




THE FUTURE OF AML TREATMENT: WHAT'S NEXT?

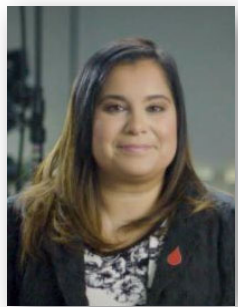
Rory Shallis, MD
Associate Professor, Medicine (Hematology)
Yale Cancer Center and Smilow Cancer
Hospital
New Haven, CT

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WELCOMING REMARKS

THE FUTURE OF AML TREATMENT: WHAT'S NEXT?



Lizette Figueroa-Rivera, MA
Sr. Director, Education & Support
The Leukemia & Lymphoma Society



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FACULTY
THE FUTURE OF AML TREATMENT: WHAT'S NEXT?



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The Future of AML Treatment: What's Next?

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Disclosures

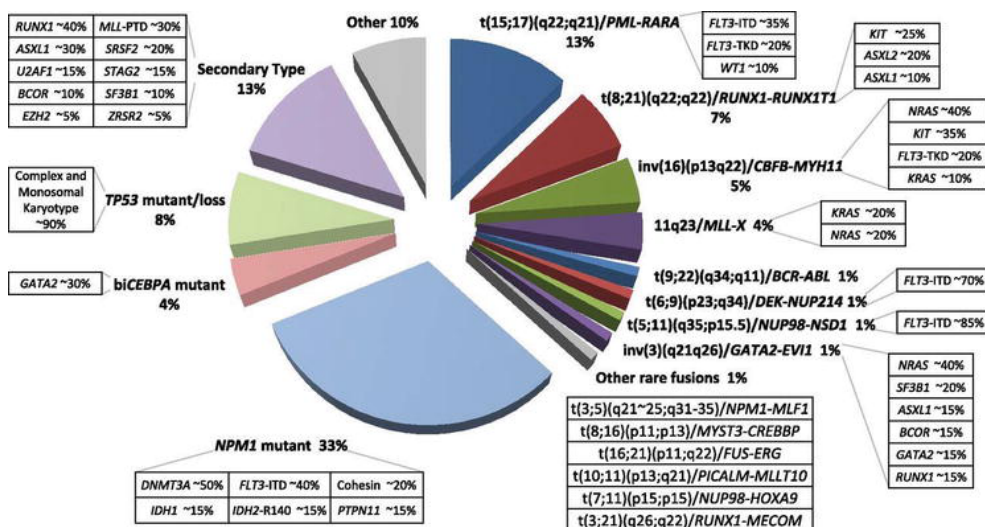
- Served in a consulting or advisory role for Bristol Myers Squibb, Curio Science, Gilead Sciences Inc, Kura Oncology, Servier Pharmaceuticals, and Rigel
- Served on a steering committee for Servier Pharmaceuticals

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Not all AML is the same



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Döhner et al. *Blood*. 2017;129(4):424-447.



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Not every person is the same

Increasing age \implies decreasing tolerance

- ↓ marrow stem cell or “parent” cell reserve
- ↑ chance of having other medical issues
- ↓ chemotherapy clearance

Increasing age \implies increasingly harder to treat AML

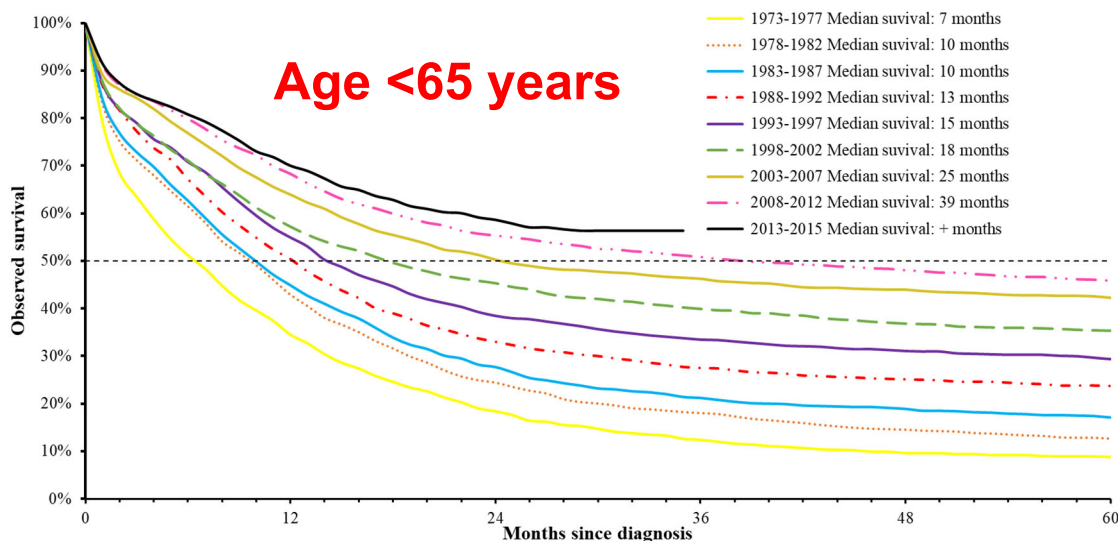
- ↑ chance of more stubborn AML biology
- ↑ chance of other blood disease before the AML
- ↑ expression of drug resistance proteins

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Two individuals with AML are not the same

