**INITIAL EVALUATION**

Acute promyelocytic leukemia (APL) is a subtype of AML with a translocation t(15;17) typically involving the PML/RARA gene. It is characterized by the presence of a characteristic translocation that leads to the formation of a fusion protein, PML-RARA, which disrupts normal cellular function.

- **Arsenic trioxide plus all-trans retinoic acid (ATRA) with or without:***
  - Idarubicin **and/or**
  - Gentuzumab ozogamicin

**TREATMENT**

- **Fludarabine, cytarabine, filgrastim plus idarubicin **or**
- Clinical trials

- **Idarubicin plus cytarabine with or without cladribine **or**
- Clinical trials

- **Low intensity therapy **or**
- Clinical trials

**Complete remission?**

- **Yes**
  - Maintenance **or** Surveillance
  - Stem cell transplant (if high risk) **or** consolidation, then consider maintenance or surveillance

- **No**
  - Clinical trials

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1. See Physical Activity, Nutrition, and Tobacco Cessation algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice.
2. Leukemia newsletter: [http://www.mdanderson.org/leukemia](http://www.mdanderson.org/leukemia) (available programs-treatment priorities)

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**Acute Myelogenous Leukemia - Adult** (Greater than or equal to 18 years old)

*Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson’s specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient’s care. This algorithm should not be used to treat pregnant women.*
SUGGESTED READINGS


This practice algorithm is based on majority expert opinion of the Leukemia Center Faculty at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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