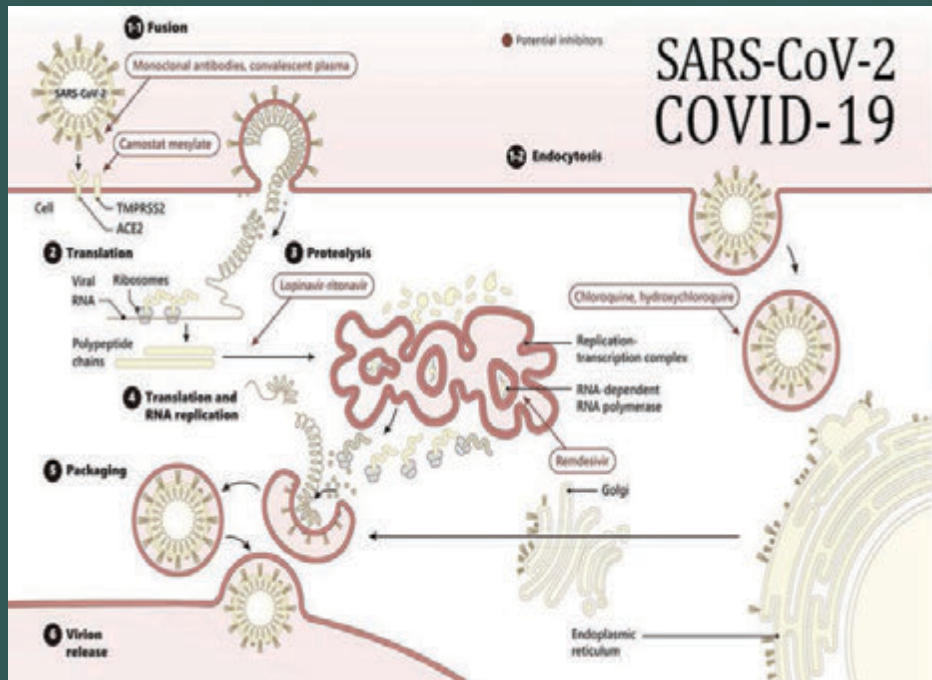


**Association of ACE inhibitor or -
ARB use with incidence of COVID-19
infection: a retrospective observational
study in patients with an isolated
diagnosis of hypertension aged 30 to 60 -
years. -**

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Introduction: The problem at hand



COVID 19 into cells and potential inhibitors for treatment ⁴

- Viral entry into cells via host cell: Angiotensin Converting Enzyme 2 receptor and Transmembrane Serine Proteinase (TMPRSS2) located on Respiratory epithelium, type I and II Pneumocytes. Based on animal models¹
- Hypothesis: ACEIs/ARBs may upregulate this receptor, leading to increased infectivity, severity and mortality².
- Our aim: Study the association between ACEI/ARB use with the incidence of COVID-19

Methods

- Study design: Retrospective observational study.
- Study period: February 1st to May 1st 2020
- Data collation and Location: Electronic medical records from Rochester Regional Health, Rochester NY.
- Patient selection: Age 30-60 years, Isolated diagnosis of hypertension.
- Patient exclusion: DM, COPD/Lung disease, residence in an LTC, AI disease, IVDU

Results and Discussion

- Sorted through 1640 EMRS on EPIC
- 104 meet selection criteria
- 60.6%(40/66) were on an ACEI/ARB and were COVID-19 negative
- 42.1% (16/38) were on an ACEI/ARB and were COVID-19 positive
- Using Chi Squared test, 18.5% difference (P 0.07, CI -1.3 - 36.5%)
- Use of ACEI/ARB in patients aged 30-60 years with an isolated diagnosis of hypertension did not show any statistical significant association with incidence of COVID-19
- Our findings are in tune with other observational studies ³.
- Recommendations by professional societies AHA/HFSA/ACC, ESC " ACEI/ARBS should be continued for their cardiovascular indications"
- Limitations: no inference can be made only association, difference in demographics between COVID + and -, highly dependent on EMR on ACE/ARB use.

References

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