

# Clinical Characteristics of the First 177 Patients with COVID-19 Disease Presenting to a Bronx Community Hospital (March 2020)

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## INTRODUCTION

JAMA published COVID-19 patient characteristics in New York City hospitals but none in the Bronx. Although the study reviewed 5700 patients they did not have outcomes in 46% of these patients. Only 21% were on Medicaid, and 23% were African American. Overall mortality was 21%. The aim of this study is to describe clinical characteristics and outcome of these first COVID-19 patients in a predominantly African American/Hispanic Medicare population in the South Central Bronx.

## METHOD

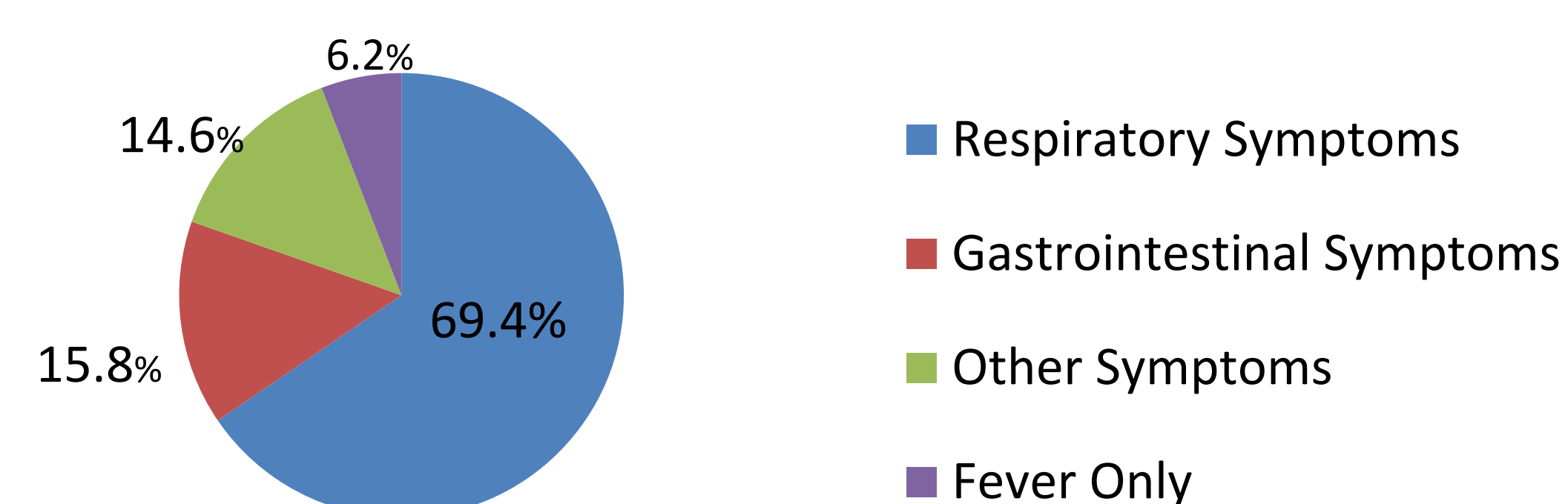
All positive patients for COVID-19 admitted during the month of March were included in this study. This retrospective chart review focused on patient characteristics, co-morbidities, clinical manifestations and outcome. This study was IRB approved.

## RESULTS

- 177 patients were admitted with COVID-19 from 3/15/20 to 3/31/20. Outcome was not available for one patient as they were transferred to another hospital.
- African Americans accounted for 101 patients (57.0%) following by Hispanics 41 patients (23.1%) and Whites 30 patients (16.9%).

