TREATMENT UPDATE:

Blood Cancers

CANCER*CARE* CONNECT® BOOKLET SERIES

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This special edition of the Cancer*Care* Connect® Booklet Series highlights cutting-edge research presented at the 2020 Annual Meeting of the American Society of Hematology, which took place December 5-8 as a virtual event.

Some of the treatments discussed are still in the very early stages of research and may not be available to the general public outside of a clinical trial.

The information contained in this e-booklet is intended for discussion with your doctor. They can let you know whether these advances in the treatment of blood cancers affect your treatment plan and whether a clinical trial is right for you.

The Cancer*Care* Connect® Booklet Series offers up-to-date, easy-to-read information on the latest treatments, managing side effects and coping with cancer.

Founded in 1944, Cancer*Care*® is the leading national organization providing free, professional support services and information to help people manage the emotional, practical and financial challenges of cancer. Our comprehensive services include case management, counseling and support groups over the phone, online and in person, educational workshops, publications and financial and co-payment assistance. All Cancer*Care* services are provided by master's-prepared oncology social workers.

Cancer*Care* relies on the generosity of supporters to provide our services completely free of charge to anyone facing a cancer diagnosis. If you have found this resource helpful and wish to donate, please do so online at www.cancercare.org/donate. You may also mail a check, payable to Cancer*Care*, to Cancer*Care*, Attn: Donations, 275 Seventh Avenue, New York, NY 10001. Thank you.

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Treatment Update: Blood Cancers

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All people depicted in the photographs in this booklet are models, used for illustrative purposes only.

How To Use This Booklet

Each year, Cancer*Care* publishes a special edition of the Cancer*Care* Connect Booklet Series that presents research highlights from the Annual Meeting of the American Society of Hematology. The information contained in these pages is intended for discussion with your doctor. They can tell you whether these advances in cancer treatment affect your treatment plan and whether a clinical trial is right for you.

Some of the treatments discussed in this booklet are still in the very early stages of research and may not be available to the general public outside of a clinical trial. The advances in treatment that have come about are because of the many people who have taken part in such studies. If current drugs or other types of cancer treatment no longer benefit you, you may wish to explore joining a clinical trial. The members of your health care team will help you fully understand the possible risks and benefits involved.

On page 21 you will find a list of resources, including websites where you can search for a clinical trial. If your particular type of cancer is not discussed in this booklet and you wish to take part in a study, these websites can help.

About the Editors

In compiling this report, we used content from the Cancer*Care* Connect Education Workshop titled "Updates from the 2020 American Society of Hematology (ASH) Annual Meeting" held on December 10, 2020. We are indebted to the following individuals who were featured on this workshop:

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The Importance of Clinical Trials

Clinical trials are the standard by which we measure the worth of new treatments and the quality of life of patients as they receive those treatments. For this reason, doctors and researchers urge people with cancer to take part in clinical trials.

Your doctor can guide you in making a decision about whether a clinical trial is right for you. Here are a few things that you should know:

- Often, people who take part in clinical trials gain access to and benefit from new treatments.
- Before you participate in a clinical trial, you will be fully informed of the risks and benefits of the trial, including any possible side effects.
- Many clinical trials are designed to test a new treatment against a standard treatment to find out whether the new treatment has any added benefit.
- Participation is voluntary and does not affect your access to treatment in other settings. You can stop taking part in a clinical trial at any time for any reason.

When considering participation in a clinical trial, it's important to consult with your primary care physician and your oncologist and make sure that all of your questions are answered.

This is a very exciting time in cancer research, and there are clinical trials underway to study newer treatment approaches, such as immunotherapy and targeted therapy. In immunotherapy, the immune system's ability to seek out and destroy cancer cells is enhanced. Targeted therapies are designed to target the specific cell mechanisms that are important for the growth and survival of tumor cells.

