

Management of Long Term Survivors of Hematological Malignancies

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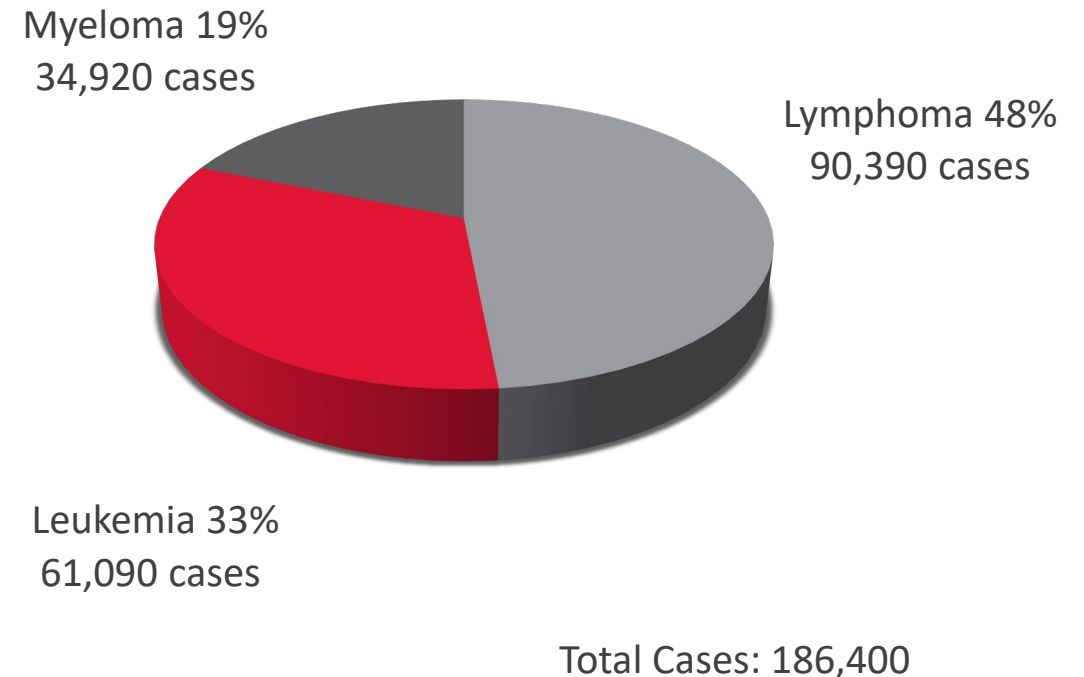
Survivorship begins at diagnosis

- As of January 2022, it is estimated that there are 18.1 million cancer survivors in the United States. This represents approximately 5.4% of the population.^{[1](#)}
- Over the next decade, the number of people who have lived 5 or more years after their cancer diagnosis is projected to increase approximately 30%, to 16.3 million.^{[1](#)}
- The number of cancer survivors is projected to increase by 24.4%, to 22.5 million, by 2032.^{[1](#)}

Blood cancer in the United States

- New cases diagnosed every 3 minutes
- An estimated 1,519,907 people in active treatment or remission for leukemia, lymphoma, myeloma and myelodysplastic syndromes.

Estimated New Cases (%) of Leukemia, Lymphoma and Myeloma, 2021



The Survivors

- Survivor at diagnosis
- Leukemia-4x
- Lymphoma->2x
- MDS- minimal data prior to 2010
- No data prior to 1963

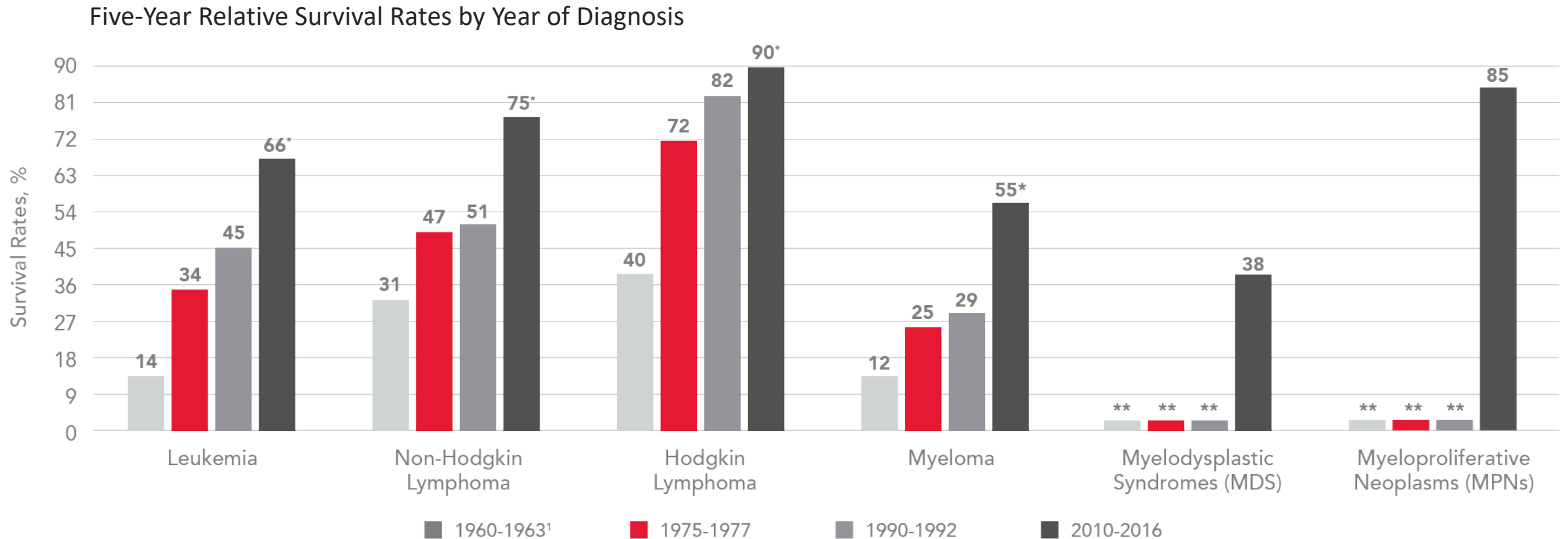


Figure 2. Source: SEER (Surveillance, Epidemiology, and End Results) Cancer Statistics Review, 1975-1977. National Cancer Institute; 2020.

