



ALBUMIN-USE EVALUATION AT INPATIENT WARD OF DR. RAMELAN NAVY HOSPITAL, SURABAYA SEPTEMBER – OCTOBER 2006

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Background: Albumin as protein colloid has been used for years in the treatment of patients with some pathological conditions such as nephrotic syndrome, ascites with paracentesis, burnt. Albumin is an expander plasma which is most expensive compared to others. Up to now the until to use of albumin in some pathological conditions is still controversial. Evaluation of the appropriate use of albumin has been carried out by Tanzi et al. at the United States of America (2003). Data of patients in the study consisted of 1649 adult patients and 23 pediatric patients.

Objective: The objective of the study was to get an overview on use of albumin at Dr. Ramelan Navy Hospital, Surabaya which included aspects of appropriateness of albumin use, effectiveness of albumin therapy based on changes of plasma albumin of the patient and clinical response as well as harmful side effect which happened due to clinically significant therapy of albumin.

Method: The study used analytical cross sectional design carried out prospectively to limited population, i.e. all inpatients at Dr. Ramelan Navy Hospital who received albumin therapy during 1st September - 31st October 2006 until end of hospitalization. Data were obtained from observation of patients at inpatient ward who received albumin therapy. Evaluation was based on certain criteria determined from various standard literature, albumin use guidelines and the latest research.

Result and Conclusion: As many as 60 inclusion cases showed that the most common indication for albumin use was chronic liver disease (53.3%), followed by gangrene/ulcus diabetes mellitus (20.0%), other cases (11.7%), non gangrene diabetes mellitus (6.7%), non hepatoma malignance (5.0%) and the lowest use of albumin was in nephrotic syndrome cases (3.3%). Albumin was prescribed inappropriately 48.3% and appropriately in 51.7% of 60 cases. According to statistical analysis, effectiveness of albumin therapy based on changes of plasma albumin after albumin intravenous administration. There was a significant change of plasma albumin after albumin intravenous administration with significance level 95%, except for albumin 5% 250 ml in chronic liver disease and albumin 20% 100 ml among cirrosis patients having paracentesis. Effectiveness of albumin therapy based on clinical response was unknown. Side effect which was clinically significant occurred to 2 patients (3.3%); ie. shivering and hypotension.

Keywords: albumin use evaluation, inpatient, Dr. Ramelan Navy Hospital