



Sample Information

Patient Name: 蔡瀛南
Gender: Male
ID No.: A128227297
History No.: 16212865
Age: 77

Ordering Doctor: DOC6255A 陳智文
Ordering REQ.: 0CNLUFM
Signing in Date: 2023/07/18

Path No.: M112-00187
MP No.: MY23047
Assay: Oncomine Myeloid Assay
Sample Type: Bone Marrow
Bone Marrow Aspirating Date: 2023/07/14

Reporting Doctor: DOC5444B 楊靜芬 (Phone: 8#5444)

Note:

Sample Cancer Type: Acute Lymphoblastic Leukemia

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Relevant Biomarkers

Tier	Genomic Alteration	Relevant Therapies (In this cancer type)	Relevant Therapies (In other cancer type)	Clinical Trials
IA	BCR::ABL1 fusion BCR activator of RhoGEF and GTPase - ABL proto-oncogene 1, non-receptor tyrosine kinase	dasatinib ^{1, 2} dasatinib + chemotherapy ² imatinib* ^{1, 2} imatinib* + chemotherapy ² ponatinib ^{1, 2} blinatumomab bosutinib bosutinib + chemotherapy bosutinib + inotuzumab ozogamicin brexucabtagene autoleucel dasatinib + inotuzumab ozogamicin imatinib + inotuzumab ozogamicin	asciminib ^{1, 2} bosutinib ^{1, 2} dasatinib ^{1, 2} dasatinib + chemotherapy ² imatinib* ^{1, 2} imatinib* + chemotherapy ² nilotinib ^{1, 2} allogeneic stem cells azacitidine bosutinib + chemotherapy cytarabine	0

Public data sources included in relevant therapies: FDA1, NCCN, EMA2, ESMO
Public data sources included in diagnostic significance: NCCN, ESMO
* Includes biosimilars/generics

Relevant Biomarkers (continued)

Tier	Genomic Alteration	Relevant Therapies (In this cancer type)	Relevant Therapies (In other cancer type)	Clinical Trials
		inotuzumab ozogamicin inotuzumab ozogamicin + nilotinib inotuzumab ozogamicin + ponatinib nilotinib nilotinib + chemotherapy ponatinib + chemotherapy tisagenlecleucel-t	cytarabine + daunorubicin + etoposide cytarabine + etoposide + idarubicin cytarabine + fludarabine + idarubicin + filgrastim daunorubicin decitabine idarubicin liposomal cytarabine-daunorubicin CPX-351 mitoxantrone nilotinib + chemotherapy ponatinib ponatinib + chemotherapy venetoclax + chemotherapy	
	Diagnostic significance: Acute Lymphoblastic Leukemia			

Public data sources included in relevant therapies: FDA1, NCCN, EMA2, ESMO

Public data sources included in diagnostic significance: NCCN, ESMO

* Includes biosimilars/generics

Variants (Exclude variant in Taiwan BioBank with >1% allele frequency)

DNA Sequence Variants

Gene	Amino Acid Change	Coding	Variant ID	Locus	Allele Frequency	Transcript	Variant Effect	Coverage
TET2	p.(R1543_Q1548del)	c.4627_4644delAGAC . CCCAGCAGCAGCAG		chr4:106196278	54.64%	NM_001127208.2	nonframeshift Deletion	1940

Gene Fusions (RNA)

Genes	Variant ID	Locus	Read Count
BCR-ABL1	BCR-ABL1.B8A4	chr22:23615961 - chr9:133738150	25
BCR-ABL1	BCR-ABL1.B13A2	chr22:23631808 - chr9:133729451	18100

Biomarker Descriptions

ABL1 (ABL proto-oncogene 1, non-receptor tyrosine kinase)

Background: The ABL1 proto-oncogene encodes the ABL1 non-receptor tyrosine kinase¹. ABL1 is a member of the Abelson (ABL) family of non-receptor tyrosine kinases that shares 90% homology with its paralog ABL2². Based on its cellular localization (cytoplasmic or nuclear), ABL1 regulates various cellular functions, including cell growth, adhesion, survival, invasion, or migration^{3,4}. ABL1 is most extensively studied in hematological malignancies, where constitutive activation of the ABL1 gene is associated with Philadelphia chromosome (Ph+) leukemias. Ph+ (also denoted as t(9;22)(q34;q11)) is a translocation resulting in the fusion of the BCR promoter region on chromosome 22 with the ABL1 kinase domain on chromosome 9, which leads to unregulated tyrosine kinase activity of ABL1 and contributes to the immortality of leukemic cells^{2,3,5,6}.

Alterations and prevalence: BCR-ABL1 fusions are reported in more than 90% of chronic myeloid leukemia (CML) cases, 25-35% of adult acute lymphoblastic leukemia (ALL) cases, and 3-5% of childhood ALL cases^{7,8,9,10}. Other known fusion partners in hematological cancers include NUP214, ETV6, and EML1^{3,8}. Somatic missense mutations such as E255K/V, F317C/I/L/V, F359C/I/V, G250E, T315A/I, V299L, A337T, P465S and Y253H are observed in the kinase domain of the BCR-ABL1 fusion, and are associated with resistance to first-generation and second generation tyrosine kinase inhibitors (TKI). In comparison to hematological cancer, ABL1 alterations (including somatic mutations and amplification) occur rarely in solid tumors³.

