Introduction:
Extracorporeal blood purification (BF) is used in patients with sepsis – septic shock. However, the main Critical Care Societies don’t suggest its use, because of the negative RCT. Probably, lacking of precise clinical endpoints and stratification of the patients may explain these results. The aim of this study is to evaluate whether 1- Patients submitted to CRRT with the oXiris stratified on the basal AKIN stage have different responses. 2- This translates in a different clinical response.

Methods:
A cohort study included 65 patients admitted to three Intensive Care with sepsis/septic shock (SEPSIS 3 Criteria) and AKI (AKIN score). All patients were submitted to CVVHDF with the oXiris filter (Baxter, USA). The main clinical data, IL-6, Procalcitonin, Endotoxin (EAA), and SOFA score were evaluated at basal time (T0) and at the end of the treatment (T1). All data are expressed as mean ± SD or median and IQR. ANOVA TEST was used to compare the changes in the time.

Results:
60 patients were submitted to RRT with the oXiris filter for 46 ± 12 hours. 21 patients had AKI 3 stage, 13 patients AKI 2 stage and 25 patients had AKI 1 stage. At T0 all groups had an high vasopressor support to maintain MAP ≥ 70 mmHg. IL-6, Procalcitonin EAA and SOFA total were also elevated with no difference between the groups.

At T1 creatinine improved better in AKI 2 (p < 0.001 vs. T0) and in AKI 1 (p < 0.0001 vs T0) than in AKI 3 group. MAP increased in AKI 2 (p < 0.01 vs T0) and AKI 1 (p < 0.01 vs T0), but not in AKI 3 group. IL-6, procalcitonin decreased more in AKI 1 (p < 0.0001 vs T0) than AKI 3. At T2 SOFA total was higher in AKI 3 than AKI 1 (p < 0.001) and AKI 2 (p < 0.01).

Conclusion:
AKI 2 and AKI 1 stage patients submitted to BP with the Filter oXiris respond better than AKI 3 stage patients. 2- This translates in a better clinical course. 3- CRRT with OXiris filter is useful in septic patients with AKI, but AKI 3 stage septic patients represent a high risk group.