

**ABSTRACT****PATTERN OF IMMUNOPHENOTYPING RESULT OF ACUTE LEUKEMIA  
IN ADULT AT RSUD DR. SOETOMO JANUARY 2012 – JUNE 2017**

**Background :** Leukemia is a type of cancer that attacks blood cells, especially the white blood cells. There are two types of predominant cell involved, lymphoid and myeloid. The formation of blood cells begins with stem cells that differentiate and proliferate following a specific lineage. *Immunophenotyping* is one of the methods used to determine the leukemia type. There are 247 *cluster of differentiation* (CD) expressed by the membrane plasma which represent precursors in the maturation stages of leukocytes (Belov *et al*, 2006). Researchers conducted observations on CD and specific markers found in each type of acute leukemia of adult patients in RSUD Dr. Soetomo.

**Method :** This is a descriptive retrospective research observing the pattern in immunophenotyping results, including markers and aberrant of adult acute leukemia patients. The study also included sociodemography (sex and age) and the frequency of each diagnosis.

**Results :** Out of 238 samples, the most common diagnosis is AML (73.11%), followed by ALL B lymphoid (21.85%) and ALL T lymphoid (5.04%). The most common marker for AML is the combination of CD33 and CD13 (70.11%). The most common marker for ALL B lymphoid is the combination of CD19, CD20, CD10, and CD79a (52.94%) and for ALL T lymphoid is the combination of CD3, CD5, and CD7 (66.67%).

**Conclusion :** AML is the most frequent diagnosis found among other types of acute leukemia. CD33 and CD13 are the most common markers found in AML case, whereas CD19, CD20, CD10, and CD79a are the most common markers found in ALL B lymphoid. Majority of ALL T lymphoid show positivity to CD3, CD5, and CD7.

**Keywords :** *acute leukemia, immunophenotyping, CD, aberrant, ALL, AML.*