Biomarker Descriptions (continued)

Potential relevance: The BCR-ABL1 fusion is a diagnostic marker for Ph+/BCR-ABL1 CML^{11,12}. BCR-ABL1 fusion is also associated with poor/adverse risk in acute myeloid leukemia (AML) and ALL^{13,14,15}. Several targeted TKIs are approved by the FDA for activated BCR-ABL1, primarily in hematological cancers. These include imatinib¹⁶ (2001), dasatinib¹⁷ (2006), and ponatinib¹⁸ (2012) in CML and ALL, as well as nilotinib¹⁹ (2007) and bosutinib²⁰ (2012) in CML. Secondary mutations in the kinase domain (KD) of the BCR-ABL1 fusion are associated with poor prognosis, as they confer resistance to various first- or second-line TKIs¹¹. Imatinib is recommended as a first-line TKI for BCR-ABL1 fusion, while variant-specific TKIs for KD mutations include asciminib for T315I in chronic phase (CP)-CML and ponatinib for T315I in CP-CML and ALL, as the mutation confers resistance to imatinib, dasatinib, nilotinib, and bosutinib¹¹. The ABL myristoyl pocket (STAMP) inhibitor, asciminib, has also been approved (2021) for adults with BCR-ABL1 T315I mutated Philadelphia-chromosome positive (Ph+) chronic myeloid leukemia (CML) in the chronic phase²¹.

BCR (BCR activator of RhoGEF and GTPase)

Background: The BCR gene encodes the BCR activator of RhoGEF and GTPase, a large oligomeric multidomain protein with serine/threonine protein kinase, guanine nucleotide exchange factor (GEF) and GTPase-activating domains^{2,22}. The Philadelphia chromosome, a reciprocal translocation between chromosomes 22 and 9, t(9;22)(q34.1;q11.2), is frequently found in patients with chronic myelogenous leukemia (CML)⁵. This translocation results in the fusion of the BCR promoter region on chromosome 22 with the ABL1 kinase domain on chromosome 9, which leads to unregulated tyrosine kinase activity of ABL1 and contributes to the immortality of leukemic cells^{2,3,5,6}.

Alterations and prevalence: BCR-ABL1 fusions are reported in more than 90% of CML cases, 25-35% of adult acute lymphoblastic leukemia (ALL) cases, and 3-5% of childhood ALL cases^{7,8,9,10}. Other known fusion partners of BCR in hematological cancers include JAK2, FGFR1 and PDGFRA^{23,24,25}. Somatic mutations in BCR are predominantly missense and observed in about 8% of skin cutaneous melanoma, 6% of uterine corpus endometrial carcinoma, 5% of diffuse large B-cell lymphoma, 3% of stomach adenocarcinoma and colorectal adenocarcinoma, and 2% of lung adenocarcinoma, cervical squamous cell carcinoma, lung squamous cell carcinoma, and kidney renal papillary cell carcinoma^{26,27}. Amplification is observed in about 4% of sarcoma and uterine carcinosarcoma, 3% of bladder urothelial carcinoma, and 2% of adrenocortical carcinoma, ovarian serous cyst adenocarcinoma, lung squamous cell carcinoma, thymoma, head and neck squamous cell carcinoma, skin cutaneous melanoma, and lung adenocarcinoma^{26,27}.

Potential relevance: The BCR-ABL1 fusion is a diagnostic marker for Ph+/BCR-ABL1 CML¹¹. The BCR-JAK2 fusion t(9;22)(p24.1;q11.2) is a diagnostic marker for myeloid/lymphoid neoplasms with eosinophilia¹. BCR-ABL1 fusion defines a distinct molecular subtype of AML according to the World Health Organization (WHO) and is associated with poor/adverse risk in both AML and ALL^{12,13,14,15}. Several targeted tyrosine kinase inhibitors (TKIs) are approved by the FDA for activated BCR-ABL1, primarily in hematological cancers. These include imatinib¹⁶ (2001) and dasatinib¹⁷ (2006) in CML and ALL, nilotinib¹⁹ (2007), bosutinib²⁰ (2012), and asciminib²¹ (2021) in CML, and ponatinib¹⁸ (2012) in ALL. Secondary mutations in the kinase domain (KD) of the BCR-ABL1 fusion are associated with poor prognosis, as they confer resistance to various first- or second-line TKIs¹¹.

Relevant Therapy Summary

☒ In this cancer type
 ☐ In other cancer type
 ☒ In this cancer type and other cancer types
 ☒ No evidence


























BCR::ABL1 fusion

Relevant Therapy	FDA	NCCN	EMA	ESMO	Clinical Trials*
dasatinib	●	●	●	○	×
imatinib	●	●	●	○	×
ponatinib	●	●	●	×	×
bosutinib	○	●	○	○	×
nilotinib	○	●	○	○	×
asciminib	○	×	○	×	×
dasatinib + chemotherapy	×	●	●	×	×
imatinib + chemotherapy	×	●	●	×	×

Relevant Therapy Summary (continued)

 In this cancer type
  In other cancer type
  In this cancer type and other cancer types
  No evidence

BCR::ABL1 fusion (continued)

