

# Week 04 Quality criteria for good research: Homework solutions

Open and reproducible science: general reasons and approaches

## The PRECHECK checklist

**Title of preprint: Efficacy and Safety of Ivermectin for Treatment and prophylaxis of COVID-19 Pandemic (Elgazzar et al.)**

**Reviewer: Eva Furrer**

### 1. Research question

Is the research question/aim stated?

**Yes**

#### Notes:

RQ well stated in the title and abstract: to evaluate the anti-parasitic medication efficacy “Ivermectin” plus standard care in the treatment of mild/moderate and severely ill cases with COVID 19 infection, as well as prophylaxis of health care and/ or household contacts.

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### 2. Study type

Is the study type mentioned in the title, abstract, introduction, or methods?

**Yes**

#### Notes:

RCT

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### 3. Transparency

- a. Is a protocol, study plan, or registration of the study at hand mentioned?

**Maybe**

- b. Is data sharing mentioned? Mentioning any reasons against sharing also counts. Mentioning only that data will be shared “upon request” does not count.

**No**

- c. Is materials sharing mentioned? Mentioning any reasons against sharing also counts. Mentioning only that materials will be shared “upon request” does not count.

**No**

- d. Does the article contain an ethics approval statement (e.g., approval granted by institution, or no approval required)?

**Yes**

- e. Have conflicts of interest been declared? Declaring that there were none also counts.

**Yes**

**Notes:**

- a. There are protocols mentioned but those are clinical protocols not study protocols
- b. Data sharing mentioned but “data master sheet are available on reasonable request from the corresponding author from the following link: <https://filetransfer.io/data-package/qGiU0mw6#link>
- c. No code sharing mentioned.
- d. Ethics approval: An approval from the Research Ethics Committee at Faculty of Medicine, Benha with approval number, that can however not be accessed!
- e. The authors declare no CoI

*Let's dig deeper*

**Notes:**

- a. clinicaltrials.gov preregistration accessible. However: first posted on clinicaltrials.gov on December 16 2020; while the preprint was uploaded to researchsquare on 13. of November. maybe not trustworthy.
  - b. Data not accessible. To access the link, the author(s) have to be contacted.
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#### **4. Limitations**

Are the limitations of the study addressed in the discussion/conclusion section?

**No**

**Notes:**

*Let's dig deeper*

Check for potential biases yourself. Here are some examples of potential sources of bias.

**Notes:**

1. Study Sample - 600 individuals but divided into six groups. One of the groups includes contacts of patients... not meaningful for their purpose / or comparable
2. Control group - they had three control groups without ivermectin treatment, however two of those control groups got hydroxychloroquin
3. Randomisation - block randomisation (6 groups)
4. Blinding - double blind RCT

**Title of preprint: Epidemiology and Transmission of COVID-19 in Shenzhen China: Analysis of 391 cases and 1,286 of their close contacts**

**Reviewer:**

**1. Research question**

Is the research question/aim stated?

**Yes**

**Notes:** RQ stated in abstract: they analyse the 391 SARS-CoV-2 cases and their 1286 close contacts to understand the epidemiology and transmission of Covid-19.

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**2. Study type**

Is the study type mentioned in the title, abstract, introduction, or methods?

**No**

*Let's dig deeper*

Not explicitly stated; they are using surveillance data, e.g. observational study

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**3. Transparency**

a. Is a protocol, study plan, or registration of the study at hand mentioned?

**Yes**

b. Is data sharing mentioned? Mentioning any reasons against sharing also counts. Mentioning only that data will be shared "upon request" does not count.

**Yes**

c. Is materials sharing mentioned? Mentioning any reasons against sharing also counts. Mentioning only that materials will be shared "upon request" does not count.

**No**

d. Does the article contain an ethics approval statement (e.g., approval granted by institution, or no approval required)?

**Yes**

- e. Have conflicts of interest been declared? Declaring that there were none also counts.

**Yes**

**Notes:**

- a. A protocol is mentioned, but none is referenced. The data used originated from the Shenzhen Center for Disease Control and Prevention (who uses a protocol ?). Supplementary Text S1 explains data collection more in detail.
- b. Data sharing mentioned on preprint server, with reason why not able to share. They further explain that they are working on making the data available.
- c. No code sharing is mentioned.
- d. There is an ethics statement which mentions discussions with John Hopkins determining that the work is not human subject research.
- e. The authors declare not CoI.

*Let's dig deeper*

**Notes:**

- a. None of the mentioned protocols are accessible; e.g. no number etc.
- b. Data not accessible, but they mention a valid reason.
- c.
- d. Ethics approval not accessible, since they did not provide a number or similar.
- e.

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#### **4. Limitations**

Are the limitations of the study addressed in the discussion/conclusion section?

**Yes**

**Notes:** The discussion section mentions that the work has numerous limitations (noise and inconsistency in definitions; impossible to identify every contact; some asymptomatic cases may be missed)

*Let's dig deeper*

Check for potential biases yourself. Here are some examples of potential sources of bias.

**Notes:**

1. Study sample - already stated in the title 391 cases and 1286 close controls.
2. Control group - surveillance data, so not applicable
3. Randomisation - Not applicable
4. Blinding - not applicable