Acute Leukemias Update

Issue 1, 2017 (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 treatment approach is most appropriate requires careful consideration of patient-specific 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 data on recent therapeutic advances and changing practice standards, including FDA approvals, in acute forms of leukemia, and integrate this information into current clinical care.
- Recognize the clinical and prognostic significance of specific cytogenetic and molecular abnormalities, and use this information in treatment decision-making for patients with acute forms of leukemia.
- Consider age, performance status and other disease-related factors in the identification of patients with acute lymphoblastic leukemia who are appropriate for targeted agents or chemotherapy.
- Counsel patients regarding the incidence and manifestation of side effects and toxicities associated with newly approved and investigational agents and regimens in the treatment of acute forms of leukemia.
- Identify the proposed mechanisms of action of and recall new data with investigational agents demonstrating promising activity in acute forms of leukemia, and refer appropriate patients for participation in ongoing trials evaluating these approaches.

ACCREDITATION STATEMENT

Research To Practice is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

CREDIT DESIGNATION STATEMENT

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**.

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HOW TO USE THIS CME ACTIVITY

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/AcuteLeukemiasUpdate117/Video/CME**. The corresponding audio program is available as an alternative at **ResearchToPractice.com/AcuteLeukemiasUpdate117**.

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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MODERATOR — **Dr Love** is president and CEO of Research To Practice, which receives funds in the form of educational grants to develop CME activities from the following commercial interests: AbbVie Inc, Acerta Pharma, Adaptive Biotechnologies, Agendia Inc, Agios Pharmaceuticals Inc, Amgen Inc, Ariad Pharmaceuticals Inc, Array BioPharma Inc, Astellas Pharma Global Development Inc, AstraZeneca Pharmaceuticals LP, Baxalta Inc, Bayer HealthCare Pharmaceuticals, Biodesix Inc, bioTheranostics Inc, Boehringer Ingelheim Pharmaceuticals Inc, Boston Biomedical Pharma Inc, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, CTI BioPharma Corp, Dendreon Pharmaceuticals Inc, Eisai Inc, Exelixis Inc, Foundation Medicine, Genentech BioOncology, Genomic Health Inc, Gilead Sciences Inc, Halozyme Inc, ImmunoGen Inc, Incyte Corporation, Infinity Pharmaceuticals Inc, Ipsen Biopharmaceuticals Inc, Janssen Biotech Inc, administered by Janssen Scientific Affairs LLC, Jazz Pharmaceuticals Inc, Kite Pharma Inc, Lexicon Pharmaceuticals Inc, Lilly, Medivation Inc, a Pfizer Company, Merck, Merrimack Pharmaceuticals Inc, Myriad Genetic Laboratories Inc, NanoString Technologies, Natera Inc, Novartis, Novocure, Onyx Pharmaceuticals, an Amgen subsidiary, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, Prometheus Laboratories Inc, Puma Biotechnology Inc, Regeneron Pharmaceuticals Inc, Sanofi Genzyme, Seattle Genetics, Sigma-Tau Pharmaceuticals Inc, Sirtex Medical Ltd, Spectrum Pharmaceuticals Inc, Taiho Oncology Inc, Takeda Oncology, Tesaro Inc, Teva Oncology and Tokai Pharmaceuticals Inc.

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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: November 2017

Expiration date: November 2018

Select Publications

A phase II study of the aurora A kinase inhibitor alisertib in combination with 7 + 3 induction chemotherapy in patients with high-risk acute myeloid leukemia. NCT02560025

A phase III randomized trial of blinatumomab for newly diagnosed BCR-ABL-negative B lineage acute lymphoblastic leukemia in adults. NCT02003222

A phase III trial to evaluate the efficacy of the addition of inotuzumab ozogamicin (a conjugated anti-CD22 monoclonal antibody) to frontline therapy in young adults (ages 18-39 years) with newly diagnosed precursor B-cell ALL. NCT03150693

A phase 3 open-label, multicenter, randomized study of ASP2215 versus salvage chemotherapy in patients with relapsed or refractory acute myeloid leukemia (AML) with FLT3 mutation. NCT02421939

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**.

