Aplastic Anemia Disease Definition

Aplastic Anemia (AA) is a bone marrow failure disorder in which marrow stops producing enough blood cells. It is characterized by severity level. ASH recommendations primarily address severe and very severe aplastic anemia.

Moderate AA

Blood cell counts may be low, but not as low as with severe and very severe aplastic anemia.

Very Severe AA

Must have severe aplastic anemia with a neutrophil count <200 per microliter.

Severe AA

Must have at least two of the following three criteria:
Neutrophil count <500 per microliter
Reticulocyte <60,000 per microliter
Platelet <20,000 per microliter

Good Practice Statements for Diagnosis

In individuals with **unexplained pancytopenia**, the ASH guideline panel considers it good practice to:

Good Practice

Perform a bone marrow aspirate and biopsy

Good Practice

Obtain a detailed history of exposures, family history, medications, infections and other potential acquired causes of AA

Good practice statements (GPS) are ungraded recommendations that reflect what the guideline panel considers to be uncontested markers of good care. While not fully supported by systematic evidence, GPS are strong, actionable, and widely accepted as beneficial best practices.

Strong Recommendations		Conditional Recommendations	
Recommends...	**Recommends against...**	**Suggests...**	**Suggests against...**
Most individuals should follow the recommended course of action. Formal decision aids are not likely to be needed to help individual patients make decisions consistent with their values and preferences.		Different choices will be appropriate for individual patients; clinicians must help each patient arrive at a management decision consistent with the patient's values and preferences. Decision aids may be useful in helping individuals to make decisions consistent with their individual risks, values, and preferences.	

Access additional tools and resources at *hematology.org/aplasticanemia*:

- Visual Summaries
- Teaching slides
- Infographics
- Snapshots
- Patient resources
- Additional pocket guides

Recommends... **Recommends against...**
Suggests... **Suggests against...**

Reference: Scheinberg P., O'Neal D.A., Basquiera A., Byrne M.T., Calado R., Desai R., DeZern A.E., Dufour C., Groarke E.M., Han H., Hosokawa K., Kansal R., Kulasekararaj A., Mossad S.B., Muus P., Patel B., Risitano A.M., Schrezenmeier H., Sharma A., Shimamura A., Shimano K.A., Tortosa F., Avila C., Ragusa M., Izcovich A., Neumann I. American Society of Hematology 2026 Guidelines on diagnosis and management of Aplastic Anemia. *Blood Advances. https://doi.org/10.1182/bloodadvances.2025019051.*

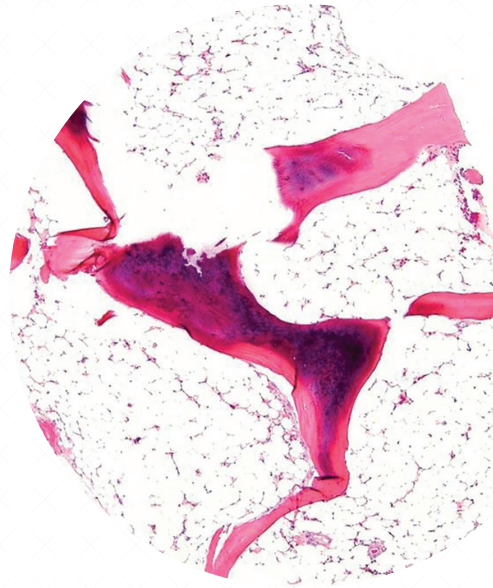
ASH CLINICAL PRACTICE GUIDELINES
APLASTIC ANEMIA

POCKET GUIDE

Diagnosis and Management of Severe and Very Severe Acquired Aplastic Anemia

A POCKET GUIDE FOR THE CLINICIAN

2026



The recommendations in this guide are based on the American Society of Hematology 2026 Guidelines for Diagnosis and Management of Severe and Very Severe Acquired Aplastic Anemia

Diagnostic Evaluation

In individuals **of any age with severe or very severe AA**, and in those with AA **refractory to IST**:

- ASH guideline panel **Suggests PNH Clone Testing** vs. no testing
- ASH guideline panel **Suggests Somatic Mutations Testing** vs. no testing
- ASH guideline panel **Suggests Telomere Length Testing** vs. no testing

Good Practice

In individuals with clinical features suggestive of a germline-inherited blood disorder, perform **germline genetic testing**.

