

Acute Lymphoblastic Leukemia and Lymphoblastic Lymphoma (ALL) – Adult¹

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.

TABLE OF CONTENTS

Philadelphia Negative Precursor B (Pre B) Lymphoblastic Leukemia/Lymphoma.....	Page 2
Philadelphia Chromosome (Ph) Positive Acute Lymphoblastic Leukemia.....	Page 3
Burkitt or Burkitt-like Leukemia/Lymphoma.....	Page 4
Precursor T Lymphoblastic Leukemia/Lymphoma.....	Page 5
Suggested Readings.....	Pages 6-7
Development Credits.....	Page 8

¹ Greater than or equal to 18 years old

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Note: Consider clinical trials as treatment options for eligible patients. Stem Cell Transplant (SCT) guidelines are not included with this algorithm. Leukemia patients should be referred and treated at a Comprehensive Cancer Center.

PATIENT PRESENTATION¹

TREATMENT

ASSESSMENT OF RESPONSE

POST-REMISSION THERAPY/MINIMAL RESIDUAL DISEASE

Philadelphia negative precursor B (Pre B) lymphoblastic leukemia/lymphoma

CD19, CD10 (±),
 CD20 (±), CD22 (±)
 MPO (-)
 TdT (+)
 BCR-ABL (-)

Age greater than or equal to 60 years

- Consider clinical trial²:
 - Hyper-CVD plus inotuzumab ozogamicin plus blinatumomab with or without rituximab³

Age greater than 18 years to 59 years

- Hyper-CVAD with or without rituximab³ **or**
- Consider clinical trial²:
 - Hyper-CVAD with blinatumomab **or**
 - Hyper-CVAD with inotuzumab ozogamicin

Complete remission?

Yes

- Consolidation/maintenance
- Blinatumomab **or** inotuzumab ozogamicin

No⁴

- Salvage therapy clinical trial²
 - Mini-HCVD inotuzumab ozogamicin⁵ plus blinatumomab
 - Chimeric antigen receptor (CAR) T-cell therapy
- Blinatumomab plus low dose chemotherapy (mini-HCVD)
- Low dose inotuzumab ozogamicin

Surveillance

Surveillance

¹ See [Physical Activity](#), [Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice
² Leukemia Newsletter: <http://www.mdanderson.org/leukemia> (available programs-treatment priorities)
³ Hyper-CVD (hyper-fractionated cyclophosphamide, vincristine, dexamethasone) plus inotuzumab ozogamicin; rituximab if CD20 greater than or equal to 20%
 Hyper-CVAD (hyper-fractionated cyclophosphamide, vincristine, doxorubicin, dexamethasone); rituximab if CD20 greater than or equal to 20%
 Hyper-CVAD (hyper-fractionated cyclophosphamide, vincristine, doxorubicin, dexamethasone); ofatumumab if CD20 greater than or equal to 1%
⁴ Failure after induction with hyper-CVAD based regimen means no response after 2 cycles of chemotherapy
⁵ Mini-HCVD (hyper-fractionated cyclophosphamide, vincristine, dexamethasone) plus inotuzumab ozogamicin

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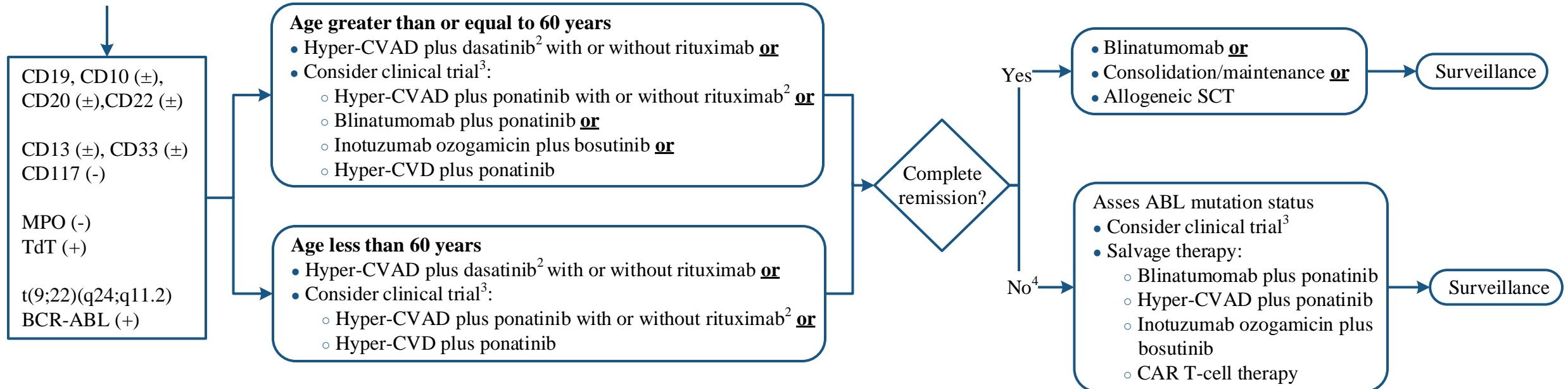
PATIENT PRESENTATION¹

TREATMENT

ASSESSMENT OF RESPONSE

POST-REMISSION THERAPY

Philadelphia chromosome (Ph) positive acute lymphoblastic leukemia



¹ See [Physical Activity](#), [Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

² Hyper-CVD (hyper-fractionated cyclophosphamide, vincristine, dexamethasone) plus inotuzumab ozogamicin; rituximab if CD20 greater than or equal to 20%
 Hyper-CVAD (hyper-fractionated cyclophosphamide, vincristine, doxorubicin, dexamethasone); rituximab if CD20 greater than or equal to 20%

