



20TH

INTERNATIONAL
ULTMANN
CHICAGO
LYMPHOMA
SYMPOSIUM

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Treatment Landscape in CLL

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Disclosures

Abbvie – Speaker's Bureau for venetoclax

Objectives

1. Review NCCN guidelines for the treatment of CLL:
 - Frontline
 - Relapsed/Refractory

2. Discuss considerations for BTK-I and BCL-2 + anti-CD20 monoclonal antibody therapies
3. Reflect on the past vs. present landscapes of CLL treatment

NCCN Preferred Treatment: First line, without *TP53* mutation



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NCCN Guidelines Version 1.2023

Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma

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SUGGESTED TREATMENT REGIMENS^{a,b,c,d} CLL/SLL without del(17p)/*TP53* mutation (alphabetical by category)

FIRST-LINE THERAPY ^e		
Preferred regimens	Other recommended regimens	Useful in certain circumstances
<ul style="list-style-type: none"> • Acalabrutinib^f ± obinutuzumab (category 1) • Venetoclax^{f,g} + obinutuzumab (category 1) • Zanubrutinib^f (category 1) 	<ul style="list-style-type: none"> • Ibrutinib (category 1)^{f,h} • Bendamustineⁱ + anti-CD20 mAb^{d,j,k} • Chlorambucil + obinutuzumab^l • Obinutuzumab^l • High-dose methylprednisolone (HDMP) + rituximab or obinutuzumab (category 2B; category 3 for patients <65 y without significant comorbidities) • Ibrutinib^f + obinutuzumab^l (category 2B) • Ibrutinib^f + rituximab^p (category 2B) • Ibrutinib + venetoclax^{f,g} (category 2B) 	<p>(consider for IGHV-mutated CLL in patients age <65 y without significant comorbidities)</p> <ul style="list-style-type: none"> • FCR (fludarabine, cyclophosphamide, rituximab)^{m,n,o}

NCCN Preferred Treatment Regimens: Relapsed/Refractory



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SUGGESTED TREATMENT REGIMENS^{a,b,c,d} CLL/SLL without del(17p)/TP53 mutation

SECOND-LINE THERAPY OR THIRD-LINE THERAPY		
Preferred regimens <ul style="list-style-type: none">• BTKi<ul style="list-style-type: none">▶ Acalabrutinib^{f,q} (category 1)▶ Zanubrutinib^{f,q}• BCL-2 inhibitor<ul style="list-style-type: none">▶ Venetoclax^{f,g} + rituximab^e (category 1)	Other recommended regimen <ul style="list-style-type: none">• Ibrutinib (category 1)^{f,h}• Venetoclax^{f,g}	Useful in certain circumstances (for relapse after a period of remission if previously used as first line therapy) <ul style="list-style-type: none">• Retreatment with venetoclax^{f,g} + obinutuzumab

THERAPY FOR RELAPSED OR REFRACTORY DISEASE AFTER PRIOR BTKI-AND VENETOCLAX-BASED REGIMENS^e

Other recommended regimens <ul style="list-style-type: none">• PI3K inhibitors^f (alphabetical order)<ul style="list-style-type: none">▶ Duvelisib▶ Idelalisib ± rituximab• CIT or Immunotherapy<ul style="list-style-type: none">▶ Bendamustine + rituximab^k (category 2B for patients ≥65 y or patients <65 y with significant comorbidities)▶ FCR^{n,o,p}▶ Lenalidomide ± rituximab▶ Obinutuzumab▶ HDMP + rituximab or obinutuzumab (category 2B)

NCCN Preferred Treatment Regimens: TP53 Mutated



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SUGGESTED TREATMENT REGIMENS^{a,b,c,d}

CLL/SLL with del(17p)/TP53 mutation
(alphabetical by category)

CIT is not recommended since del(17p)/TP53 mutation is associated with low response rates.

FIRST-LINE THERAPY^e

Preferred regimens

- Acalabrutinib^f ± obinutuzumab
- Venetoclax^{f,g} + obinutuzumab
- Zanubrutinib^f

Other recommended regimens

- Alemtuzumab^r ± rituximab
- HDMP + rituximab
- Ibrutinib^{f,h}
- Obinutuzumab
- Ibrutinib + venetoclax^{f,g} (category 2B)

SECOND-LINE AND SUBSEQUENT THERAPY^e

Preferred regimens

- Acalabrutinib^{f,q} (category 1)
- Venetoclax^{f,g} + rituximab (category 1)
- Venetoclax^{f,g}
- Zanubrutinib^{f,q}

Other recommended regimens

- Ibrutinib^{f,h} (category 1)
- Alemtuzumab^r ± rituximab
- Duvelisib^f
- HDMP + rituximab
- Idelalisib^f ± rituximab^s
- Lenalidomide^t ± rituximab

