



BACKGROUND

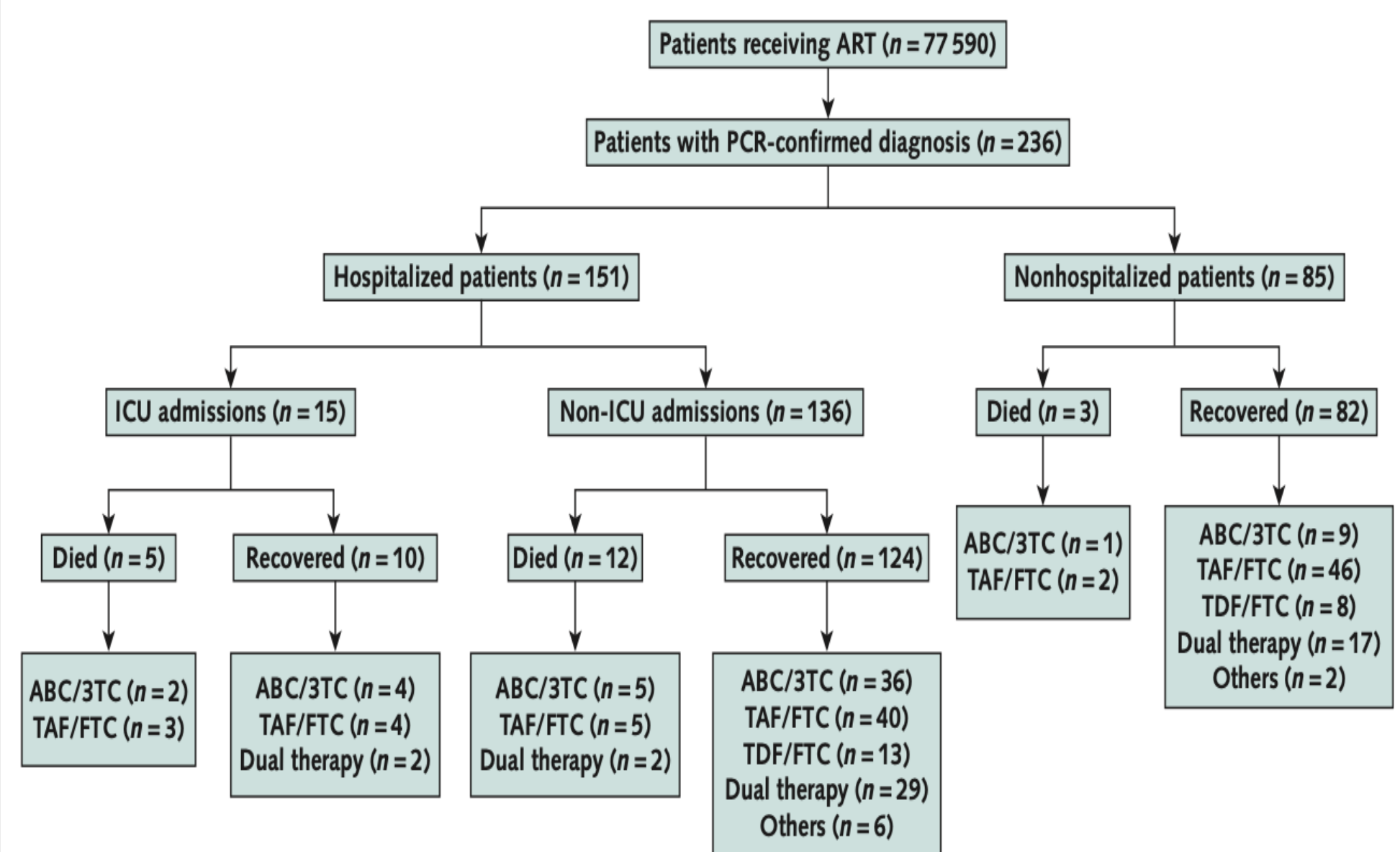
•Another study conducted in HIV clinics across 60 Spanish hospitals found that HIV confirmed diagnosis patients receiving Tenofovir disoproxil fumarate (TDF)/ Emtricitabine (FTC) have a lower risk for COVID-19 related hospitalizations and lower mortality than those receiving other therapies. The same study found that out of 77,590 HIV-positive persons only, 236 patients were diagnosed with COVID-19, 151 were hospitalized, 15 were admitted to the ICU, and 20 died. No Patient receiving TDF/FTC was admitted to the ICU or died [1].

•Previous retrospective studies demonstrated that patients taking Truvada were less likely to be hospitalized due to active COVID-19 infections.

-The same study also demonstrated that those taking Truvada did not suffer severe health consequences including death [2].