Relevant Therapy	FDA	NCCN	EMA	ESMO	Clinical Trials*
bosutinib + chemotherapy	×		×	×	×
nilotinib + chemotherapy	×		×	×	×
ponatinib + chemotherapy	×		×	×	×
blinatumomab	×		×	×	×
bosutinib + asparaginase + cytarabine + methotrexate + vincristine + dexamethasone	×		×	×	×
bosutinib + blinatumomab	×		×	×	×
bosutinib + cyclophosphamide + cytarabine + daunorubicin + methotrexate + PEG-L-asparaginase + vincristine + dexamethasone + prednisone	×		×	×	×
bosutinib + cytarabine + daunorubicin + etoposide + methotrexate + vincristine + dexamethasone	×		×	×	×
bosutinib + cytarabine + HyperCVAD	×		×	×	×
bosutinib + cytarabine + HyperCVAD + methotrexate	×		×	×	×
bosutinib + inotuzumab ozogamicin	×		×	×	×
bosutinib + steroid	×		×	×	×
bosutinib + vincristine + dexamethasone	×		×	×	×
brexucabtagene autoleucel	×		×	×	×
dasatinib + asparaginase + cytarabine + methotrexate + vincristine + dexamethasone	×		×	×	×
dasatinib + blinatumomab	×		×	×	×
dasatinib + cyclophosphamide + cytarabine + daunorubicin + methotrexate + PEG-L-asparaginase + vincristine + dexamethasone + prednisone	×		×	×	×
dasatinib + cytarabine + daunorubicin + etoposide + methotrexate + vincristine + dexamethasone	×		×	×	×
dasatinib + cytarabine + HyperCVAD	×		×	×	×
dasatinib + cytarabine + HyperCVAD + methotrexate	×		×	×	×
dasatinib + inotuzumab ozogamicin	×		×	×	×
dasatinib + steroid	×		×	×	×
dasatinib + vincristine + dexamethasone	×		×	×	×
imatinib + asparaginase + cytarabine + methotrexate + vincristine + dexamethasone	×		×	×	×
imatinib + blinatumomab	×		×	×	×

Relevant Therapy Summary (continued)

 In this cancer type
  In other cancer type
  In this cancer type and other cancer types
  No evidence

BCR::ABL1 fusion (continued)

Relevant Therapy	FDA	NCCN	EMA	ESMO	Clinical Trials*
imatinib + cyclophosphamide + cytarabine + daunorubicin + methotrexate + PEG-L-asparaginase + vincristine + dexamethasone + prednisone	×	●	×	×	×
imatinib + cytarabine + daunorubicin + etoposide + methotrexate + vincristine + dexamethasone	×	●	×	×	×
imatinib + cytarabine + HyperCVAD	×	●	×	×	×
imatinib + cytarabine + HyperCVAD + methotrexate	×	●	×	×	×
imatinib + inotuzumab ozogamicin	×	●	×	×	×
imatinib + steroid	×	●	×	×	×
imatinib + vincristine + dexamethasone	×	●	×	×	×
inotuzumab ozogamicin	×	●	×	×	×
inotuzumab ozogamicin + nilotinib	×	●	×	×	×
inotuzumab ozogamicin + ponatinib	×	●	×	×	×
nilotinib + asparaginase + cytarabine + methotrexate + vincristine + dexamethasone	×	●	×	×	×
nilotinib + blinatumomab	×	●	×	×	×
nilotinib + cyclophosphamide + cytarabine + daunorubicin + methotrexate + PEG-L-asparaginase + vincristine + dexamethasone + prednisone	×	●	×	×	×
nilotinib + cytarabine + daunorubicin + etoposide + methotrexate + vincristine + dexamethasone	×	●	×	×	×
nilotinib + cytarabine + HyperCVAD	×	●	×	×	×
nilotinib + cytarabine + HyperCVAD + methotrexate	×	●	×	×	×
nilotinib + steroid	×	●	×	×	×
nilotinib + vincristine + dexamethasone	×	●	×	×	×
ponatinib + asparaginase + cytarabine + methotrexate + vincristine + dexamethasone	×	●	×	×	×
ponatinib + blinatumomab	×	●	×	×	×
ponatinib + cyclophosphamide + cytarabine + daunorubicin + methotrexate + PEG-L-asparaginase + vincristine + dexamethasone + prednisone	×	●	×	×	×
ponatinib + cytarabine + daunorubicin + etoposide + methotrexate + vincristine + dexamethasone	×	●	×	×	×
ponatinib + cytarabine + HyperCVAD	×	●	×	×	×
ponatinib + cytarabine + HyperCVAD + methotrexate	×	●	×	×	×

Relevant Therapy Summary (continued)

● In this cancer type
 ○ In other cancer type
 ① In this cancer type and other cancer types
 ✕ No evidence

BCR::ABL1 fusion (continued)

Relevant Therapy	FDA	NCCN	EMA	ESMO	Clinical Trials*
ponatinib + steroid	✕	●	✕	✕	✕
ponatinib + vincristine + dexamethasone	✕	●	✕	✕	✕
tisagenlecleucel-t	✕	●	✕	✕	✕
Allogeneic hematopoietic stem cell transplantation	✕	○	✕	✕	✕
azacitidine	✕	○	✕	✕	✕
cytarabine	✕	○	✕	✕	✕
cytarabine + daunorubicin + etoposide	✕	○	✕	✕	✕
cytarabine + etoposide + idarubicin	✕	○	✕	✕	✕
cytarabine + fludarabine + idarubicin + filgrastim	✕	○	✕	✕	✕
daunorubicin	✕	○	✕	✕	✕
decitabine	✕	○	✕	✕	✕
idarubicin	✕	○	✕	✕	✕
liposomal cytarabine-daunorubicin CPX-351	✕	○	✕	✕	✕
mitoxantrone	✕	○	✕	✕	✕
venetoclax + azacitidine	✕	○	✕	✕	✕
venetoclax + cytarabine	✕	○	✕	✕	✕
venetoclax + cytarabine + fludarabine + idarubicin + filgrastim	✕	○	✕	✕	✕
venetoclax + decitabine	✕	○	✕	✕	✕
imatinib (Accord)	✕	✕	①	✕	✕
imatinib (Accord) + chemotherapy	✕	✕	①	✕	✕
imatinib (Koanaa)	✕	✕	①	✕	✕
imatinib (Koanaa) + chemotherapy	✕	✕	①	✕	✕

Relevant Therapy Details

Current FDA Information

☒ In this cancer type ☐ In other cancer type ☒ In this cancer type and other cancer types

FDA information is current as of 2023-05-17. For the most up-to-date information, search www.fda.gov.

