During extracorporeal circulation are typical fluctuation of parameters of basic life functions. These variations of values can have a direct impact on postoperative recovery. May even lead to temporary or permanent damage to organ function. Mean arterial pressure is one of the basic unit of tissue perfusion. If there is a drop in mean arterial pressure below 50 mmHg, there may be organs hypoperfusion associated with desaturation of venous blood.

In our study focused on gathering data in the management of cardiopulmonary bypass during cardiac procedures by using the data collection would Stocker De. We focus on course of the values of mean arterial pressure and actual venous blood oxygen saturation.

The group included 45 patients meet the criteria: valve surgery, surgery is an operating room No.3, surgery in normothermia. In 22 patients were recorded during cardiopulmonary bypass hypotension for more than four minutes (Group A). In the remaining 23 patients the episode of hypotension has not been reported (Group B). Both groups were compared. We compared the average time of hospitalization, the average time of intubation and the incidence of neurological complications. The average time of hospitalization was in Group A – 180 hours, Group B – 210 hours. The average time of intubation was in Group A - 114 hours, Group B – 89 hours. The incidence of neurological complications was in Group A – 6 patients, Group B - 5 patients.

In conclusion: the decrease in mean arterial pressure was not correlated with venous hyposaturation and was not caused by the decrease in the flow. Significant hypotensions were observed, however, their impact on brain functions was not detected. The sample group was too small for the observed differences to provide statistically significant results.