

REFERRAL GUIDELINES

# Recommended Timing for Transplant Consultation



Published jointly by the  
National Marrow Donor Program  
and the American Society for  
Blood and Marrow Transplantation



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# Recommended Timing for Transplant Consultation

## Intent of guidelines

These guidelines highlight disease categories that include patients at risk for disease progression and who should be referred for hematopoietic cell transplant (HCT) consultation.

For some patients, early transplant may be indicated; for others, transplant may be needed later or not at all. Because appropriate planning and early donor identification are critical for optimal outcomes, early consultation is appropriate, even for patients who may never need HCT.

If allogeneic transplant is an option, high-resolution HLA typing of the patient and potential family donors should be completed early after diagnosis, and if no matches are found, a preliminary unrelated donor search of the Be The Match Registry® should be done.

These 2012 guidelines were developed jointly by the National Marrow Donor Program® (NMDP) and the American Society for Blood and Marrow Transplantation (ASBMT) and are based on current clinical practice, medical literature, and evidence-based reviews.<sup>1</sup>

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## About the NMDP

The National Marrow Donor Program (NMDP) is the global leader in providing marrow and umbilical cord blood transplants to patients with leukemia, lymphoma and other diseases. The nonprofit organization matches patients with donors, educates health care professionals and conducts research so more lives can be saved. The NMDP also operates Be The Match®, which provides support for patients, and enlists others in the community to join the Be The Match Registry® – the world's largest listing of potential marrow donors and donated cord blood units – contribute financially and volunteer. For more information, visit [marrow.org/md](http://marrow.org/md). To obtain additional copies of these guidelines or download a free mobile app, visit [marrow.org/md-guidelines](http://marrow.org/md-guidelines).

## About the ASBMT

The ASBMT promotes research, education and clinical practice in cellular therapy and blood and marrow transplantation. Its members are physicians, research scientists and allied health professionals in the field of stem cell collection, processing and transplantation.

<sup>1</sup> Evidence-based Reviews, developed by the American Society for Blood and Marrow Transplantation, 2003–2011. Published in *Biology of Blood and Marrow Transplantation* and available online at the “Guidelines, Policy Statements and Reviews” page at [ASBMT.org](http://ASBMT.org)

## Adult Leukemias and Myelodysplasia

### Acute Myelogenous Leukemia (AML)

High-risk AML including:

- Antecedent hematological disease (e.g., myelodysplasia (MDS))
- Treatment-related leukemia
- Induction failure

CR1 with intermediate- or poor-risk cytogenetic or molecular markers

AML after relapse

CR2 and beyond

### Acute Lymphoblastic Leukemia (ALL)

CR1 standard- or high-risk including:

- Poor-risk cytogenetics (e.g., Philadelphia chromosome (t(9;22)) or 11q23 rearrangements)
- High WBC (>30,000 - 50,000) at diagnosis
- CNS or testicular involvement
- No CR within 4 weeks of initial treatment
- Induction failure

ALL after relapse

CR2 and beyond

### Myelodysplastic Syndromes (MDS)

Intermediate-1 or -2 (INT-1 or INT- 2) or High IPSS score

Any MDS with poor prognostic features, including:

- Older age
- Refractory cytopenias
- Adverse cytogenetics
- Transfusion dependent

### Chronic Myelogenous Leukemia (CML)

- No hematologic response post-tyrosine kinase inhibitor (TKI) initiation
- No complete cytogenetic response post-TKI initiation
- Disease progression
- Intolerance to TKI

- Accelerated phase
- Blast crisis (myeloid or lymphoid)

### Chronic Lymphocytic Leukemia (CLL)

- High-risk cytogenetics or molecular features (e.g., 11q or 17p deletions, unmutated Ig VH mutational status)
- Short initial remission
- Poor initial response
- Fludarabine-resistant

## Pediatric Acute Leukemias

### Acute Myelogenous Leukemia (AML)

- Monosomy 5 or 7
- Age <2 years at diagnosis
- Induction failure

CR1 with HLA-matched sibling donor

AML after relapse

CR2 and beyond

### High-Risk Acute Lymphoblastic Leukemia (ALL)

- Induction failure
- Philadelphia chromosome positive
- WBC >100,000 at diagnosis
- 11q23 rearrangement
- Mature B-cell phenotype (Burkitt's lymphoma)
- Infant at diagnosis

CR1 duration <18 months

ALL after relapse

CR2 and beyond

## Lymphomas

### Non-Hodgkin Lymphoma

Follicular

- Poor response to initial treatment
- Initial remission duration <12 months
- Second relapse
- Transformation to diffuse large B-cell lymphoma

Diffuse Large B-Cell or High-Grade Lymphoma

- At first or subsequent relapse
- CR1 for patients with high or high-intermediate IPI risk
- No CR with initial treatment

Mantle Cell

- Following initial therapy

### Hodgkin Lymphoma

- No initial CR
- First or subsequent relapse

## Multiple Myeloma

### Multiple Myeloma

- After initiation of therapy
- At first progression

## Other Malignant Diseases

### Germ cell tumors

- Short initial remission
- Poor initial response

### Myeloproliferative Disorders (including BCR-ABL-negative myeloproliferative neoplasms, myelofibrosis and later stages of polycythemia vera and essential thrombosis)

- Intermediate- or high-risk disease including:
- High-risk cytogenetics
  - Poor initial response or at progression

### Neuroblastoma

- Short initial remission
- Poor initial response or at progression

## Non-Malignant Disorders

### Immune Deficiency Diseases (including Severe Combined Immunodeficiency syndromes, Wiskott-Aldrich syndrome, Omenn syndrome, X-linked lymphoproliferative syndrome, Kostmann syndrome)

- At diagnosis

### Inherited Metabolic Disorders (including Hurler's syndrome, adrenoleukodystrophy, and others)

- At diagnosis

### Hemoglobinopathies

Thalassemia

- At diagnosis

Sickle Cell Disease

- With aggressive course (CNS or lung complications, frequent pain crises)

### Hemophagocytic Lymphohistiocytosis (HLH)

- At diagnosis

### Severe Aplastic Anemia and other marrow failure syndromes (including Fanconi anemia, Diamond-Blackfan anemia, and others)

- At diagnosis



The enclosed guidelines are based on recently published research and were developed in consultation with several leading transplant organizations.

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