BCR::ABL1 fusion

☒ dasatinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia, Acute Lymphoblastic Leukemia, Blast Phase Chronic Myeloid Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2023-02-08

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Indications and usage:

SPRYCEL® is a kinase inhibitor indicated for the treatment of

- newly diagnosed adults with Philadelphia chromosome-positive (Ph+) chronic myeloid leukemia (CML) in chronic phase.
- adults with chronic, accelerated, or myeloid or lymphoid blast phase Ph+ CML with resistance or intolerance to prior therapy including imatinib.
- adults with Philadelphia chromosome-positive acute lymphoblastic leukemia (Ph+ ALL) with resistance or intolerance to prior therapy.
- pediatric patients 1 year of age and older with Ph+ CML in chronic phase.
- pediatric patients 1 year of age and older with newly diagnosed Ph+ ALL in combination with chemotherapy.

Reference:

https://www.accessdata.fda.gov/drugsatfda_docs/label/2023/021986s027lbl.pdf

BCR::ABL1 fusion (continued)

① imatinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia, Acute Lymphoblastic Leukemia, Blast Phase Chronic Myeloid Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2022-08-19

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Indications and usage:

GLEEVEC® is a kinase inhibitor indicated for the treatment of:

- Newly diagnosed adult and pediatric patients with Philadelphia chromosome positive chronic myeloid leukemia (Ph+ CML) in chronic phase.
- Patients with Philadelphia chromosome positive chronic myeloid leukemia (Ph+ CML) in blast crisis (BC), accelerated phase (AP), or in chronic phase (CP) after failure of interferon-alpha therapy.
- Adult patients with relapsed or refractory Philadelphia chromosome positive acute lymphoblastic leukemia (Ph+ ALL).
- Pediatric patients with newly diagnosed Philadelphia chromosome positive acute lymphoblastic leukemia (Ph+ ALL) in combination with chemotherapy.
- Adult patients with myelodysplastic/myeloproliferative diseases (MDS/MPD) associated with platelet-derived growth factor receptor (PDGFR) gene re-arrangements.
- Adult patients with aggressive systemic mastocytosis (ASM) without the D816V c-Kit mutation or with c-Kit mutational status unknown.
- Adult patients with hypereosinophilic syndrome (HES) and/or chronic eosinophilic leukemia (CEL) who have the FIP1L1-PDGFRα fusion kinase (mutational analysis or fluorescence in situ hybridization [FISH] demonstration of CHIC2 allele deletion) and for patients with HES and/or CEL who are FIP1L1-PDGFRα fusion kinase negative or unknown.
- Adult patients with unresectable, recurrent and/or metastatic dermatofibrosarcoma protuberans (DFSP).
- Patients with Kit (CD117) positive unresectable and/or metastatic malignant gastrointestinal stromal tumors (GIST).
- Adjuvant treatment of adult patients following resection of Kit (CD117) positive GIST.

Reference:

https://www.accessdata.fda.gov/drugsatfda_docs/label/2022/021588s062lbl.pdf

● ponatinib

Cancer type: Acute Lymphoblastic Leukemia **Label as of:** 2022-02-15

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Indications and usage:

ICLUSIG® is a kinase inhibitor indicated for the treatment of adult patients with:

- Chronic phase (CP) chronic myeloid leukemia (CML) with resistance or intolerance to at least two prior kinase inhibitors.
- Accelerated phase (AP) or blast phase (BP) CML or Philadelphia chromosome positive acute lymphoblastic leukemia (Ph+ ALL) for whom no other kinase inhibitors are indicated.
- T315I-positive CML (chronic phase, accelerated phase, or blast phase) or T315I-positive Ph+ ALL.

Limitations of Use: ICLUSIG® is not indicated and is not recommended for the treatment of patients with newly diagnosed CP-CML.

Reference:

https://www.accessdata.fda.gov/drugsatfda_docs/label/2022/203469s035lbl.pdf

BCR::ABL1 fusion (continued)

○ asciminib

Cancer type: Chronic Phase Chronic Myeloid Leukemia **Label as of:** 2022-10-12

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Indications and usage:

SCEMBLIX® is a kinase inhibitor indicated for the treatment of adult patients with:

- Philadelphia chromosome-positive chronic myeloid leukemia (Ph+ CML) in chronic phase (CP), previously treated with two or more tyrosine kinase inhibitors (TKIs).
- Ph+ CML in CP with the T315I mutation.

Reference:

https://www.accessdata.fda.gov/drugsatfda_docs/label/2022/215358s001lbl.pdf

○ bosutinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia, Blast Phase Chronic Myeloid Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2023-04-20

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Indications and usage:

BOSULIF® is a kinase inhibitor indicated for the treatment of adult patients with

- Newly-diagnosed chronic phase Ph+ chronic myelogenous leukemia (CML).
- Chronic, accelerated, or blast phase Ph+ CML with resistance or intolerance to prior therapy.

