

Background: Corona Virus Disease 2019 (COVID- 19) caused public emergency with serious morbidity and mortality worldwide between 2020. The direct impact of the diseases and associated mortality may have been relatively limited in sub-Saharan Africa (SSA), compared to in impact in other regions. The factors that are considered high risk for acquisition of COVID-19 and associated high mortality rate among inpatients are varied in different settings, there are limited data from regional referral designated COVID 19 Treatment Units (CTU) in Uganda.

Objectives: To describe COVID-19 characteristic, clinical outcomes and associated risk factors among patients admitted in COVID 19 treatment Unit at Lira Regional Referral Hospital-Northern Uganda.

Methods and Materials: We conducted a retrospective chart review of patient admitted with confirmed diagnosis of COVID 19 between May 2020 at Lira regional and March 2022 at Lira Regional Referral Hospital (LRRH). Primary outcome was in-patient mortality. Data abstract included social-demographic, clinical characteristics, treatment modalities, in-hospital outcomes (death or discharged alive). Categorical data was presented as Frequencies and percentage. Continuous data was described using Mean and standard deviation (S.D). The independent association between the dependent variables and the independent variables were tested Chi Square and the Chi Square value reported. Predictors for mortality among COVID-19 patients hospitalized in CTU at LRRH were determined using logistic regression and the results reported as adjusted odds ratio (aOR). Test for significance was done at 95% confidence interval.

Results: In final analysis, 490 participants were considered. Out of this, 251 (52%) were females. Majority were older than 60 years of age. Most of the patients presented with cough 369(89.56%), difficult in breathing (DIB) 293(78.76%), chest pain 237(69.3%), general body weakness (GBW)199(63.38%) and fever179(61.3%). Commoner-existing comorbidities were hypertension 139(29.96%), diabetes mellitus 89(19.47%) and HIV 44(10%). Of all the patients admitted, 187(40%) had severe disease and 34(7%) were critically ill.

Overall, 142(29%) died. Predictors of all cause in hospital mortality were low oxygen saturation (SPO2) 92-100% had 89% decreased mortality compared to SPO2<92% (aOR-0.11, 95% CI0.03-0.44, P-value-0.002). Body temperature 35.5-37.5 degrees Celsius had 78% decreased mortality compared to abnormal temperature above or below this range (aOR-0.22, 95% CI0.05-0.99, p-value-0.049). Not having Chronic Disease (CLD) had 99% decreased mortality compared to having CLD (aOR-0.01, 95% CI0.001-0.46, p-value-0.017). Age 31-45 yrs had 86% decreased mortality compared to 18-30yrs (aOR-0.14,95% CI0.03-0.74, P-value-0.021).

Conclusion: More than 1 quota (29%) of the patients admitted in lira regional referral hospital with COVID 19 died. Majority of the patients were elderly with pre-existing illnesses and most of them presented with severe and critical condition.

Key words: Mortality, Hospitalized, COVID 19, Patients Regional, Referral Hospital