎಡ ಹೆಬ್ಬೆರಳು ಅನಿಸಿಕೆ: .....

ಭಾಗವಹಿಸುವವರ ಕಾನೂನುಬದ್ಧವಾಗಿ ಅಧಿಕಾರ ಪಡೆದವರ ಹೆಸರು: .....

ಪ್ರತಿನಿಧಿ / ರಕ್ಷಕ ಸಹಿ / ಎಡ ಹೆಬ್ಬೆರಳು ಅನಿಸಿಕೆ: .....

ಸಾಕ್ಷಿ ಹೆಸರು: .....

ಸಹಿ / ಎಡ ಹೆಬ್ಬೆರಳು ಅನಿಸಿಕೆ: .....

ತನಿಖಾಧಿಕಾರಿ ಹೆಸರು ಮತ್ತು ಸಹಿ: .....

ದಿನಾಂಕ:

ಸ್ಥಳ:

## माहितीपूर्ण संमती

प्रिय श्रीमती / श्रीमती / डॉ. \_\_\_\_\_, आपणास विनम्र विनंती आहे की आपणास झुकलेल्या एका संशोधन अभ्यासामध्ये नाव नोंदवावे “क्लिनिकल प्रोफाइलचा अभ्यास आणि सार्स-सी ओ व्ही -2 संसर्ग झालेल्या रुग्णांमध्ये प्लेटलेट निर्देशांकाशी त्याचा संबंध: एक वर्षाचा क्रॉस सेक्शनल स्टडी डॉ. प्रभाकर कोरे हॉस्पिटल आणि एमआरसी, बेलागावी.” डॉ. योशान अमित जोशी, एम.डी. जनरल मेडिसीन मधील पदव्युत्तर विद्यार्थी घेत आहेत आणि हा अभ्यास, जवाहरलाल नेहरू मेडिकल कॉलेज, बेळगाव येथील डॉ. अंजली मेटगुडमठ, प्राध्यापक, सामान्य चिकित्सा विभाग, जवाहरलाल नेहरू मेडिकल कॉलेज, बेळगाव यांच्या थेट देखरेखीखाली आणि मार्गदर्शनानुसार केला जाईल.

आपण अभ्यासाच्या ‘विषय’ / सहभागीच्या निकषांनुसार बसत असल्यामुळे यामध्ये सहभागी होण्याची विनंती केली गेली आहे.

अभ्यासात आपला सहभाग ऐच्छिक आहे. अभ्यासादरम्यान आपल्याला काही प्रश्न विचारले जातील आणि आपल्या सर्वोत्तम उत्तरासाठी आपल्याला उत्तर द्यावे लागेल. अभ्यासामध्ये भाग घ्यायचा की नाही या निर्णयाचा तुमच्या उपचारांवर कोणत्याही प्रकारचा परिणाम होणार नाही. आपण सहभागी होण्याचे ठरविल्यास आपण कधीही माघार घेण्यास मोकळे आहात.

बेळगावी.

### अभ्यासाचे शीर्षक:

“क्लिनिकल प्रोफाइलचा अभ्यास आणि सार्स-सी ओ व्ही -2 संसर्ग झालेल्या रुग्णांमध्ये प्लेटलेट निर्देशांकाशी त्याचा संबंध: एक वर्षाचा क्रॉस सेक्शनल स्टडी डॉ. प्रभाकर कोरे हॉस्पिटल आणि एमआरसी, बेलागावी.”

### अभ्यासाचा हेतू:

क्लिनिकल प्रोफाइलचा अभ्यास करणे आणि सार्स-सी ओ व्ही -2 संक्रमित रुग्णांमध्ये प्लेटलेट निर्देशांकाशी त्याचा संबंध.

### प्रक्रिया समाविष्ट:

माझ्या अभ्यासामध्ये आपण स्वतःस नावनोंदणी घेण्यास सहमत असल्यास, आपली वैद्यकीयदृष्ट्या सविस्तर तपासणी केली जाईल आणि त्यानुसार खाली दिलेल्या तपासणीसाठी चौकशी केली जाईल.

त्यानंतर आपल्यास काही रक्त तपासणी, अर्थात पूर्ण रक्त गणना, यादृच्छिक रक्तातील ग्लूकोज, रेनल फंक्शन चाचण्या, यकृत कार्य चाचण्या, मूत्र दिनचर्या आणि मायक्रोस्कोपी, डी डायमर, एलडीएच, सीरम फेरीटिन, आयएल -6, एचएससीआरपी असे काही विषय असतील.

**जोखीम आणि फायदे :** या अभ्यासामध्ये कोणतेही संभाव्य धोके गुंतलेले नाहीत.

### या संशोधनात भाग घेण्याचे फायदे:

या अभ्यासामध्ये भाग घेतल्यास प्लेटिव्ह निर्देशांक आणि कोविड -19 संक्रमणामुळे ग्रस्त झालेल्या रुग्णाच्या रोगनिदानांमधील परस्परसंबंध सापडतो .

### ऐच्छिक सहभाग / अभ्यासामधून पैसे काढणे :

अभ्यासामध्ये भाग घेणे ऐच्छिक आहे. आपण या अभ्यासामध्ये स्वतः ची नावनोंदणी न करणे निवडू शकता आणि दरम्यान अभ्यास कधीही सोडणे निवडू शकता.

### विकल्प:

अभ्यासात सहभागासंदर्भातील तुमचा निर्णय केएलईएस डॉ. प्रभाकर कोरे हॉस्पिटल आणि वैद्यकीय संशोधन केंद्र, बेळगाव येथे तुम्हाला देऊ केलेल्या सध्याच्या किंवा भविष्यातील आरोग्य सेवा बदलणार नाही. आपली इच्छा असेल तर आपल्याला अभ्यासापासून वगळले जाईल आणि आपले सर्व तपशील गोपनीय ठेवले जातील आणि आपल्याला व्यवस्थापनाची नियमित रूंदी मिळेल .

### गोपनीयता आणि गोपनीयता :

अभ्यासाच्या सहभागादरम्यान आपण गोळा केलेला किंवा जाहीर केलेला सर्व डेटा पूर्णपणे गोपनीय ठेवला जाईल. अर्थात कोर्सच्या दरम्यान ओळख जाहीर करणे आवश्यक झाले तर ते तुमच्या माहिती व लेखी संमतीनंतरच केले जाईल .

आपण संशोधन विषय आहात हे फक्त लोकांनाच माहित आहे की ते संशोधन पथकाचे सदस्य आहेत. आपल्या लेखी परवानगीशिवाय इतर आपल्याबद्दल कोणतीही माहिती उघड केली जाणार नाही:

- आपत्कालीन परिस्थितीत आपले हक्क आणि कल्याण यांचे संरक्षण करण्यासाठी.
- कायद्याने आवश्यक असल्यास .

### निकाल प्रकाशित करण्यासाठी अधिकृतता:

अभ्यासाचा निकाल लेख प्रकाशित करण्यासाठी वापरला जाऊ शकतो. जेव्हा एखाद्या संशोधनाचे निकाल कॉन्फरन्समध्ये प्रकाशित केले जातात किंवा त्यावर चर्चा केली जाते तेव्हा आपली ओळख उघडकीस आणणारी कोणतीही माहिती दर्शविली जाणार नाही. या अभ्यासाच्या संदर्भात प्राप्त केलेली कोणतीही माहिती आणि ती आपल्याशी ओळखली जाऊ शकते ती गोपनीय राहिल.

### सहभागासाठी आर्थिक प्रोत्साहन :

या अभ्यासाच्या हेतूने आपल्यावर कोणत्याही प्रकारची अतिरिक्त किंमत आकारली जाणार नाही.

हे निव्वळ संशोधनाच्या कल्पनेने केले जात आहे आणि अभ्यासाचा सर्व खर्च तपासनीस करेल .

### भरपाई :

या अभ्यासामध्ये भाग घेतल्यामुळे आपण जखमी झाल्यास, केएलईएस डॉ. प्रभाकर कोरे हॉस्पिटल आणि मेडिकल रिसर्च सेंटर, बेळगाव येथे तुम्हाला उपचार देण्यात येतील किंवा तुम्हाला वैद्यकीय सेवा कोटून घ्यावी

याविषयी माहिती दिली जाईल. तथापि, कोणतेही प्रतिपूर्ती, भरपाई किंवा विनामूल्य वैयकीय सेवा दिली जाणार नाही.

