Introduction:
Objective: The measurement of lactate blood level is essential to evaluate the prognosis in critical phase. Many studies demonstrate that blood lactate level $\geq 4$ mmol/l predict a high level of mortality in emergency department (ED). However, we don’t found enough studies for intermediate blood lactate level. In this study we evaluate the prognosis of patients admitted in the ED with intermediate lactate blood level (2-3.9 mmol/l).

Methods:
Prospective monocentric study over six months. Inclusion of patients older than 18 years old admitted in the intensive care unit (ICU) of ED with systematic measurement of blood lactate level at admission. The lactate assess was classified in 3 levels: low level (lower than 2 mmol/l), intermediate (2-3.9 mmol/L) and high level ($\geq$4mmol/l). Patients were divided in 2 subgroups: with or without hemodynamic instability. Prognosis was evaluated in hospital mortality at 7 day.

Results:
Inclusion of 146 patients. Mean age =58±21, sex ratio=1.7. Level blood lactate n(%): low (<2 mmol/L) 36 (25), intermediate (2-3,9 mmol/L) 66 (45) and high (≥ 4 mmol/L) 43 (30). The mortality rate in the group of patient with intermediate lactate was 14 % at 7 day. In the subgroup of patient with normal blood pressure and intermediate blood lactate level, the mortality was estimated at 12.8% compared to 16% in the subgroup of patients with hemodynamic instability.

Conclusion:
The intermediate lactate blood level in patients admitted in ED is associated to a significant risk of mortality. This population should be supervised closely and have an optimal management.