

Acute Leukemias Update

Issue 1, 2019 (Video Program)

CME Information

TARGET AUDIENCE

This activity is intended for medical oncologists, hematologists-oncologists, hematology-oncology fellows and other healthcare providers involved in the treatment of hematologic cancers.

OVERVIEW OF ACTIVITY

The treatment of acute leukemias remains a challenge for many healthcare professionals and patients despite recent gains made in the management of this group of diseases. Determining which approach is most appropriate requires careful consideration of patient and disease characteristics, physician expertise and available health-system resources. Published results from ongoing trials continually lead to the emergence of new therapeutic targets and regimens, thereby altering management algorithms. In order to offer optimal patient care, including the option of clinical trial participation, the practicing medical oncologist must be well informed of these advances.

To bridge the gap between research and patient care, this issue of *Acute Leukemias Update* features one-on-one discussions with leading hematology-oncology investigators. By providing information on the latest clinical developments in the context of expert perspectives, this CME activity assists medical oncologists, hematologists and hematology-oncology fellows with the formulation of evidence-based and current therapeutic strategies.

LEARNING OBJECTIVES

- Appraise current data on recent therapeutic advances and changing practice standards, including FDA approvals, in acute forms of leukemia, and integrate this information into clinical care.
- Recognize the clinical and prognostic significance of specific cytogenetic and molecular abnormalities, and use this information to refine diagnostic algorithms for acute myeloid leukemia (AML).
- Consider patient age, performance status and other disease-related factors in the selection and sequencing of therapy for AML.
- Understand the biologic rationale for and early efficacy and toxicity data with the use of chimeric antigen receptor-directed T-cell therapy for patients with relapsed acute lymphoblastic leukemia, and, where appropriate, facilitate patient access to this approach.

- Identify the mechanisms of action, efficacy and side effects of newly approved and investigational agents demonstrating promising activity in acute forms of leukemia, and refer appropriately selected patients for participation in clinical trials evaluating these approaches.

ACCREDITATION STATEMENT

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Research To Practice designates this enduring material for a maximum of 2.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

AMERICAN BOARD OF INTERNAL MEDICINE (ABIM) — MAINTENANCE OF CERTIFICATION (MOC)

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 2.75 Medical Knowledge MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Please note, this program has been specifically designed for the following ABIM specialty: **medical oncology** and **hematology**.

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HOW TO USE THESE CME ACTIVITIES

This CME activity consists of a video component. To receive credit, the participant should review the CME information, watch the video, complete the Post-test with a score of 80% or better and fill out the Educational Assessment and Credit

Form located at [ResearchToPractice.com/AcuteLeukemiasUpdate119/Video/CME](https://www.researchtopractice.com/AcuteLeukemiasUpdate119/Video/CME). The corresponding audio program is available as an alternative at [ResearchToPractice.com/AcuteLeukemiasUpdate119](https://www.researchtopractice.com/AcuteLeukemiasUpdate119).

CONTENT VALIDATION AND DISCLOSURES

Research To Practice (RTP) is committed to providing its participants with high-quality, unbiased and state-of-the-art education. We assess conflicts of interest with faculty, planners and managers of CME activities. Conflicts of interest are identified and resolved through a conflict of interest resolution process. In addition, all activity content is reviewed by both a member of the RTP scientific staff and an external, independent physician reviewer for fair balance, scientific objectivity of studies referenced and patient care recommendations.

FACULTY — The following faculty (and their spouses/partners) reported relevant conflicts of interest, which have been resolved through a conflict of interest resolution process:

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Hardware/Software Requirements:

A high-speed Internet connection
A monitor set to 1280 x 1024 pixels or more
Internet Explorer 11 or later, Firefox 56 or later,
Chrome 61 or later, Safari 11 or later, Opera 48 or later
Adobe Flash Player 27 plug-in or later
Adobe Acrobat Reader
(Optional) Sound card and speakers for audio

