

NCCN Continuing Education

Target Audience: This journal article is designed to meet the educational needs of oncologists, nurses, pharmacists, and other healthcare professionals who manage patients with cancer.

Accreditation Statements



In support of improving patient care, National Comprehensive Cancer Network (NCCN) is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physicians: NCCN designates this journal-based CME activity for a maximum of 1.0 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nurses: NCCN designates this educational activity for a maximum of 1.0 contact hour.

Pharmacists: NCCN designates this knowledge-based continuing education activity for 1.0 contact hour (0.1 CEUs) of continuing education credit. UAN: JA4008196-0000-26-006-H01-P

PA: NCCN has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This activity is designated for 1.0 AAPA Category 1 CME credit. Approval is valid

until June 10, 2027. PAs should only claim credit commensurate with the extent of their participation.

All clinicians completing this activity will be issued a certificate of participation. To participate in this journal CE activity: (1) review the educational content; (2) take the posttest with a 66% minimum passing score and complete the evaluation at <https://education.nccn.org/Jun2026>; and (3) view/print certificate.

Pharmacists: You must complete the posttest and evaluation within 30 days of the activity. Continuing pharmacy education credit is reported to the CPE Monitor once you have completed the posttest and evaluation and claimed your credits. Before completing these requirements, be sure your NCCN profile has been updated with your NAPB e-profile ID and date of birth. Your credit cannot be reported without this information. If you have any questions, please email education@nccn.org.

Release date: June 10, 2026; Expiration date: June 10, 2027

Learning Objectives:

Upon completion of this activity, participants will be able to:

- Integrate into professional practice the updates to the NCCN Guidelines for Acute Myeloid Leukemia
- Describe the rationale behind the decision-making process for developing the NCCN Guidelines for Acute Myeloid Leukemia

Disclosure of Relevant Financial Relationships

None of the planners for this educational activity have relevant financial relationship(s) to disclose with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

Individuals Who Provided Content Development and/or Authorship Assistance:

The faculty listed below have no relevant financial relationship(s) with ineligible companies to disclose.

Ajibola Awotiwon, MBBS, MSc, Associate Scientist/Medical Writer - Guidelines Digitization, NCCN

Sydney L. Roth, BS, Guidelines Layout Specialist, NCCN

Katie Stehman, PA-C, MMS, Oncology Scientist/Senior Medical Writer, NCCN

The faculty listed below have the following relevant financial relationship(s) with ineligible companies to disclose. All of the relevant financial relationships listed for these individuals have been mitigated.

Daniel A. Pollyea, MD, MS, Panel Chair, has disclosed receiving grant/research support from AbbVie, Inc., Bristol Myers Squibb, Karyopharm Therapeutics, and Teva Pharmaceutical Industries Ltd.; receiving consulting fees from Astellas Pharma US, Inc., BeiGene, Geron, Janssen Pharmaceutica Products, LP, Oncoverity, Inc., Servier Laboratories, and Taiho Pharmaceuticals Co., Ltd.; and serving as a scientific advisor for AbbVie, Inc., BiVictriX Therapeutics Limited, Bristol Myers Squibb, Karyopharm Therapeutics, Kura Oncology, Inc., MEI Pharma, Inc., Rigel Pharmaceuticals, Inc., RYVU Therapeutics, Sanofi, Sumitomo Pharma Co., Ltd., Syndax Pharmaceuticals, Inc., Syros Pharmaceuticals, and Treadwell Therapeutics.

Jessica K. Altman, MD, Panel Vice Chair, has disclosed receiving consulting fees from AbbVie, Inc., Ascentage Pharma, Astellas Pharma US, Inc., Genetix Biotherapeutics Inc. (formerly bluebird bio), CHARM Therapeutics Ltd, Curio Science, Daiichi Sankyo Company, Limited, Dark Blue Therapeutics, Genentech, Inc., GlycoMimetics, Inc., Johnson & Johnson, Kura Oncology, Inc., Omeros Corporation, Orum Therapeutics, Inc., Servier Laboratories, Stemline Therapeutics, Inc., Sumitomo Pharma Co., Ltd., and Syndax Pharmaceuticals, Inc.; and receiving honoraria from Astellas Pharma US, Inc. and Denali Oncology Group.

