

ABSTRACT

STUDY OF USE OF ANALOGUE INSULIN AND HUMAN INSULIN IN INPATIENT PATIENTS WITH DIAGNOSIS OF TYPE II DIABETES MELLITUS

**(Study carried out at Sidoarjo Regional Hospital for the period January –
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Ariyanti Giantiningrum

Chronic diabetes mellitus is typified by metabolic abnormalities, including elevated blood sugar levels brought on by reduced insulin synthesis and peripheral insulin resistance. The purpose of this study was to ascertain how human and analogue insulin were used by Sidoarjo District Hospital inpatients with type II diabetes mellitus. Retrospective descriptive research methodology was employed, and patient medical records provided the data. 13 patients (39%) and 20 patients (61%) respectively were diagnosed with type II DM. The age period in which type II diabetes patients are most affected is 46–65 years old as people age, their endocrine function declines. Anaemia is a crucial diagnostic auxiliary. hospital stays >10 days, particularly for those with chronic kidney disease, diabetic neuropathy, leg ulcers, and cardiovascular problems. Patients with illnesses that last 1 - 5 years have better quality of life because they are more aware of leading healthy lives. Human and analogue insulin are combined in the insulin therapy being utilised. The GDA level measurement profile before hyperglycemia occurred in 32 patients (97%) at 397 mg/dL, Following hyperglycemia, the number of patients fell to 19 patients (58%) at 222 mg/dL, a decrease of 175 mg/dL. In patients with diabetes mellitus, the most effective combination of 3 insulins is *Short Acting* (Human) + *Long Acting* (Analogues) + *Rapid Acting* (Analogues). This combination lowers GDA levels in patients by 387 mg/dL.

Keywords : Diabetes mellitus, Insulin, Analogues, Human