Last review date: April 2019

Expiration date: April 2020

Select Publications

- Altman JK et al. **Deep molecular response to gilteritinib to improve survival in FLT3 mutation-positive relapsed/refractory acute myeloid leukemia.** *Proc ASCO 2017*;Abstract 7003.
- Amadori S et al. **Gemtuzumab ozogamicin versus best supportive care in older patients with newly diagnosed acute myeloid leukemia unsuitable for intensive chemotherapy: Results of the randomized phase III EORTC-GIMEMA AML-19 trial.** *J Clin Oncol* 2016;34(9):972-9.
- Boddu PC et al. **Characteristics and outcomes of older patients with secondary acute myeloid leukemia according to treatment approach.** *Cancer* 2017;123(16):3050-60.
- Cogle CR et al. **Factors influencing first-line therapy of acute myeloid leukemia (AML) patients (pts) in the Connect MDS/AML Disease Registry.** *Proc ASCO 2018*;Abstract 7037.
- Cortes JE et al. **Glasdegib in combination with cytarabine and daunorubicin in patients with AML or high-risk MDS: Phase 2 study results.** *Am J Hematol* 2018;93(11):1301-10.
- Cortes J et al. **Quizartinib, an FLT3 inhibitor, as monotherapy in patients with relapsed or refractory acute myeloid leukaemia: An open-label, multicentre, single-arm, phase 2 trial.** *Lancet Oncol* 2018;19(7):889-903.
- Davids MS et al. **Mitigation of tumor lysis syndrome (TLS) complications with venetoclax (VEN) in CLL.** *Proc ASCO 2018*;Abstract 7526.
- DiNardo CD et al. **Durable remissions with ivosidenib in IDH1-mutated relapsed or refractory AML.** *N Engl J Med* 2018;378(25):2386-98.
- DiNardo CD et al. **Durable response with venetoclax in combination with decitabine or azacitidine in elderly patients with acute myeloid leukemia (AML).** *Proc ASCO 2018*;Abstract 7010.
- DiNardo CD et al. **Safety and preliminary efficacy of venetoclax with decitabine or azacitidine in elderly patients with previously untreated acute myeloid leukaemia: A non-randomised, open-label, phase 1b study.** *Lancet Oncol* 2018;19(2):216-28.
- Jabbour E et al. **Salvage chemoimmunotherapy with inotuzumab ozogamicin combined with mini-hyper-CVD for patients with relapsed or refractory Philadelphia chromosome-negative acute lymphoblastic leukemia: A phase 2 clinical trial.** *JAMA Oncol* 2018;4(2):230-4.
- Kantarjian H et al. **Inotuzumab ozogamicin in combination with low-intensity chemotherapy for older patients with Philadelphia chromosome-negative acute lymphoblastic leukaemia: A single-arm, phase 2 study.** *Lancet Oncol* 2018;19(2):240-8.
- Kantarjian H et al. **Blinatumomab versus chemotherapy for advanced acute lymphoblastic leukemia.** *N Engl J Med* 2017;376(9):836-47.
- Lancet JE et al. **CPX-351 (cytarabine and daunorubicin) liposome for injection versus conventional cytarabine plus daunorubicin in older patients with newly diagnosed secondary acute myeloid leukemia.** *J Clin Oncol* 2018;36(26):2684-92.
- Perl AE et al. **Selective inhibition of FLT3 by gilteritinib in relapsed or refractory acute myeloid leukaemia: A multicentre, first-in-human, open-label, phase 1-2 study.** *Lancet Oncol* 2017;18(8):1061-75.
- Pollyea DA, Jordan CT. **Therapeutic targeting of acute myeloid leukemia stem cells.** *Blood* 2017;129(12):1627-35.
- Savona MR et al. **Phase 1b study of glasdegib, a hedgehog pathway inhibitor, in combination with standard chemotherapy in patients with AML or high-risk MDS.** *Clin Cancer Res* 2018;24(10):2294-303.
- Shah BD et al. **Outcomes of patients treated with prior blinatumomab in ZUMA-3: A study of KTE-C19, an anti-CD19 chimeric antigen receptor (CAR) T cell therapy, in adult patients with R/R ALL.** *Proc ASCO 2018*;Abstract 7006.
- Stein EM et al. **Molecular remission and response patterns in patients with mutant-*IDH2* acute myeloid leukemia treated with enasidenib.** *Blood* 2019;133(7):676-87.
- Stein EM et al. **Enasidenib in mutant *IDH2* relapsed or refractory acute myeloid leukemia.** *Blood* 2017;130(6):722-31.
- Stevens BM et al. **Characterization and targeting of malignant stem cells in patients with advanced myelodysplastic syndromes.** *Nat Commun* 2018;9(1):3694.
- Stone RM et al. **Midostaurin plus chemotherapy for acute myeloid leukemia with a FLT3 mutation.** *N Engl J Med* 2017;377(5):454-64.
- Zhu HH et al. **Oral arsenic plus retinoic acid versus intravenous arsenic plus retinoic acid for non-high-risk acute promyelocytic leukaemia: A non-inferiority, randomised phase 3 trial.** *Lancet Oncol* 2018;19(7):871-9.