Alexander Perl, MD, Panel Member, has disclosed receiving grant/research support from AbbVie, Inc., Astellas Pharma US, Inc., Daiichi Sankyo Company, Limited, and Syndax Pharmaceuticals, Inc.; receiving consulting fees from Astellas Pharma US, Inc., Daiichi Sankyo Company, Limited, Foghorn Therapeutics, Inc., and Syndax Pharmaceuticals, Inc.; receiving honoraria from Astellas Pharma US, Inc., Daiichi Sankyo Company, Limited, and Syndax Pharmaceuticals, Inc.; and serving as a scientific advisor for AbbVie, Inc., Astellas Pharma US, Inc., Daiichi Sankyo Company, Limited, Johnson & Johnson, Kura Oncology, Inc., Stemline Therapeutics, Inc., and Syndax Pharmaceuticals, Inc.

To view disclosures of external relationships for the NCCN Guidelines Panel, go to [NCCN.org/guidelines/guidelines-panels-and-disclosure/disclosure-panels](https://www.nccn.org/guidelines/guidelines-panels-and-disclosure/disclosure-panels)

This activity is supported by educational grants from AstraZeneca, Johnson & Johnson, Lantheus, Lilly, Novartis, and Recordati Rare Diseases Inc. This activity is supported by an independent medical education grant from GSK. This activity is supported by a medical education grant from Exelixis, Inc.

Acute Myeloid Leukemia, Version 3.2026

Daniel A. Pollyea, MD, MS^{1,*}; Jessica K. Altman, MD^{2,*}; Rita Assi, MD³; Kimo Bachiasvili, MD, MPH⁴; Vijaya Raj Bhatt, MBBS, MS⁵; Amir T. Fathi, MD⁶; Kateryna Fedorov, MD⁷; James M. Foran, MD⁸; Ivana Gojo, MD⁹; Aaron Goldberg, MD, PhD¹⁰; Aric C. Hall, MD¹¹; Brian A. Jonas, MD, PhD¹²; Matthew R. Levine, MD¹³; James Mangan, MD, PhD¹⁴; Gabriel Mannis, MD¹⁵; Guido Marcucci, MD¹⁶; Alice Mims, MD, MS¹⁷; Kelsey Moriarty, MS, CGC¹⁸; Moaath Mustafa Ali, MD, MPH¹⁹; Jadee Neff, MD, PhD²⁰; Reza Nejati, MD²¹; Rebecca Olin, MD, MSCE²²; Anand Patel, MD²³; Mary-Elizabeth Percival, MD, MS²⁴; Alexander Perl, MD^{25,*}; Kristen Pettit, MD²⁶; Dinesh Rao, MD, PhD²⁷; Farhad Ravandi, MD²⁸; Zaker Schwabkey, MD²⁹; Rory Shallis, MD³⁰; Maximilian Stahl, MD³⁰; Richard M. Stone, MD³¹; Swapna Thota, MD³²; Geoffrey L. Uy, MD³³; Alison Walker, MD, MBA, MPH³⁴; Eunice Wang, MD³⁵; Ajibola Awotiwon, MBBS, MSc^{36,*}; Sydney L. Roth, BS^{36,*}; and Katie Stehman, PA-C, MMS^{36,*}

Abstract

Acute myeloid leukemia (AML) is a heterogeneous hematologic malignancy characterized by the clonal expansion of myeloid blasts in the peripheral blood, bone marrow, and/or other tissues. It is the most common form of acute leukemia among adults and accounts for the largest number of annual deaths from leukemias in the United States.¹ The NCCN Guidelines Panel for AML convenes annually to update recommendations for the diagnosis and treatment of AML in adults. These recommendations are based on a review of recently published clinical trials that have led to significant improvements in treatment or have yielded new information regarding biologic factors that may have prognostic importance. These NCCN Guidelines Insights summarize the panel's most recent recommendations regarding the monitoring and management of measurable (minimal) residual disease.

