



The effect of PiCCO technology on the survival of patients with decompensated diabetes mellitus (DM) in the context of septic conditions within the ICU.

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Introduction : Patients with DM have an increased risk of rapid metabolic decompensation during infections, with eminence into ketoacidosis associated to the septic process.

Keywords : Ketoacidosis, PiCCO technology

Purpose : The evolution of the impact of PiCCO technology on the prognosis and ICU length of stay of critical patients with decompensated DM (ketoacidosis) in the context of septic conditions.

Materials and methods : The retrospective study (2017 - 2019 (ICU, CMH „Sf.Treime”) included 60 critical patients ,requiring infusion therapy, vasopressors, inotropes, correction of ABB and blood glucose, divided into 2 groups. In group I (n = 27) complex intensive therapy (CIC) was applied, guided by PiCCO (,group II (n = 33) - CIC guided by the measurement of static parameters .

Results : On admission to the ICU, the patients from group I scored a higher APACHE II and SOFA (group I (APACHE 18p ± 2.45; SOFA 10p ± 2,782) vs group II (APACHE 16p ± 1.95, SOFA 9p ± 2.75), and at the end of the treatment - a reduction of the ICU length of stay (group I (3.2 days ± 1.23) vs group II (5.8 days ± 1.25). Also, a significant reduction of lethal outcomes was observed in patients from group I (9.40%, P = 0.130) vs group II (13.15%).

Conclusion : Fluid resuscitation guided by PiCCO technology in the intensive care complex applied to patients with septic conditions and decompensated DM (ketoacidosis) showed an improvement in the survival rate of patients in group I vs group II, with a reduction of the ICU length of stay.

