ABSTRACT

DRUG UTILIZATION STUDY IN GUILLAIN-BARRÉ SYNDROME PATIENTS

(Study was performed at Neurology Department of Dr. Soetomo General Hospital Surabaya)

BACKGROUND: Guillain-Barré syndrome (GBS) is an-acute, immune-mediated polyneuropathy that often follows an antecedent infection, with or without sensory or autonomy involvements, commonly in rapid progression. Many drugs are used as causative or symptomatic treatments, such as immunotherapy, corticosteroid, neuroprotectant, analgesic, antibiotic, etc. Although those therapies are predictably effective, questions regarding dosing, timing, and concern for adverse events often hinder their use in clinical practice.

OBJECTIVE: This study documented drug therapy received by GBS patients at Neurology Department of Dr. Soetomo General Hospital Surabaya in order to assess drug utilization by knowing the drug therapy profiles, dosage regimens, route, time, and duration of drug administrations.

SUBJECTS AND METHODS: By retrospective method, medical records of 51 GBS hospitalized-patients in any age admitted between January 1, 2011 and December 31, 2012 were reviewed. Patients' medical history, clinical and laboratory data, drug utilization, disease progressivity, and therapy outcome were documented. The results were compared with literature.

RESULTS: Neuroprotective agents (fursulthiamine and methylcobalamine) were prescribed in 92,2% of 51 patients studied and showed adequate outcome. Twelve patients (23,5%) received intravenous immunoglobulin in varies dosage regimentation, mainly inappropriate with the guideline. Metamizole was used (47,1%) as analgesic in GBS patients. Antibiotics (e.g., ceftriaxone, ciprofloxacin, levofloxacin, meropenem) were mainly used in GBS patients following inpatient hospitalization who at increased risk for secondary infection.

CONCLUSIONS: Fursulthiamine and methylcobalamine was the predominant neuroprotective agents used at GBS patients during the period of data collection and mostly showed positive outcomes. IVIg is effective for GBS patients if given during the first week of disease. Besides, diligent

supportive care and prophylaxis of infection are essential to minimizing risk of secondary infection, morbidity, and mortality.

KEYWORDS: drug utilization study, Guillain-Barré syndrome (GBS), intravenous immunoglobulin, neuroprotective agents, therapy