# Oncology Grand Rounds

## *Nurse and Physician Investigators Discuss New Agents, Novel Therapies and Actual Cases from Practice*

## Part 5: Acute Leukemias

## CNE Information

### TARGET AUDIENCE

This activity has been designed to meet the educational needs of oncology nurses, nurse practitioners and clinical nurse specialists involved in the treatment of acute leukemias.

### OVERVIEW OF ACTIVITY

The pace of oncology drug development has accelerated in recent years to previously unmatched levels. Fueled by an increased understanding of the biologic underpinnings of tumor development and progression, clinical research platforms largely focused on evaluating the potential benefits of novel targeted therapeutics possessing unique mechanisms of action and safety profiles have led to improved outcomes in myriad large and rigorous clinical trials across many different tumor types. The successes yielded by this rational approach to the design and evaluation of new therapies have in turn provided oncology healthcare professionals and patients with many additional beneficial FDA-endorsed treatment options. Of interest, although this rapid emergence of new agents appears to be prevalent in many different corners of oncology, recent advancements in the field of acute leukemias are particularly pronounced.

Although medical oncologists have been routinely responsible for counseling patients with regard to therapeutic decision-making, oncology nurses play an integral role in the successful delivery of systemic anticancer therapy and the preservation of patient physical and psychosocial well-being. These video proceedings from the fifth part of a 6-part integrated CNE curriculum originally held at the 2018 ONS Annual Congress feature discussions with leading hematologic oncology investigators and their nursing counterparts regarding actual patient cases and recent clinical research findings affecting the optimal therapeutic and supportive care for each patient scenario.

### PURPOSE STATEMENT

By providing information on the latest research developments in the context of expert perspectives, this CNE activity will assist oncology nurses, nurse practitioners and clinical nurse specialists with the formulation of state-of-the-art clinical management strategies to facilitate optimal care of patients with acute leukemias.

### LEARNING OBJECTIVES

- Assess available research evidence with approved and emerging FLT3 inhibitors, and use this information to guide clinical care and protocol opportunities for appropriate patients with acute myelogenous leukemia (AML).
- Develop an understanding of the mechanism of action, available data and current and potential role of available and investigational IDH1/2 inhibitors for patients with relapsed/refractory AML and IDH1/2 mutations.
- Recognize the recent FDA approval of CPX-351 for newly diagnosed therapy-related AML or AML with myelodysplasia-related changes, and discern how this agent can be optimally integrated into nonresearch care algorithms for these patients.
- Apply the results of clinical research on existing (CAR-T therapy, blinatumomab, inotuzumab ozogamicin) and emerging agents to optimize the clinical and supportive care of patients with newly diagnosed and recurrent acute lymphocytic leukemia.
- Educate patients about the side effects associated with existing and recently approved therapies, and provide preventive strategies to reduce or ameliorate these toxicities.

### ACCREDITATION STATEMENT

Research To Practice (RTP) is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's (ANCC) Commission on Accreditation.

### CREDIT DESIGNATION STATEMENTS

This educational activity for 1.7 contact hours is provided by RTP during the period of July 2018 through July 2019.

This activity is awarded 1.7 ANCC pharmacotherapeutic contact hours.

### ONCOLOGY NURSING CERTIFICATION CORPORATION (ONCC)/INDIVIDUAL LEARNING NEEDS ASSESSMENT (ILNA) CERTIFICATION INFORMATION

The program content has been reviewed by the ONCC and is acceptable for recertification points. To review certification qualifications, please visit **ResearchToPractice.com/ONS2018/ILNA**.

ONCC review is only for designating content to be used for recertification points and is not for CNE accreditation. CNE programs must be formally approved for contact hours by an acceptable accreditor/approver of nursing CE to be used for recertification by ONCC. If the CNE provider fails to obtain formal approval to award contact hours by an acceptable accrediting/approval body, no information related to ONCC recertification may be used in relation to the program.

## FOR SUCCESSFUL COMPLETION

This is a video CNE program. To receive credit, participants should read the learning objectives and faculty disclosures, 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/ONSLeukemia2018/CNE**.

## CONTENT VALIDATION AND DISCLOSURES

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 CNE 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 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. Research To Practice receives funds in the form of educational grants to develop CME/CNE activities from the following commercial interests: AbbVie Inc, Acerta Pharma — A member of the AstraZeneca Group, 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

**Release date:** July 2018

**Expiration date:** July 2019

There is no implied or real endorsement of any product by RTP or the American Nurses Credentialing Center.

## Select Publications


Bargou R et al. **Tumor regression in cancer patients by very low doses of a T cell-engaging antibody.** *Science* 2008;321(5891):974-7.

Castaigne S et al. **Final analysis of the ALFA 0701 study.** *Blood* 2014;124(21):376.