Leukemia

Researchers reported a number of important findings in the treatment of leukemia at the 2020 Annual Meeting of the American Society of Hematology:

- **The investigational drug magrolimab continues to demonstrate effectiveness in the treatment of previously untreated acute myeloid leukemia (AML), including cases with the TP53 mutation** (page 7).
- **An analysis of an ongoing trial showed the investigational drug flotetuzumab had antileukemic effects in people with AML who did not respond to initial therapy** (page 7).
- **Treatment-free remission may be possible for people with chronic lymphocytic leukemia (CLL)who achieve undetectable minimal residual disease after treatment with ibrutinib and venetoclax** (page 8).
- **Results from a phase I/II trial showed an encouraging safety and efficacy profile for LOXO-35 in the treatment of pre-treated CLL and small lymphocytic lymphoma** (page 8).
- **A phase III trial showed the investigational drug asciminib to be more effective than standard-of-care therapy for recurrent chronic myelogenous leukemia (CML) with the Philadelphia chromosomal abnormality** (page 9).

Investigational drug magrolimab shows effectiveness in treating AML

In an ongoing phase Ib trial, the investigational drug magrolimab demonstrated high response rates in people with previously untreated acute myeloid leukemia (AML), including those whose AML had the TP53 mutation. The study participants were ineligible for intensive chemotherapy.

Additionally, the trial continued to show high response rates when magrolimab is given in combination with the hypomethylating agent azacitidine, a type of chemotherapy that affects certain genes within cells.

What Patients Need to Know

Magrolimab is a monoclonal antibody, which are lab-generated proteins that target specific tumor antigens (substances that the immune system sees as being foreign or dangerous).

Analysis shows flotetuzumab has antileukemic effects in treatment of AML

An updated analysis of an ongoing phase I/II trial found the investigational drug flotetuzumab countered the effects of leukemia in people with acute myeloid leukemia (AML) who failed to respond to initial therapy.

What Patients Need to Know

A receptor called CD123 is overexpressed (too high) on AML cells. Flotetuzumab redirects T-cells (a type of white blood cell) to destroy tumor cells that express CD123.

Treatment-free remission in CLL possible if undetectable MRD achieved

Results from the phase II CAPTIVATE trial suggested that treatment-free remission may be feasible for people with chronic lymphocytic leukemia (CLL) who achieved undetectable minimal residual disease (MRD) after first-line treatment with a combination of the kinase inhibitor ibrutinib and the targeted therapy venetoclax.

What Patients Need to Know

In CLL, undetectable MRD means there are no detectable cancer cells in the body after treatment.

Encouraging results from BRUIN trial in treatment of CLL and SLL

Data from the phase I/II BRUIN trial showed that the investigational drug LOXO-305 has an encouraging safety and efficacy (effectiveness) profile in the treatment of heavily pre-treated chronic lymphocytic leukemia (CLL) and small lymphocytic lymphoma (SLL).

What Patients Need to Know

LOXO-305 is a BTK-inhibitor, a type of targeted therapy. Other BTK-inhibitors, such as ibrutinib and acalabrutinib, are approved by the FDA as a treatment for CLL, alone or in combination with immunotherapy.

Asciminib more effective than standard-of-care regimen in certain cases of CML

Results from the phase III ASCEMBL trial showed that the investigational drug asciminib was nearly twice as effective as the standard-of-care treatment regimen for chronic-phase, recurrent CML that has the Philadelphia (Ph) chromosomal abnormality.

What Patients Need to Know

Asciminib is a type of targeted therapy called a tyrosine kinase inhibitor (TKI), designed to target specific cell mechanisms that fuel the growth and survival of tumor cells. Asciminib targets a different part of leukemia cells than other TKIs used in the treatment of CLL.

Lymphoma

Researchers reported a number of important findings in the treatment of lymphoma at the 2020 Annual Meeting of the American Society of Hematology:

- **In a phase II study, axicabtagene ciloleucel demonstrated clinical benefit as a first-line treatment for patients with high-risk large B-cell lymphoma** (page 11).

- **A retrospective study indicated that allogeneic hematopoietic stem cell transplant may be curative for some people with T-cell lymphoma** (page 12).

- **The addition of azacitidine to the CHOP regimen demonstrated promising antitumor activity among patients with previously untreated peripheral T-cell lymphoma** (page 12).

- **The final analysis of a phase III trial showed that adding romidepsin to the CHOP regimen failed to improve outcomes among patients with previously untreated peripheral T-cell lymphoma** (page 13).

