

Frontline Management of ALL in AYAs: What You Should Know



What it covers

- Frontline Management of Acute Lymphoblastic Leukemia in Adolescents and Young Adults (ALL in AYAs)



Why it matters

- Frontline treatment for ALL in AYAs is complex and often requires a combination of pediatric and adult treatment regimens to balance treatment effectiveness with manageable toxicity.
- AYAs with ALL face unique biological and psychosocial challenges that are not fully addressed by existing pediatric or adult treatment protocols, leading to high variability in care and necessitating individualized treatment.
- While survival rates have improved, AYAs still face higher relapse rates and more treatment-related side effects than younger children.
- There is a critical need for evidence-based, AYA-specific guidelines to standardize frontline ALL treatment and determine whether pediatric- or adult-inspired regimens provide the best outcomes for this age group.



Who it affects

- Adult and pediatric hematologists/oncologists, transplant specialists, AYA oncology specialists, pharmacists, social workers, psychologists, palliative care specialists, and additional specialists involved in the frontline management of ALL in AYAs.



What are the highlights

- Pediatric-inspired regimens improve survival in AYAs compared to traditional adult-inspired protocols, challenging the conventional age-based approach to treatment selection.
- Asparaginase recommended as a cornerstone of frontline AYA therapy, with detailed recommendations on premedication, monitoring, and toxicity management to balance efficacy with the distinct side effect profile observed in this population.
- Role of allogeneic transplant in first remission re-evaluated, given insufficient evidence to support its routine use in AYAs, despite its historical prominence in adult ALL treatment.
- Emphasis on unique psychosocial and developmental needs of AYAs, highlighting the importance of shared decision-making and supportive care strategies tailored to this life stage.
- Significant evidence gaps in AYA ALL, underscoring the urgent need for dedicated clinical trials and research designed specifically for this population, rather than relying on extrapolated pediatric or adult data.

Total number of panel recommendations: 15

REFERENCE

DuVall, A.*, McNeer, J.*, Cheung, M.C., Adrianzen-Herrera, D., Advani, A., Aljurf, M., Audino, A., Benitez, L., Deeter, A., Dworkin, E., Hiltbrand, O., Isenhardt, L., Jain, H., Li, L., Miller-Chism, C., Mozesohn, L., Ng, A., Pu, J., Shafer, D., Vargas-Madueno, F., Viny, A., Wadhwa, A., Yang, J., Zamegar-Lumley, S., Mai, H.J., Kanaan, G., Sereda, Y., Saldanha, I., Balk, E., Stock, W.†, Wolfson, J.†. American Society of Hematology 2026 guidelines for Frontline Management of Acute Lymphoblastic Leukemia in Adolescents and Young Adults (ALL in AYAs). *Blood Advances*. doi: <https://doi.org/10.1182/bloodadvances.2025006469>.

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For more information on the ASH Clinical Practice Guidelines on Acute Lymphoblastic Leukemia in Adolescents and Young Adults, visit www.hematology.org/allguidelines.

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