अभ्यासाच्या वेळी किंवा भविष्यातील प्रश्नांच्या बाबतीत आपण खालील व्यक्तींशी संपर्क साधू शकता,

**प्रश्न / संपर्क तपशील:**

अभ्यासाच्या कालावधीत कोणत्याही स्पर्धीकरणासाठी किंवा तुम्हाला पाहिजे असलेल्या मदतीसाठी तुम्ही खाली नमूद केलेल्या नावाने व पत्त्यांशी कधीही संपर्क साधू शकता .

अभ्यासाच्या वेळी किंवा भविष्यातील प्रश्नांच्या बाबतीत आपण खालील व्यक्तींशी संपर्क साधू शकता ,

**डॉ. रूपा एम बेल्लद**

अध्यक्ष, नैतिक समिती मानव संशोधन  
जे.एन.एम.सी, बेळगावी.  
मोबाइल -9448113403

**डॉ. आरती दर्शन, एमडी, एफआयसीपी**

प्राध्यापक आणि प्रमुख,  
सामान्य औषध विभाग,  
जे.एन.एम.सी, बेळगावी.  
मोबाइल - 9448845883

**डॉ. अंजली मेटगुडमठ** एमडी, एफजीएसआय, एफआयसीपी

मार्गदर्शन,  
सामान्य औषध विभाग,  
जे.एन.एम.सी, बेळगावी.  
मोबाइल - 9019276822

**डॉ. योशान अमित जोशी**

अन्वेषक, पदव्युत्तर विद्यार्थी  
सामान्य औषध विभाग,  
जे.एन.एम.सी, बेळगावी.  
मोबाइल - 7069994847

## संमती फॉर्म

मी खाली स्वाक्षरी करून या अभ्यासात भाग घेण्यास स्वेच्छेने सहमत आहे. मी कधीही माघार घेऊ शकतो. या फॉर्मवर सही करून मी माझा कोणताही कायदेशीर हक्क सोडत नाही. खाली माझी स्वाक्षरी सूचित करते की मी हा संमती फॉर्म वाचला आहे किंवा हा संमती फॉर्म मला वाचला आहे आणि मला सर्व प्रश्नांची उत्तरे दिली आहेत

सहभागी किंवा कायदेशीररित्या अधिकृत प्रतिनिधीची सही / डावा अंगठा प्रिंट

सहभागीचे नाव : .....

स्वाक्षरी / डावा अंगठा ठसा : .....

सहभागीचा

कायदेशीररित्या अधिकृत नाव : .....

प्रतिनिधी / पालक

स्वाक्षरी / डावा अंगठा ठसा : .....

साक्षीचे नाव : .....

स्वाक्षरी / डावा अंगठा ठसा : .....

अन्वेषकांचे नाव आणि स्वाक्षरी : .....

तारीख :

ठिकाण :

**ANNEXURE - II – PROFORMA**

**DEMOGRAPHY**

**IP No** :  
**Date of Admission** :  
**Age** :  
**Sex** :

**Clinical Parameters At Admission**

*Symptoms:*

Tick the applicable Box					
Cough		Fever		Other	
Myalgia		Breathlessness		Symptoms	
Time to hospital from symptom onset (Days)					

Oxygenation Parameters at admission	
Admission Respiratory rate (RR/min)	
Admission SPO2(%)	
Admission O2 modality (NRBM, HFO, NIV, Ventilator)	

**Co-morbidities**

DM		HTN		IHD		CKD		CLD		CVA		Malignancy	
Others													

**Lab Parameters At Admission**

Hb		TLC		Lymphocyte %		Platelets	
Ferritin		LDH		hsCRP			
d-Dimer		CRP		Fibrinogen		Urea	
Creatinine		Bilirubin		SGOT		SGPT	
RBS		HbA1c					

<b>PLATELET INDICES</b>	
Mean platelet volume	
Platelet distribution width	
Plateletcrit	
Platelet component distribution width	
Platelet large cell ratio	
Immature Platelet Fraction	

<b>CT Severity score (Out of 25)</b>	
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**TREATMENT**

Remdesivir (No. of Doses)	
Tocilizumab	
LMWH (Max Dose)	
Un-fractionated Heparin (Max Dose)	
Type of Steroid used (methyl pred or dexamethasone)	
Max dose of steroid per day used	

**OUTCOME**

Outcome	Tick	Date
Improved and discharged		
Died		
Worsened and went AMA		
Improved and went AMA		