Axicabtagene ciloleucel shows benefit in treatment of high-risk LBCL

According to results from the phase II ZUMA-12 study, axicabtagene ciloleucel demonstrated significant clinical benefit as a first-line treatment for patients with high-risk large B-cell lymphoma (LBCL).

Axicabtagene ciloleucel is a chimeric antigen receptor (CAR) used in CAR T-cell therapy.

What Patients Need to Know

CAR T-cell therapy follows a specific process:

- Blood is drawn from the patient via an intravenous catheter.
- T-cells are isolated from the rest of the blood.
- The T-cells are genetically re-engineered by adding a chimeric antigen receptor to their surface.
- The modified T-cells are expanded to number in the hundreds of millions infused back into the patient where they target and destroy cancer cells.

Stem cell transplant may be curative in some cases of TCL

The results of a retrospective study suggested that an allogeneic hematopoietic stem cell transplant may provide a cure for some people with T-cell lymphoma (TCL) that has relapsed (recurred) or is refractory (not responding to treatment).

What Patients Need to Know

A stem cell transplant (also called a bone marrow transplant) is a procedure in which diseased bone marrow is replaced with healthy bone marrow. In an allogeneic hematopoietic stem cell transplant, the stem cells are from a donor (either a close relative or a donor from a registry).

Addition of azacitidine to CHOP regimen shows promise in treatment of PTCL

According to the results of a phase II trial, the addition of azacitidine to the CHOP regimen demonstrated promising antitumor activity among patients with previously untreated peripheral T-cell lymphoma (PTCL).

What Patients Need to Know

Azacitidine is a hypomethylating agent, a type of chemotherapy that affects certain genes within cells. CHOP is a regimen consisting of the chemotherapy drugs cyclophosphamide, doxorubicin and vincristine, and the steroid prednisone.

Addition of romidepsin to CHOP regimen does not improve outcomes in PTCL

The final analysis of phase III trial showed that the addition of romidepsin to cyclophosphamide, doxorubicin, vincristine and prednisone (CHOP) failed to improve outcomes compared to CHOP alone among patients with previously untreated peripheral T-cell lymphoma (PTCL).

What Patients Need to Know

Romidepsin is a chemotherapy used to treat cutaneous T-cell lymphoma (CTCL) as well as PTCL.

Multiple Myeloma

Researchers reported a number of important findings in the treatment of multiple myeloma at the 2020 Annual Meeting of the American Society of Hematology:

- **Belantamab mafodotin achieved clinical benefit in the treatment of heavily pre-treated relapsed or refractory multiple myeloma** (page 14).
- **Early results from the DREAMM-6 trial suggested that a combination treatment provided benefit in relapsed or refractory multiple myeloma** (page 14).
- **The FDA has granted a Priority Review to the investigational drug melflufen for the treatment of multiple myeloma that has not responded to certain treatment regimens** (page 16).
- **A phase III trial showed adding daratumumab to standard-of-care regimens improves outcomes in people with multiple myeloma** (page 16).

DREAMM-2 trial shows benefit of belantamab mafodotin in heavily pre-treated multiple myeloma

An analysis of the DREAMM-2 trial showed that belantamab mafodotin achieved clinical benefit in the treatment of heavily pre-treated relapsed (recurred) or refractory (not responding to treatment) multiple myeloma.

The trial participants had received seven or more prior therapies.