J Natl Compr Canc Netw 2026;24(6):222–229
doi:10.6004/jnccn.2026.0028

Overview

Measurable (minimal) residual disease (MRD) in acute myeloid leukemia (AML) refers to the presence of leukemic cells below the threshold of detection by conventional morphologic methods (see Figure 1). Patients who have achieved a complete remission (CR) by morphologic assessment alone can still harbor a large number of leukemic cells in the bone marrow (BM).² There is compelling evidence in both children and adults with AML that detectable MRD following achievement of CR is associated with an increased risk of relapse.³ After completion of therapy, “molecular relapses” can predict hematologic relapses within a 3- to 6-month timeframe.³

Role of MRD Monitoring

Although a morphologic assessment is a necessary step toward a durable response, or even sometimes a cure, MRD can persist. The threshold used to define MRD-positive and MRD-negative samples depends on the technique employed for assessment. There are commercially available tests that can be used for MRD assessment, as well as proprietary testing methods being performed at certain academic centers.

The most frequently used methods for MRD assessment are: (1) quantitative molecular assays, such as real-time quantitative PCR (RQ-PCR); and (2) multicolor flow cytometry (MFC) assays (see Figure 1). RQ-PCR amplifies and quantifies leukemia-associated genetic abnormalities. This has become a well-established practice for acute promyelocytic leukemia (APL),^{4,5} and these techniques have now expanded to include other AML subtypes, such as core-binding factor (CBF) AML and *NPM1*-mutated AML.⁶ RQ-PCR methods are not viable in all AML subtypes due to lack of suitable leukemia-specific molecular targets, such as AML-defining gene mutations or gene fusions, which is why flow cytometric profiling is helpful. Flow cytometry detects both different-from-normal (DFN) and leukemia-associated immunophenotypes (LAIPs) and can be used universally in AML regardless of subtype.^{7–9} Both methods have a higher sensitivity than conventional morphology. RQ-PCR has a sensitivity of 10^{–3} to 10^{–5}, whereas flow cytometry generally has a sensitivity of 10^{–3} to 10^{–4}. The challenges of incorporating these techniques into routine practice include sample quality requirements and lack of specific training and expertise in interpretation of flow cytometry MRD.

¹University of Colorado Cancer Center; ²Robert H. Lurie Comprehensive Cancer Center of Northwestern University; ³Indiana University Melvin and Bren Simon Comprehensive Cancer Center; ⁴O'Neil Comprehensive Cancer Center at UAB; ⁵Fred & Pamela Buffett Cancer Center; ⁶Mass General Cancer Center; ⁷Vanderbilt-Ingram Cancer Center; ⁸Mayo Clinic Comprehensive Cancer Center; ⁹Johns Hopkins Kimmel Cancer Center; ¹⁰Memorial Sloan Kettering Cancer Center; ¹¹University of Wisconsin Carbone Cancer Center; ¹²UC Davis Comprehensive Cancer Center; ¹³Patient Advocate; ¹⁴UC San Diego Moores Cancer Center; ¹⁵Stanford Cancer Institute; ¹⁶City of Hope National Medical Center; ¹⁷The Ohio State University Comprehensive Cancer Center - James Cancer Hospital and Solove Research Institute; ¹⁸UT Southwestern Simmons Comprehensive Cancer Center; ¹⁹Case Comprehensive Cancer Center/University Hospitals Seidman Cancer Center and Cleveland Clinic Taussig Cancer Institute; ²⁰Duke Cancer Institute; ²¹Fox Chase Cancer Center; ²²UCSF Helen Diller Family Comprehensive Cancer Center; ²³The UChicago Medicine Comprehensive Cancer Center; ²⁴Fred Hutchinson Cancer Center; ²⁵Abramson Cancer Center at the University of Pennsylvania; ²⁶University of Michigan Rogel Cancer Center; ²⁷UCLA Jonsson Comprehensive Cancer Center; ²⁸The University of Texas MD Anderson Cancer Center; ²⁹Huntsman Cancer Institute at the University of Utah; ³⁰Yale Cancer Center/Smilow Cancer Hospital; ³¹Dana-Farber/Brigham and Women's Cancer Center; ³²St. Jude Children's Research Hospital/The University of Tennessee Health Science Center; ³³Siteman Cancer Center at Barnes-Jewish Hospital and Washington University School of Medicine; ³⁴Moffitt Cancer Center; ³⁵Roswell Park Comprehensive Cancer Center; and ³⁶National Comprehensive Cancer Network.

*Provided content development and/or authorship assistance.

The full and most current version of these NCCN Guidelines is available at [NCCN.org](https://www.nccn.org).