



# A CASE CONTROL STUDY OF COVID-19 OUTCOME IN PATIENTS WITH HIV

ATALLAH, L, MD/MPH; CHAN, KH, MD; NATALI, K, PHARMD, BCIDP, AAHIVP; NAGARAKANTI, S; SLIM, J, MD  
SAINT MICHAEL'S MEDICAL CENTER, NEW YORK MEDICAL COLLEGE, NEWARK, NEW JERSEY



## INTRODUCTION

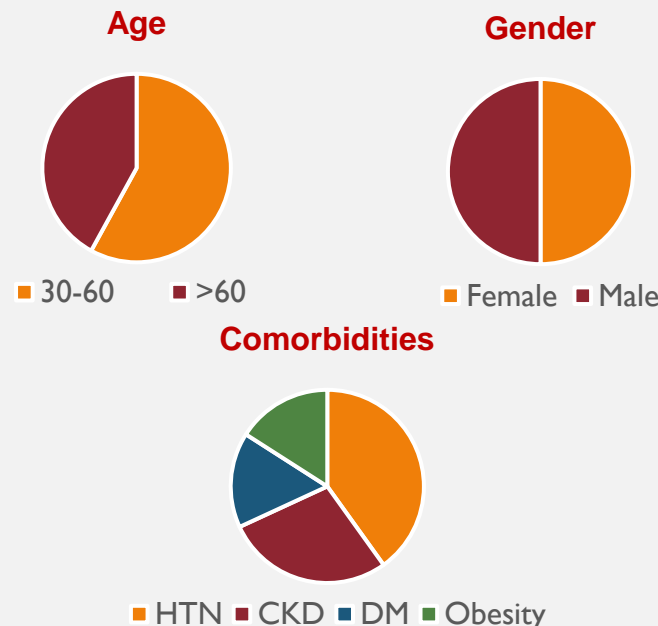
- Since COVID-19 ravaged the globe, a few studies have started to discuss the correlation between COVID-19, HIV and its severity amongst patients living with HIV (PLWH).
- A case-controlled study conducted to answer the question if PLWH are at higher risk of mortality compared to individuals without HIV infection but with the same risk factors that affects outcome in COVID-19 disease.

## METHODOLOGY

- A retrospective case matched control study was performed from 03/15/2020 to 05/15/2020.
- Reviewed all confirmed SARS-CoV-2 infected patients who were admitted to our hospital during the study period and retrieved 7 variables: Age, gender, diabetes mellitus (DM), hypertension (HTN), body mass index (BMI), chronic kidney disease (CKD), HIV status.
- Definition of categories: age into 3 groups (< 30, 30 to 60, > 60), the presence of DM and HTN by reviewing the admission medications, BMI > 30 defined obesity, and CKD was present if eGFR < 45 ml/min prior to the current admission.
- 12 PLWH, matched them for the 6 variables and found 94 controls.
- The primary endpoint was percentage of inpatient mortality.

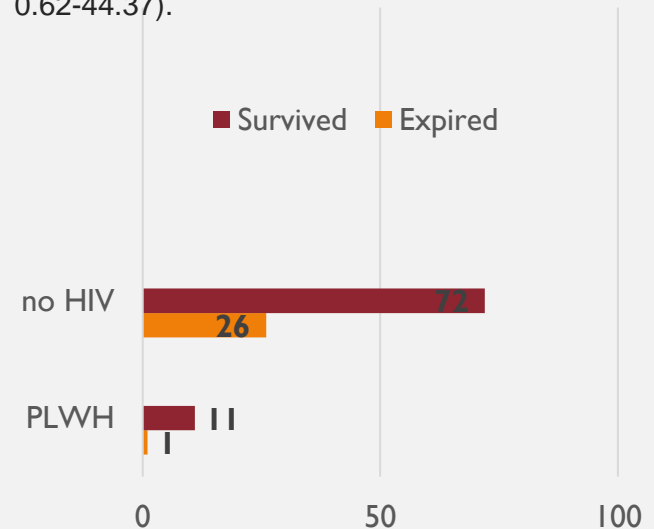
## RESULTS

- Of the 436 confirmed SARS-CoV-2 infection admitted between 03/15/20 and 05/15/20, 36 were still hospitalized.
- Twelve were PLWH out of the 400 patients with known outcome; 7 patients (58%) have the age range between 30 to 60 years old while the rest (42%) have age > 60 years old. Male to female ratio was 1:1 (6 patients each). Comorbidities were present in 10 patients (83%) with HTN (83%) being the most common, followed by CKD (58%), obesity (33%), and DM (33%).



## RESULTS

- Only 1 patient expired out of the 12 PLWH (8%) admitted with COVID-19, as compared to 26 patients from the 98 matched cohort (27%) (z-score 1.38, p=0.17; odds ratio [OR], 3.972; 95% confidence interval [CI], 0.62-44.37).



## CONCLUSION

- Our study suggests that PLWH do not have a worse prognosis than their matched controls for the most significant comorbid conditions affecting outcome in COVID-19 disease.
- Further studies with a larger sample size are urgently needed to confirm this finding.