What Patients Need to Know

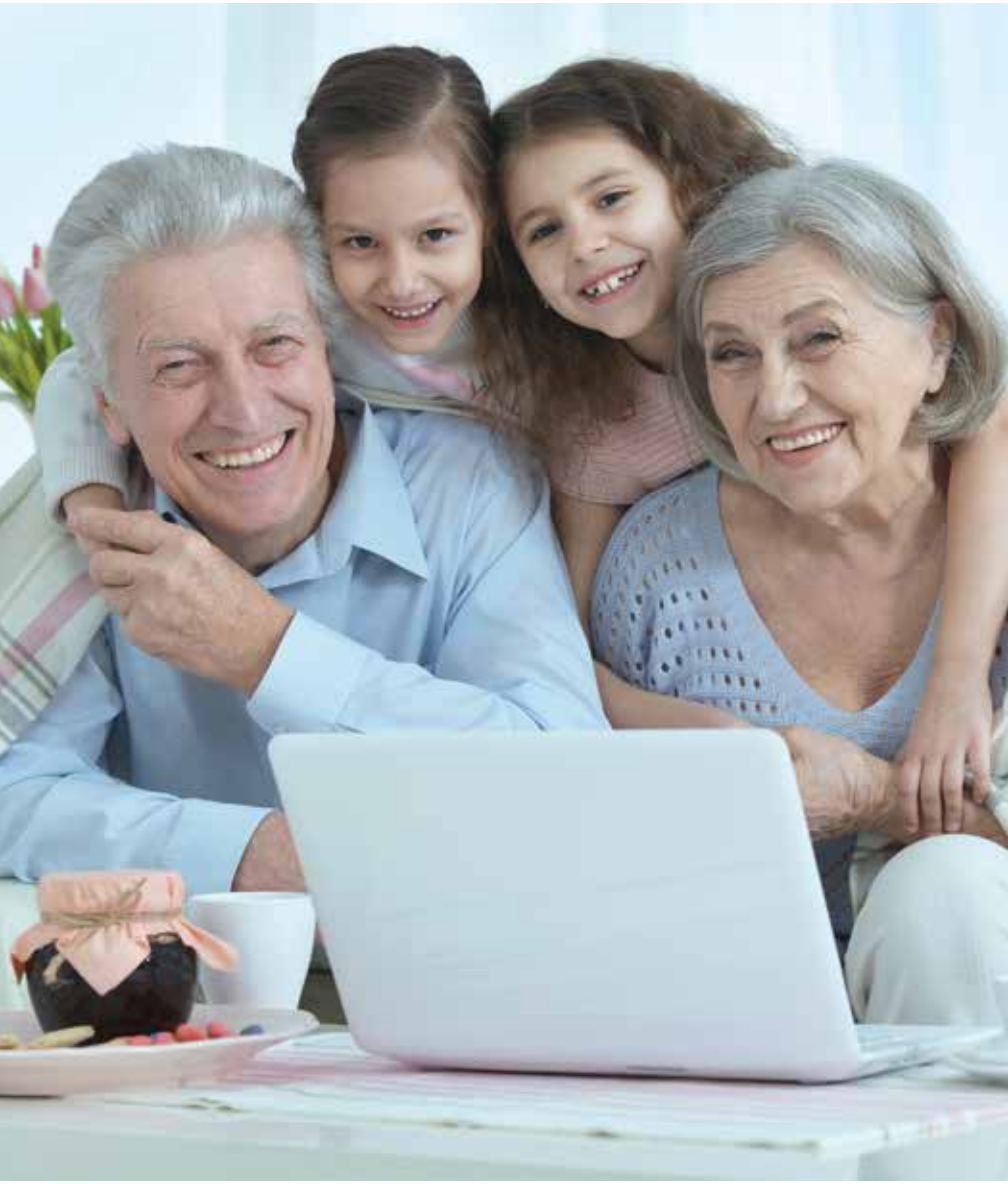
Belantamab mafodotin is an antibody-drug conjugate (ADC). ADCs link a chemotherapy with a monoclonal antibody, a form of immunotherapy.

Early trial data show benefit of combination therapy in relapsed/refractory multiple myeloma

Early data from the DREAMM-6 trial suggested that the combination of belantamab mafodotin with bortezomib and dexamethasone provided benefit in patients with multiple myeloma that had relapsed or become refractory after one or more lines of treatment.

What Patients Need to Know

Belantamab mafodotin is an antibody-drug conjugate, bortezomib is a targeted therapy and dexamethasone is a corticosteroid.



Investigational drug granted Priority Review for treatment of refractory multiple myeloma

Results from the phase II HORIZON trial demonstrated that the investigational drug melflufen, in combination with the corticosteroid dexamethasone, has potential for treating relapsed or refractory multiple myeloma.

Melflufen, which is given intravenously, is a type of targeted therapy called a peptide-drug conjugate.