•Truvada is a fixed-dose combination of two antiretroviral drugs used for the treatment of HIV/AIDS. It was developed by Gilead Sciences and consists of 300 milligrams of Tenofovir Disoproxil Fumarate (TDF) and 200 milligrams of Emtricitabine (FTC) [3].

Figure. Study flow chart of 77 590 HIV-positive persons receiving ART in Spain from 1 February to 15 April 2020.



3TC = lamivudine; ABC = abacavir; ART = antiretroviral therapy; FTC = emtricitabine; ICU = intensive care unit; PCR = polymerase chain reaction; TAF = tenofovir alafenamide; TDF = tenofovir disoproxil fumarate.

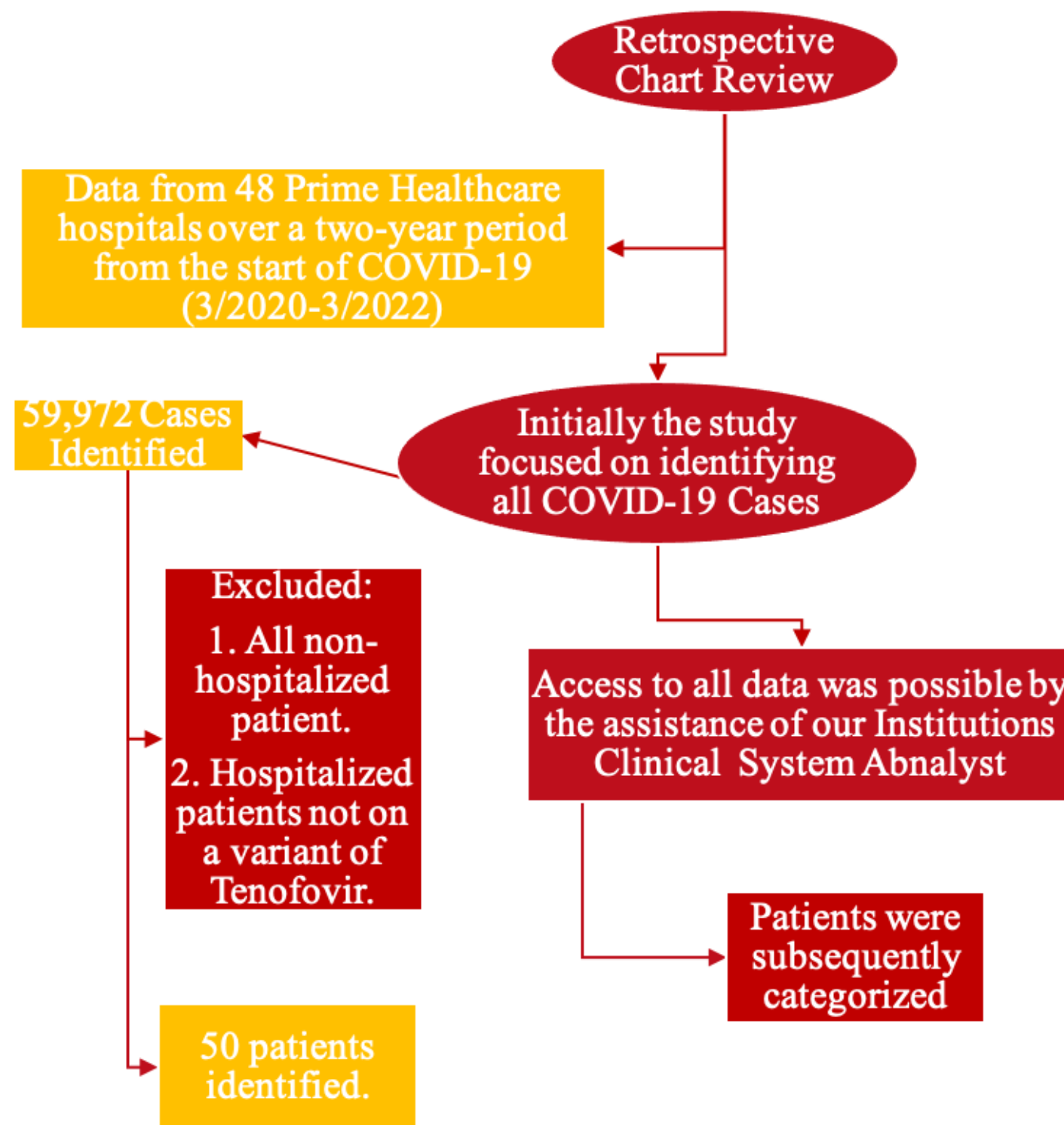
Figure 1: Study Flow chart retrieved from <https://pubmed.ncbi.nlm.nih.gov/32589451/> [1].