DEMOGRAPHY					VITALS OF THE PATIENTS AT ADMISSION TIME																
Sl. No.	IP No	DATE OF ADMISSION	AGE	SEX	SYMPTOMS (C=cough; F=Fever; B=breathlessness; M=Myalgia, Loss of smell=L;S; Loss of taste=L/T)	OTHER SYMPTOMS	TIME TO HOSPITAL TO SYMPTOM ONSET	RESPIRATORY RATE AT ADMISSION	SATURATION ON ADMISSION	OXYGEN MODALITY ON ADMISSION	OXYGEN RATE AT ADMISSION	FI02 AT ADMISSION	COMORBIDITIES	CT SEVERITY SCORE	HAEMOGLOBIN	TOTAL LEUCOCYTE COUNT	NEUTROPHIL %	LYMPHOCYTE %	PLATELETS	MEAN PLATELET VOLUME	PLATELETCRIT
1	1019822	24-08-2020	74	M	FB		7	28	96	RE BREATHING MASK	10L/MIN	NA	DM	12	17.5	20.4	89	7	127	9.8	0.226
2	1019401	22/07/20	69	M	FBC		6	26	98	RE BREATHING MASK	8L/MIN	NA	HTN,IHD	16	14.5	12.1	91	6	191	8.9	0.17
3	1019733	27/07/20	72	F	CB		3	22	97	RE BREATHING MASK	5L/MIN	NA	HTN	22	12.1	6.3	79	12	216	9.3	0.239
4	1013634	06-05-2020	51	M	CFM		4	24	94	O2 MASK	2L/MIN	NA	HTN,CKD	18	10.8	4.4	77	11	63	9.2	0.253
5	1019721	27/07/20	64	M	CFMB		10	34	95	HI FLOW OXYGEN	40L/MIN	NA	DM	24	12.1	12.6	91	7	152	9.5	0.049
6	1021469	21/08/20	85	M	B		3	28	94	O2 MASK	5L/MIN	NA	DM,HTN	22	11.8	10.3	94	2	255	10	0.255
7	1022318	03-09-2020	66	F	FMB		7	28	94	RE BREATHING MASK	8L/MIN	NA	DM, HTN	18	11.5	12	89	6	107	10.6	0.187
8	1022362	03-09-2020	58	M	FB		3	26	92	RE BREATHING MASK	15L/MIN	NA	DM	8	11.1	11	91	6	315	8.3	0.262
9	1021169	17-08-2020	70	M	M		3	24	90	O2 MASK	5L/MIN	NA	DM,CKD	19	12	4.2	65	22	192	9.6	0.173
10	1021530	22/08/2020	57	M	CB		5	28	88	RE BREATHING MASK	10L/MIN	NA	IHD	24	14.1	21.1	94	2	108	8.9	0.161
11	1019598	25/7/2020	60	M	CFB		3	28	90	O2 MASK	5L/MIN	NA	DM	22	12.6	14.5	83	13	182	10	0.174
12	1020782	12-08-2020	82	M	CFM		5	29	93	RE BREATHING MASK	10L/MIN	NA	HTN/DM	25	11.4	13	80	16	166	8.4	0.252
13	1021922	28-08-2020	58	F	BF		2	42	37	NIV		100	DM, HTN	24	10.4	12	94	5	145	11.6	0.301
14	1020039	31/7/2020	73	M	CB		3	26	80	NIV		100	DM/HTN/OBESITY/OSA	22	13.9	23.5	72	18	95	11.6	0.301
15	1022367	3-9-2020	75	M	FB	V, LO	3	45	35	NIV		100	DM,HTN,CKD	25	10.8	4.3	72	19	120	10	0.202
16	1020295	4-8-2020	59	M	CMB		2	26	92	O2 MASK	6L/MIN		NONE	15	10.4	5.4	63	24	112	9.3	0.104
17	1020750	11-8-20	64	M	CF		5	28	100	NIV		100	DM,HTN,IHD	18	13.2	14.7	93	4	180	9.6	0.173
18	1022733	8-9-2020	70	M	B	CP	4	22	96	O2 MASK	5L/MIN	NA	HTN,IHD	20	10.3	9.8	64	64	376	10	0.376
19	1020523	8-8-2020	71	M	CFB		2	20	88	RBM	4L/MIN	NA	DM,HTN	22	13.6	5.5	82	13	147	10.3	0.152
20	1019616	25/7/2020	83	M	FB	V	4	22	100	NIV		100	IHD	22	15.6	10.2	87	7	195	10.6	0.208
21	1022407	04-09-2020	67	M	CBM		3	30	88	RE BREATHING MASK	15L/MIN	NA	HTN	18	12.6	16.4	95	3	200	10.3	0.207
22	1021629	24/8/2020	73	F	CFB		3	26	87	RE BREATHING MASK	15L/MIN	NA	DM,HTN	24	11.3	6.3	74	21	164	11.4	0.166
23	1023926	24/9/2020	72	M	FB		7	22	94	RE BREATHING MASK	15L/MIN	NA	DM,HTN	20	12.5	12.4	90	8	214	8.2	0.176
24	1022264	02-09-20	60	M	CFB		4	36	82	RE BREATHING MASK	10L/MIN	NA	ASTHMA	23	17.3	47.1	94	1	378	10	0.377
25	1022671	07-09-2020	39	M	CB		4	34	70	NIV		100		6	15.4	9.8	64	32	38	10.4	0.039
26	1023965	24/09/20	70	M	CFB		3	28	64	NIV		100	DM, HTN	24	16.1	8.1	86	11	225	9.2	0.253
27	1022916	11-09-2020	50	M	CB		3	22	93	O2 MASK	15L/MIN	NA	DM	22	12.4	6.7	62	32	238	9	0.214
28	1022462	5-9-2020	51	M	CBF		4	24	93	RE BREATHING MASK	8L/MIN	NA	DM,AKI	13	13.4	20	94	3	69	9.9	0.058
29	1022738	8-9-2020	63	M	CFMB	LoOP, Hematu	2	18	95	NIV		100	DM	18	12.5	10.3	89	9	459	8.2	0.378
30	1019602	25/7/20	68	M	CFB		3	28	87	RE BREATHING MASK	15L/MIN	70	DM	22	8.5	1.9	90	5	183	9.1	0.166
31	1020598	08-08-2020	49	M	FM		8	30	86	RE BREATHING MASK	10L/MIN	NA	DM	16	14.1	4.7	81	16	147	8.5	0.146
32	1022740	8-9-2020	74	M	B		1	32	70	NIV		70	DM,HTN	20	12.8	16.7	97	2	232	10.8	0.237
33	5783029	25/7/2020	73	M	CFB		4	26	76	RE BREATHING MASK	10L/MIN	NA	DM,HTN	22	10.8	14.1	89	6	184	8.2	0.156
34	1023296	15/09/2020	66	M	CFB		7	36	96	RE BREATHING MASK	5L/MIN	NA	DM,HTN	24	14.3	2.6	75	20	169	12.7	0.178
35	1023272	15/09/2020	52	M	CFB		2	35	66	RE BREATHING MASK	15L/MIN	NA	HTN	22	13.9	10.9	76	21	140	9.4	0.18
36	1021459	21/08/2020	56	M	M		4	32	84	RE BREATHING MASK	15L/MIN	NA	DM	20	13	14.7	88	9	234	8.6	0.161
37	1021997	29/08/2020	71	M	CFB		7	30	93	NIV		100	IHD	14	13.5	11.3	95	4	132	9.4	0.181
38	1021081	16/08/2020	66	F	CFB		2	26	94	RE BREATHING MASK	10L/MIN	NA	DM	20	12	9.7	86	11	261	8.6	0.161
39	1021843	27/08/2020	84	M	B		11	24	96	O2 MASK	8L/MIN	NA	DM,HTN,IHD	16	13.3	13	90	4	236	8.7	0.206
40	1021421	21/08/2020	64	M	CB		5	24	94	NIV		100	DM,HTN	22	16.7	29.7	95	2	208	9.1	0.188
41	1021050	15/08/2020	32	M	CFB		20	36	86	RE BREATHING MASK	15L/MIN	NA	NONE	18	15.7	18	71	19	419	8.7	0.376
42	1022051	31/08/2020	65	M	CFB		5	28	56	NIV		100	DM,HTN	22	10.1	17	93	5	107	10.5	0.112
43	1021386	20/08/2020	36	M	MB		2	28	62	RE BREATHING MASK	15L/MIN	NA	Hypothyroid	25	17.1	14.4	81	14	135	10.2	0.138
44	1020930	13/08/2020	68	M	FB	SoT	3	22	82	RE BREATHING MASK	10L/MIN	NA	HTN,DM	22	14.7	15.8	86	6	140	9.6	0.298
45	1020766	11-08-2020	56	M	BM		5	26	90	RE BREATHING MASK	5L/MIN	NA	DM,HTN,IHD	16	11.8	6.4	73	22	179	9.4	0.168
46	1019711	27/07/2020	77	M	CFMB		4	30	86	RE BREATHING MASK	15L/MIN	NA	DM,HTN	20	15.4	5.16	76	19	121	10.2	0.236
47	1021514	22/8/2020	65	F	CB		3	32	77	RE BREATHING MASK	15L/MIN	NA	DM, HTN	20	11.8	13	90	6	257	11	0.283
48	1021972	29/8/2020	69	M	CB	LAPP	5	26	83	RE BREATHING MASK	15/MIN	NA	DM,HTN,CKD	19	9.3	4.3	93	6	203	9.4	0.192
49	1021262	18/8/20	68	M	FB	LAPP, W	3	27	86	RE BREATHING MASK	15L/MIN	NA	NONE	17	13.4	16.1	87	7	208	8.4	0.156
50	1020855	13/08/2020	81	M	CFB		4	38	42	NIV		100	DM,HTN	21	12.3	7.8	64	32	267	9.1	0.248
51	1021636	24/08/2020	61	M	CFB		3	36	82	RE BREATHING MASK	15L/MIN	NA	DM	14	15.2	9.4	87	10	203	10.2	0.207
52	1021950	29/08/2020	58	M	CFB		3	40	98	NIV		100	DM,HTN	16	11.7	8.6	92	4	248	8.1	0.201
53	1021326	19/8/2020	57	M	CMB		5	26	86	RE BREATHING MASK	10L/MIN		IHD	22	14	6.2	89	7	205	10.4	0.209
54	1022949	11-09-2020	84	M	CFB		3	24	88	NIV		100	HTN	20	13.4	22.7	73	8	292	8.5	0.249
55	1021523	22/08/2020	52	M	CB		7	26	82	NIV		100	HTN,TB	21	11.5	34.5	95	3	428	9.3	0.312
56	1023099	13-09-2020	81	F	FBM	LAPP	2	27	52	NIV		100	HTN	17	10.9	12.1	71	18	206	8.3	0.185
57	1020115	02-08-2020	78	M	B		3	22	93	RE BREATHING MASK	10L/MIN	NA	DM,HTN,IHD	5					131	9.1	0.173
58	1020763	11-8-20	60	F	CB	CP	4	30	90	RE BREATHING MASK	12L/MIN	NA	DM,HTN,CKD	22	9	9	74	18	300	8.5	0.254
59	1023505	19/9/20	90	M	B		3	28	95	RE BREATHING MASK	8L/MIN	NA	DM,HTN	18	17.2	8.1	90	6	167	9.5	0.171
60	1022988	11-9-20	60	M	FB	W,LAAP	5	40	31	NIV		100	DM	17	13.9	14.6	97	2	220	9.1	0.203
61	1022752	08-09-2020	38	M	CFB	W,LAAP	6	16	90	NIV		100		16	18	39.8	76	5	447	8.6	0.301
62	1020910	13/8/20	59	M	CFB	W	6	28	95	RE BREATHING MASK	10L/MIN	NA	DM	18	15.3	7.8	84	12	220	10.6	0.232
63	1021528	22/8/20	70	M	CFB		3	12	78	NIV		100	DM,HTN	20	13.4	9.8	98	2	139	8.6	0.242
64	1023093	13/9/20	70	M	CF		4	22	93	O2 MASK	10L/MIN	NA	DM	24	10.3	12.3	98	2	402	8.2	0.36
65	1022908	10-09-2020	55	F	FB		7	24	93	O2 MASK	5L/MIN	NA	HYPOTHYROID	20	11.3	4.7	68	28	217	9.6	0.272
66	1020525	8-8-20	50	M	B		4	30	70	RE BREATHING MASK	15L/MIN	NA	NONE	25	14.4	9.8	68	29	135	12.4	0.154
67	1020446	6-8-20	46	M	MB		4	32	80	RE BREATHING MASK	10L/MIN	NA	IHD	24	11.9	6.3	85	11	408	8.4	0.326
68	1021029	15/8/20	75	M	CFB		3	32	85	RE BREATHING MASK	5L/MIN	NA	DM,HTN	18	13.8	7.9	87	11	102	10.3	0.098
69	1023170	14/9/20	47	M	CF		3	24	97	O2 MASK	15L/MIN	NA	OLD TB								