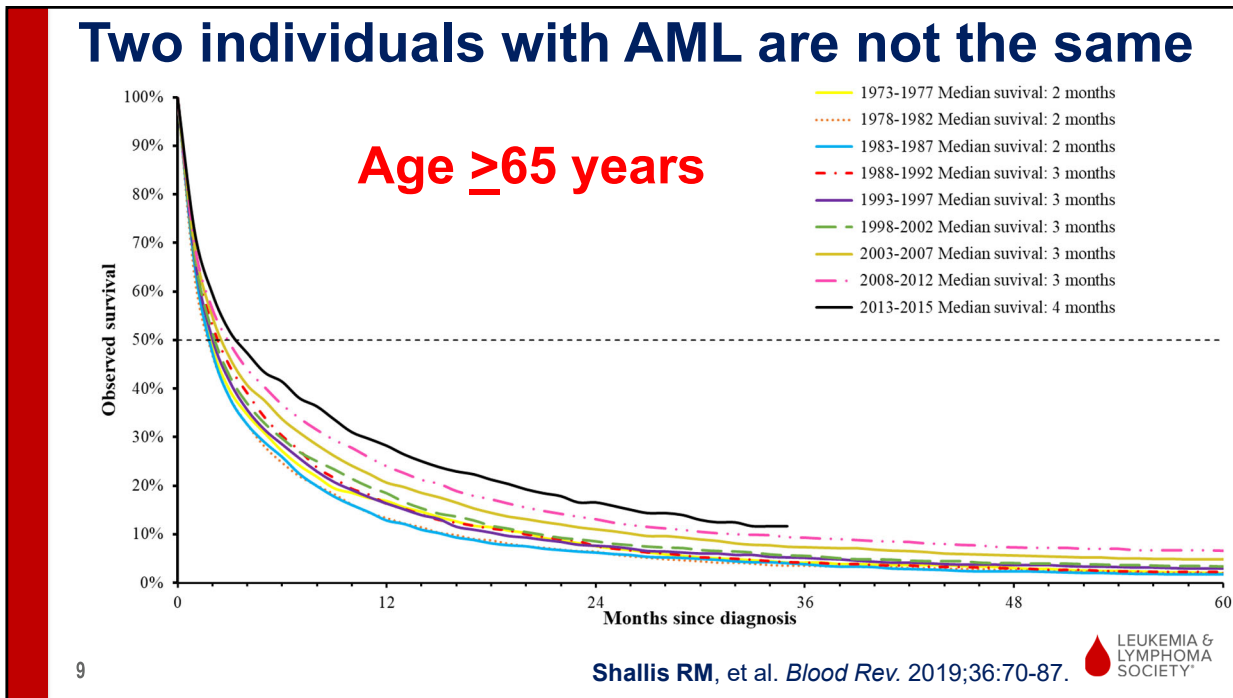


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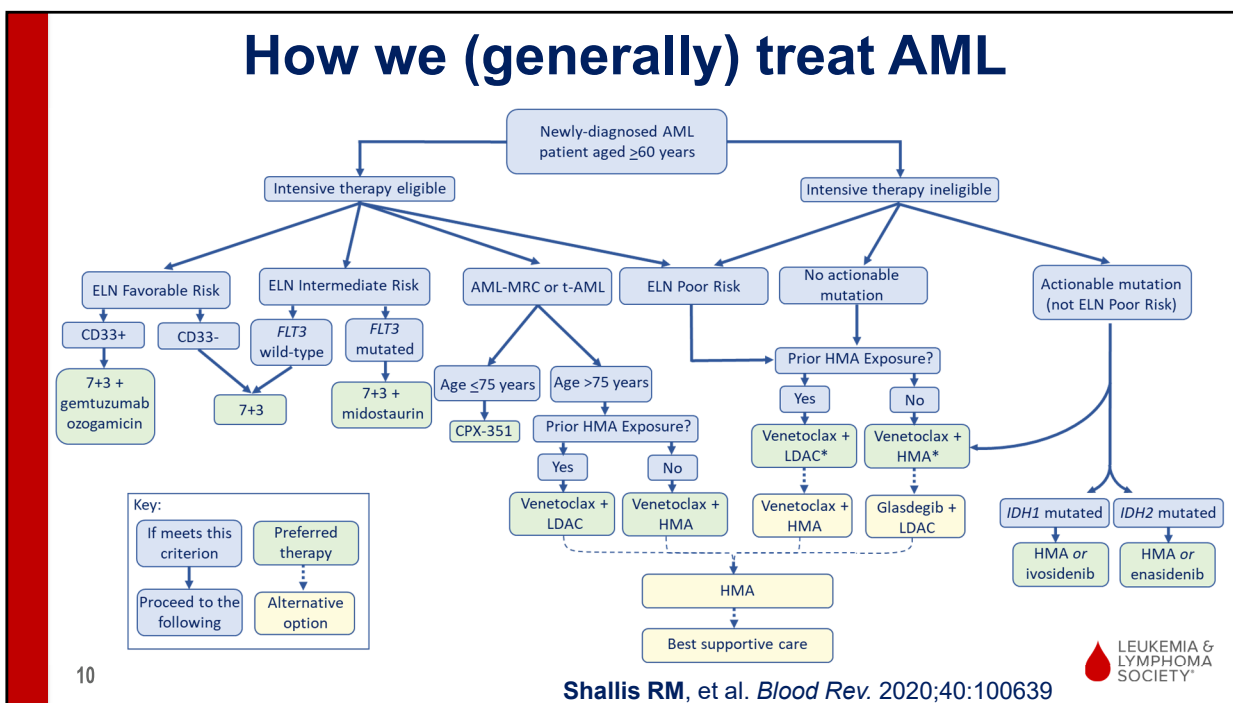
Shallis RM, et al. *Blood Rev.* 2019;36:70-87.