RESEARCH OBJECTIVE

•The purpose of this study was to explore the health outcomes of hospitalized COVID-19 patients on Truvada

•Allocate the comorbidities of those patient who died.

MATERIALS & METHODS



RESULTS

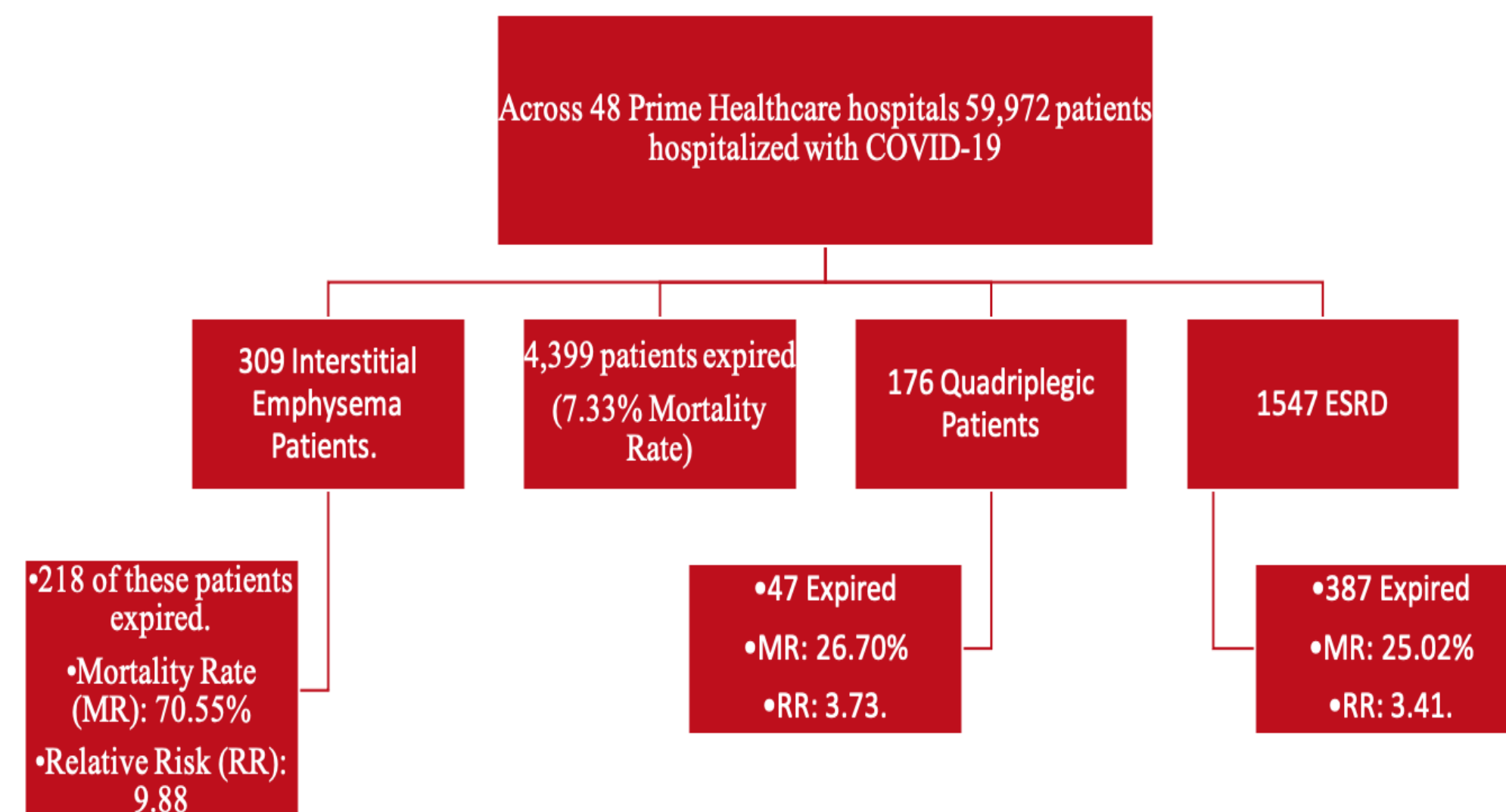


Figure 1.2: Most Common Causes of Death as Comorbidities in COVID-19 Patients.

