Myelodysplastic Syndrome (MDS) - Adult

PATIENT PRESENTATION

- **IPSS Score of Low Risk or Intermediate I**
  - or
  - **IPSS-R Score of Very Low, Low, or Intermediate**

MDS risk based on IPSS score or IPSS-R score

- **IPSS Score of Intermediate II or High Risk**
  - or
  - **IPSS-R Score of Intermediate, High, or Very High**

TREATMENT

- **Consider clinical trials**
- Iron chelation
- Growth factors/luspatercept
- Hypomethylating agents
- Lenalidomide (if 5q deletion present)

SURVEILLANCE

- Surveillance as per protocol

Response?

- Yes
- Allogeneic stem cell transplant
- Clinical trials
- Discuss Goal Concordant Care (GCC) with patient or if clinically indicated, with Patient Representative
- Surveillance

- No
- **Consider clinical trials**
- Hypomethylating agents
- Intensive chemotherapy
- Allogeneic stem cell transplant

Response?

- Yes
- Allogeneic stem cell transplant
- Clinical trials
- Discuss GCC with patient or if clinically indicated, with Patient Representative
- Surveillance

- No

\(\text{IPSS} = \text{International Prognostic Scoring System}\)
\(\text{IPSS-R} = \text{revised International Prognostic Scoring System}\)

1 Age \( \geq 18 \) years
2 MDS risk is calculated utilizing the IPSS or IPSS-R score, which includes percent of blast, cytogenetics (consider MD Anderson approved biomarkers), and number of cytopenias
3 See Leukemia Clinical Trials
4 GCC should be initiated by the Primary Oncologist. If Primary Oncologist is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Oncologist. Patients, or if clinically indicated, the Patient Representative should be informed of therapeutic and/or palliative options. GCC discussion should be consistent, timely, and re-evaluated as clinically indicated. The Advance Care Planning (ACP) note should be used to document GCC discussion. Refer to GCC home page (for internal use only).

Note: Consider clinical trials as treatment options for eligible patients. Leukemia patients should be referred and treated at a comprehensive cancer center.
Myelodysplastic Syndrome (MDS) - Adult

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


DEVELOPMENT CREDITS

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

Core Development Team Leads
Alessandra Ferrajoli, MD (Leukemia)
Guillermo Garcia-Manero, MD (Leukemia)
Hagop Kantarjian, MD (Leukemia)

Workgroup Members

<table>
<thead>
<tr>
<th>Yesid Alvarado, MD (Leukemia)</th>
<th>Steven Kornblau, MD (Leukemia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Andreeff, PhD, MD (Leukemia)</td>
<td>Lucia Masarova, MD (Leukemia)</td>
</tr>
<tr>
<td>Kapil Bhatta, MD (Leukemia)</td>
<td>Deborah McCue, PharmD (Pharmacy Clinical Programs)</td>
</tr>
<tr>
<td>Gautam Borthakur, MBBS (Leukemia)</td>
<td>Guillermo Montalban-Bravo, MD (Leukemia)</td>
</tr>
<tr>
<td>Prithviraj Bose, MD (Leukemia)</td>
<td>Maro Ohanian, DO (Leukemia)</td>
</tr>
<tr>
<td>Jan Burger, MD (Leukemia)</td>
<td>Naveen Pemmaraju, MD (Leukemia)</td>
</tr>
<tr>
<td>Naval Daver, MD (Leukemia)</td>
<td>Farhad Ravandi-Kashani, MD (Leukemia)</td>
</tr>
<tr>
<td>Courtney DiNardo, MD (Leukemia)</td>
<td>Koji Sasaki, MD (Leukemia)</td>
</tr>
<tr>
<td>Wendy Garcia, BS*</td>
<td>Nicholas Short, MD (Leukemia)</td>
</tr>
<tr>
<td>Ghayas Issa, MD (Leukemia)</td>
<td>Koichi Takahashi, MD (Leukemia)</td>
</tr>
<tr>
<td>Elias Jabbour, MD (Leukemia)</td>
<td>Philip Thompson, MBBS (Leukemia)</td>
</tr>
<tr>
<td>Nitin Jain, MBBS (Leukemia)</td>
<td>Srdan Verstovsek, MD (Leukemia)</td>
</tr>
<tr>
<td>Tapan Kadia, MD (Leukemia)</td>
<td>Mary Lou Warren, DNP, APRN, CNS-CC*</td>
</tr>
<tr>
<td>Michael Keating, MD (Leukemia)</td>
<td>William Wierda, PhD, MD (Leukemia)</td>
</tr>
<tr>
<td>Marina Konopleva, PhD, MD (Leukemia)</td>
<td>Musa Yilmaz, MD (Leukemia)</td>
</tr>
</tbody>
</table>

* Clinical Effectiveness Development Team

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.