

**Received:** 2023-07-24    **Reviewed:** 2023-07-30    **Revised:** 2023-08-12    **Accepted:** 2023-08-21    **Published:** 2023-09-10**E d i t o r****R e v i e w e r s**

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**1. Round 1***1.1 Reviewer 1*

Date: 10 July 2023

The objective of the study was to assess the risk of death and transfer to the intensive care unit in patients with COVID-19. The paper is of potential interest to the scientific community.

The methodology used is robust and the data interpretation was adequate. Some parts of the manuscript can be clarified. Please see comments below for each section.

**Abstract**

Add which country the participants were from.

**Introduction**

The background used to contextualize the reader is excellent. The authors present the gaps and justify their study.

Minor issue: Typos please change "The government of Kairouan" by Governorate of Kairouan" and include a sentence to describe briefly the "Delta variant".

**Method**

Please put the date "August 31st, 2021" in the design section as the period was previously mentioned in this section.

Please, explicitly indicate the inclusion and exclusion criteria.

Please delete "from" in this sentence. "...using a standardized data collection form performed by the preventive medicine department".

Please only include one section for "Data Analysis" and "Statistical Analysis."

**Results**

Please, don't use abbreviation in sex ratio formula.

Please check the significance levels for diabetes type 1 and diabetes type 2 in table 1 (0.597).

#### Discussion

You report odds ratios with confidence intervals and exact significance in the discussion section. Please, try to report the main results of studies and minimize the numbers in this section.

#### 1.2 Reviewer 2

Date: 12 July 2023

Firstly, I would like to congratulate the authors on conducting this interesting research and preparing this manuscript. I have a few small things that need changing for clarity. I suggest a minor revision.

In the conclusion, the authors suggested that patients with comorbidities had greater disease severity compared with those without. However, the study included only elderly people. Therefore, I don't think that the authors can generalize this hypothesis for the whole population.

In addition, the authors state that chronic inflammation, increased coagulation activity, immune response impairment... and chronic inflammation is associated with cardiovascular disease, etc. However, chronic inflammation is also associated with aging. Most of the elderly people develop chronic inflammation "inflammaging" <https://doi.org/10.1038/s41569-018-0064-2>.

Briefly, the authors should not neglect the effect of aging on the results of the present study.

I recommend that the authors add a limitation section.

Please add the following sentence in the discussion or the limitation section:

Aging is associated with increased oxidative stress, and decreased endogenous protective mechanisms doi: 10.17179/excli2023-5864 which makes older people more susceptible to develop inflammaging

#### 1.3 Reviewer 3

Date: 12 July 2023

Well written but reference section needs to be reviewed

#### 1.4 Reviewer 4

Date: 13 June 2023

I read with a great interest the paper entitled "Impact of comorbidities on the risk of death and intensive care admission in COVID-19 patients hospitalized in a Tunisian center". The rationale of the study is interesting. However, several changes must be performed in order to improve the scientific quality of the paper.

#### GENERAL REMARKS

Write always arterial hypertension (not hypertension) and diabetes mellitus (not diabetes): see the attached word file please write always COVID-19 (not Covid-19): see the attached file

Avoid elegant variations of terms: see some examples below: use always men/women or male/female not both

All abbreviations should be explained the first time they are used (in the abstract, and in the manuscript)- unless it is a standard unit of measurement - and thereafter the use of abbreviations should be consistent throughout the paper.

Avoid excessive use of abbreviations.

The paper needs to be checked by a person fluent in English (or better use ChatGPT to improve the writing quality).

#### TITLE

Please write the title inside the first page

Change Tunisian by "North-African"

#### ABSTRACT

Please accept all recommended changes reported in the manuscript –see the attached word file

#### KEYWORDS

Please avoid citing as keywords some terms previously used in the title or the abstract

Please opt for MeSH terms

Please classify the keywords by alphabetical order

#### INTRODUCTION

Please reorganize this section into three clean and individualized paragraphs: 1 what is known, 2 what is unknown, and 3 your aims

Several sentence are lacking references (see the attached word file)

Define COVID-19 at first use

In the following sentence, please update data to the end of July 2023: "476 million and more than 6 million deaths worldwide until March 2022". See for example the website: <https://www.worldometers.info/coronavirus/> and use the website as a reference

Please update the dates (till the end of July) in the following sentence: As of March 2022, Tunisia registered around one million confirmed cases [4] of coronavirus since the beginning of the pandemic and a total of 28.323 deaths [5,6]. Use the following link as a reference: <https://tradingeconomics.com/tunisia/coronavirus-cases>

#### METHODS

In the study design: Please describe the activities of these 2 services (number of beds, main diseases), and describe the ICU service (number of beds)

Add a figure: flow chart

Ethical approval? Patients consents?

Please calculate the minimal sample size

Describe the diagnosis criteria for ARDS (or add a reference of the diagnostic criteria)...

See the other remarks inside the paper (attached file)

#### RESULTS

In the beginning of this section, describe the number of patients before the application of the non-inclusion and exclusion criteria (figure 1)

#### TABLES

See corrected file.

#### FIGURES

Figure 1 will be figure 2. Figure 1 has a bed quality., name figure a and b inside the figures...

Figure 2 will be figure 3. Change arterial hypertension, define HR and CI

#### DISCUSSION

The first sentence must be a remind of the main results.

This sentence (We reported that the death rate was higher among older and COVID-19 patients with comorbid conditions: 34.3% versus 21.6%.) is unclear

Add a subsection: study limitations.

#### REFERENCES

MAJOR POINT: All this section must be corrected: apply the Vancouver style.

For reference presented as website, please add the date of last visit.

## **2. Round 2**

### *2.1 Reviewer 4*

Date: 30 July 2023

The authors improved the scientific quality of their paper.

Several changes were introduced inside the paper

I recommend to add a page related to the abbreviations list (after the abstract) : please classify the abbreviated terms by alphabetical order.

ADDITIONAL REMARKS:

Figure 1. COVID-19 not Covid-19. Please in the bottom of the title, define all used abbreviations in alphabetical order:

COVID-19, ICU, Rt PCR

Figure 3. Arterial not arteriel, p-value not p value

## **3. Revised**

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.