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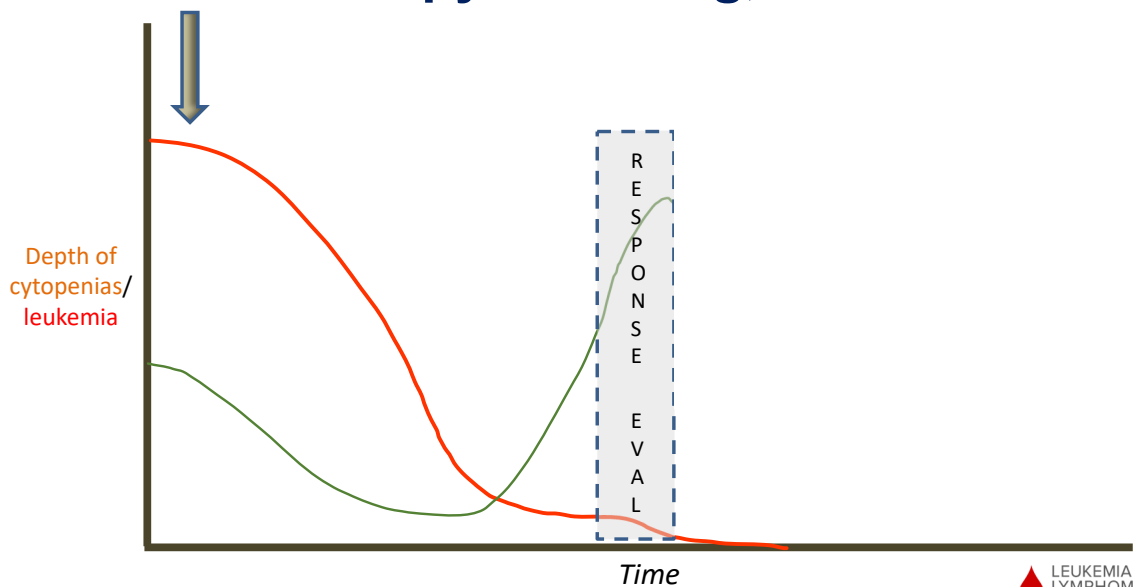
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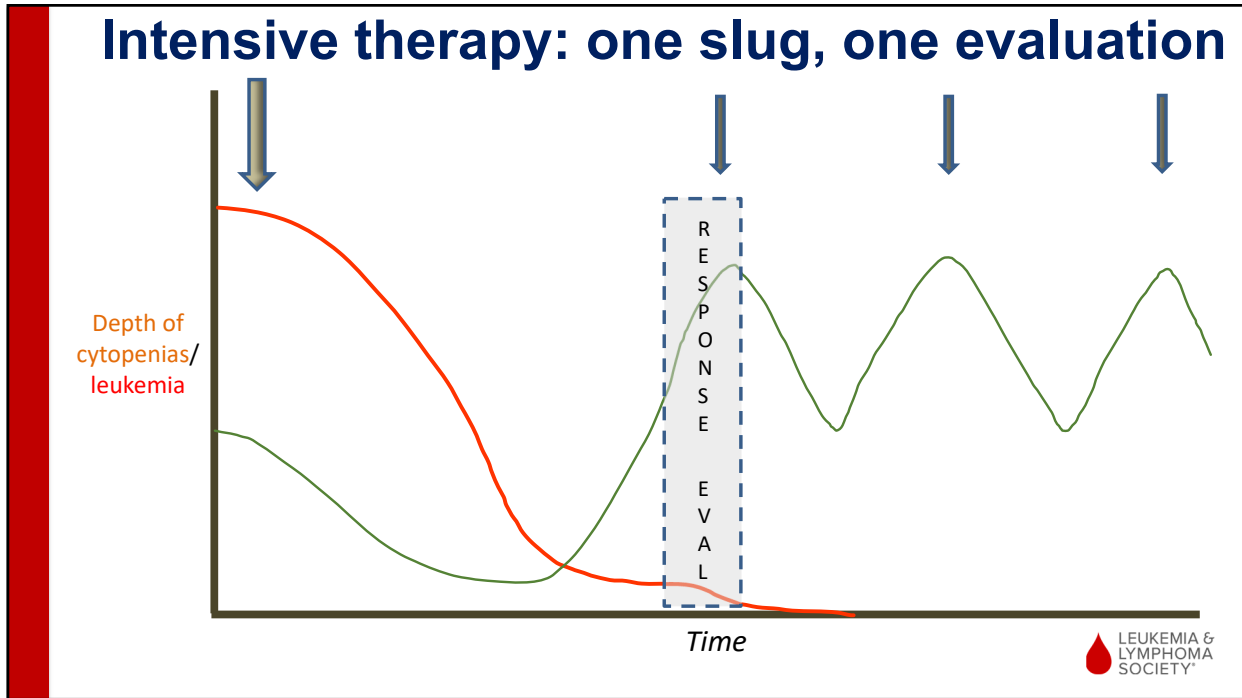
Intensive therapy: one slug, one evaluation

- Low blood counts \longrightarrow infection (30-50%), transfusion-dependence
- Organ strain and injury
- “Early” mortality 10-20%
- Prolonged admission
- Await count recovery, typically ~4 weeks before committing to response marrow