LABORATORY INVESTIGATIONS ON ADMISSION TIME														TREATMENT				
PLATELET DISTRIBUTION WIDTH	PLATELET LARGE CELL COUNT	PLATELET LARGE CELL RATIO	FERRITIN	LDH	Hs CRP	IL-6	D DIMER	UREA	CREATININE	TOTAL BILIRUBIN	SGOT	SGPT	RANDOM BLOOD SUGAR	REMDESIVIR (NO. OF DOSES)	LMWH (MAXIMUM DOSE)	TYPE OF THE STEROID USED	MAXIMUM DOSE OF THE STEROID USED	DATE OF DEATH
16.3	59	25.6	1349	701	21	3950	948	84	1.94	1.91	48	24	114	2	40 mg	METHYLPREDNISOLONE	1000 mg	25/8/20
6.3	38	20.1	387	386	24	33.42	572	45	0.93	0.6	58	25	189	9	40 mg	METHYLPREDNISOLONE	40 mg	10-08-2020
16.6	56	21.9	4583	535	178	214	1596	95	1.89	0.39	45	19	122	5	40 mg	METHYLPREDNISOLONE	40 mg	04-08-2020
16.4	61	22.1	3980	854	147	23	4589	41	1.74	0.4	32	19	147	3	40 mg	METHYLPREDNISOLONE	80 mg	09-05-2020
16.3	15	28.4	421	649	210	627.8	5000	24	1.13	0.9	27	41	287	7	40 mg	METHYLPREDNISOLONE	40 mg	09-08-2020
16.5	67	26.3	212	702	169	408	4521	32	1.67	0.43	93	31	175	2	40 mg	METHYLPREDNISOLONE	80 mg	23/08/2020
16.2	35	18.2	915	552	210	1935	1346	117	1.01	0.53	19	12	118	8	80 mg	METHYLPREDNISOLONE	1000 mg	11-09-2020
15.8	53	16.8	106	306	147	28.9	400	28	0.6	0.3	21	18	100	8	40 mg	METHYLPREDNISOLONE	1000 mg	18/9/2020
6.6	49	27.3	810	489	169	3.54	280	20	0.8	1.01	48	39	148	7	40 mg	METHYLPREDNISOLONE	500 mg	24-08-2020
16.3	35	19.3	943	1756	27	18.03	>5000	85	1.25	0.78	32	34	356	NONE	40 mg	METHYLPREDNISOLONE	80 mg	24/08/2020
15.5	57	32.8	441.6	377	210	42.89	284	46	0.88	0.39	35	26	433	2	80 mg	METHYLPREDNISOLONE	80 mg	31/7/20
16.1	54	18.2	78.79	342	326.7	286.2	725	42	0.94	0.78	32	28	245	9	80 mg	METHYLPREDNISOLONE	500 mg	22/08/2020
16.9	103	40	156	631	71	49.3	723	43	0.98	0.49	32	24	212	2	80 mg	METHYLPREDNISOLONE	1000 mg	29/8/20
16.9	103	40	858	402	124	1023	116	116	1.25	0.9	647	228	312	6	40 mg	DEXAMETHASONE	12 mg	06-08-2020
16	48	18.2	256	866	192	37.27	676	69	0.86	0.67	58	14	170	1	80 mg	METHYLPREDNISOLONE	500 mg	4-9-2020
16.7	29	25.6	231	509	124	198.8	1254	32	0.73	2.62	54	37	174	10	40 mg	METHYLPREDNISOLONE	1000 mg	16/8/2020
16.6	49	27.3	1014	1113	26	16.24	5000	18	0.88	0.98	46	40	258	4	40 mg	METHYLPREDNISOLONE	120 mg	15/8/2020
16.2	92	24	104	402	11.5	11.5	103	31	0.9	0.98	29	19	126	3	40 mg	METHYLPREDNISOLONE	1000 mg	15/9/2020
16.1	43	29.6	344	296	88.5	32.18	290	46	1.45	0.57	26	19	305	2	40 mg	DEXAMETHASONE	12 mg	13/8/2020
16.6	68	32.6	1186	656	9.3	1043	62	62	1.57	0.65	36	39	128	9	40 mg	METHYLPREDNISOLONE	1000 mg	8-8-2020
16.3	64	31.5	269	1002	25	46.8	1320	54	1.35	0.65	32	47	165	5	40 mg	METHYLPREDNISOLONE	1000 mg	8-9-2020
15.8	57	39.5	80.2	394	102	100	360	64	1.74	0.6	48	20	161	5	40 mg	METHYLPREDNISOLONE	500 mg	1-9-2020
15.8	32	15	3669	371	652	241	419	35	1.25	0.5	37	32	154	1	40 mg	METHYLPREDNISOLONE	500 mg	25/9/2020
16.8	100	26	1013	969	231	946	1352	65	0.93	1.3	42	43	294	2	40 mg	METHYLPREDNISOLONE	40 mg	04-09-2020
16.1	16	41.3	1212	789	245	115	2145	32	1.24	1.2	32	36	212	NONE	80 mg	METHYLPREDNISOLONE	80 mg	08-09-2020
16.7	61	22.1	1434	709	169	8.48	644	51	1.71	0.74	92	56	214	6	40 mg	METHYLPREDNISOLONE	40 mg	30/9/20
14.8	58	14.6	308	933	649.8	347.1	1392	50	1.01	1.06	168	84	352	2	40 mg	METHYLPREDNISOLONE	1000 mg	11-09-2020
16.8	16	27.1	2318	476	321	113	1349	265	1.32	0.6	14	15	276	5	40 mg	METHYLPREDNISOLONE	500 mg	10-9-20
15.4	71	15.5	413	750	214	26.6	1482	53	1.1	0.3	20	11	509	2	40 mg	METHYLPREDNISOLONE	40 mg	14/9/20
16.6	44	23.9	737.9	364	214	97.51	5000	79	1.55	0.2	12	14	498	2	40 mg	METHYLPREDNISOLONE	40 mg	1-8-20
16.2	31	18.2	1349	826	96	35	937	34	1.01	0.5	55	23	158	4	80 mg	METHYLPREDNISOLONE	500 mg	21/08/2020
16.1	73	33.7	499	3650	54	120	>5000	139	3.52	1.2	7437	5318	214	5	40 mg	METHYLPREDNISOLONE	1000 mg	14/9/20
16	30	26	1791	502	46	18.8	1205	39	1.01	0.43	36	25	217	5	40 mg	METHYLPREDNISOLONE	80 mg	30-07-2020
16.5	63	45	847.6	217	54	222	573	23	0.78	0.78	50	34	188	11	80 mg	METHYLPREDNISOLONE	500 mg	26/9/2020
