

**ABSTRACT**

**Antiretroviral Usage Profile In Children With HIV  
(Study at RSUD Dr. Saiful Anwar Malang)**

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**Background:** Antiretroviral therapy (ART) during acute HIV-1 infection is aimed to shorten the symptoms of the viral disease, to reduce the number of infected cells, to retain HIV-1 specific immune responses cells and possibly to lower the viral set point in the long term. Several studies have shown that treatment of acute HIV-1 infection allows long-term viral suppression and may lead to preservation and even increase of HIV-1 specific T helper. Studies in patients treated during acute HIV-1 infection and the subsequent start of treatment interruption showed that HIV-1 specific immune response can be induced. But ARVs are still poses some problems such as side effects, toxicity and resistance. According to WHO, the used of antiretroviral drugs in children has led to several different types of adverse effects. In Indonesia, the number of HIV infected children and the number of deaths caused by AIDS are still high.

**Objectives:** To study and assess the usage of Antiretroviral in children with HIV including dosage, route of administration, frequency, duration of use associated with clinical and laboratory data and to identify the possibility of DRP.

**Methods:** The study used descriptively analysis by using retrospective data from patient's medical record from January 1<sup>st</sup>, 2013 – December 31<sup>st</sup>, 2015.

**Results:** The study samples were 24 childrens aged 0-12 years with HIV who received antiretroviral therapy. Most patients were at aged 1 to 5 years as many as 50%. The most common opportunistic infection suffered by patients was pulmonary TB with the percentage of 36%. From this study, the most used antifungal was nystatin with the percentage of 21% while the most used antituberculosis were FDC Continuation phase with the percentage of 33%. The most used ARV combination were duviral

(zidovudin + lamivudin) + neviral with the percentage of 58%. From this study, all the patient conformed to DEPKES RI guidelines (ARV was recommended to HIV patients in stage III and IV). There were 25% patients that changed or stopped ARV because of adverse drug reaction. Zidovudine decreased in Hb while nevirapine caused elevated SGOT and SGPT. The drug - drug interactions that might happened between ARV and the other drugs used were zidovudine with rifampicin, zidovudine with fluconazole, zidovudine with cotrimoxazole, nevirapine with rifampicin, nevirapine with ketoconazole and efavirenz with rifampicin.

**Conclusion:** All HIV child patients received three combination related to their clinical conditions. Most common side effects observed were anemia due to zidovudine and increased ALT/AST due to nevirapine.

Key word: Antiretroviral, HIV, Drug utilization study

