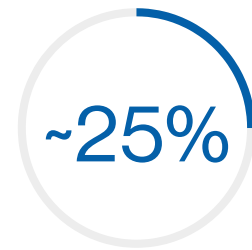


Acute Myeloid Leukemia

What is acute myeloid leukemia (AML)?

AML is a rare and aggressive cancer of the blood and bone marrow.¹

It prevents white blood cells from maturing, causing an accumulation of “blasts” which do not allow room for the normal blood cells.¹



...OF ALL ADULT LEUKEMIAS WORLDWIDE ARE ATTRIBUTED TO AML, with the highest incident rates occurring in the United States, Europe and Australia.²

AML Prognosis

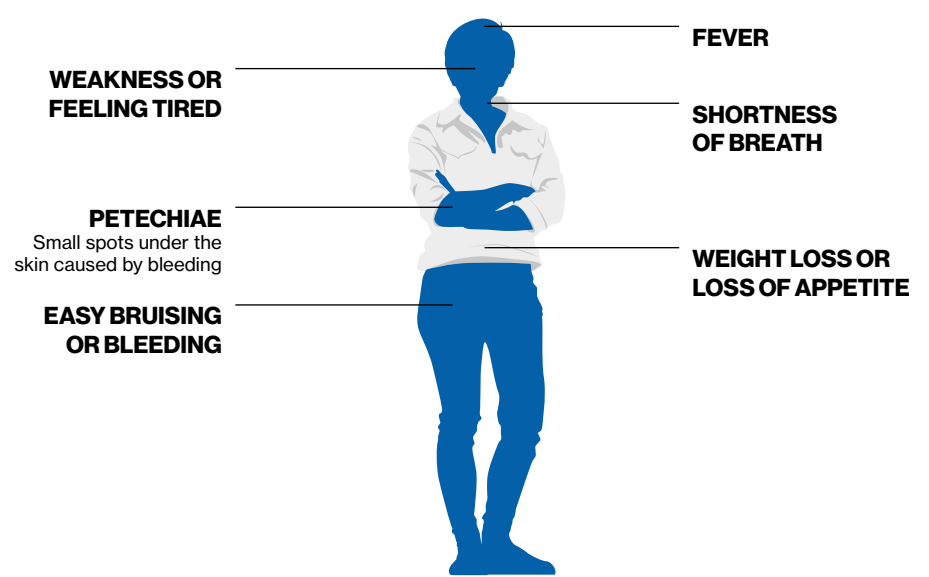
Prognosis varies per person and depends upon a number of factors, including:¹

- Age
- Medical history
- Stage of disease
- Subtype and genetic mutations



AML Symptoms

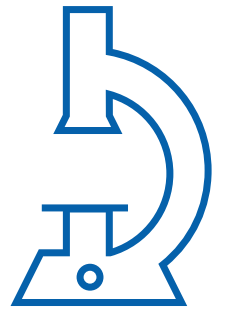
Signs and symptoms of AML may be vague and could be confused with those of other common diseases. Symptoms include:¹



AML Diagnosis

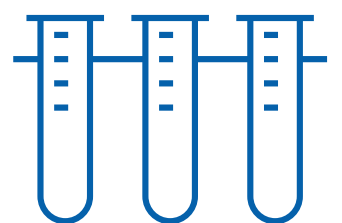
A diagnosis for AML is based upon:¹

- Physical exam and medical history
- Complete blood count (CBC)
To measure proportion of each type of blood cell present
- Blood smear
To examine the number and shape of different blood cells present
- Bone marrow aspiration and biopsy
Sample of cells taken from bone marrow
- Immunophenotyping
To identify different types of cells present and subtype of AML
- Genetic testing
To identify if any mutations are present and determine subtype of AML



Role of gene mutations in AML

- **Mutations in specific genes are found in many cases of AML.³** These mutations cause the cells to multiply and remain immature, thereby leading to the development and spread of the disease.³
- **Mutation testing** is recommended for newly diagnosed patients to help identify factors that may determine prognosis.⁴
- According to one study, the most common gene mutations in AML include FLT3 (37%), NPM1 (29%), DNMT3A (23%) and NRAS (10%).⁵



Patient Demographics

Risk factors include:¹

- Being male
- Previous cancer treatment
- Smoking
- Exposure to radiation

67
MEDIAN AGE
at diagnosis⁶

Novartis is committed to the AML community and the unmet needs of these patients.

Resources

- 1 National Institute of Health (NIH) National Cancer Institute (NCI). Adult Acute Myeloid Leukemia Treatment (PDQ®) <http://www.cancer.gov/types/leukemia/patient/adult-aml-treatment-pdq>. Accessed February 20, 2017.
- 2 Deschler B, Lübbert M. Acute myeloid leukemia: epidemiology and etiology. *Cancer*. 2006;107(9):2009-2107.
- 3 American Cancer Society. Do we know what causes acute myeloid leukemia? <http://www.cancer.org/cancer/leukemia-acute/myeloidaml/detailedguide/leukemia-acute-myeloid-myelogenous-what-causes>. Accessed February 20, 2017.
- 4 NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) Version 2.2016 Acute Myeloid Leukemia. http://www.nccn.org/professionals/physician_gls/pdf/aml.pdf. Accessed February 20, 2017.
- 5 Patel JP, Gönen M, Figueroa ME et al. Prognostic relevance of integrated genetic profiling in acute myeloid leukemia. *N Engl J Med*. 2012;366(12):1079-1089.
- 6 NIH NCI. Cancer Stat Facts: Acute Myeloid Leukemia (AML). <https://seer.cancer.gov/statfacts/html/aml1.html>. Accessed February 20, 2017.