Chou WC et al. **The prognostic impact and stability of Isocitrate dehydrogenase 2 mutation in adult patients with acute myeloid leukemia.** *Leukemia* 2011;25(2):246-53.

Dang L et al. **IDH mutations in glioma and acute myeloid leukemia.** *Trends Mol Med* 2010;16(9):387-97.

Davids MS, Letai A. **ABT-199: Taking dead aim at BCL-2.** *Cancer Cell* 2013;23(2):139-41.

DiNardo CD et al. **Ivosidenib (AG-120) in mutant IDH1 AML and advanced hematologic malignancies: Results of a phase 1 dose escalation and expansion study.** *Proc ASH* 2017;**Abstract 725**.

Griffith J et al. **The structural basis for autoinhibition of FLT3 by the juxtamembrane domain.** *Mol Cell* 2004;13(2):169-78.

Hills R et al. **Quizartinib and bridge to transplant in FLT3-ITD AML patients after failure of salvage chemotherapy: A historical comparison with UK National Cancer Research Institute (NCRI) data.** *Proc EHA* 2017;**Abstract S475**.

Jabbour E et al. **Inotuzumab ozogamycin (I0), a CD22 monoclonal antibody conjugated to calecheamicin, given weekly, for refractory-relapse acute lymphocytic leukemia (R-R ALL).** *Proc ASCO* 2012;**Abstract 6501**.

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

Kolitz JE et al. **Efficacy by consolidation administration site: Subgroup analysis of a phase III study of CPX-351 versus 7+3 in older adults with newly diagnosed, high-risk acute myeloid leukemia (AML).** *Proc ASCO* 2017;**Abstract 7036**.

Lancet JE et al. **Overall survival (OS) with CPX-351 versus 7+3 in older adults with newly diagnosed, therapy-related acute myeloid leukemia (tAML): Subgroup analysis of a phase III study.** *Proc ASCO* 2017;**Abstract 7035**.

Lancet JE et al. **CPX-351 versus cytarabine (CYT) and daunorubicin (DNR) therapy in newly diagnosed AML patients age 60-75: Safety and efficacy in secondary AML (sAML).** *Proc ASCO* 2011;**Abstract 6519**.

Levis M. **FLT3 mutations in acute myeloid leukemia: What is the best approach in 2013?** *Hematology Am Soc Hematol Educ Program* 2013;2013(1):220-6.

Litzow MR. **More flitting about FLT3.** *Blood* 2005;106:3331-2.

Maude SL et al. **Tisagenlecleucel in children and young adults with B-cell lymphoblastic leukemia.** *N Engl J Med* 2018;378(5):439-48.

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

Neelapu SS et al. **Chimeric antigen receptor T-cell therapy — assessment and management of toxicities.** *Nat Rev Clin Oncol* 2018;15(1):47-62.

Patel JP et al. **Prognostic relevance of integrated genetic profiling in acute myeloid leukemia.** *N Engl J Med* 2012;366(12):1079-89.

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 et al. **Venetoclax (ven) with azacitidine (aza) for untreated elderly acute myeloid leukemia (AML) patients (pts) unfit for induction chemotherapy: Single center clinical experience and mechanistic insights from correlative studies.** *Proc ASH* 2017;**Abstract 181**.

Pratz K et al. **Preliminary results from a phase 1 study of gilteritinib in combination with induction and consolidation chemotherapy in subjects with newly diagnosed acute myeloid leukemia (AML).** *Proc ASH* 2017;**Abstract 722**.

Pratz KW et al. **FLT3-mutant allelic burden and clinical status are predictive of response to FLT3 inhibitors in AML.** *Blood* 2010;115(7):1425-32.

Scheuermann RH, Racila E. **CD19 antigen in leukemia and lymphoma diagnosis and immunotherapy.** *Leuk Lymphoma* 1995;18(5-6):385-97.

Small D. **FLT3 mutations: Biology and treatment.** *Hematology Am Soc Hematol Educ Program* 2006;2006(1):178-84.

Stein EM et al. **Enasidenib in mutant *IDH2* relapsed or refractory acute myeloid leukemia.** *Blood* 2017;130(6):722-31.

## Select Publications


Stock W et al. **Favorable outcomes for older adolescents and young adults (AYA) with acute lymphoblastic leukemia (ALL): Early results of US Intergroup trial C10403.** *Proc ASH* 2014;**Abstract 796**.

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

Swords R et al. **Targeting the FMS-like tyrosine kinase 3 in acute myeloid leukemia.** *Leukemia* 2012;26(10):2176-85.

Warren M et al. **Clinical impact of change of FLT3 mutation status in acute myeloid leukemia patients.** *Mod Pathol* 2012;25(10):1405-12.