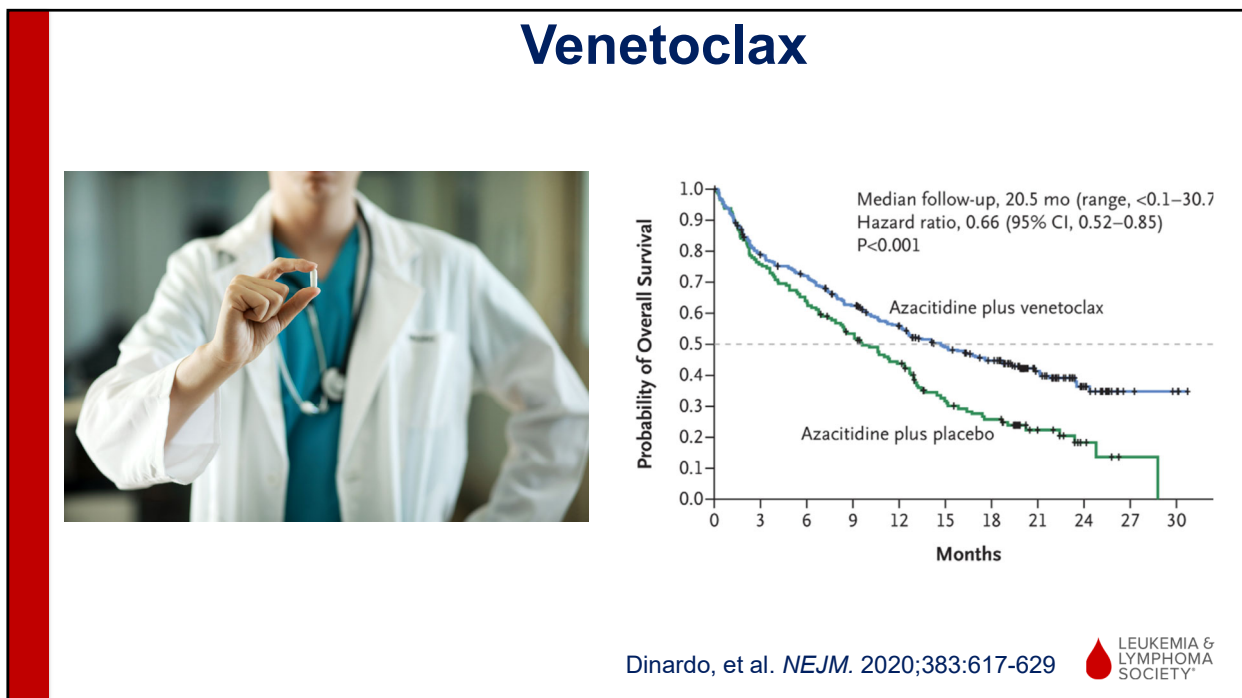


Intensive therapy: one slug, one evaluation

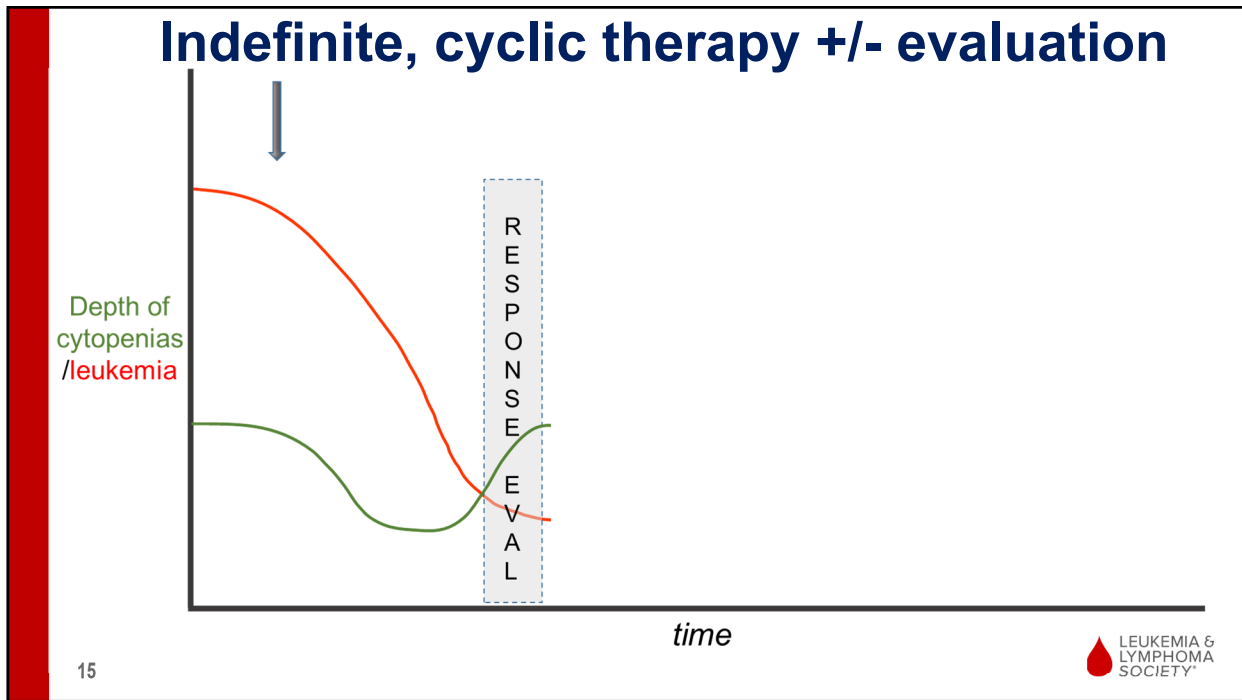




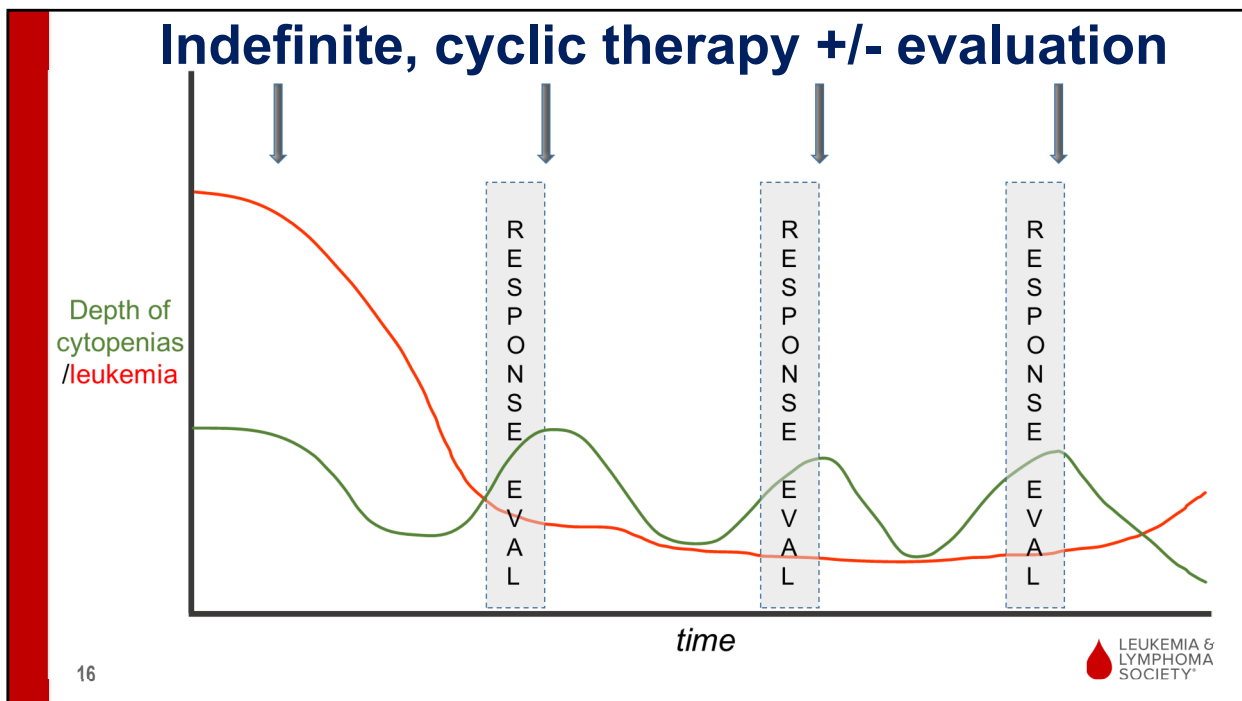