## CLINICAL PRESENTATION

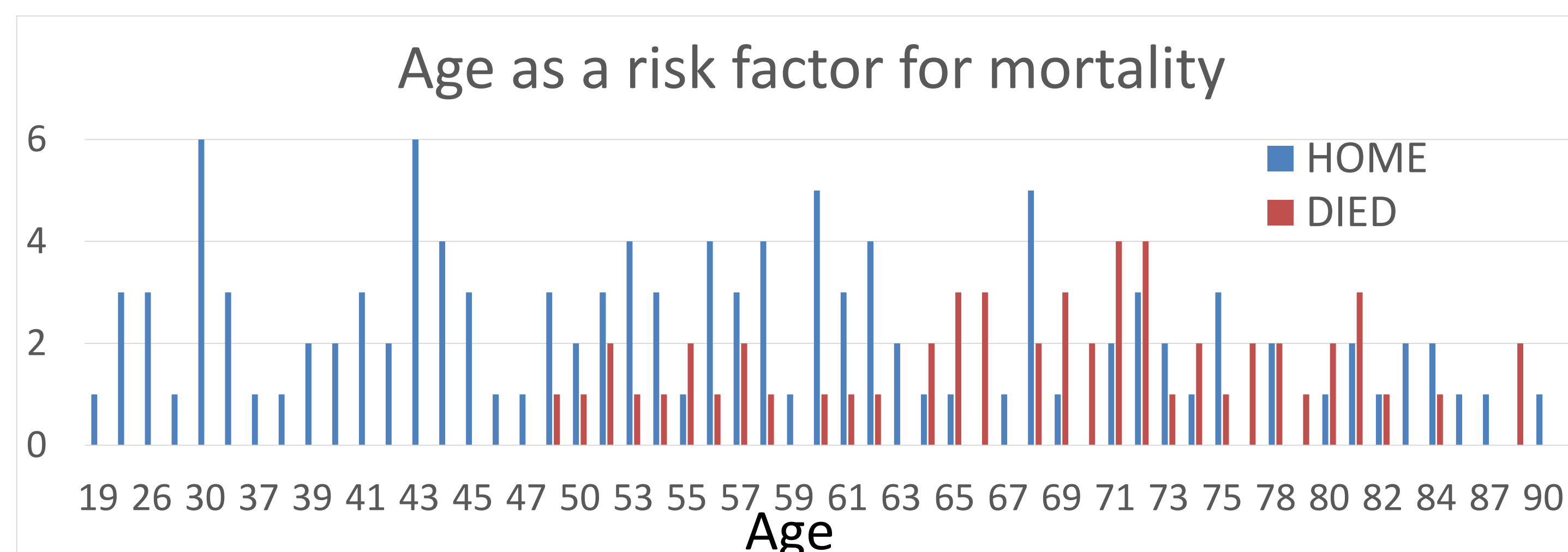
Most common clinical presentation of COVID-19 disease.



- Other manifestations** included myalgia, dizziness or altered mental status.
- 106 febrile patients (59.8%) presented with respiratory or gastrointestinal symptoms in addition to fever.
- Average length of symptoms prior to admission: 5.5 days.

