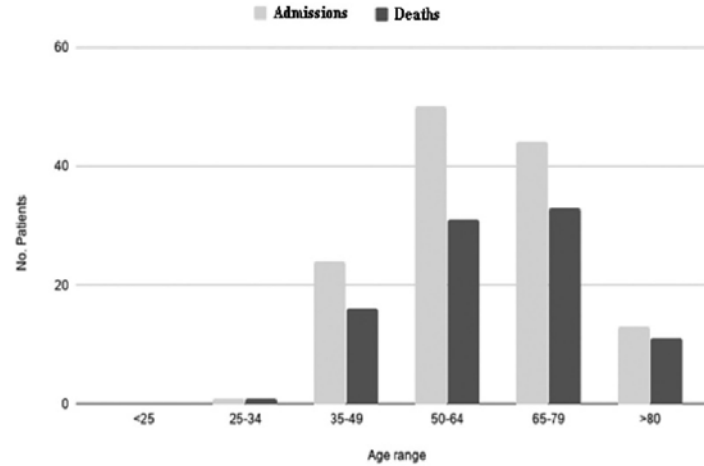


Islam Younes, Jorge Cedano, Emilio Fabian Corona, Melissa Gonzalez-Lara, Melvin Santana, Sarah Ayad, Raja Pullatt

**Background:** The available data at the beginning of the pandemic was limited, however, a high mortality rate was seen among COVID-19 patients admitted to the ICU. Possible risk factors for poor outcomes in this type of patients need to be analyzed so we can identify strategies to reduce mortality.

**Methods:** Single center retrospective cohort study involving all adult patients admitted to the ICU with severe COVID-19 infection. Data was collected between March 2020 to May 2020.



**Results:** 132 patients were admitted to ICU during the study period. There was a preponderance for males and the most common ethnicity was Hispanic. The overall mortality was 69%, and mortality after intubation was 76%. In the multivariable analysis advanced age (OR = 15.7), Obesity (OR = 2.92), and Mechanical Ventilation (OR = 12.0) were found to be significant independent risk factors for increased mortality.

**Conclusion:** Our study confirms the high mortality rate in patients critically ill with COVID-19 requiring ICU care especially among the older age group, mechanically ventilated, and obese patients. Overall outcomes are comparable to larger tertiary care centers. Our findings highlight the need to plan for optimal resource allocation and tailoring therapies to target the disease and improve outcomes.

	Univariable OR (CI 95%)	P values	Multivariable OR (CI 95%)	P values
Age years (15 years interval)	2.58 (0.46–14.5)	0.36	15.7 (1.34–185)	0.02
Male Gender	1.09 (0.48–2.48)	0.80	1.34 (0.49–3.63)	0.56
Arterial Hypertension	1.47 (0.64–3.33)	0.31	0.77 (0.25–2.37)	0.66
Diabetes Mellitus	1.85 (0.81–4.35)	0.11	1.53 (0.51–4.59)	0.44
Chronic obstructive pulmonary disease	1.17 (0.26–7.24)	1.00	0.67 (0.10–4.38)	0.67
Asthma	2.72 (0.31–128)	0.67	2.13 (0.10–45.4)	0.62
Coronary artery disease	1.23 (0.33–5.68)	1.00	0.80 (0.13–4.68)	0.81
Systolic heart failure	1.52 (0.36–9.08)	0.75	2.00 (0.26–15.5)	0.50
Diastolic heart failure	0.87 (0.11–10.0)	1.00	0.22 (0.01–2.74)	0.24
Chronic kidney disease	1.47 (0.50–4.91)	0.62	3.76 (0.73–19.2)	0.11
End-stage kidney disease	1.77 (0.16–89.4)	1.00	6.79 (0.44–102)	0.16
Body mass index ≥ 30	2.51 (1.06–6.14)	0.02	2.92 (1.07–8.01)	0.03
Mechanical Ventilation	4.44 (1.68–11.7)	0.00	12.0 (2.95–48.8)	0.00