Reference:

https://www.accessdata.fda.gov/drugsatfda_docs/label/2023/203341s024lbl.pdf

○ nilotinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2021-09-23

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Indications and usage:

TASIGNA® is a kinase inhibitor indicated for the treatment of:

- Adult and pediatric patients greater than or equal to 1 year of age with newly diagnosed Philadelphia chromosome positive chronic myeloid leukemia (Ph+ CML) in chronic phase.
- Adult patients with chronic phase (CP) and accelerated phase (AP) Ph+ CML resistant to or intolerant to prior therapy that included imatinib.
- Pediatric patients greater than or equal to 1 year of age with Ph+ CML-CP and CML-AP resistant or intolerant to prior tyrosine-kinase inhibitor (TKI) therapy.

Reference:

https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/022068s035s036lbl.pdf

Current NCCN Information

- ☒ In this cancer type ☐ In other cancer type ☒ In this cancer type and other cancer types

NCCN information is current as of 2023-05-01. For the most up-to-date information, search www.nccn.org. For NCCN International Adaptations & Translations, search www.nccn.org/global/what-we-do/international-adaptations.

Some variant specific evidence in this report may be associated with a broader set of alterations from the NCCN Guidelines. Specific variants listed in this report were sourced from approved therapies or scientific literature. These therapeutic options are appropriate for certain population segments with cancer. Refer to the NCCN Guidelines® for full recommendation.

BCR::ABL1 fusion

● blinatumomab

Cancer type: Acute Lymphoblastic Leukemia Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● bosutinib

Cancer type: Acute Lymphoblastic Leukemia Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● bosutinib + asparaginase + cytarabine + methotrexate + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)**● bosutinib + blinatumomab**

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● bosutinib + chemotherapy

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● bosutinib + cyclophosphamide + cytarabine + daunorubicin + methotrexate + PEG-L-asparaginase + vincristine + dexamethasone + prednisone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Refractory, Relapsed (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● bosutinib + cytarabine + daunorubicin + etoposide + methotrexate + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)**● bosutinib + cytarabine + HyperCVAD**

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● bosutinib + cytarabine + HyperCVAD + methotrexate

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● bosutinib + inotuzumab ozogamicin

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● bosutinib + steroid

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)

● bosutinib + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● brexucabtagene autoleucel

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● dasatinib

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● dasatinib + asparaginase + cytarabine + methotrexate + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)**● dasatinib + blinatumomab****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● dasatinib + chemotherapy****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● dasatinib + cyclophosphamide + cytarabine + daunorubicin + methotrexate + PEG-L-asparaginase + vincristine + dexamethasone + prednisone****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Refractory, Relapsed (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● dasatinib + cytarabine + daunorubicin + etoposide + methotrexate + vincristine + dexamethasone****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)**● dasatinib + cytarabine + HyperCVAD****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● dasatinib + cytarabine + HyperCVAD + methotrexate****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● dasatinib + inotuzumab ozogamicin****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● dasatinib + steroid****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)**● dasatinib + vincristine + dexamethasone**

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● imatinib

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● imatinib + asparaginase + cytarabine + methotrexate + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● imatinib + blinatumomab

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)**● imatinib + chemotherapy****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● imatinib + cyclophosphamide + cytarabine + daunorubicin + methotrexate + PEG-L-asparaginase + vincristine + dexamethasone + prednisone****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Refractory, Relapsed (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● imatinib + cytarabine + daunorubicin + etoposide + methotrexate + vincristine + dexamethasone****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● imatinib + cytarabine + HyperCVAD****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)**● imatinib + cytarabine + HyperCVAD + methotrexate**

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● imatinib + inotuzumab ozogamicin

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● imatinib + steroid

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● imatinib + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)

● inotuzumab ozogamicin

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● inotuzumab ozogamicin + nilotinib

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● inotuzumab ozogamicin + ponatinib

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● nilotinib

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● nilotinib + asparaginase + cytarabine + methotrexate + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)**● nilotinib + blinatumomab****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● nilotinib + chemotherapy****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● nilotinib + cyclophosphamide + cytarabine + daunorubicin + methotrexate + PEG-L-asparaginase + vincristine + dexamethasone + prednisone****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Refractory, Relapsed (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]**● nilotinib + cytarabine + daunorubicin + etoposide + methotrexate + vincristine + dexamethasone****Cancer type:** Acute Lymphoblastic Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)

● nilotinib + cytarabine + HyperCVAD

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● nilotinib + cytarabine + HyperCVAD + methotrexate

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● nilotinib + steroid

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● nilotinib + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)**● ponatinib**

Cancer type: Acute Lymphoblastic Leukemia **Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● ponatinib + asparaginase + cytarabine + methotrexate + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia **Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● ponatinib + blinatumomab

Cancer type: Acute Lymphoblastic Leukemia **Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● ponatinib + chemotherapy

Cancer type: Acute Lymphoblastic Leukemia **Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)

● ponatinib + cyclophosphamide + cytarabine + daunorubicin + methotrexate + PEG-L-asparaginase + vincristine + dexamethasone + prednisone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Refractory, Relapsed (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● ponatinib + cytarabine + daunorubicin + etoposide + methotrexate + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● ponatinib + cytarabine + HyperCVAD

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● ponatinib + cytarabine + HyperCVAD + methotrexate

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

BCR::ABL1 fusion (continued)**● ponatinib + steroid**

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● ponatinib + vincristine + dexamethasone

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell (Induction therapy); Other recommended intervention
- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

● tisagenlecleucel-t

Cancer type: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- B-cell; Relapsed, Refractory (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

