

ABSTRACT

Blood alcohol content (BAC) is a parameter used as a reference in assessing alcohol or ethanol toxicity. Until now, the Food and Drug Monitoring Agency (BPOM) and the Ministry of Health of the Republic of Indonesia have not regulated the ethanol content in pediatric preparations. This study aims to predict Blood Alcohol Concentration (BAC) in children aged (2 months - 2 years), aged (2-5 years) and aged (6-12 years) if they consume cold and cough syrup containing ethanol and know knowledge level of pharmacists working in health care facilities regarding the safe limit of ethanol content in cold and cough syrup medicines in pediatric preparations in the city of Yogyakarta.

In this study using a descriptive research type with an observational (non-experimental) approach model. From the results of sample data collection, it was obtained that 17 samples of drug products containing ethanol were used as BAC prediction research subjects, provided that the sample no longer gave a difference (saturation point) and as many as 80 sample respondents filled out a research questionnaire to determine the pharmacist's level of knowledge. The research was conducted by direct observation to pharmacies and distributing online and offline survey questionnaires. Data analysis in this study used the Windmark Equation, total body water, body weight and body height (WHO) for drug product data.

The results of this study showed that of the 17 samples found, only 2 samples met WHO standards for 0.5%v/v ethanol content for ages (1 year - 6 years), and as many as 5 samples did not meet WHO standards for ethanol content <5 % age (6 years - 12 years). There is 1 sample that has a very high ethanol content. In this drug sample, it shows that Indonesia has a higher ethanol content in pediatric syrup than Malaysia, which is 0-10% v/v. From the calculation of the sample BAC values, there were 2 samples that met the standards of the French Medicines Agency (FMA) and the American Academy of Pediatrics Committee on Drugs (AAPCD). Pharmacist respondents' knowledge related to ethanol has a mean and median percentage of 73.88% and 80%, respectively. The knowledge category of pharmacist respondents was good 45 respondents (56.3%), sufficient 25 respondents (31.1%), and low 10 respondents (12.5%). Analysis of the results showed that the highest score on statement items was related to the side effects of ethanol, which was 96.25%, while the lowest knowledge score was for statement items related to the rules of the BAC value in Europe, which was 33.75%. It is hoped that the results of this study will serve as a basis for consideration for the government to determine ethanol levels in pediatric syrup preparations in Indonesia and it is necessary to socialize and educate the public about ethanol content in pediatric drug preparations to the public and health workers, especially pharmacists, as well as the pharmaceutical industry.

Keywords: Ethanol, Blood Alcohol Concentration (BAC), Flu and Cough Syrup, Level of Knowledge, Pediatrics, Pharmacist