

# 急性骨髓性白血病的簡介與台灣流行病學現況

## AML: Introduction and epidemiology in Taiwan

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Acute myeloid leukemia (AML) is a heterogeneous group of hematopoietic neoplasm characterized by malignant clones of myeloid cells resulting from a sequence of somatic mutations in a primitive multi-potential hematopoietic cell. The leukemic cells interfere with production of normal blood cells, causing weakness, infection, bleeding and other symptoms and complications. The direct cause of AML is typically unknown. Risk factors are cigarette smoking, benzene exposure, radiation exposure, chemotherapies, preexisting hematological disease and congenital genetic conditions. The diagnosis of AML includes morphologic analysis, immunophenotyping, cytogenetic and molecular testing, which provide information regarding disease-specific and individual patient factors that are taken into consideration when deciding treatment.

The Global Burden of Disease Cancer Collaboration reported that annual global incidence case of AML is 139,828 and ~100,000 deaths in 2019. From 2007 to 2017, global AML incidence grew 23.2%, mainly due to population growth (12.9%) and age structure (9.5%). Based on 2017 Taiwan Cancer registry annual report (Health Promotion Administration, MOHW, Taiwan, December 2019), 806 new cases of AML was diagnosed in 2017. AML accounts for 0.7% of all new cancer cases and 0.7% of all cancer death in Taiwan. The incidence rate is 3.96 for men and 2.89 for women in 100,000 populations per year. Median age at the diagnosis of AML is 61 years for men and 62 years for women. 80% of AML patients in Taiwan received chemotherapy and 11.5% of them received allogenic hematopoietic stem cell transplantation. According to the study results of AML Consortium of Taiwan (funded by MOHW, Taiwan, 2014-2020), 3-year survival rate is 87% for acute promyelocytic leukemia (APL). 3-year survival rate is 48.2% for standard treated *de novo* non-APL AML, with patients < 65 year-old doing better than patients ≥ 65 year-old (52.0% vs 13.0%).