16	44	28	516.7	819	218.6	22.65	1217	52	1.02	0.68	83	59	202	5	80 mg	METHYLPREDNISOLONE	1000 mg	23/09/2020
16.1	35	18.4	923	842	140	23	765	41	1.1	0.32	24	31	298	2	80 mg	METHYLPREDNISOLONE	1000 mg	27/08/2020
16	44	23	271	854	14	19.57	660	72	0.81	0.54	43	45	193	5	80 mg	METHYLPREDNISOLONE	1000 mg	02-09-2020
16.1	35	18.4	82.91	280	28	164	328	32	0.85	0.33	23	12	212	2	80 mg	METHYLPREDNISOLONE	500 mg	20/08/2020
15.8	38	28.8	385.3	489	29	247	898	37	1.06	1.03	31	52	147	5	40 mg	METHYLPREDNISOLONE	1000 mg	01-09-2020
16.1	44	21.4	1507	502	123	7028	140	208	1.09	1.22	68	34	208	NONE	40 mg	METHYLPREDNISOLONE	1000 mg	25/08/2020
15.8	76	17.6	759	579	158	29	871	36	1.01	0.93	51	107	86	3	40 mg	METHYLPREDNISOLONE	1000 mg	21/08/2020
16.5	53	28.1	2000	670	142	768	346	198	10.8	0.39	57	25	352	1	40 mg	METHYLPREDNISOLONE	1000 mg	31/8/20
17.6	45	33.5	645	1257	254	20	2789	89	1.06	1.2	68	51	329	7	40 mg	METHYLPREDNISOLONE	1000 mg	29/08/2020
16	80	20.3	632.4	732	214	23.5	3214	51	1.17	1.06	48	26	339	3	80 mg	METHYLPREDNISOLONE	120 mg	17/08/2020
16.4	41	23	229	243	216	102.8	187	24	1.15	0.7	21	18	265	4	40 mg	DEXAMETHASONE	12 mg	15/8/20
16.4	62	26.8	1015	675	299	40.9	431	48	0.78	0.43	35	15	103	9	40 mg	METHYLPREDNISOLONE	120 mg	14/08/2020
17	86	33.5	432	629	228	78.9	1528	55	0.81	0.44	21	16	300	2	40 mg	METHYLPREDNISOLONE	1000 mg	25/8/20
15.4	55	27	904	415	241	45.6	509	142	11.2	0.4	80	47	367	NONE	40 mg	METHYLPREDNISOLONE	80 mg	01-09-2020
16.4	33	17.7	2000	855	316.5	28.9	>5000	68	2.52	2.91	98	80	117	3	120 mg	METHYLPREDNISOLONE	40 mg	20/8/20
15.8	55	20.2	46.52	527	300	32	4568	66	1.32	0.46	49	79	471	1	40 mg	DEXAMETHASONE	24 mg	13/08/2020
16.7	59	29.1	1341	416	314	43.3	350	41	0.91	0.98	42	32	145	5	40 mg	METHYLPREDNISOLONE	120 mg	28/08/2020
16.2	39	16.6	529	683	252	10.78	1327	74	1.03	0.71	115	119	298	4	40 mg	METHYLPREDNISOLONE	80 mg	02-09-2020
16.5	59	29.4	1133	538	250	8.69	4258	29	0.79	0.9	40	35	225	3	40 mg	METHYLPREDNISOLONE	40 mg	22/08/2020
16.1	50	17	567	885	299	22.8	1580	108	1.87	0.7	32	34	214	2	40 mg	METHYLPREDNISOLONE	1000 mg	12-09-2020
16.1	74	220	317	820	214	29.6	4500	43	1.16	7.3	26	11	152	NONE	40 mg	METHYLPREDNISOLONE	40 mg	23/08/2020
16	34	15.4	320.6	857	127.5	127.5	1245	47	2.11	0.3	73	24	171	4	40 mg	METHYLPREDNISOLONE	1000 mg	18/9/20
15.9	38	19.7																2-8-20
15.7	61	20.3	256.3	456	214	42.9	2568	32	0.66	0.14	69	31	152	5	80 mg	METHYLPREDNISOLONE	500 mg	18/8/2020
16.5	42	23.7	1290	971	241	88.8	>5000	29	1.25	0.56	42	18	165	2	80 mg	METHYLPREDNISOLONE	500 mg	20/9/20
16	51	22.7	615	613	217	110	1193	46	1.05	0.79	64	39	249	3	80 mg	METHYLPREDNISOLONE	1000 mg	13/9/20
15.3	60	17.2	347	1089	256	47	1258	65	0.89	1	23	54	257	3	80 mg	METHYLPREDNISOLONE	1000 mg	11-9-20
16.6	68	30.8	1566	442	200.4	58.3	2587	36	0.91	0.8	33	31	234	5	80 mg	METHYLPREDNISOLONE	1000 mg	23/8/20
16.6	68	30.8	2574	606	189	49.4	968	149	2.4	0.8	23	15	298	5	80 mg	METHYLPREDNISOLONE	500 mg	1-9-20
15.8	72	16.3	1658	653	154	52	781	158	7.28	8.26	99	64	45	NONE	40 mg	METHYLPREDNISOLONE	120 mg	19/9/20
16.3	68	23.9	450	653	42	42	666	100	0.9	0.5	252	118	153	11	40 mg	METHYLPREDNISOLONE	500 mg	20/9/2020
16.9	55	44.1	3037	140	212.6	27	2879	66	1.41	1.09	77	32	179	4	40 mg	METHYLPREDNISOLONE	500 mg	12-8-20
15.9	70	16.6	2157	712	210.3	54	4568	45	1.25	6.1	59	35	254	NONE	40 mg	METHYLPREDNISOLONE	500 mg	7-8-20
15.8	30	31	810	765	208.9	4470	>5000	102	1.39	0.91	21	49	256	4	40 mg	METHYLPREDNISOLONE	500 mg	20/8/20
16.6	69	37.6	847	198	1141	10.05	1141	42	1.79	0.56	32	58	247	7	40 mg	METHYLPREDNISOLONE	1000 mg	23/9/2020
17.7	19	41.1	758.9	576	301.8	72.29	2147	32	0.92	0.6	22	15	128	12	80 mg	METHYLPREDNISOLONE	500 mg	1-10-20
16	38	19.6	258	247	228.7	70	1301	65	1.22	0.53	20	29	358	2	40 mg	METHYLPREDNISOLONE	1000 mg	20/8/20
16.4	47	22.8	513	476	245.2	80.4	2145	47	0.95	0.62	94	26	410	12	80 mg	METHYLPREDNISOLONE	1000mg	3-9-20
16.6	17	31.5	387	410	47	62.9	999	49	0.7	0.62	19	66						

