A stay in a department KAR can bring beside treatment and often saving of live in acute period a risk too. Just length of hospitalization has high effect for development of infectious and psychiatrics disease and shortening of length of hospitalization can prevent this complication. Severe trauma of body, chirurgical or incidental, produces a reproductive phyziological response. A mechanism of initiation, regulation and a maintenance includes mostly neuroendocrinal axis. An optimal level for suppression of stress response is still unknown. An environment of JIP is a litle bit abnormal from an environment i common live. Mostly all incoming patients in ICU experience a pain due to performing of procedure, advance of disease or immobility without possibility for change position. A pain cause sympatic hyperaktivity, which increase hearth's frequency, stroke volume and consumption of oxygen by myokard. Assessment of sedation is difficult, because it is not in clinical praxis for disposition objektive method for assessment. Impossibility of adequate assessment of pain is not optimal for managing of pain. Need for sedation during using of mechanical ventilation is individual different. An inadequate deep sedation inhibits function of respiratory centre. Deep sedation without a positive affecting of mental function and a reduction of agitation can cause a prolongation of stay in ICU. Patients can experience a memory on a stay in ICU, for example on mechanical ventilation. An experience of traumatic moment can cause PTSD. PTSD is psychological state, which is initiated by experience live treatening moment. Sedative protocols, which are aranged acording patient's need, introduce two important situation, assessment of patient's pain with disstress and algoritmus of escalation and deeskalation of dose in dependance on this assessment. When is our aim the most earlier awakening as possible, we can aplicate alternative sedation protocol daily intermittent sedation. According to this study, we can say, that deep of sedation, evaluate by RSS, has an effect on lenght of period from finishing sedation to extubation. In this study, there is not linear dependency between age and period from finishing sedation to extubation. In this study, there is possible linear dependence between length of total mechanical ventilation and period from finishing sedation to extubation.