○ azacitidine

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 1

Population segment (Line of therapy):

- (Maintenance therapy); Preferred intervention
- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

BCR::ABL1 fusion (continued)**○ bosutinib**

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 1

Population segment (Line of therapy):

- (First-line therapy); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

○ cytarabine + daunorubicin + etoposide

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 1

Population segment (Line of therapy):

- (Maintenance therapy); Preferred intervention
- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ cytarabine + etoposide + idarubicin

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 1

Population segment (Line of therapy):

- (Maintenance therapy); Preferred intervention
- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ dasatinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 1

Population segment (Line of therapy):

- (First-line therapy); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

BCR::ABL1 fusion (continued)

○ daunorubicin

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 1

Population segment (Line of therapy):

- (Maintenance therapy); Preferred intervention
- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ idarubicin

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 1

Population segment (Line of therapy):

- (Maintenance therapy); Preferred intervention
- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ imatinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 1

Population segment (Line of therapy):

- (First-line therapy); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

○ nilotinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 1

Population segment (Line of therapy):

- (First-line therapy); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

BCR::ABL1 fusion (continued)

○ Allogeneic hematopoietic stem cell transplantation

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Maintenance therapy)
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ azacitidine

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Maintenance therapy)
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ bosutinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (First-line therapy); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

○ cytarabine

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Maintenance therapy)
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

BCR::ABL1 fusion (continued)

○ dasatinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia **Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (First-line therapy); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

○ decitabine

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ imatinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (First-line therapy); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

○ imatinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (First-line therapy); Useful in certain circumstances

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

BCR::ABL1 fusion (continued)

○ liposomal cytarabine-daunorubicin CPX-351

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Maintenance therapy)
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ mitoxantrone

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ nilotinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (First-line therapy); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

○ ponatinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (First-line therapy); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

BCR::ABL1 fusion (continued)**○ venetoclax + azacitidine**

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ venetoclax + azacitidine

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Maintenance therapy)
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ venetoclax + cytarabine

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ venetoclax + decitabine

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

○ venetoclax + decitabine

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- (Maintenance therapy)
- (Consolidation therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

BCR::ABL1 fusion (continued)**○ azacitidine****Cancer type:** Acute Myeloid Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2B**Population segment (Line of therapy):**

- (Maintenance therapy)
- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]**○ cytarabine + daunorubicin + etoposide****Cancer type:** Acute Myeloid Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2B**Population segment (Line of therapy):**

- (Maintenance therapy)
- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]**○ cytarabine + etoposide + idarubicin****Cancer type:** Acute Myeloid Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2B**Population segment (Line of therapy):**

- (Maintenance therapy)
- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]**○ cytarabine + fludarabine + idarubicin + filgrastim****Cancer type:** Acute Myeloid Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2B**Population segment (Line of therapy):**

- (Maintenance therapy)
- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]

BCR::ABL1 fusion (continued)**○ decitabine****Cancer type:** Acute Myeloid Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 2B**Population segment (Line of therapy):**

- (Maintenance therapy)
- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]**○ venetoclax + cytarabine + fludarabine + idarubicin + filgrastim****Cancer type:** Acute Myeloid Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 3**Population segment (Line of therapy):**

- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]**○ venetoclax + decitabine****Cancer type:** Acute Myeloid Leukemia**Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]**NCCN Recommendation category:** 3**Population segment (Line of therapy):**

- (Induction therapy)

Reference: NCCN Guidelines® - NCCN-Acute Myeloid Leukemia [Version 3.2023]**○ bosutinib****Cancer type:** Myeloid/Lymphoid Neoplasms with Eosinophilia**Variant class:** ABL1 fusion**NCCN Recommendation category:** 2A**Population segment (Line of therapy):**

- Chronic Phase, Blast Phase (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Fusion Genes [Version 2.2022]

BCR::ABL1 fusion (continued)

○ bosutinib + chemotherapy

Cancer type: Myeloid/Lymphoid Neoplasms with Eosinophilia **Variant class:** ABL1 fusion

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- Blast Phase (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Fusion Genes [Version 2.2022]

○ dasatinib

Cancer type: Myeloid/Lymphoid Neoplasms with Eosinophilia **Variant class:** ABL1 fusion

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- Blast Phase, Chronic Phase (Line of therapy not specified); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Fusion Genes [Version 2.2022]

○ dasatinib + chemotherapy

Cancer type: Myeloid/Lymphoid Neoplasms with Eosinophilia **Variant class:** ABL1 fusion

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- Blast Phase (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Fusion Genes [Version 2.2022]

○ imatinib

Cancer type: Myeloid/Lymphoid Neoplasms with Eosinophilia **Variant class:** ABL1 fusion

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- Chronic Phase, Blast Phase (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Fusion Genes [Version 2.2022]

BCR::ABL1 fusion (continued)

○ imatinib + chemotherapy

Cancer type: Myeloid/Lymphoid Neoplasms with Eosinophilia **Variant class:** ABL1 fusion

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- Blast Phase (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Fusion Genes [Version 2.2022]

○ nilotinib

Cancer type: Myeloid/Lymphoid Neoplasms with Eosinophilia **Variant class:** ABL1 fusion

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- Blast Phase, Chronic Phase (Line of therapy not specified); Preferred intervention

Reference: NCCN Guidelines® - NCCN-Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Fusion Genes [Version 2.2022]

○ nilotinib + chemotherapy

Cancer type: Myeloid/Lymphoid Neoplasms with Eosinophilia **Variant class:** ABL1 fusion

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- Blast Phase (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Fusion Genes [Version 2.2022]