DEMOGRAPHY					VITALS OF THE PATIENTS AT ADMISSION TIME										LABORATORY INVESTIGATION										
Sl. No.	IP No.	DATE OF ADMISSION	AGE	SEX	SYMPTOMS (C=Cough; F=Fever; B=breathlessness; M=Myalgia, Loss of smell=Ls; Loss of taste=LT)	OTHER SYMPTOMS	TIME TO HOSPITAL TO SYMPTOM ONSET	RESPIRATORY RATE AT ADMISSION	SATURATION ON ADMISSION	OXYGEN MODALITY ON ADMISSION	OXYGEN RATE AT ADMISSION	FIO2 AT ADMISSION	COMORBIDITIES	CT SEVERITY SCORE	HAEMOGLOBIN	TOTAL LEUCOCYTE COUNT	NEUTROPHIL %	LYMPHOCYTE %	PLATELETS	MEAN PLATELET VOLUME	PLATELET CRIT	PLATELET DISTRIBUTION WIDTH	PLATELET LARGE CELL COUNT	PLATELET LARGE CELL RATIO	FERRITIN
1	1024932	07-10-20	49	M	C,F		5	26	85%	O2 MASK	5 L/min	NA	ASTHMA	9	13.5	6.7	77	19	122	10	0.12	16.4	40	32.8	651
2	1023058	13/9/20	74	M	CFMB		5	22	91%	ROOM AIR	NA	NA	BPH	12	12.4	9.8	79	15	174	8.9	0.167	16.1	38	20.4	267
3	1021470	21/8/20	48	F	FB		4	18	96%	ROOM AIR	NA	NA	NONE	15	14.5	5.1	62	33	289	8.6	0.248	16.1	50	17.5	44.6
4	1024346	30/9/20	78	M	CFMB		2	22	88%	O2 MASK	5L	NA	DM	12	16	21.6	94	3	174	12	0.17	17.1	57	40.7	1115
5	1024283	29/9/20	72	M	FB		1	16	99%	ROOM AIR	NA	NA	DM	5	14.3	9	73	18	274	10	0.288	16	82	28.5	316.4
6	1023950	24/09/20	55	M	CFB		5	14	96%	O2 MASK	2L O2	NA	HTN	15	15.5	5.16	71	18	353	9.7	0.34	16.9	88	24.9	606
7	1021418	21/08/20	42	M	CB		2	22	90%	O2 MASK	6L O2	NA	DM,HTN	17	12.2	11.6	88	8	295	10.9	0.148	16.7	48	35.7	450
8	1023907	24/09/20	67	M	CFB		2	26	90%	O2 MASK	5L O2	NA	DM,HTN	12	12.1	14.2	89	7	135	10.5	0.13	17	32	22.3	1002
9	1024635	4-10-20	52	M	CFB		4	18	95%	O2 MASK	4L O2	NA	HTN	14	14.5	4.8	83	11	143	9.1	0.13	17	32	22.3	917
10	1020024	31/07/20	60	M	CF		5	12	96%	ROOM AIR	RA	NA	DM,HTN,IHD	18	10	4.3	59	31	289	8.7	0.252	15.6	60	20.7	56.86
11	1022622	07-09-20	39	M	C		3	20	96%	ROOM AIR	RA	NA	NONE	9	13.3	8.7	59	31	168	8.3	0.215	16.8	46	17.7	74.25
12	1022763	09-09-20	70	M	CMF		1	24	85%	O2 MASK	15L	NA	DM,HTN	14	10.8	8.5	75	12	251	8.7	0.209	15.9	51	21.1	338
13	1024049	25/09/20	50	M	F	WEAKNESS	7	15	95%	ROOM AIR	RA	NA	NONE	12	14.6	10.2	78	13	246	9.1	0.223	16.2	53	21.5	414
14	1021264	18/08/20	43	M	FM		4	18	96%	ROOM AIR	RA	NA	NONE	14	9.3	14.2	95	3	385	8	0.193	15.8	35	14.5	777.9
15	1022375	04-09-20	30	M	CFB		3	26	92%	O2 MASK	3L O2	NA	NONE	15	11.3	10.6	72	19	337	9.7	0.325	15.6	92	27.3	27.38
16	1021495	22/08/20	75	M	CFBM	WEAKNESS	4	22	89%	RE BREATHING MASK	5L O2	NA	DM,HTN,IHD	24	11.7	6.6	68	22	227	7.8	0.185	15.4	30	15.4	412
17	1022667	07-09-20	59	M	CFB	WEAKNESS	3	21	90%	O2 MASK	6L	NA	DM	22	13.7	10	90	7	137	7.9	0.273	15.8	48	13.8	137
18	1022797	09-09-20	64	M	CM	WEAKNESS	2	14	99%	ROOM AIR	RA	NA	DM	19	14.5	4.1	82	14	250	8.7	0.216	16.1	45	17.9	133
19	1018721	14/07/20	25	M	CFMB	DIARRHOEA	2	12	96%	ROOM AIR	RA	NA	NONE	12	15.6	10.6	64	23	235	8.2	0.191	15.5	35	14.9	217.6
20	1022636	07-09-20	54	M	CFB		5	22	89%	O2 MASK	RA	NA	TB, ASTHMA	20	10.3	10.1	78	14	418	8.1	0.206	15.8	37	14.8	102
21	1018431	10-07-20	74	M	CFMB	WEAKNESS	2	16	97%	ROOM AIR	RA	NA	DM,HTN	14	7.3	7.6	62	12	169	9	0.152	16.4	42	24.7	104
22	1021041	15/08/20	33	M	CFMB		4	12	96%	ROOM AIR	RA	NA	NONE	12	13.5	4.9	67	13	178	7.8	0.181	16.3	33	14.3	98
23	1019405	22/07/20	24	M	CFB		3	10	99%	ROOM AIR	RA	NA	NONE	6	14.8	4.9	49	42	268	10.4	0.28	16.3	79	29.5	88
24	1023483	18/09/20	57	M	CFB		5	20	93%	ROOM AIR	2L/MIN	NA	HTN	5	15.4	13.5	88	6	436	8.9	0.387	16.1	89	20.3	203
25	1021292	19/08/20	23	F	CF		3	9	97%	ROOM AIR	NA	NA	NONE	9	13.4	9.4	60	27	288	10.3	0.296	16.2	83	28.9	200
26	1024867	07-10-20	60	M	CM		3	15	90%	O2 MASK	2L/MIN	NA	HTN,DM	12	12.3	11.3	67	21	202	9.2	0.186	16.2	44	21.8	202
27	1019869	29/07/20	26	F	CB		3	12	94%	O2 MASK	2L/MIN	NA	NONE	15	10.8	9.8	64	20	291	10	0.266	16	70	28.6	214
