ABSTRACT

Drug Utilization Study of Insulin in Diabetes Mellitus Patients with Acute Complication of Hyperglycemic Crisis (Study at Dr. Soetomo Hospital Surabaya)

This study aimed to identify and analyzed the type and regimentation of insulin in diabetes mellitus patients with acute complication of hyperglycemic crisis in public hospital inpatient Dr. Soetomo Surabaya. The study was conducted prospectively from March 2011 until May 2011 in Dr. Soetomo hospital Surabaya. The result showed that 27 patients who experienced hyperglycemic crisis, 20 patients were females and 7 patients were males. Most patients experience hyperglycemic crisis itself in the range of age 40-59 years old. Various types of insulin used to treat patients with hyperglycemic crisis such as short acting insulin (100%), rapid acting insulin (11.11%), intermediate acting insulin (29.63%), long acting insulin (14.81%) and insulin mixture (3.70%) either as single or combination therapy which administrated via iv, pump and sc. The combination of short and rapid acting with long acting insulin used in patient with high FBG. RCI initial therapy with RHI administrated intravenously at a dose regime (n-1) x 4-8 unit/jam, where n is the first value of BG. Insulin (RHI and Aspart) was given to patients with BG difficult to control. Subcutaneous insulin doses for maintenance is carried out in accordance with the rules of a dose of 3 x 4-10 units adapted to the BG patients. Drug-related problems has shown that side effects from the use of insulin hypokalemia (7.41%) and hypoglycaemia (3.70%) and interaction between insulin with other drugs.

Keyword: Insulin, Diabetes Mellitus, Acute Complication, Hyperglycemic Crisis