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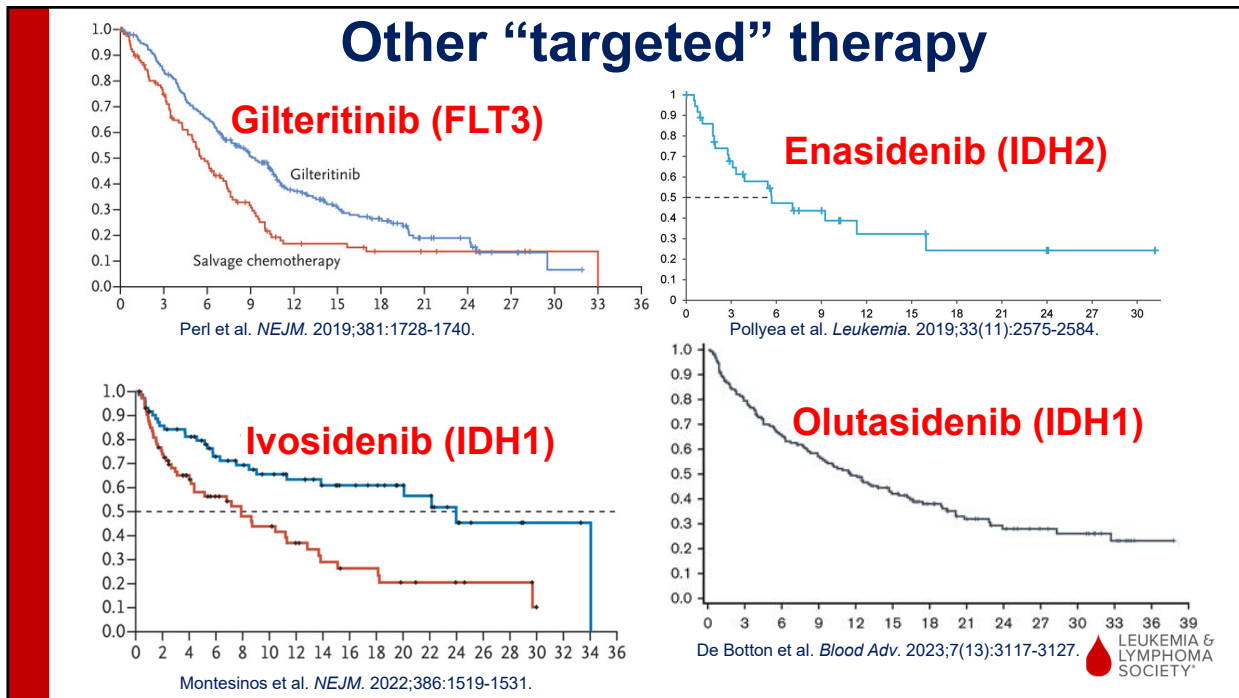
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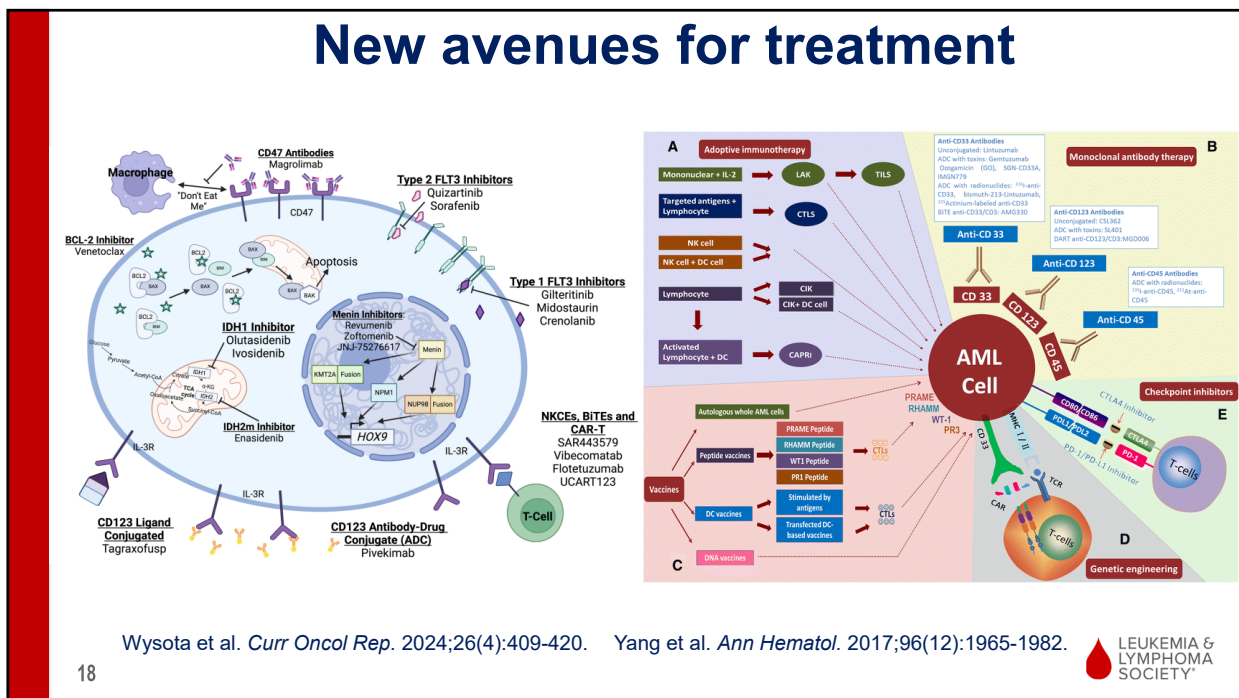