28	1021570	24/08/20	56	F	CFB		8	16	90%	O2 MASK	2L/MIN	NA	DM,HTN	14	10.3	5.9	77	19	245	10.6	0.28	16.2	87	28.6	327
29	1019413	22/07/20	27	F	CMB		3	9	99%	ROOM AIR	NA	NA	NONE	15	14.8	4.9	49	42	252	10.1	0.255	15.9	69	27.5	80
30	1020943	14/08/20	48	M	CMB		3	12	94%	O2 MASK	1L/MIN	NA	HTN	9	14.8	4.6	49	42	151	9.4	0.141	17.1	36	23.5	80
31	1021531	23/08/20	54	M	B	chest pain	1	16	95%	O2 MASK	1L/MIN	NA	DM	11	13	5.7	54	21	223	9	0.296	16.8	52	21	107
32	1025361	13/10/20	61	M	CMF	chest pain	2	13	97%	ROOM AIR	NA	NA	DM,HTN	13	17.6	10.3	79	17	261	8.6	0.225	16.4	47	17.8	48
33	1020424	06-08-20	45	F	CF		4	15	97%	ROOM AIR	NA	NA	NONE	14	11.1	9.3	76	19	186	10.6	0.197	16.7	60	32.4	13.95
34	1024956	08-10-20	60	M	CBF		2	26	88%	O2 MASK	4L/MIN	NA	DM,ASTHMA	22	7.4	18.3	82	11	216	9.8	0.211	16	56	25.7	114
35	1020649	16/08/20	54	F	CB		3	22	91%	O2 MASK	2L/MIN	NA	DM,HTN	16	14.8	4.9	49	42	197	9.3	0.183	16.1	43	22.1	86
36	1021443	21/08/20	27	F	CMF		3	16	99%	ROOM AIR	NA	NA	NONE	9	9.8	9.7	54	23	392	9.7	0.381	15.9	98	24.9	324
37	1023840	29/09/20	26	M	CB	weakness	3	20	95%	O2 MASK	1L/MIN	NA	NONE	10	14.8	4.9	49	42	182	10.9	0.198	16.5	63	34.7	996
38	1020811	12-08-20	41	M	CF	weakness	3	19	96%	ROOM AIR	NA	NA	NONE	11	14.8	4.9	57	34	2.29	10.4	0.251	16.1	75	31.3	80
39	1019609	25/07/20	24	M	CB	weakness	3	12	99%	ROOM AIR	NA	NA	NONE	8	14.8	4.9	60	38	260	8.8	0.2	16.8	58	22.2	80
40	1022727	08-09-20	25	M	CBF	weakness	3	21	94%	O2 MASK	2L/MIN	NA	NONE	15	12	7.5	65	22	250	7.8	0.195	15.9	31	12.5	356
41	1024639	4-10-20	44	F	F		7	15	96%	ROOM AIR	NA	NA	NONE	7	13	6.8	71	21	235	8.7	0.205	16	42	17.7	306
42	1017707	05-07-20	45	M	BFM		7	26	88%	ROOM AIR	4L/MIN	NA	DM	18	13.5	10	84	10	259	10	0.268	16.2	38	21.6	357
43	1023711	21/09/20	71	F	CB		5	26	86%	RE BREATHING MASK	2L/min	NA	CKD,IHD,DM	16	13.8	6.7	74	18	178	9.5	0.188	16.2	42	23.4	608.1
44	1021836	27/08/20	59	M	CFB		4	22	93%	O2 MASK	6L/MIN	NA	DM,HTN	4	12.1	16.1	92	4	222	10.7	0.238	16.5	73	23.9	542
45	1021845	27/8/20	52	M	B		5	18	95%	RE BREATHING MASK	15L/MIN	NA	DM	5	13.8	20.4	90	5	183	10.1	0.185	16.7	55	29.9	210.7
46	1023488	18/9/20	64	M	CF		3	12	98%	ROOM AIR	NA	NA	DM,HTN,CKD	15	10	9.8	91	4	164	8.8	0.225	16.4	48	18.2	2000
47	1020455	7-8-20	60	M	C,F,B		2	22	85%	O2 MASK	5L/MIN	NA	DM, HTN	18	11.1	5.1	75	20	219	8.6	0.188	15.9	39	17.7	264
48	1019426	23/7/20	65	M	C, F		5	22	92%	O2 MASK	4L/MIN	NA	DM, HTN	16	14.1	7.2	70	25	161	9.2	0.18	16.3	35	21.7	429
49	1023326	16/9/20	85	M	FC		2	18	96%	ROOM AIR	NA	NA	DM, HTN	9	10.11	11.4	74	19	203	8.6	0.175	16	35	17.1	61.46
50	1024174	28/9/20	60	F	F		5	32	77%	RE BREATHING MASK	10L/MIN	NA	DM	16	11.4	8.1	70	30	25	8.5	0.124	15.2	36	23.5	22.4
51	1021407	28/8/20	20	M	CFM	weakness	1	9	98%	ROOM AIR	NA	NA	NONE	8	12.1	7.6	57	35	191	8.7	0.268	15.9	42	17.9	21
52	1022906	10-9-20	78	M	CB		5	24	84%	RE BREATHING MASK	10L/MIN	NA	DM	22	12.8	6.6	88	9	187	8.2	0.206	16.1	42	28.2	1254
53	1025516	15/10/20	82	M	B		1	26	95%	RE BREATHING MASK	5L/MIN	NA	DM, HTN, IHD	18	9.5	10.8	95	2	156	10	0.155	16.3	44	27.9	192.8
54	1020680	10-8-20	70	M	CB		3	30	92%	O2 MASK	7L/MIN	NA	DM, HTN	20	12.7	7.2	77	17	260	8.7	0.227	16	47	18.1	276
55	1024333	29/9/20	26	F	CBM		2	22	87%	O2 MASK	4L/MIN	NA	NONE	16	13	5.2	53	36	229	9	0.268	17.2	52	22.6	151.9
56	1023878	23/9/20	72	F	BF		2	21	96%	O2 MASK	5L/MIN	NA	DM, HTN, Parkinsonism	13	15.5	8.1	89	7	278	9.2	0.302	15.9	63	22.6	532
57	1024370	30/9/20	54	M	CF		1	14	96%	ROOM AIR	NA	NA	HTN	7	11.6	6.7	70	24	222	9	0.2	15.7	46	20.8	125
58	1023727	21/9/20	60	M	CF		5	22	92%	O2 MASK	NA	NA	DM,HTN	17	18.2	9.3	75	14	227	10.2	0.361	16	54	32	1152
59	1020944	14/8/20	39	M	FB		8	20	94%	O2 MASK	6L/MIN	NA	NONE												

