E Siqueira 1; L Taniguchi 1; J Vieira Junior 2

1Hospital Sírio Libanês, Intensive Care Unit, Sao Paulo, Brazil, 2Hospital Sírio Libanês, Intensive Care Manager, Sao Paulo, Brazil

Introduction:
Critically ill patients are usually exposed to adverse events (AE) due to acuity and complexity of care. AE might potentially result in disability or death, and increase in length of stay. Our aim was to assess the incidents and AE in a general intensive care unit (ICU).

Methods:
This is a prospective cohort study conducted in a private tertiary hospital (Hospital Sírio-Libanês) in São Paulo, Brazil. All consecutive patients who were admitted to the ICU and all incidents and AE reported in the study period were evaluated. Univariate and multivariate analysis were used to identify risk factors associated with hospital mortality.

Results:
Between May to November 2016 we studied 890 patients and 533 reported incidents and AE. Overall, 267 patients (30%) experienced some incident or AE during ICU stay. We found higher severity of illness (SAPS3 of 48 versus 44; p<0.001), mechanical ventilation (MV), use of vascular lines, drains and catheters, physical restraints, delirium and also an increased length of ICU (4 vs 2 days; p<0.001) and hospital stay (20 vs 11 days; p<0.001) and hospital mortality (24% vs 11%; p<0.001) among patients who experienced any incident or AE. Independent risk factors for hospital mortality in our logistic model were: higher SAPS3, MV and at least one adverse event during the ICU stay. Mortality was higher among patients who experienced late AE (> 48 hours after ICU admission) compared to patients who experienced early AE (37% vs 19%; p<0.003). SAPS3, SOFA and MV were predictors of moderate and/or severe AE and a negative correlation between these events and ICU occupancy rate was found.

Conclusion:
Patients who experienced incident or adverse event during ICU stay had poorer outcome. AE, mainly moderate or severe, MV and severity of illness were independent risk factors to mortality. There was a negative correlation between moderate or severe adverse event and ICU occupancy rate.