PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Evaluation of an outreach program for patients with COVID-19 in an integrated healthcare delivery system: a retrospective cohort study
AUTHORS	Myers, Laura; Lawson, Brian L.; Escobar, Gabriel; Daly, Kathleen; Chen, Yi-fen; Dlott, Richard; Lee, Catherine; Liu, Vincent

VERSION 1 – REVIEW

REVIEWER	Anna Morgan Upenn
REVIEW RETURNED	22-Jun-2023

GENERAL COMMENTS	This is well written and interesting analysis that adds to and confirms the existing literature showing that population based ambulatory monitoring of COVID 19 patients provided significant clinical benefit. The setting of a racially diverse integrated healthcare system like KPNC is relatively unique in the US and worthy of this investigation. A few additions could strengthen this work: 1) The authors do not include reporting of patient engagement with the program, which I think is an oversight. It would be useful to include in the results section and as a table some patient engagement information: Did patients engage at a high rate? What proportion of patients read their mychart messages? What proportion escalated to needing care from an RN or an MD or APP? What proportion were managed via telephone vs. video? This information could help explain the mechanism behind the clinical benefit, and can provide further description in terms of how patients used the program, and how it may have encouraged them to present to the emergency room (or not). It also can help understand the staff cost of operationalizing the program and assist those who develop similar programs in future. 2) I would also encourage the authors to include some findings regarding timing of engagement with the program, ED presentation, admission, or death. At what timing interval after referral to the program did they present to the ED? What was the timing with regard to death? What proportion of those who went to the ED had some contact with the program beforehand? 3) The description of the intervention is relatively sparse. It would be helpful to include, perhaps as an appendix, some additional details – what type of message was sent, how were patients asked to contact the clinical teams? What were the clinical criteria used? 4) It would be helpful to include a STROBE flowchart

REVIEWER	Farzan Madadizadeh Shahid Sadoughi University of Medical Sciences and Health Services

REVIEW RETURNED	17-Oct-2023

GENERAL COMMENTS	Need to use more advanced statistical method to data analysis.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Dr. Anna Morgan, Upenn

Comments to the Author:
This is well written and interesting analysis that adds to and confirms the existing literature showing that population based ambulatory monitoring of COVID 19 patients provided significant clinical benefit. The setting of a racially diverse integrated healthcare system like KPNC is relatively unique in the US and worthy of this investigation.
Thank you for reviewing the manuscript.

A few additions could strengthen this work:

1) The authors do not include reporting of patient engagement with the program, which I think is an oversight. It would be useful to include in the results section and as a table some patient engagement information: Did patients engage at a high rate? What proportion of patients read their mychart messages? What proportion escalated to needing care from an RN or an MD or APP? What proportion were managed via telephone vs. video? This information could help explain the mechanism behind the clinical benefit, and can provide further description in terms of how patients used the program, and how it may have encouraged them to present to the emergency room (or not). It also can help understand the staff cost of operationalizing the program and assist those who develop similar programs in future.
Thank you for these suggestions. We have added the following description of the encounter types to the last paragraph of the results. “In the 30 days after a positive test, patients followed by CHCT had the following encounter types (71% telephone only, 6% video only, 23% both), and patients not followed by CHCT had the following encounter types (70% telephone only, 16% video only, 12% both). In the 30 days after a positive test, patients followed by CHCT had encounters with the following clinicians (58% MD only, 10% RN only, 32% both), and patients not followed by CHCT had encounters with the following clinicians (96% MD only, 1% RN only, 3% both).” Unfortunately, we aren’t able to easily obtain the engagement via mychart but this is something we’re trying to record for future programs, because we think it’s important.

2) I would also encourage the authors to include some findings regarding timing of engagement with the program, ED presentation, admission, or death. At what timing interval after referral to the program did they present to the ED? What was the timing with regard to death? What proportion of those who went to the ED had some contact with the program beforehand?
In the first paragraph of the results section, we added a description of the timing of engagement with the program. “The time from positive test result to first contact with CHCT staff was median 1 day (IQR 0, 4). In the 30 days after positive test, the median time until first ambulatory encounter was 1 day (IQR 1,4) for patients followed by CHCT and 3 days (1,7) for patients not followed by CHCT. The median time between positive test until presentation to acute care (emergency department) was 4 days (IQR 2,7) for those followed by CHCT and 4 days (IQR 1,8) for those not followed by CHCT.”

3) The description of the intervention is relatively sparse. It would be helpful to include, perhaps as an appendix, some additional details – what type of message was sent, how were patients asked to contact the clinical teams? What were the clinical criteria used?
We have added some additional details to the paragraphs describing the intervention under the “Exposure” heading, as well as the Supplemental Methods.

4) It would be helpful to include a STROBE flowchart
In the supplement, we included a STROBE checklist. If the editors prefer this in a different format, we can certainly edit it.

Reviewer: 2
Dr. Farzan Madadizadeh, Shahid Sadoughi University of Medical Sciences and Health Services

Comments to the Author:
Need to use more advanced statistical method to data analysis.

Robust methods were used to conduct the analysis (propensity scores with ensemble super learner and augmented inverse probability weighting).

VERSION 2 – REVIEW

REVIEWER	Anna Morgan Upenn
REVIEW RETURNED	29-Nov-2023

GENERAL COMMENTS	Thank you for addressing my concerns.