TESTS ON ADMISSION										TREATMENT				OUTCOME			
LDH	HsCRP	IL-6	D DIMER	UREA	CREATININE	BILLIRUBIN	SGOT	SGPT	RANDOM BLOOD SUGAR	REMEDESEVIR (NO. OF DOSES)	LAMIV (MAXIMUM DOSE)	TYPE OF THE STEROID USED	MAXIMUM DOSE OF THE STEROID PER DAY	IMPROVED AND WAS DISCHARGED	WORSENERD AND WAS DISCHARGED AGAINST MEDICAL ADVISE	IMPROVED AND WAS DISCHARGED AGAINST MEDICAL ADVISE	DATE OF DISCHARGE
573	13	7.74	>5000	32	1.12	0.89	26	34	98	none	80 mg	METHYLPREDNISOLONE	50 mg	YES			17-10-2020
240	12	31.6	938	26	1.4	0.35	20	10	128	5	80 mg	METHYLPREDNISOLONE	50 mg	YES			18/09/20
232	13.7	26.02	344	24	0.9	0.37	22	16	99	5	80 mg	METHYLPREDNISOLONE	80 mg	YES			28/8/20
792	57	28.4	590	58	1.13	0.93	22	38	174	7	120 mg	METHYLPREDNISOLONE	500 mg	YES			3-10-20
336	5.4	10.6	150	42	0.76	1	37	29	144	8	120 mg	METHYLPREDNISOLONE	120 mg	YES			7-10-20
332	18.6	45	872	66	1.36	0.6	41	45	156	6	80 mg	METHYLPREDNISOLONE	500 mg	YES			30/09/20
411	20	102	924	22	0.96	0.74	36	19	207	5	80 mg	METHYLPREDNISOLONE	80 mg	YES			28/08/20
105	26	43.5	517	43	1.01	1.01	20	12	205	9	80 mg	METHYLPREDNISOLONE	80 mg	YES			15/10/20
353	13	73.3	346	22	0.74	1.3	31	33	137	2	80 mg	METHYLPREDNISOLONE	80 mg	YES			07-10-20
244	7	12	363	17	1.5	1.1	17	11	248	3	40 mg	METHYLPREDNISOLONE	80 mg	YES			12-08-20
147	24	102	147	31	1.07	0.78	26	20	105	2	80 mg	METHYLPREDNISOLONE	80 mg	YES			09-09-20
321	20	201	897	40	1.35	0.25	34	14	282	6	100 mg	METHYLPREDNISOLONE	1000 mg	YES			25/09/20
289	22	4.54	248	32	1.2	0.48	20	63	163	5	80 mg	METHYLPREDNISOLONE	80 mg	YES			29/09/20
433	17	20.49	498	20	1.1	0.2	29	44	281	7	80 mg	DEXAMETHASONE	12 mg	YES			24/08/20
202	14	122	531	22	0.54	0.3	22	20	103	6	80 mg	METHYLPREDNISOLONE	80 mg	YES			10-09-20
386	22	156	882	46	1.7	0.9	26	24	303	6	80 mg	METHYLPREDNISOLONE	80 mg	YES			08-27-22
1012	24	77	>5000	56	1.3	0.6	50	30	175	1	80 mg	METHYLPREDNISOLONE	120 mg	YES			15/09/20
196	22	1.6	120	75	2.51	0.5	29	26	209	NONE	80 mg	METHYLPREDNISOLONE	120 mg	YES			12-09-20
219	20	22	205	16	1.01	0.9	14	16	106	3	40 mg	METHYLPREDNISOLONE	80 mg	YES			18/07/20
334	18	58.77	308	18	1	0.7	20	26	105	5	80mg	METHYLPREDNISOLONE	500 mg	YES			25/09/20
302	14	104	456	22	0.9	0.64	22	24	102	3	40 mg	METHYLPREDNISOLONE	80 mg	YES			13/07/20
120	12	6.04	996	24	1	0.42	34	32	96	5	40 mg	METHYLPREDNISOLONE	80 mg	YES			22/08/20
358	10	22	125	31	0.7	0.45	32	31	104	5	80 mg	METHYLPREDNISOLONE	80 mg	YES			28/07/20
306	11	22	101	36	0.97	0.78	116	59	98	4	40 mg	METHYLPREDNISOLONE	80 mg	YES			24/09/20
204	15	12.24	390	30	1.1	0.33	11	18	103	6	40 mg	DEXAMETHASONE	12 mg	YES			23-08-2020
306	20	15	1247	17	1.3	1.25	25	18	204	6	40 mg	METHYLPREDNISOLONE	80 mg	YES			15/10/20
246	22	120	759	14	0.78	1.1	27	22	112	6	40 mg	METHYLPREDNISOLONE	80 mg	YES			03-08-2020
340	25	124	602	19	1.1	0.57	22	35	204	5	40 mg	METHYLPREDNISOLONE	80 mg	YES			31/08/20
358	14	89	996	31	0.54	0.65	32	31	99	3	40 mg	METHYLPREDNISOLONE	80 mg	YES			25-07-2020
358	14	13	487	14	0.7	0.8	22	36	187	5	40 mg	METHYLPREDNISOLONE	80 mg	YES			20-08-2020
279	16	88	102	22	1.07	1.1	28	26	145	NONE	40 mg	DEXAMETHASONE	12 mg	YES			25/08/20
254	13	4.02	319	26	0.8	0.9	26	28	102	NONE	40 mg	DEXAMETHASONE	12 mg	YES			15/10/20
176	15	92	502	72	1.3	0.6	32	26	189	5	40 mg	METHYLPREDNISOLONE	80 mg	YES			12-08-20
484	16	6.04	996	85	1.45	0.35	31	19	245	6	40 mg	METHYLPREDNISOLONE	80 mg	YES			15-10-2020
358	18	105	702	31	1.1	1.1	38	31	285	4	40 mg	METHYLPREDNISOLONE	80 mg	YES			20-08-2020
402	22	6.04	996	22	0.78	0.9	32	35	102	NONE	40 mg	DEXAMETHASONE	120 mg	YES			22/08/20
358	14	121	823	31	1.1	0.45	32	31	101	5	80 mg	METHYLPREDNISOLONE	80 mg	YES			03-10-2020
546	21	36	996	21	0.6	0.9	34	32	126	5	80 mg	METHYLPREDNISOLONE	80 mg	YES			15-08-2020
421	18	14	401	31	0.7	0.8	32	32	85	NONE	40 mg	METHYLPREDNISOLONE	40 mg	YES			30/07/20
323	21	12	521	25	0.6	0.8	34	31	124	NONE	NONE	DEXAMETHASONE	12 mg	YES			10-09-2020
404	25	105	448	8	6.4	0.52	32	24	98	NONE	NONE	DEXAMETHASONE	12 mg	YES			06-10-2020
402	27	241	548	57	1.41	0.61	27	20	120	3	40 mg	DEXAMETHASONE	12 mg	YES			09-07-2020
456	22	123	338	36	2.4	0.41	25	15	247	NONE	80 mg	METHYLPREDNISOLONE	120 mg	YES			1-10-20
674	25	140	1532	21	1	1.06	22	20	302	6	40 mg	METHYLPREDNISOLONE	1000 mg	YES			6-9-20
660	11.5	33.51	>5000	59	0.83	0.9	19	40	117	6	80 mg	METHYLPREDNISOLONE	80 mg	YES			04-09-2020
433	19	218	775	55	0.6	1	22	29	156	4	80 mg	METHYLPREDNISOLONE	40 mg	YES			21-09-2020
425	18	46.19	282	22	0.73	1.2	17	12	225	6	80 mg	METHYLPREDNISOLONE	120 mg	YES			19/8/20
789	22	32.45	746	31	1.4	0.51	54	44	129	6	80 mg	DEXAMETHASONE	16 mg	YES			1-8-20
251	18	33	661	32	2.32	0.25	19	15	245	NONE	80 mg	METHYLPREDNISOLONE	80 mg	YES			19/9/20
397	25	49.8	472	36	0.68	0.13	49	22	212	6	40 mg	METHYLPREDNISOLONE	40 mg	YES			2-10-20
212	12	15	278	32	0.7	0.9	32	25	96	NONE	NONE	DEXAMETHASONE	12 mg	YES			30-08-2020
402	19	21	37	37	0.87	0.5	31	20	317	6	80 mg	METHYLPREDNISOLONE	1000 mg	NO	WORSENERD		30/9/20
368	20	136.1	864	43	1	0.5	31	28	285	3	80 mg	METHYLPREDNISOLONE	120 mg	NO	WORSENERD		17/10/20
259	22	19.56	276	65	1.4	0.22	18	10	185	7	80 mg	DEXAMETHASONE	12 mg	YES			24/8/20
168	11	15.2	140	17	0.63	0.46	17	12	95	4	80 mg	METHYLPREDNISOLONE	80 mg	YES			5-10-20
504	18	102	1451	51	1.23	1.32	19	36	380	5	40 mg	METHYLPREDNISOLONE	80 mg	YES			29/9/20
456	15	136.6	386	31	0.9	0.46	53	51	156	5	40 mg	METHYLPREDNISOLONE	80 mg	YES			5-10-20
573	18	40.27	> 5000	32	1.32	2.48	109	116	101	6	40 mg	METHYLPREDNISOLONE	80 mg	YES			29/9/20
602	22	52.81	437	35	1.13	0.67	103	21	26	6	40 mg	DEXAMETHASONE	8 mg	YES			20/8/20
397	24	15.4	1519	65	0.9	0.9	22	66	251	10	80 mg	METHYLPREDNISOLONE	1000 mg	NO	WORSENERD		3-9-20
515	16	22	605	24	0.7	0.68	22	32	102	5	80 mg	METHYLPREDNISOLONE	500 mg	YES			30/9/20
616	23	120	588	35	1.5	0.66	38	40	308	7	40 mg	METHYLPREDNISOLONE	40 mg	YES			29/9/20
457	25	6.77	1617	83	1.05	9	34	28	306	3	80 mg	METHYLPREDNISOLONE	500 mg	YES			28/9/20
207	18	1.15	162	12	0.49	0.35	15	10	118	5	80 mg	METHYLPREDNISOLONE	80 mg	YES			3-10-2020
266	21	316.5	785	33	1.27	1	23	12	230	3	80 mg	METHYLPREDNISOLONE	80 mg	YES			6-9-20
269	22	122.3	>5000	32	0.96	0.54	17	13	174	5	80 mg	METHYLPREDNISOLONE	80 mg	YES			21/9/20
301	18	32.74	856	15	0.55	0.9	33	14	214	2	80 mg	METHYLPREDNISOLONE	80 mg	YES			23/9/20
339	17	7	996	31	0.69	0.6	22	32	114	3	NONE	DEXAMETHASONE	12 mg	YES			02-08-2020
268	18	96	102	21	0.94	0.8	38	34	98	6	40 mg	METHYLPREDNISOLONE	80 mg	YES			25/7/2020
419	24	16.73	478	23	0.57	1	35	32	122	6	80 mg	METHYLPREDNISOLONE	80 mg	YES			19/10/2020
358	24	6.04	546	31	0.88	0.6	29	27	300	5	80 mg	METHYLPREDNISOLONE	80 mg	YES			11-09-2020
458	26	133	741	32	0.9	0.9	24	38	104	6	40 mg	METHYLPREDNISOLONE	80 mg	YES			30/7/2020
210	14	25	260	21	0.72	0.45	14	14	97	4	40 mg	METHYLPREDNISOLONE	80 mg	YES			19-07-2020
349	12	15	242	39	0.94	0.59	85	64	83	7	40 mg	METHYLPREDNISOLONE	80 mg	YES			28-07-2020
226	14	28	390	35	0.8	0.37	19	10	96	NONE	NONE	DEXAMETHASONE	12 mg	YES			27-07-2020
259	27	119	2033	27	0.9	0.54	28	24	94	4	NONE	METHYL PREDNISOLONE	80 mg	YES			29/7/2020
396	28	122	388	27	0.98	1.2	26	27	256	6	80 mg	METHYL PREDNISOLONE	80 mg	YES			2-8-2020
395	22	214	412	17	0.89	0.86	21	24	97	6	80 mg	METHYL PREDNISOLONE	80 mg	YES			7-8-2020
671	21	96	789	24	0.73	1.7	22	24	239	NONE	80mg	METHYL PREDNISOLONE	80 mg	YES			8-4-2020
498	22	98	874	55	1.11	0.9	22	38	149	NONE	NONE	DEXAMETHASONE	12 mg	NO	WORSENERD		13/10/2020
358	28	6.04	996	31	0.88	0.45	32	39	107	5	80 mg	METHYLPREDNISOLONE	80 mg	YES			10-08-2020
254	24	516.1	335	17	1	0.9	33	40	147	NONE	40 mg	METHYLPREDNISOLONE	80 mg	YES			27-07-2020
354	28	94.6	725	34	1.03	0.61	31	29	242	6	40 mg	DEXAMETHASONE	12 mg	YES			03-08-2020
395	30	116	362	27	0.98	1.2	33	56	256	7	40 mg	DEXAMETHASONE	8 mg	YES			31-07-2020