What Patients Need to Know

Based on the results from the trial, the FDA has granted a Priority Review to melflufen for the treatment of multiple myeloma that is refractory after certain treatment regimens. A Priority Review designation means the FDA's goal is to take action on an application within six months.

Adding daratumumab to standard-of-care regimens improves outcomes in multiple myeloma

Updated data from the phase III APOLLO trial showed that adding daratumumab to standard-of-care regimens improves outcomes in people with multiple myeloma. Daratumumab, an immunotherapy, is administered via a subcutaneous (under the skin) injection.

What Patients Need to Know

A significant improvement in progression-free survival was seen when daratumumab was added to the combination of pomalidomide and dexamethasone.

Myeloproliferative Neoplasms

Researchers reported a number of important findings in the treatment of myeloproliferative neoplasms (MPNs) at the 2020 Annual Meeting of the American Society of Hematology:

- **The addition of navitoclax to ruxolitinib improved symptoms in the treatment of relapsed/refractory myelofibrosis** (page 18).
- **A phase II trial showed a higher dose of imetelstat has benefit in the treatment of relapsed/refractory myelofibrosis** (page 18).
- **The investigational drug CP-0610 showed benefit, in combination with ruxolitinib, as a treatment approach for myelofibrosis** (page 19).
- **The growing importance of interferon-alpha in the treatment of polycythemia vera has been shown in a number of studies** (page 19).

Adding navitoclax to ruxolitinib improves symptoms in MF

Results from a phase II clinical trial showed the addition of navitoclax to the JAK inhibitor ruxolitinib reduced symptoms and spleen enlargement in the treatment of relapsed (recurred) or refractory (not responding to treatment) myelofibrosis (MF).

What Patients Need to Know

Navitoclax is an inhibitor of BCLXL, BCL2 and BCLW, proteins which can prevent apoptosis (a process that eliminates damaged, potentially dangerous cells).

Higher dose of imetelstat has benefit in the treatment of MF

Results from the phase II IMBARK trial showed that a higher dose of imetelstat has benefit in the treatment of myelofibrosis that has relapsed or is refractory after treatment with a JAK inhibitor. Imetelstat, administered intravenously, is a type of targeted therapy called a telomerase inhibitor.

What Patients Need to Know

The higher dose of imetelstat resulted in an improvement in symptoms and a reduction of spleen enlargement.

Investigational drug, in combination with ruxolitinib, shows benefit in the treatment of MF

According to the MANIFEST trial, the investigational drug CPI-0610 reduces spleen enlargement and improves symptoms in previously untreated myelofibrosis when added to the JAK inhibitor ruxolitinib. Ruxolitinib is the only drug currently approved by the FDA for the treatment of MF.

What Patients Need to Know

CPI-0610 is a BET inhibitor. Previous studies have shown that BET inhibitors constrain the growth and survival of tumor cells.

Studies show benefit of interferon-alpha in the treatment of PV

A number of studies have shown the growing importance of interferon-alpha in the treatment of polycythemia vera (PV). Benefits include long-term disease control and possible avoidance of disease progression.

What Patients Need to Know

Interferon alfa stimulates T-cells (a type of white blood cell) and other immune system cells to attack cancer cells.

Resources

CancerCare®
800-813-HOPE (800-813-4673)
www.cancercare.org

American Cancer Society
800-227-2345
www.cancer.org

Be the Match® Patient Services
800-627-7692
www.bethematch.org

Blood & Marrow Transplant Information Network
888-597-7674
www.bmtinfonet.org

The Bone Marrow Foundation
800-365-1336
www.bonemarrow.org

Cancer.Net
Patient information from the American Society of Clinical Oncology
888-651-3038
www.cancer.net

CLINICAL TRIALS WEBSITES

EmergingMed
www.emergingmed.com

National Cancer Institute
www.cancer.gov

Cancer Support Community
888-793-9355
www.cancersupportcommunity.org

Leukemia & Lymphoma Society
800-955-4572
www.lls.org

Leukemia Research Foundation
847-424-0600
www.allbloodcancers.org

Lymphoma Research Foundation
800-500-9976
www.lymphoma.org

National Bone Marrow Transplant Link
800-546-5268
www.nbmtlink.org

National Cancer Institute
800-422-6237
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