Treatment Regimens

Frontline

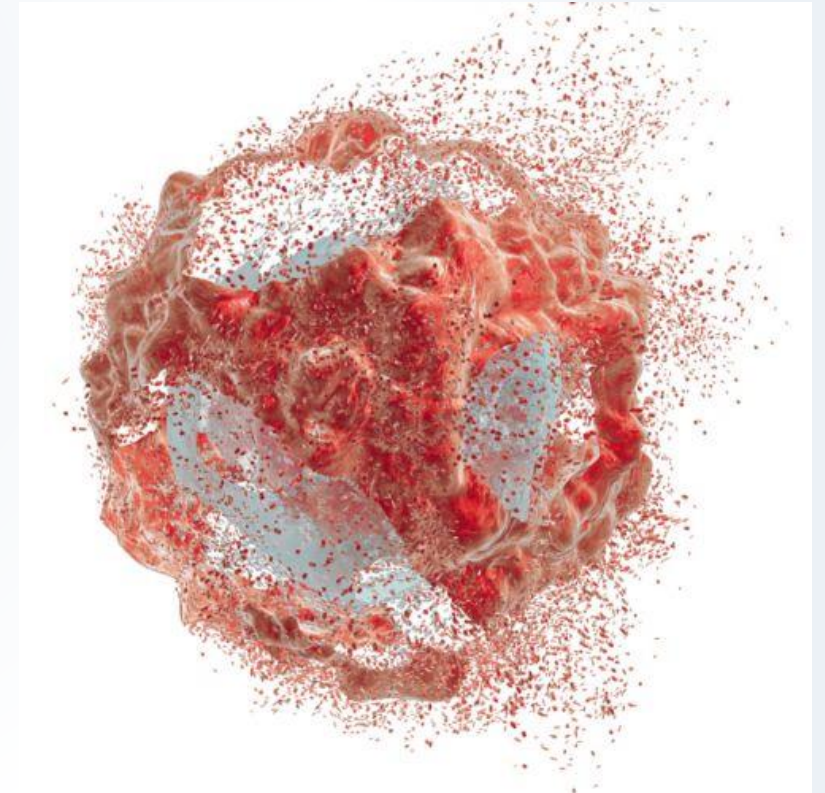
BTK Inhibitors - indefinite therapy

First generation: ibrutinib

Second generation: acalabrutinib (+/- obinutuzumab), zanubrutinib

Anti-CD20 monoclonal antibody + BCL2 inhibitor

Obinutuzumab + venetoclax for 1 year



Relapsed/Refractory:

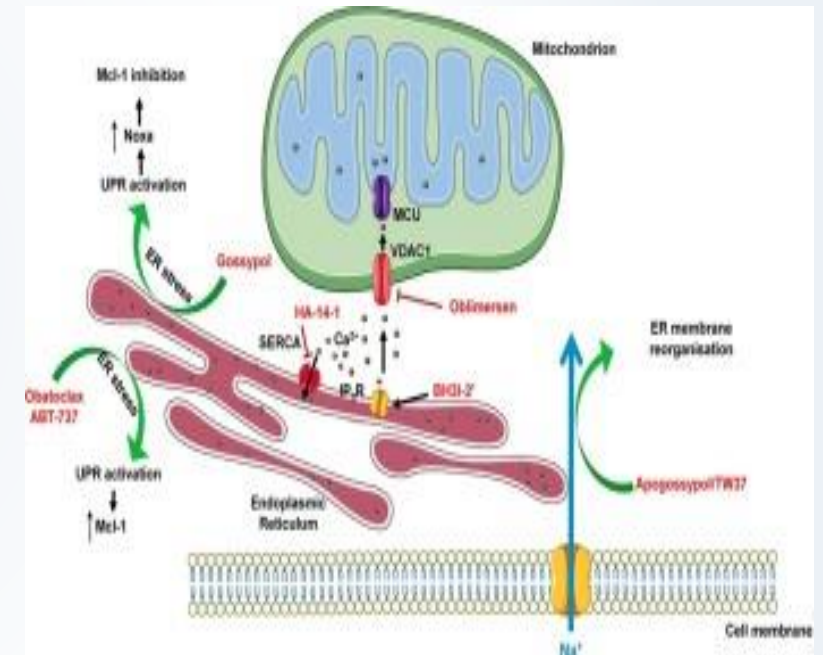
BTK Inhibitors - indefinite therapy

First generation: ibrutinib

Second generation: acalabrutinib, zanubrutinib

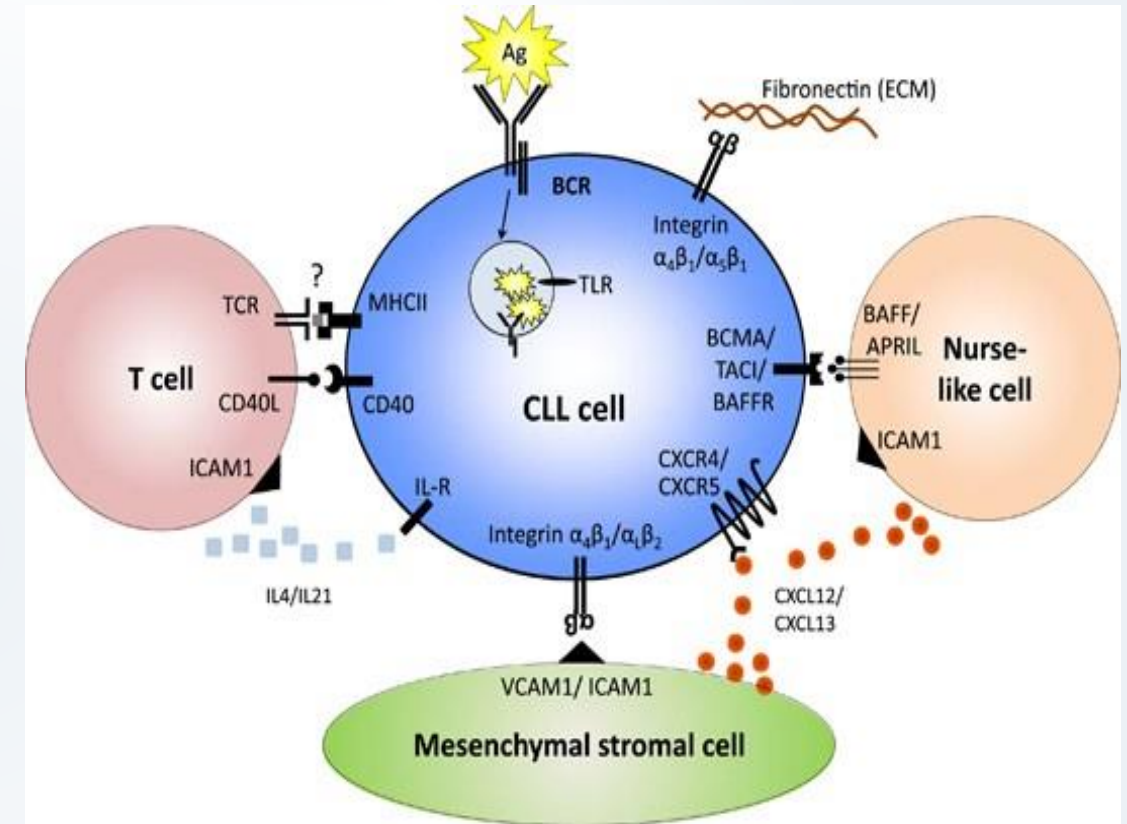
BCL2 inhibitor + Anti-CD20 monoclonal antibody

Venetoclax + rituximab for 2 years



Considerations: BTK-inhibitors

- **Treatment-related lymphocytosis:** expected initially, typically decreases over the first several months of treatment
- **Rash:** identify drug rash early, consult dermatology
- **Atrial fibrillation & other cardiac risk factors:** screen prior to initiation; d/c ibrutinib if occurs
- **Bleeding:** must hold for invasive procedures
- **HTN:** consult to manage BP
- **Headache** (acalabrutinib): acetaminophen + caffeine, typically resolves after first few weeks of treatment
- **Myalgias**
- **Fatigue**
- **Diarrhea** (transient): loperamide, infectious workup



Considerations: venetoclax

Upon initiation of treatment:

Tumor lysis syndrome (TLS) ramp up protocol

Antiuricemic

Reinforce hydration

Adverse events:












TLS (during ramp up)

Cytopenias - mostly neutropenia

Infection (URI)