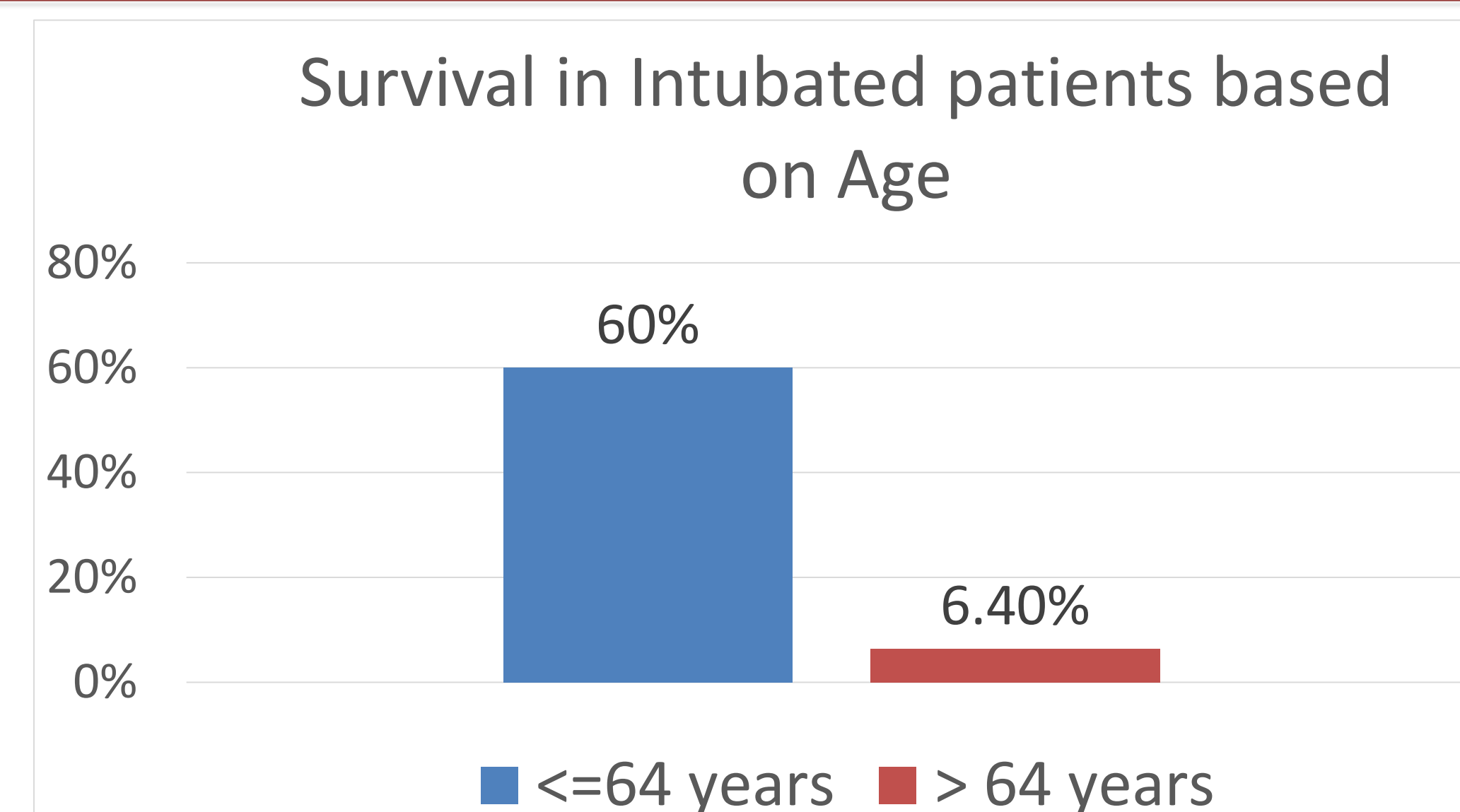
## OUTCOME: DC HOME VS DIED

CHARACTERISTICS	HOME	DIED	P VALUE
FEMALE	58 (49%)	21 (37%)	P=0.15
AGE (AVERAGE)	54 years	69 years	
AGE >=64	33 (28%)	40 (70%)	P=0.02
O2 SATURATION >= 94% IN THE ER	83 (70%)	20 (35%)	P=0.001
ABSOLUTE LYMPHOCYTES <1000	46 (39%)	29 (51%)	P=0.46
DIABETES	43 (36%)	27 (47%)	P=0.19
HYPERTENSION	53 (44%)	40 (70%)	P=0.02
COPD/ASTHMA	15 (13%)	11 (19%)	P=0.26
BMI (AVERAGE)	30	28	



## OUTCOME: NON-INTUBATED VS INTUBATED

- 56 patients (31.6%) were intubated compared to 121 patients (68.3%) did not require intubation.
- 22% of patients were intubated in the first 24 hours.
- There was no difference between the two groups in BMI (both groups had an average of BMI of 29), DM, HTN, COPD/Asthma, use of statins, aspirin or calcium channel blockers.
- There was a significant difference (p=0.0001) in survival in intubated patients age 64 or less compared to those older than 64.



## DISCUSSION

- 177 patients were admitted from March 15<sup>th</sup> to 31<sup>st</sup>.
- African American and Hispanic patients accounted for 75% of the patients.
- 63% Medicaid, 23% Medicare.
- The most frequent symptom on presentation to the ER was respiratory (cough and hypoxia), followed by gastrointestinal complaints (diarrhea, nausea, vomiting and abdominal pain). 60% of patients had fever in conjunction with other symptoms but only 11% presented with fever alone.
- The overall mortality rate in this group of patients was 33%.
- 32% of patients required intubation with a mortality rate of 77%.
- O2 saturation < 94% correlated with mortality. This could be a marker of more severe disease or/and a consequence of patients seeking care too late in their course of disease.
- Age and hypertension strongly correlated with mortality. There was a trend for diabetics and male patients but that was not significant.
- Age significantly predicted a worse outcome on admission and in intubated patients.
- BMI did not correlate with mortality. However 41% of patients had a BMI of 30 or higher, and a total of 33 patients (19%) had morbid obesity.

## CONCLUSION

- Patients were mainly African American or Hispanic, 63% received Medicaid.
- This cohort of COVID-19 patients is unique as almost all received Hydroxychloroquine and azithromycin. Only 9% received steroids and even fewer received an IL-6 inhibitor, convalescent plasma or Remdesivir.
- The most common presentation was respiratory followed by gastrointestinal symptoms.
- The overall mortality was 33% but increased to 77% in intubated patients. Age, hypertension, and ER oxygen saturation correlated with mortality.

## REFERENCES

Matt Arentz, MD; Eric Yim, MD. Characteristics and out-comes of 21 critically ill patients with COVID-19 in Washington State. JAMA. 2020; 323(16):1612-1614.  
Richardson S et al. Presenting characteristics, comorbidities, and outcomes among 5700 patients hospitalized with covid-19 in the New York City area. JAMA. 2020;323(20):2052-2059.