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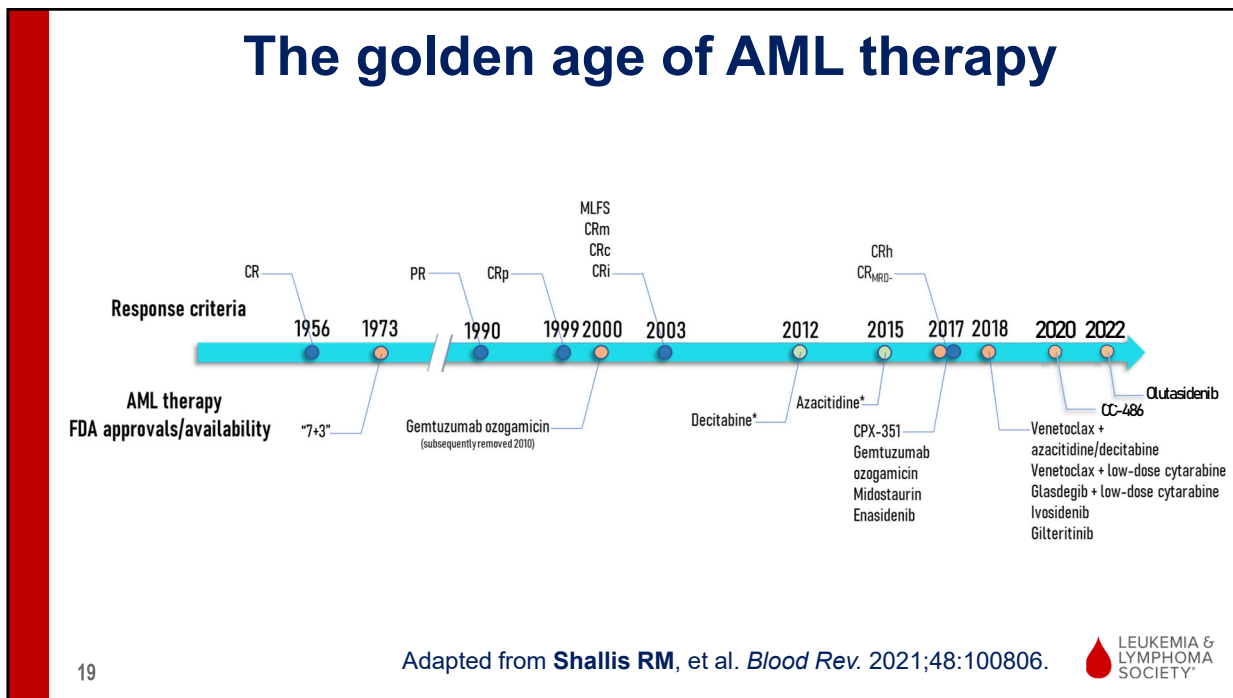
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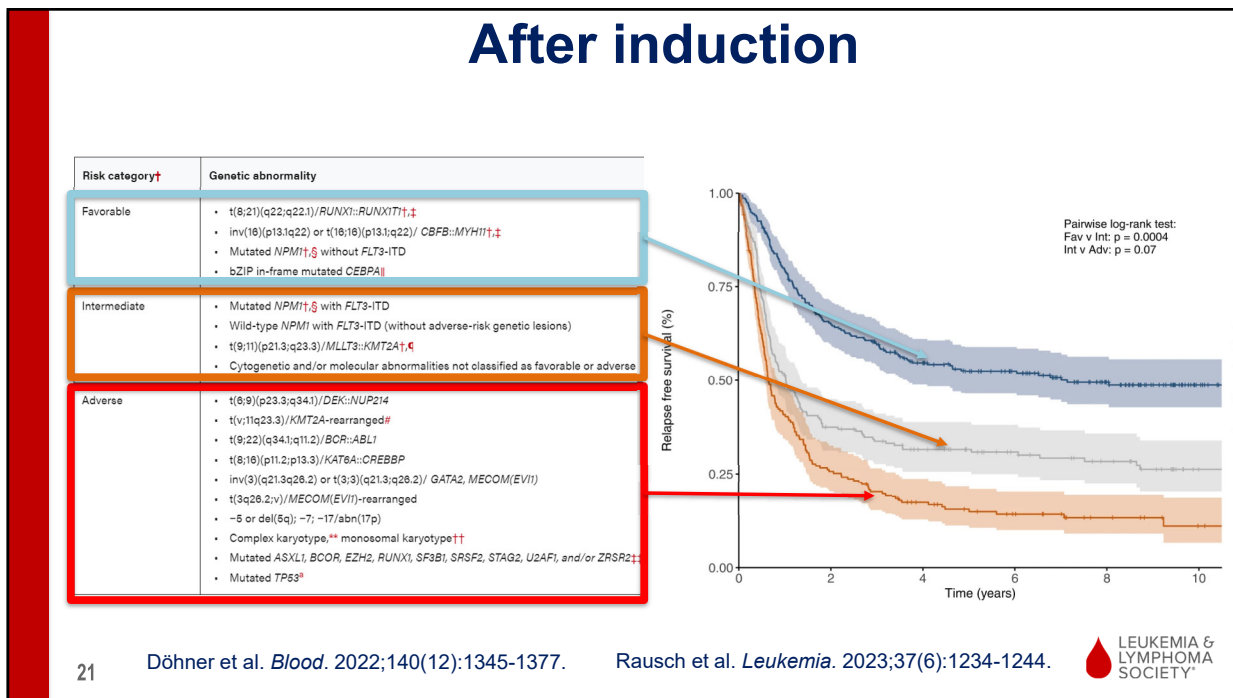
Clinical trials/research