Diarrhea

Fatigue

	LOW TUMOR BURDEN		MEDIUM TUMOR BURDEN		HIGH TUMOR BURDEN																																																																															
STEP 1: ASSESS Prior to initiation	All lymph nodes (LN) <5 cm	AND	Absolute lymphocyte count (ALC) <25 x 10 ⁹ /L	Any LN 5 cm to <10 cm	OR	ALC ≥25 x 10 ⁹ /L																																																																														
STEP 2: PREPARE At least 2 days prior to first dose	 Oral hydration*: 1.5-2 L	 Allopurinol [†]	  Oral hydration*: 1.5-2 L IV hydration ^{1,5} : Consider for patients with medium tumor burden, occurring during outpatient stay	 Allopurinol [†]	  Oral hydration*: 1.5-2 L AND IV hydration : 150-200 mL/h as tolerated prior to first dose	 Allopurinol [†] Rasburicase^{1,5} : Consider for elevated uric acid (>8 mg/dL)																																																																														
STEP 3: INITIATE And monitor blood chemistry ⁵ for first dose of each ramp-up week	<div>OUTPATIENT</div> <table><tr><th>Day 1, Week:</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th></tr><tr><th>Dosage</th><th>20 mg</th><th>50 mg</th><th>100 mg</th><th>200 mg</th><th>400 mg</th></tr><tr><td rowspan="4">Blood chemistry labs</td><td>Pre-Dose</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>6-8 Hours</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>—</td><td>—</td><td>—</td></tr><tr><td>24 Hours</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>—</td><td>—</td><td>—</td></tr></table>					Day 1, Week:	1	2	3	4	5	Dosage	20 mg	50 mg	100 mg	200 mg	400 mg	Blood chemistry labs	Pre-Dose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6-8 Hours	<input type="checkbox"/>	<input type="checkbox"/>	—	—	—	24 Hours	<input type="checkbox"/>	<input type="checkbox"/>	—	—	—	<div>HOSPITAL<div>OUTPATIENT</div></div> <table><tr><th>Day 1, Week:</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th></tr><tr><th>Dosage</th><th>20 mg</th><th>50 mg</th><th>100 mg</th><th>200 mg</th><th>400 mg</th></tr><tr><td rowspan="5">Blood chemistry labs</td><td>Pre-Dose</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>4 Hours</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>—</td><td>—</td><td>—</td></tr><tr><td>8 Hours</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td>12 Hours</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>—</td><td>—</td><td>—</td></tr><tr><td>24 Hours</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></table>					Day 1, Week:	1	2	3	4	5	Dosage	20 mg	50 mg	100 mg	200 mg	400 mg	Blood chemistry labs	Pre-Dose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4 Hours	<input type="checkbox"/>	<input type="checkbox"/>	—	—	—	8 Hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 Hours	<input type="checkbox"/>	<input type="checkbox"/>	—	—	—	24 Hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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For the first doses of 20 mg and 50 mg, consider hospitalization for patients with medium tumor burden and CLcr <80 mL/min; for these patients, see table to the right for monitoring in hospital.																																																																																				

VENCLEXTA® (venetoclax tablets) | Risk Assessment for CLL/SLL (venclextahcp.com)

Rai, K.R., Stilgenbauer, S. "Selection of initial therapy for symptomatic or advanced chronic lymphocytic leukemia." *Up to Date*, 06 July 2022.

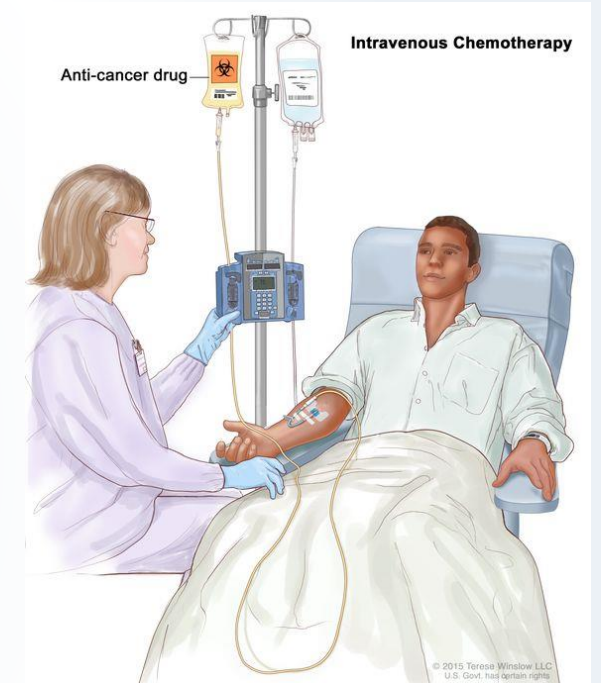
Chemotherapy and Immunotherapy – No Longer Preferred

Regimens:

Bendamustine + anti-CD20 monoclonal antibody

Chlorambucil + obinutuzumab

Past: FCR = fludarabine, cyclophosphamide, rituximab



Chemoimmunotherapy is not recommended for those with del(17p)/TP53 mutation because it's associated with low response rates

HSCT & CAR T

Stem Cell transplant

- Should be done via clinical trial
- Candidacy: CLL patients are typically elderly due to the slowly progressive nature of the disease
- However, this criteria is changing due to the advent of targeted therapies and genetic testing

CAR T-cell therapy

- Investigational
- AEs can be serious: neurotox, CRS
- Future: “off the shelf” CAR-NK

Rai, K.R., Stilgenbauer, S. “Hematopoietic cell transplantation in chronic lymphocytic leukemia.” *Up to Date*, 06 July 2022. PFS = progression-free survival. OS = overall survival. HCT = hematopoietic cell transplantation.

Rai, K.R., Stilgenbauer, S. “Treatment of relapsed or refractory chronic lymphocytic leukemia.” *Up to Date*, 02 Sep 2022