Brunner AM et al. **Cytogenetic evolution between diagnosis and relapse and impact on acute myeloid leukemia (AML) reinduction outcomes.** *Proc ASCO* 2017;**Abstract 18509**.

Castaigne S et al; Acute Leukemia French Association. **Effect of gemtuzumab ozogamicin on survival of adult patients with de-novo acute myeloid leukaemia (ALFA-0701): A randomised, open-label, phase 3 study.** *Lancet* 2012;379(9825):1508-16.

Cortes J et al. **A phase 2 randomized study of low dose Ara-C with or without glasdegib (PF-04449913) in untreated patients with acute myeloid leukemia or high-risk myelodysplastic syndrome.** *Proc ASH* 2016;**Abstract 99**.

DeAngelo DJ et al. **Evolving therapies in acute myeloid leukemia: Progress at last?** *Am Soc Clin Oncol Educ Book* 2016;35:e302-12.

Fathi AT et al. **Phase I study of the aurora A kinase inhibitor alisertib with induction chemotherapy in patients with acute myeloid leukemia.** *Haematologica* 2017;102(4):719-27.

Fedorov VD et al. **The approach to acute lymphoblastic leukemia in older patients: Conventional treatments and emerging therapies.** *Curr Hematol Malig Rep* 2016;11(3):165-74.

Kantarjian HM et al. **Inotuzumab ozogamicin versus standard therapy for acute lymphoblastic leukemia.** *N Engl J Med* 2016;375(8):740-53.

Lancet J et al. **Final results of a phase III randomized trial of CPX-351 versus 7 + 3 in older patients with newly diagnosed high risk (secondary) AML.** *Proc ASCO* 2016;**Abstract 7000**.

Levis MJ et al. **Final results of a phase 2 open-label monotherapy efficacy and safety study of quizartinib (AC220) in patients with FLT3-ITD positive or negative relapsed/refractory acute myeloid leukemia after second-line chemotherapy or hematopoietic stem cell transplantation.** *Proc ASH* 2012;**Abstract 673**.

Medeiros BC et al. **Isocitrate dehydrogenase mutations in myeloid malignancies.** *Leukemia* 2017;31(2):272-81.

Ravandi F et al. **Phase 2 study of azacytidine plus sorafenib in patients with acute myeloid leukemia and FLT-3 internal tandem duplication mutation.** *Blood* 2013;121(23):4655-62.

Stock W et al. **What determines the outcomes for adolescents and young adults with acute lymphoblastic leukemia treated on cooperative group protocols? A comparison of Children's Cancer Group and Cancer and Leukemia Group B studies.** *Blood* 2008;112(5):1646-54.

Stone RM et al. **Midostaurin plus chemotherapy for acute myeloid leukemia with a FLT3 mutation.** *N Engl J Med* 2017;377(5):454-64.

Stone RM et al. **The multi-kinase inhibitor midostaurin (M) prolongs survival compared with placebo (P) in combination with daunorubicin (D)/cytarabine (C) induction (ind), high-dose C consolidation (consol), and as maintenance (maint) therapy in newly diagnosed acute myeloid leukemia (AML) patients (pts) age 18-60 with FLT3 mutations (muts): An international prospective randomized (rand), P-controlled double-blind trial (CALGB 10603/RATIFY [Alliance]).** *Proc ASH* 2015;**Abstract 6**.

Vrooman et al. **Postinduction dexamethasone and individualized dosing of escherichia coli L-asparaginase each improve outcome of children and adolescents with newly diagnosed acute lymphoblastic leukemia: Results from a randomized study—Dana-Farber Cancer Institute ALL Consortium Protocol 00-01.** *J Clin Oncol* 2013;31(9):1202-10.

Wang ES et al. **CASCADE: A phase 3, randomized, double-blind study of vadastuximab talirine (33A) versus placebo in combination with azacitidine or decitabine in the treatment of older patients with newly diagnosed acute myeloid leukemia (AML).** *Proc ASCO* 2017;**Abstract TPS7066**.