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 occuring in the United States, Europe and Australia.[2]

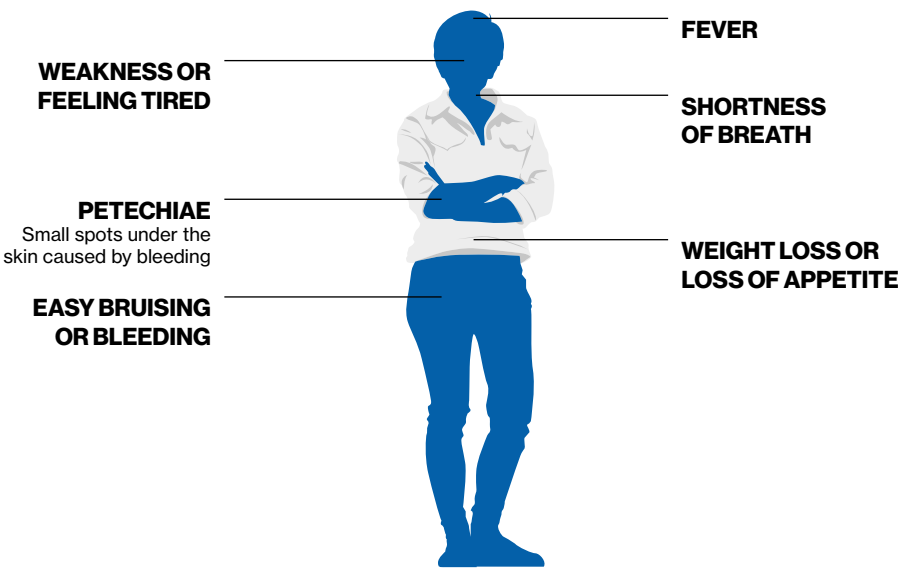
AML Prognosis

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

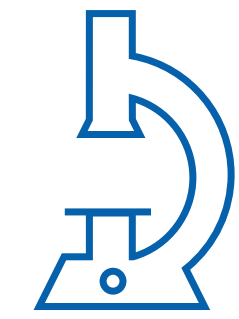
Signs and symptoms of AML may be vague and could be confused with those of other common diseases. Symptoms include:[1]



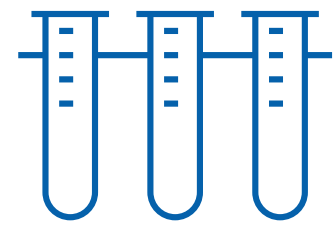
AML Diagnosis

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 diagnosis[6]

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-acutemyeloidaml/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/amyl.html. Accessed February 20, 2017.

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