

Category : **Sepsis/septic shock: management**

**A307 - Impact of an early deresuscitation strategy on mechanical ventilation duration in septic shock patients: a secondary analysis of two multicentre controlled trials**

**WJ JUGUET<sup>1</sup>; MB BOUBAYA<sup>2</sup>; JPQ QUENOT<sup>3</sup>; DD DREYFUS<sup>4</sup>; SG GAUDRY<sup>5</sup>**

<sup>1</sup>Hôpital Avicenne AP-HP, Intensive care, BOBIGNY, France, <sup>2</sup>Hôpital Avicenne AP-HP, Unité de Recherche Clinique, BOBIGNY, France, <sup>3</sup>Hôpital François Mitterrand, Intensive Care, DIJON, France, <sup>4</sup>Hôpital Tenon AP-HP, French National Institute of Health and Medical Research (INSERM), UMR S1155, CORAKID, PARIS, France, <sup>5</sup>Hôpital Avicenne AP-HP, Intensive Care, BOBIGNY, France

### **Introduction:**

The benefit of deresuscitation in critically patients with septic shock is widely recognized. The optimal time for its initiation remains unclear. We aimed to assess whether an early deresuscitation strategy defined by its initiation before vasopressor weaning may decrease mechanical ventilation (MV) duration.

### **Methods:**

This is a secondary analysis of two randomized trials (AKIKI, AKIKI2), focusing on renal replacement therapy initiation strategies. We included septic shock patients with severe acute kidney injury who received invasive MV and vasopressor support. The first day of deresuscitation was identified as the day when loop diuretics were first administered or when daily ultrafiltration volume exceeded 200ml for patients receiving RRT. Patients were categorized into three groups based on their deresuscitation management: early deresuscitation (initiation before vasopressor weaning), delayed deresuscitation (initiation the day of vasopressor weaning or later) and no deresuscitation. The primary outcome was the time to successful extubation. To take into account the variation in deresuscitation decision overtime, we used a marginal structural model with inverse probability of treatment weighting (IPTW).

### **Results:**

Among 757 patients, 380 patients (50.2%) underwent an early deresuscitation strategy, 201 patients (26.6%) a delayed one and 176 (23.2%) did not undergo any deresuscitation. After checking the distribution of weights and covariate balance in groups, the Cox marginal structural model showed that the delayed deresuscitation was associated with reduced time to extubation. The hazard ratio for extubation was 1.86 [1.33-2.61]( $p < 0.0003$ ) for the delayed group compared to the early one. The risk of occurrence of a composite outcome including 'death' or 'RRT dependency' or 'absence of renal recovery' at day 60 did not differ between groups.

### **Conclusion:**

In patients with septic shock and severe AKI, a deresuscitation initiated before vasopressor weaning was associated with increase duration of MV.