○ ponatinib

Cancer type: Myeloid/Lymphoid Neoplasms with Eosinophilia **Variant class:** ABL1 fusion

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- Chronic Phase, Blast Phase (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Fusion Genes [Version 2.2022]

BCR::ABL1 fusion (continued)

○ ponatinib + chemotherapy

Cancer type: Myeloid/Lymphoid Neoplasms with Eosinophilia **Variant class:** ABL1 fusion

NCCN Recommendation category: 2A

Population segment (Line of therapy):

- Blast Phase (Line of therapy not specified); Other recommended intervention

Reference: NCCN Guidelines® - NCCN-Myeloid/Lymphoid Neoplasms with Eosinophilia and Tyrosine Kinase Fusion Genes [Version 2.2022]

Current EMA Information

☒ In this cancer type
 ☐ In other cancer type
 ☒ In this cancer type and other cancer types

EMA information is current as of 2023-05-17. For the most up-to-date information, search www.ema.europa.eu/ema.

BCR::ABL1 fusion

☒ dasatinib, dasatinib + chemotherapy

Cancer type: Acute Lymphoblastic Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2022-06-17

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Reference:

https://www.ema.europa.eu/en/documents/product-information/sprycel-epar-product-information_en.pdf

☒ imatinib (Accord), imatinib (Accord) + chemotherapy

Cancer type: Accelerated Phase Chronic Myeloid Leukemia, Acute Lymphoblastic Leukemia, Blast Phase Chronic Myeloid Leukemia, Chronic Myeloid Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2022-12-14

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Reference:

https://www.ema.europa.eu/en/documents/product-information/imatinib-accord-epar-product-information_en.pdf

☒ imatinib (Koanaa), imatinib (Koanaa) + chemotherapy

Cancer type: Accelerated Phase Chronic Myeloid Leukemia, Acute Lymphoblastic Leukemia, Blast Phase Chronic Myeloid Leukemia, Chronic Myeloid Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2021-10-01

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Reference:

https://www.ema.europa.eu/en/documents/product-information/imatinib-koanaa-epar-product-information_en.pdf

☒ imatinib, imatinib + chemotherapy

Cancer type: Accelerated Phase Chronic Myeloid Leukemia, Acute Lymphoblastic Leukemia, Blast Phase Chronic Myeloid Leukemia, Chronic Myeloid Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2023-03-29

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Reference:

https://www.ema.europa.eu/en/documents/product-information/glivec-epar-product-information_en.pdf

BCR::ABL1 fusion (continued)**① imatinib, imatinib + chemotherapy**

Cancer type: Accelerated Phase Chronic Myeloid Leukemia, Acute Lymphoblastic Leukemia, Blast Phase Chronic Myeloid Leukemia, Chronic Myeloid Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2022-06-09

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Reference:

https://www.ema.europa.eu/en/documents/product-information/imatinib-teva-epar-product-information_en.pdf

● ponatinib

Cancer type: Acute Lymphoblastic Leukemia

Label as of: 2022-10-21

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Reference:

https://www.ema.europa.eu/en/documents/product-information/iclusig-epar-product-information_en.pdf

○ asciminib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Label as of: 2023-03-02

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Reference:

https://www.ema.europa.eu/en/documents/product-information/scemblix-epar-product-information_en.pdf

○ bosutinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia, Blast Phase Chronic Myeloid Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2023-05-17

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Reference:

https://www.ema.europa.eu/en/documents/product-information/bosulif-epar-product-information_en.pdf

○ nilotinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia, Chronic Phase Chronic Myeloid Leukemia

Label as of: 2022-06-13

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

Reference:

https://www.ema.europa.eu/en/documents/product-information/tasigna-epar-product-information_en.pdf

Current ESMO Information

☐ In this cancer type
 ☐ In other cancer type
 ☒ In this cancer type and other cancer types

ESMO information is current as of 2023-05-01. For the most up-to-date information, search www.esmo.org.

BCR::ABL1 fusion

☐ dasatinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

ESMO Level of Evidence/Grade of Recommendation: I / A

Population segment (Line of therapy):

- (First-line therapy)

Reference: ESMO Clinical Practice Guidelines - ESMO-Chronic Myeloid Leukemia [Ann Oncol (2017) 28 (suppl 4): iv41–iv51. (Corrigendum: 03 October 2018)]

☐ imatinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

ESMO Level of Evidence/Grade of Recommendation: I / A

Population segment (Line of therapy):

- (First-line therapy)

Reference: ESMO Clinical Practice Guidelines - ESMO-Chronic Myeloid Leukemia [Ann Oncol (2017) 28 (suppl 4): iv41–iv51. (Corrigendum: 03 October 2018)]

☐ nilotinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

ESMO Level of Evidence/Grade of Recommendation: I / A

Population segment (Line of therapy):

- (First-line therapy)

Reference: ESMO Clinical Practice Guidelines - ESMO-Chronic Myeloid Leukemia [Ann Oncol (2017) 28 (suppl 4): iv41–iv51. (Corrigendum: 03 October 2018)]

☐ dasatinib

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

ESMO Level of Evidence/Grade of Recommendation: II / A

Population segment (Line of therapy):

- (Line of therapy not specified)

Reference: ESMO Clinical Practice Guidelines - ESMO-Acute Myeloblastic Leukaemia in Adult Patients [Ann Oncol (2020); 31(6): 697-712.]