- Why consider?
- Am I eligible? **Start the conversation!**
- Informed consent
- Commonly asked questions
 - What if I get placebo?
 - What are the costs?
 - What if I want to stop?





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Transplantation

Allogeneic Stem Cell Transplantation

1 Collection of Donor Cells
Blood is collected from the donor's blood or bone marrow* or from an umbilical cord†. Blood is taken from a vein in the patient's arm.
*Bone marrow is removed under sterile conditions in an operating room while the donor is under general anesthesia. This type of collection is done less often.
†Blood is collected from an umbilical cord immediately after birth. The donated cord blood is tested, frozen and stored as a cord blood unit at a public cord blood bank for future use.

2 Processing
The donor's blood is processed through a machine that removes the stem cells. The rest of the blood is then returned to the donor.

3 Conditioning and Treatment
The patient receives high-dose chemotherapy with or without radiation therapy to kill remaining cancer cells and to weaken the immune system. This helps keep the body from rejecting the donated cells after the transplant.

4 Infusion into Patient
The donor stem cells are put back into the patient through a special tube called a catheter that is placed into a blood vessel. The stem cells travel to the bone marrow and begin to produce new blood cells.

LLS Bone and Marrow Stem Cell Transplantation Guide

- Allogeneic hematopoietic/marrow stem cells
- Eligibility
 - Disease control
 - Patient health
 - Suitable donor
 - Caregiver support
- Conditioning therapy (chemo- +/- RT)
- Low blood counts and infection risk
- ~50% rate of graft-versus-host disease (GvHD)
- Nutrition, exercise, and personal care important

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You're not alone: Meet your care team

- Hematologist/hematologic oncologist +/- transplant specialist
- APRN, Physician Assistant
- Oncology nurse(s)
- Oncology pharmacist(s)
- Palliative Care team members
- Nutritionist/dietician
- Social worker
- Physical/occupational therapist
- Psychologist/psychiatrist
- Spiritual care specialist
- Research team members



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Side effects and how they're addressed

- Biochemical abnormalities (e.g. electrolytes)
- Low blood counts
 - Infections
 - Bleeding
 - Transfusions



- **Close monitoring of blood work**
- **Transfusions as needed**
- **Antibiotic "prophylaxis"**
- **Myeloid growth factor**
- **Regular engagement with your care team**

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Side effects and how they're addressed

- Biochemical abnormalities (e.g. electrolytes)
- Low blood counts
 - Infections
 - Bleeding
 - Transfusions
- Nausea



Prevention is the goal!

- Several classes of anti-nausea medications
- Can be used in combination, staggered fashion
- Palliative Care an extra layer of support

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Side effects and how they're addressed

- Biochemical abnormalities (e.g. electrolytes)
- Low blood counts
 - Infections
 - Bleeding
 - Transfusions
- Nausea
- Hair thinning/loss



- Usually grows back after treatment ends; may be different
- Consider a short hair cut
- Save a lock of hair to match a wig should you choose

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Side effects and how they're addressed

- Biochemical abnormalities (e.g. electrolytes)
- Low blood counts
 - Infections
 - Bleeding
 - Transfusions
- Nausea
- Hair thinning/loss
- Emotional distress



- **Talk to your healthcare team**
- **Do not isolate yourself; connect with others**
- **Palliative Care an extra layer of support**

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Side effects and how they're addressed

- Biochemical abnormalities (e.g. electrolytes)
- Low blood counts
 - Infections
 - Bleeding
 - Transfusions
- Nausea
- Hair thinning/loss
- Emotional distress
- Fatigue and loss of appetite



- **Talk with your team – can sometimes find physical reasons**
- **Addressing inactivity, sleep habits, stress, pain, nutrition**
- **Medications available, but not often the right “fix”**

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You need to tell your team about...

- Fever
- Distress (e.g. emotional, symptom, sleep)

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You need to tell your team about...

- Fever
- Distress (e.g. emotional, symptom, sleep)
- Anything that is going into your body + not known to your team
 - Turmeric
 - Green tea extract
 - Ginkgo biloba
 - St. John's Wort
 - Antioxidants, supplements, herbal products
 - Anything and everything else...

Bring a list!

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You need to tell your team about...

- Fever
 - Distress (e.g. emotional, symptom, sleep)
 - Anything that is going into your body + not known to your team
 - Turmeric
 - Green tea extract
 - Ginkgo biloba
 - St. John's Wort
 - Antioxidants, supplements, herbal products
 - Anything and everything else...
 - Anything you do not understand
- Bring a notebook or another set of ears!**

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The honest questions

- Second opinion(s)
- "What happens if I do nothing?"
- "What haven't I asked?"