* The difference in rates between 1975-1977 and 2010-2016 is statistically significant ($P < .05$)

** Due to shorter reportability period, long-term survival statistics are not available.

¹ Survival rate among whites

Living with Blood Cancer

Screening | Monitoring | Health Maintenance | Coordination of Care | Support and Education

NCCN Standards of Survivorship Care

- Screening for recurrence, progression or additional cancers
- Monitoring long-term effects of cancer and treatment
- Health Maintenance and management
- Coordination of Care, referral to specialists
- Support and Education in survivorship

Clinical Follow up

CBC with Diff every 1-3 m. for 2yr and 3-6 m. there after

- WBC > 10,000 – Platelet >450,000 – Etiology of abnormal Hgb
- More frequent for patients on maintenance therapy
- Abnormal CBC ---peripheral smear---Bone marrow biopsy
- Check PCR- ex. BCR/ABL for ALL, PML for APL
- Assess for lymphadenopathy, splenomegaly, fevers, night sweats, infections, bleeding, weight loss
- Investigate further with imaging, biopsy (CT, PET, MRI)
- Donor search at first relapse for eligible patients

Special considerations-Multiple Myeloma

- Follow up q 3-6 months with CBC, CMP, serum immunoglobulins, SPEP, LDH, Beta-2 microglobulin, 24 hour urine
- Yearly imaging (skeletal survey)
- Clinical relapse criteria
 - Serum M-protein increase of 25% or reappearance of M-protein
 - >50% increase of plasma cells
 - CRAB- **C**alcium >11 mg/dl, **R**enal-creatinine increased by 2mg/dl, **A**nemia-Hgb decrease 2g/dl, **B**one- new lytic lesions

Physical Effects

- Neuropathy and cognitive affects
- Endocrinopathies
- Coagulopathy
- Sexual dysfunction and fertility
- Bone health
- Ophthalmic, auditory and dermatological issues
- Chronic kidney and liver dysfunction
- Secondary malignancies
- Increased risk for comorbid conditions
 - DM II, obesity, cardiovascular disease

Opportunity for health maintenance

- Post diagnosis "teachable moment" during 1st year of remission
- Cross sectional study showed (Malalur et al)
- 82% of patients will quit smoking
- 10% reduced or stopped alcohol consumption
- Efforts to increase exercise and healthy eating
- No significant differences noted in mental healthcare

Physical Health Maintenance and Wellness

- Healthy weight, exercise and sleep
- Primary care screening
- Cancer screenings and genetic testing
 - [Cancer Screening Guidelines by Age | American Cancer Society](#)
- Current medications
- Immunizations
- Supplement use – alternative therapies
 - [About Herbs, Botanicals & Other Products | Memorial Sloan Kettering Cancer Center \(mskcc.org\)](#)
 - Includes herbal supplement database, mobile app, education

Psychological Issues

- Anxiety and Depression
- Hypervigilance to potential symptoms
- Post-traumatic stress disorder
- Insomnia
- Chronic fatigue
- Memory issues
- Non-compliance

Psycho-Social Considerations

- Evaluation tools for anxiety, depression and trauma
- Support groups
- Mental Health Counseling with or without medication
- Medication management by psychiatry
- Assess for addictive substances
- Social work to access resources
- Document resources and interventions

Social Changes

- Loss of independence
- Inability to resume employment
- Changes in relationship dynamics
- Loss of identity
- Role in family
- Support groups- benefit vs. toxicity

Fostering Hope, Strengthening Patients

- Cultivating self esteem
- Unconditional acceptance, validate feelings
- Supporting spiritual beliefs
- Compassion
- Advocate
- Active listening
- Envision happiness
- Gaining knowledge for living

Case Studies

Remission | Maintenance Therapy

Case Study 1



Patient: 66 year-old white male

Diagnosis: Acute myeloid leukemia with monocytic differentiation associated with a poor prognosis in 2019

Pathology: showed mutations of DNMT3A, MP1, and NRAS, in addition to RAD21

- Achieved remission after induction and one cycle of consolidation therapy of fixed-dose liposomal daunorubicin and cytarabine
- Evaluated by for stem cell transplant but declined
- Comorbid conditions include hyperlipidemia, mild anemia, peripheral neuropathy and anxiety

Case Study 2



Patient: 76 year-old African-American female

Diagnosis: Multiple Myeloma

Pathology: 15% plasma cells, consistent with IgG Kappa multiple myeloma

- Monoclonal gammopathy monitored since 2008, bone marrow biopsy in 2014 due to rising M-protein showed MM but asymptomatic
- Lost to follow up and returned in 2019 with acute thrombocytopenia- diagnosed with immune thrombocytopenic purpura and also met CRAB criteria for multiple myeloma.
- Partial remission of MM achieved after 3 cycles of bortezomib, lenalidomide and dexamethasone. Autologous stem cell transplantation in August 2020.
- On maintenance therapy with lenalidomide, denosumab ; romiplostim for ITP.
- Comorbidities- A-fib, CAD, CKD, HTN, HPL, DMII, poor dentition, social support

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No disclosures

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