³ Leukemia Newsletter: <http://www.mdanderson.org/leukemia> (available programs-treatment priorities)

⁴ Failure after induction with hyper-CVAD based regimen means no response after 2 cycles of chemotherapy

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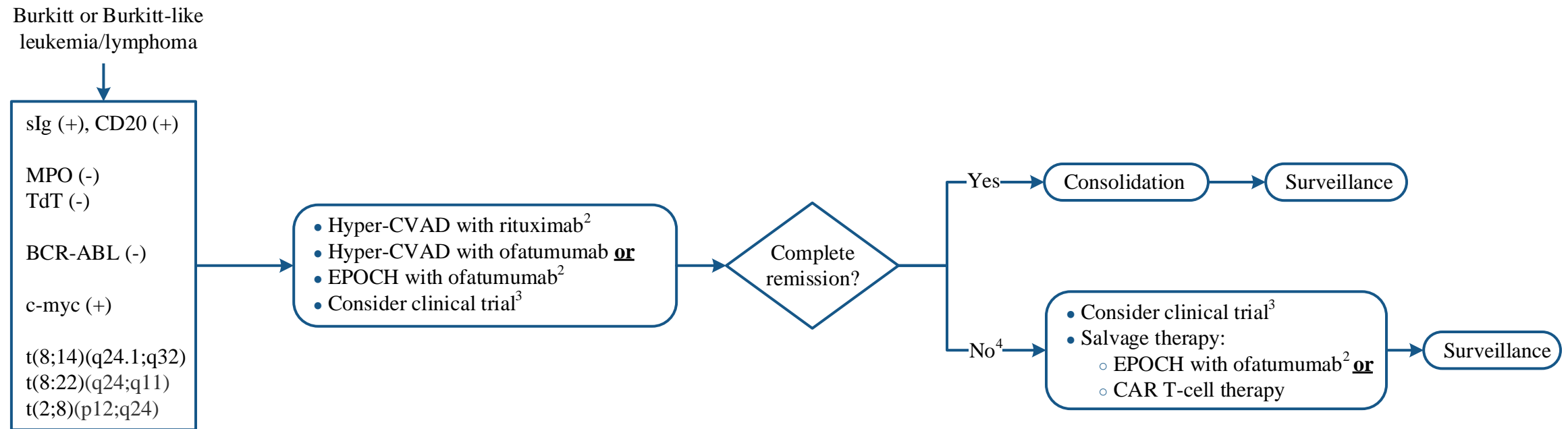
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PATIENT PRESENTATION¹

TREATMENT

ASSESSMENT OF RESPONSE

POST-REMISSION THERAPY



¹ See [Physical Activity](#), [Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

² Hyper-CVAD (hyper-fractionated cyclophosphamide, vincristine, doxorubicin, dexamethasone) plus rituximab
 Hyper-CVAD (hyper-fractionated cyclophosphamide, vincristine, doxorubicin, dexamethasone) plus ofatumumab
 EPOCH (etoposide, prednisone, vincristine, cyclophosphamide, doxorubicin) plus ofatumumab

³ Leukemia Newsletter: <http://www.mdanderson.org/leukemia> (available programs-treatment priorities)

⁴ Failure after induction with hyper-CVAD based regimen means no response after 2 cycles of chemotherapy

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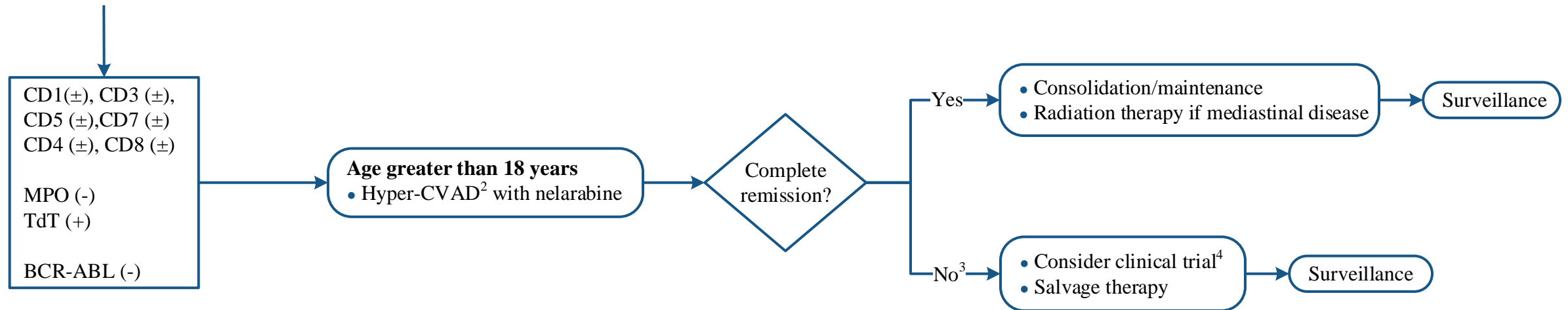
PATIENT PRESENTATION¹

TREATMENT

ASSESSMENT OF RESPONSE

POST-REMISSION THERAPY

Precursor T lymphoblastic leukemia/lymphoma



¹ See [Physical Activity](#), [Nutrition](#), and [Tobacco Cessation](#) algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

² Hyper-CVAD (hyper-fractionated cyclophosphamide, vincristine, doxorubicin, dexamethasone)

³ Failure after induction with hyper-CVAD based regimen means no response after 2 cycles of chemotherapy

⁴ Leukemia Newsletter: <http://www.mdanderson.org/leukemia> (available programs-treatment priorities)

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DEVELOPMENT CREDITS

This practice algorithm is based on majority expert opinion of the Leukemia Center Faculty at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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