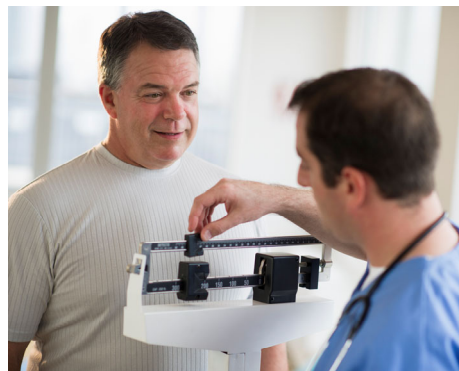
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Survivorship

- Patients are cancer survivors from time of diagnosis until death
- Late and sometimes long-term effects
- Psychosocial aspects of care
- Getting plugged back into “regular” medical care
 - Preventative care
 - Other cancer screening



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THANK YOU

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ASK A QUESTION THE FUTURE OF AML TREATMENT: WHAT'S NEXT?

Ask a question by phone:
Press star (*) then the number 1 on your keypad.

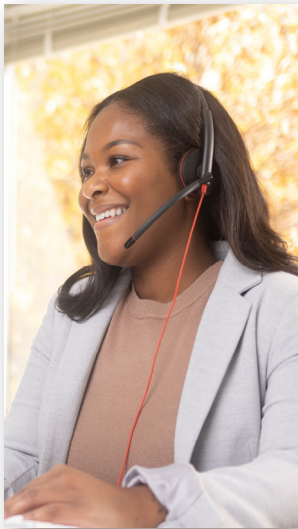
Ask a question by web:
Click "Ask a question"
Type your question
Click "Submit"

Due to time constraints, we can only take one question per person. Once you've asked your question, the operator will transfer you back into the audience line.



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LLS EDUCATION & SUPPORT RESOURCES



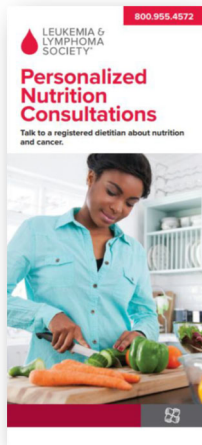
HOW TO CONTACT US:

To contact an **Information Specialist** about disease, treatment and support information, resources and clinical trials:
www.LLS.org/InformationSpecialists

Call: (800) 955-4572
Monday to Friday, 9 a.m. to 9 p.m. ET
Chat live online: www.LLS.org/InformationSpecialists
Monday to Friday, 10 a.m. to 7 p.m. ET
Email: www.LLS.org/ContactUs
All email messages are answered within one business day.


CLINICAL TRIAL SUPPORT CENTER

Work one-on-one with an LLS Clinical Trial Nurse Navigator who will help you find clinical trials and personally assist you throughout the entire clinical-trial process.
www.LLS.org/Navigation



NUTRITION CONSULTATIONS

Our registered dietitian has expertise in oncology nutrition and provides free one-on-one consultations by phone or email.
www.LLSNutrition.org



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LLS EDUCATION & SUPPORT RESOURCES

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877.557.2672

Help With Finances

The Leukemia & Lymphoma Society (LLS) offers financial assistance* to help individuals with blood cancer.

The **LLS Patient Aid** Program provides financial assistance to blood cancer patients in active treatment. Eligible patients will receive a \$100 stipend. Visit www.LLS.org/PatientAid

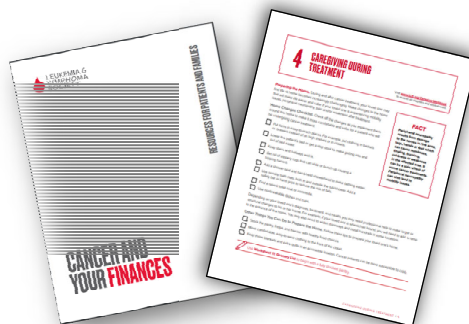
The **Urgent Need** Program, established in partnership with Mopple's Love, helps pediatric and young adult blood cancer patients, or adult blood cancer patients who are enrolled in clinical trials, with acute financial need. The program provides a \$500 grant to assist with non-medical expenses, including utilities, rent, mortgage, food, lodging, dental care, child care, elder care, and other essential needs. Visit www.LLS.org/UrgentNeed

The **Susan Lang Pay-It-Forward Patient Travel Assistance** Program provides blood cancer patients a \$500 grant to assist with transportation and lodging-related expenses. Visit www.LLS.org/Travel

The **Co-Pay Assistance** Program offers financial support toward the cost of insurance co-payments and/or insurance premiums for prescription drugs. Visit www.LLS.org/Copay

*Funding for LLS Co-Pay Assistance Program is provided by pharmaceutical companies. Funding for other LLS financial assistance programs is provided by donations from individual donors, companies, and LLS campaigns.

The Leukemia & Lymphoma Society (LLS) offers the following financial assistance programs to help individuals with blood cancers:
www.LLS.org/Finances

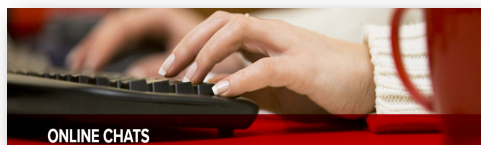


To order free materials: www.LLS.org/Booklets



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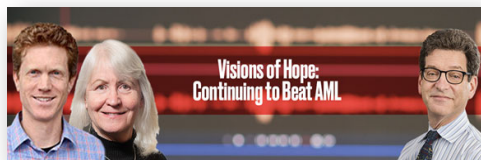
Online Chats

Online Chats are free, live sessions, moderated by oncology social workers. To register for one of the chats below, or for more information, please visit www.LLS.org/Chat



Education Videos

View our free education videos on disease, treatment, and survivorship. To view all patient videos, please visit www.LLS.org/EducationVideos



Patient Podcast

The Bloodline with LLS is here to remind you that after a diagnosis comes hope. To listen to an episode, please visit www.TheBloodline.org



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THANK YOU

PLEASE PROVIDE US WITH FEEDBACK,
CLICK FOR SURVEY:



We have one goal: A world without blood cancers

