

**ABSTRACT****“Side Effect of Hydroxyethyl Starch (HES) as Plasma Substitutes in Intensive Care Unit : Bayesian Meta-analysis”**

Pharmaceutical research in drug safety and effectivity has been grown significantly. One of them is research about the safety of Hydroxyethyl Starch (HES) as plasma substitutes in Intensive Care Unit. To estimate the greater effect size, Bayesian meta-analysis is needed. There are 10 articles of research are collected from Ebscohost, Proquest, Pubmed and Springer that used in this meta-analysis. The result of Meta-analysis in effect of HES and Non-HES is significantly difference in Renal Replacement Therapy ( $p < 0.05$ ) with OR 1.256 ( $\pm 0.146$ ) and in Acute Kidney Injury ( $p < 0.05$ ) with OR 1.311 ( $\pm 0.208$ ). Furthermore, Bayesian meta analysis in effect HES and Non-HES is not-significantly difference in 28 day mortality ( $p > 0.05$ ) with OR 1,166 ( $\pm 0,225$ ) and in Acute 90 day mortality ( $p > 0.05$ ) with OR 1.112( $\pm 0.219$ ).

Keywords: Hydroxyethyl Starch, Intensive Care Unit, Bayesian, Meta-analysis