BCR::ABL1 fusion (continued)

○ imatinib

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

ESMO Level of Evidence/Grade of Recommendation: II / A

Population segment (Line of therapy):

- (Line of therapy not specified)

Reference: ESMO Clinical Practice Guidelines - ESMO-Acute Myeloblastic Leukaemia in Adult Patients [Ann Oncol (2020); 31(6): 697-712.]

○ nilotinib

Cancer type: Acute Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

ESMO Level of Evidence/Grade of Recommendation: II / A

Population segment (Line of therapy):

- (Line of therapy not specified)

Reference: ESMO Clinical Practice Guidelines - ESMO-Acute Myeloblastic Leukaemia in Adult Patients [Ann Oncol (2020); 31(6): 697-712.]

○ bosutinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

ESMO Level of Evidence/Grade of Recommendation: V / A

Population segment (Line of therapy):

- Resistant, Refractory (Second-line therapy, Third-line therapy)

Reference: ESMO Clinical Practice Guidelines - ESMO-Chronic Myeloid Leukemia [Ann Oncol (2017) 28 (suppl 4): iv41–iv51. (Corrigendum: 03 October 2018)]

○ dasatinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

ESMO Level of Evidence/Grade of Recommendation: V / A

Population segment (Line of therapy):

- Resistant, Refractory (Second-line therapy, Third-line therapy)

Reference: ESMO Clinical Practice Guidelines - ESMO-Chronic Myeloid Leukemia [Ann Oncol (2017) 28 (suppl 4): iv41–iv51. (Corrigendum: 03 October 2018)]

BCR::ABL1 fusion (continued)

○ imatinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

ESMO Level of Evidence/Grade of Recommendation: V / A

Population segment (Line of therapy):

- Resistant, Refractory (Second-line therapy, Third-line therapy)

Reference: ESMO Clinical Practice Guidelines - ESMO-Chronic Myeloid Leukemia [Ann Oncol (2017) 28 (suppl 4): iv41–iv51. (Corrigendum: 03 October 2018)]

○ nilotinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

ESMO Level of Evidence/Grade of Recommendation: V / A

Population segment (Line of therapy):

- Resistant, Refractory (Second-line therapy, Third-line therapy)

Reference: ESMO Clinical Practice Guidelines - ESMO-Chronic Myeloid Leukemia [Ann Oncol (2017) 28 (suppl 4): iv41–iv51. (Corrigendum: 03 October 2018)]

○ dasatinib

Cancer type: Chronic Phase Chronic Myeloid Leukemia

Variant class: t(9;22)(q34;q11.2)

ESMO Level of Evidence/Grade of Recommendation: V / A

Population segment (Line of therapy):

- Resistant, Refractory (Second-line therapy, Third-line therapy)

Reference: ESMO Clinical Practice Guidelines - ESMO-Chronic Myeloid Leukemia [Ann Oncol (2017) 28 (suppl 4): iv41–iv51. (Corrigendum: 03 October 2018)]

Diagnostic Details

Current NCCN Information

NCCN information is current as of 2023-05-01. For the most up-to-date information, search www.nccn.org. For NCCN International Adaptations & Translations, search www.nccn.org/global/what-we-do/international-adaptations.

Some variant specific evidence in this report may be associated with a broader set of alterations from the NCCN Guidelines. Specific variants listed in this report were sourced from approved therapies or scientific literature. These therapeutic options are appropriate for certain population segments with cancer. Refer to the NCCN Guidelines® for full recommendation.

BCR::ABL1 fusion

Diagnostic significance: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]

NCCN Recommendation category: 2A

Diagnostic notes:

- B-cell Lymphoblastic Leukemia/Lymphoma subtype based on molecular characterization

Reference: NCCN Guidelines® - NCCN-Acute Lymphoblastic Leukemia [Version 1.2022]

Current ESMO Information

ESMO information is current as of 2023-05-01. For the most up-to-date information, search www.esmo.org.

BCR::ABL1 fusion

Diagnostic significance: Acute Lymphoblastic Leukemia

Variant class: BCR-ABL1 fusion [t(9;22)(q34;q11)]


Diagnostic notes:

- ALL with adverse clinico-biological features (Mandatory)

Reference: ESMO Clinical Practice Guidelines - ESMO-Acute Lymphoblastic Leukaemia [Ann Oncol (2016) 27 (suppl 5): v69-v82.]


Alerts Informed By Public Data Sources

Current NCCN Information

 Contraindicated

 Not recommended

 Resistance

 Breakthrough

 Fast Track

NCCN information is current as of 2023-05-01. For the most up-to-date information, search www.nccn.org. For NCCN International Adaptations & Translations, search www.nccn.org/global/what-we-do/international-adaptations.

Some variant specific evidence in this report may be associated with a broader set of alterations from the NCCN Guidelines. Specific variants listed in this report were sourced from approved therapies or scientific literature. These therapeutic options are appropriate for certain population segments with cancer. Refer to the NCCN Guidelines® for full recommendation.

BCR::ABL1 fusion

imatinib

Cancer type: Accelerated Phase Chronic Myeloid Leukemia **Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]

Summary:

NCCN Guidelines® include the following supporting statement(s):

- "Imatinib is not recommended for patients with disease progression on prior TKI therapy."

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

omacetaxine

Cancer type: Accelerated Phase Chronic Myeloid Leukemia **Variant class:** BCR-ABL1 fusion [t(9;22)(q34;q11)]

Summary:

NCCN Guidelines® include the following supporting statement(s):

- "Omacetaxine is not a treatment option for patients who present with accelerated phase CML."

Reference: NCCN Guidelines® - NCCN-Chronic Myeloid Leukemia [Version 2.2023]

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