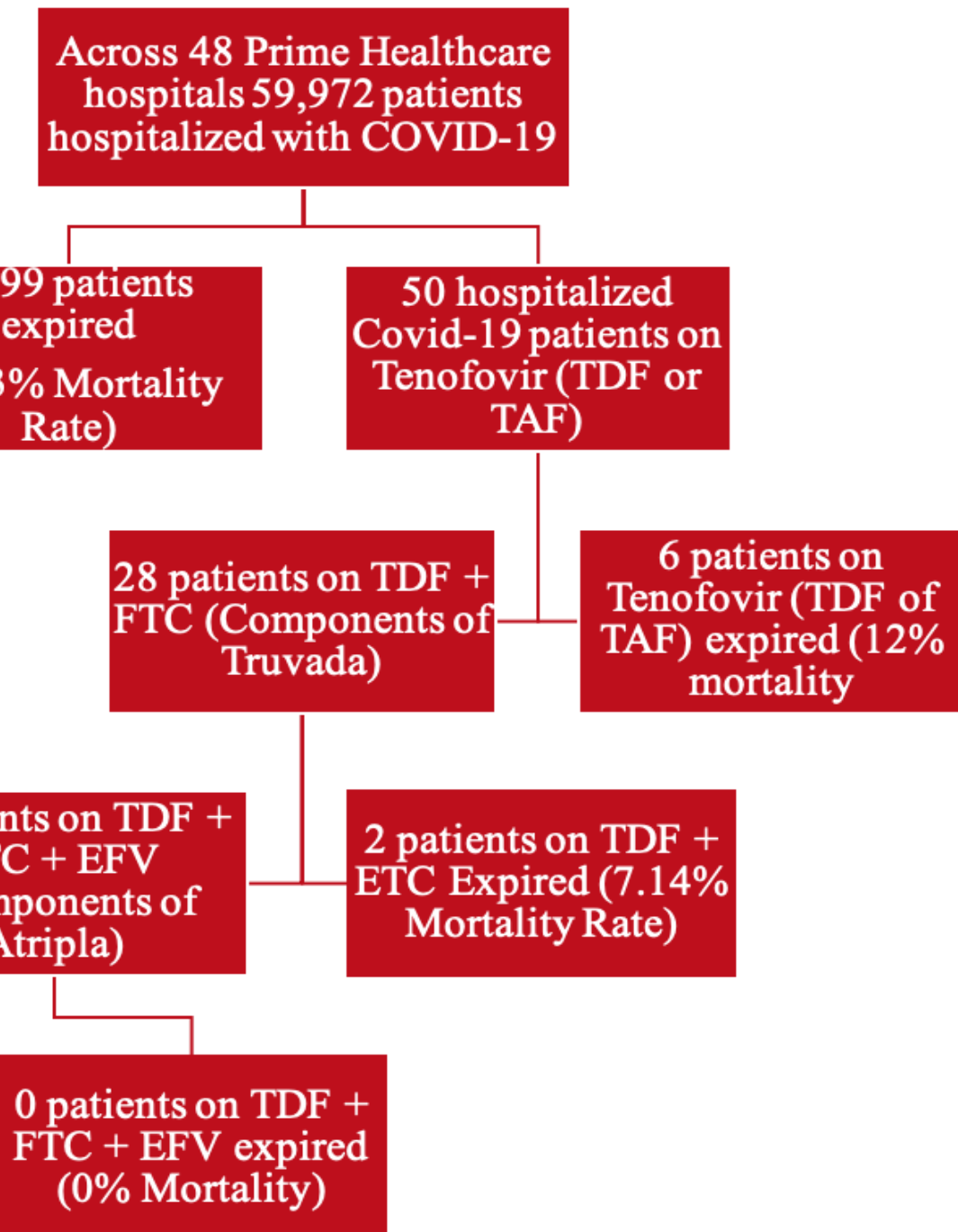


Figure 1.3: Risk of COVID-19 and its related complications on patients on antiretroviral medications including Pre-Exposure Prophylaxis.

STUDY LIMITATIONS:

•Our institutions do not hold HIV-designated, inpatient or outpatient clinics, therefore limited access to HIV-patient populations.

CONCLUSIONS

- This study was unable to allocate data to support improved survival rates of hospitalized COVID-19 patients on Truvada.
- Future investigators should consider conducting research with the objective of analyzing the survival rates of hospitalized COVID-19 patients receiving a three-drug fixed-dose combination of Efavirenz, Emtricitabine and Tenofovir Disoproxil Fumarate (Atripla).
- Based on drastically higher death rate of paraplegic Covid-19 patients (who inherently have decreased mobilization), future research should be conducted to explore the benefits of enhanced physical therapy involving increased mobilization on hospitalized Covid-19 patients

BIBLIOGRAPHY

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2. Haerter G, Spinner D, Roeder J, et al. COVID-19 in people living with human immunodeficiency virus: a case series of 33 patients. *medRxiv.* Preprint posted online 1 May 2020. doi:10.1101/2020.04.28.20073767
3. Jockusch S, Tao C, Li X, et al. Triphosphates of the two components in DESCOVY and TRUVADA are inhibitors of the SARS-CoV-2 polymerase. *bioRxiv.* Preprint posted online 5 April 2020. doi:10.1101/2020.04.03.022939