Introduction:
Data on the outcomes of HIV infected intensive care unit (ICU) patients in developing countries is limited. There are more people living with HIV in South Africa than any other country in the world. This study aimed to describe the patterns of presentation as well as determine factors that influences mortality in HIV infected patients at an ICU facility in Johannesburg.

Methods:
Consecutive medical records of 204 HIV infected individuals admitted to the Charlotte Maxeke Johannesburg Academic Hospital adult ICU during 2017 were reviewed. Data was described and subjected to univariate and multivariate analysis.

Results:
Of the 903 total admissions during the period analysed, 204 (22.6%) were HIV infected. Ninety-five (46.6%) patients were admitted for sepsis related illnesses, 69 (33.8%) for post-operative care and 40 (19.6%) for non-sepsis related illnesses. HIV infected patients had a median length of ICU stay of 5 (2-9) days and ICU mortality of 33.3% (n=68). On multivariate analysis of significant parameters identified from the univariate analysis, requirement for inotropes/vasopressors (p=0.009), mechanical ventilation (p=0.037) and a non-sepsis related diagnosis (p=0.030) were associated with an increase in ICU mortality. The Risk Adjusted Mortality Ratio (RAMR – observed ICU mortality rate/ APAHCE II predicted ICU mortality rate) was 0.51, which indicates that the APACHE II score overestimated ICU mortality in HIV infected patients by approximately two-fold.

Conclusion:
Inotrope/vasopressor administration, mechanical ventilation and a non-sepsis related diagnosis is significantly associated with mortality in HIV infected patients in the ICU. The APACHE II score overestimates mortality in HIV infected ICU patients.