83.3. Leukemia: Acute Lymphocytic Leukemia in Adults

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Emerging Prognostic Factors for Clinical Care

Factor	***Definition***	***Clinical significance***	***Level of evidence***
iAMP21	3 or more extra copies of the *RUNX1* gene	Worse outcome	III
Oncogenetic profiling in T-ALL	Mutations in *NOTCH* or *FBXW7*; no mutations in *KRAS*, *NRAS*, or *PTEN*	Better outcome	III
MRD by NGS	Complete MRD response vs. MRD persistence/reappearance	Better vs. worse outcome (respectively)	III

Risk Assessment Models

Although the anatomic distribution of disease at diagnosis does not have clear prognostic significance, baseline characteristics such as age, WBC count, cytogenetics, and other molecular/genetic factors allow pretreatment risk stratification. After treatment, the depth of response (as determined by assessment of MRD) provides additional and powerful prognostic and predictive information. Presently, the information gained from the presence or absence of these factors is used primarily to identify the patients most likely to relapse following initial chemotherapy and thus most likely to benefit from HCT in first remission. However, methods to integrate these multiple pre- and posttreatment factors are needed.

Recommendations for Clinical Trial Stratification

The authors have not provided any recommendations for clinical trial stratification at this time.

Bibliography