Review Form2

Book Name:	**Medicine and Medical Research - New Perspectives**
Manuscript Number:	**Ms_BPR_1996**
Title of the Manuscript:	**Retrospective Observational Study of Complete Blood Count (CBC) Parameters and ICU Mortality of COVID-19 Disease in Delta Variant and Omicron Variant in a Community-Based Hospital in New York City**
Type of the Article	**BOOK CHAPTER**

PART 1: Review Comments

Compulsory REVISION comments	**Reviewer's comment**	**Author's Feedback***(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimumof 3-4 sentences may be required for this part.	I like this manuscript because it well written althoughg there are some mistake in the methodology, result and discussion parts. Many corrections need to be done to improve this manuscripts. This is a good study however, the author did not explain the problem statement and justification why the study need to be conducted	
Is the title of the article suitable? **(If not please suggest an alternative title)**	Please specify the name of the study design. Retrospective observational study – it is a retrospective cohort or case-control study?	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	i. This study aims to compare the Delta and the Omicron variants of COVID-19 infection in acommunity-basedhospitalinNewYorkCityconsideringthecomparisonofICUadmissionsinboth variants. ii. Weaimtostudythecomparisonofcompletebloodcount(CBC)parametersandinflammatorymarkersofpatientsadmittedtoICUstratifiedbytwowavesofCOVID-19infection. iii. WeaimtoanalyzetheassociationofCBCparametersatadmissionandthedischargeduringICUstayinbothvariants.WealsoaimtostudytheassociationofCBCparametersatadmissionanddischargewithICUmortalityinbothvariants The abstract needs to be modified. There are three aims of this study. The sentence needs to be merged by using only one word "aim" rather than repeating for three times..	
Are subsections and structure of the manuscript appropriate?	Yes - appropriate	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimumof 3-4 sentences may be required for this part.	Material and method: • a retrospective observational study – *please be a specific type of retrospective observational study. It is a case-control or retrospective cohort study.* • randomly selected hospitalized – *be specific. How many hospitals arein the study area and how were the hospitals selected? Randomly selected – simple? systematic? stratified? etc …*	

	• it needs to improve the methodology part – *method of data collection (it is using secondary data?)* • *any inclusion and exclusion criteria* • *list up variables of interest in this study* • *when the study was conducted* Result: • The average length of hospital stay was seven days in the Delta wave and nine days in the Omicron wave – please put the dispersion e.g. standard deviation or range or variance) but still, no association was found between WBC and ICU admission.- *please state the p-value* • Significant associations were found between different cell counts on admission (p-value?) and discharge (p-value?) and death (p-*value?) in the Delta wave except for Hgb (p-value?) and platelets on admission (p-value?) –please state the p-value* • However, in the Omicron variant, a significant association was found only between WBC on admission and discharge, and Hgb and neutrophil on discharge with death in the univariate model – *please state the p-valu*e Discussion: • In our study in an adjusted regression model (separate regression analysis for each cell count), a significant association between odds of death and WBC on admission (OR 1.12, p=0.019), WBC on discharge (OR 1.36, p<0.001), Hgb on discharge (OR 0.59, p<0.001), lymphocyte on admission (OR 0.29, p=0.018), lymphocyte on discharge (OR 0.29, p=0.007), neutrophil on admission (OR 1.18, p=0.003), and neutrophil on discharge (OR 1.32, p<0.001) were found in the Delta variant. – *this sentence needs to be in the result part. No need to represent in the discussion part* • In the adjusted regression model of the Omicron variant, a significant association between death and WBC on discharge (OR 1.21, p=0.03), Hgb on discharge (OR 0.55, p<0.001), and neutrophil on discharge (OR 1.24, p=0.002) were found – *this sentence need to be in the result part. No need to represent in the discussion pa*rt • Although there have been many studies that have analyzed the CBC characteristics of different COVID waves, to our knowledge this is the first study that compared the CBC characteristics between the Delta and Omicron COVID waves at admission and discharge – *please do not state "this is the first study" because it could be study done but in other language which did not catch in your literature search because most of the literature was in English.* • Richardson et al, in their study on 5,700 patients hospitalized with COVID-19 infection in the NYC area, studied the presenting patient characteristics, comorbidities, and outcomes [12]. Hypertension, obesity, and diabetes were the most common comorbidities and among patients who were discharged or died, 14.2% were treated in the intensive care unit, 12.2% received invasive mechanical ventilation, 3.2% were treated with kidney replacement therapy, 21% died [12]. In our study group, 21.3% (delta variant) and 28.4% (omicron variant) of the total patients were admitted to ICU. Among the patients admitted to ICU, 73% had hypertension and 49% diabetes in Delta, while 69% had hypertension and 62% diabetes in the Omicron wave. There have been studies showing a comparison of clinical characteristics between the Delta variant and the Omicron variant of SARS-COV-2 infections [13] however	

	not much research has been done comparing the CBC parameters and emphasizing its relevance – *I am not sure about these sentences. Are you comparing it with another study? And what is the purpose and relevance of these sentence*s • The author only lists up the limitations but did not explain the reason for all limitations	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references are sufficient	
Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**	Language – acceptable and suitable for scholarly communication	
Optional/Generalcomments	• .Overal good study and well written but need to do many correction	

PART 2:

	Reviewer's comment	**Author's comment***(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

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