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R23. Demographics and Outcomes of Patients Hospitalized for COVID-19

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BACKGROUND

- COVID-19 is caused by the SARS-CoV-2 virus and is a global threat to the health and economic status of society[1]
- Studies report various findings of the risk factors that are most associated with increased morbidity and mortality[2,3]
- Common findings among studies show that age, race, and sex have a strong correlation with outcomes for patients hospitalized for COVID-19[2,3]
- There is urgency to determine the traits most associated with morbidity and mortality in order to prioritize prevention and treatment measures effectively

PURPOSE

The purpose of this study was to describe the various demographic characteristics in patients hospitalized for COVID-19 and how they correlate to outcomes at the University of Mississippi Medical Center (UMMC), a 722-bed academic medical center.

METHODS

Study Design

- Retrospective cohort of de-identified data from the electronic medical record obtained using the UMMC Patient Cohort Explorer application

Inclusion Criteria

- Patients of all ages with a confirmed diagnosis of COVID-19
- Unplanned, in-patient hospital admission from Mar – Sep, 2020

Exclusion Criteria

- Length of stay (LOS) <2 days

Outcome Measures

- Primary
  - Describe the demographic characteristics of age, race, sex, admission date, length of stay, and discharge disposition using descriptive statistics
- Secondary
  - Determine the correlation of age, race, and sex to mortality using regression analysis
  - Compare LOS for race and sex using t-tests

RESULTS

Table 1. Demographics/Characteristics

n	790
Median age in years (range)	58.0 (0-89)
Female	53.2%
Race (Black)	65.3%
Race (White)	18.9%
Race (Other)	15.8%

Figure 1. Age Distribution

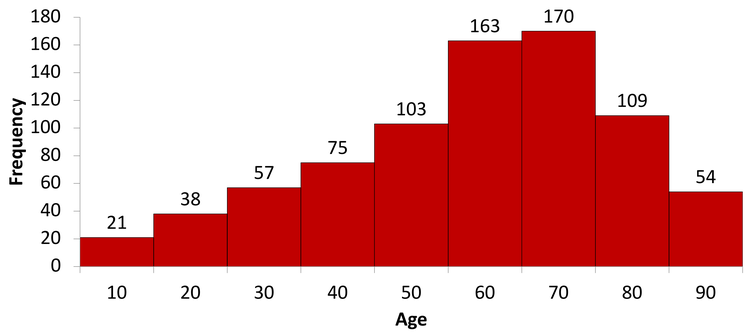

Figure 2. Distribution by Admission Month

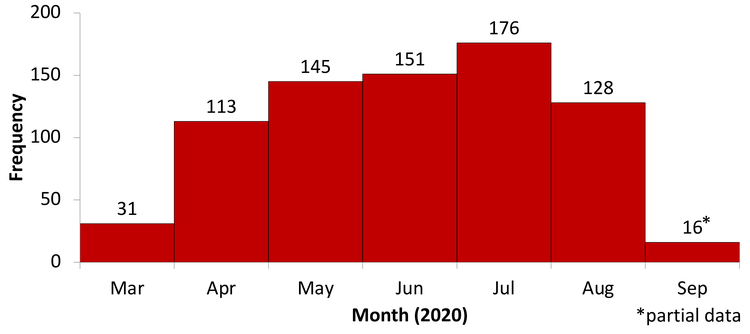

Table 2. Overall Outcomes

Average LOS in days (range)	9.4 (2-74)
Mortality Rate	17.0%

Table 3. Results – Sex

Outcome	Female	Male	OR (95% CI)	P-value
Mortality (%)	13	22	0.53 (0.36-0.78)	0.001
LOS (days)	9.1	9.8		0.273

Table 4. Results – Race

Outcome	Blacks	Non-Blacks	OR (95% CI)	P-value
Mortality (%)	13	23	0.54 (0.37-0.80)	0.002
LOS (days)	9.5	9.3		0.860

Table 5. Results – Age

Outcome	OR (95% CI)	P-value
Mortality	1.043 (1.030-1.057)	<0.001

CONCLUSIONS

- Female patients were 47% less likely to die during their hospitalization compared to male patients
- Black patients were 46% less likely to die during their hospitalization compared to non-Black patients
- There was a direct correlation between age and mortality
- The average length of stay was not significantly different between either comparison group
- Future research could be directed towards including comorbidities and treatment modalities as predictors of outcomes

DISCLOSURES

The authors have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

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