Good Practice

In individuals with severe or very severe aplastic anemia who are eligible for hematopoietic stem cell transplantation, perform **HLA testing** as soon as possible.

AA: *Aplastic Anemia;* ***HLA:*** *Human Leukocyte Antigen* ***IST:*** *Immunosuppressive Therapy;* ***PNH:*** *Paroxysmal Nocturnal Hemoglobinuria*

Antimicrobial Prophylaxis

In individuals with suspected AA and **neutrophil counts below 500 per microliter**:

- **Antifungal** — ASH guideline panel **suggests mold-active antifungal prophylaxis**.
- **Antibiotic** — ASH guideline panel **suggests antibiotic prophylaxis**.

Recommends... **Recommends against...**
Suggests... **Suggests against...**

Frontline Therapies

For individuals with severe and very severe AA:

In selecting a therapy, consider:

- Age
- Comorbidities
- HCT-CI Score
- Eltrombopag availability
- Center transplant experience
- Type of donor available
- Timing of transplant
- Patient preferences

MSD Matched Sibling Donor HCT
MUD Matched Unrelated Donor HCT
HID Haploidentical Donor HCT
IST Immunosuppressive Therapy

Transplant vs. IST Recommendations

Age	MSD vs. IST	MUD vs. IST	HID vs. IST
Under 20	MSD	MUD or IST	IST
20-40	MSD	MUD or IST	IST
Over 40	IST	IST	IST

Add eltrombopag for children and adults undergoing IST

AA: *Aplastic Anemia;* ***HCT-CI:*** *Hematopoietic Stem Cell Transplantation Comorbidity Index;* ***HID:*** *Haploidentical Donor;* ***IST:*** *Immunosuppressive Therapy;* ***MSD:*** *Matched Sibling Donor Hematopoietic Cell Transplant;* ***MUD:*** *Matched Unrelated Donor Hematopoietic Cell Transplant*

Second Line Therapies

For individuals requiring second line therapy after initial IST:

In selecting a therapy, consider:

- Neutrophil count
- Availability of alternative treatments
- Characteristics of relapse
- Type of ATG available
- Timing of transplant
- Patient preferences

HCT Transplant
ATG Second course of ATG-based therapy

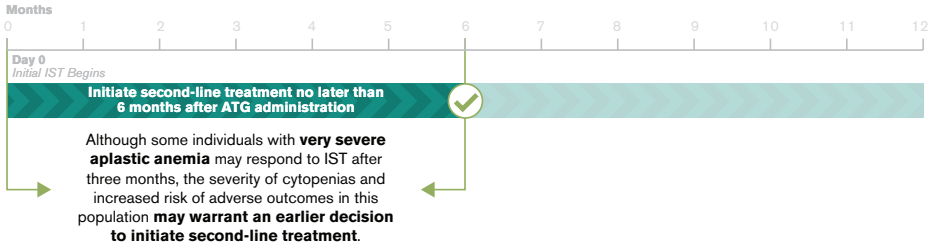
Second Line Therapy Recommendations

Age	Refractory: No response to initial course of IST.	Relapse: Responds to initial course of IST but subsequently recurs.
Under 40	HCT	HCT or ATG
40-60	HCT	HCT or ATG
Over 60	HCT or ATG	ATG

ATG: *Anti-thymocyte globulin;* ***HCT:*** *Hematopoietic Cell Transplant;* ***IST:*** *Immunosuppressive Therapy*

Timing of Second Line Therapy

In individuals with severe and very severe AA, **who do not respond to immunosuppressive therapy:**



Although some individuals with **very severe aplastic anemia** may respond to IST after three months, the severity of cytopenias and increased risk of adverse outcomes in this population **may warrant an earlier decision to initiate second-line treatment**.