

# RELAPSED/REFRACTORY CHRONIC LYMPHOCYTIC LEUKEMIA

## Venetoclax–Rituximab Dosing Regimen

*This is a medical resource for scientific information and is intended for healthcare providers practicing in the United States*

*Current as of February 9, 2026*



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Rituximab infusions

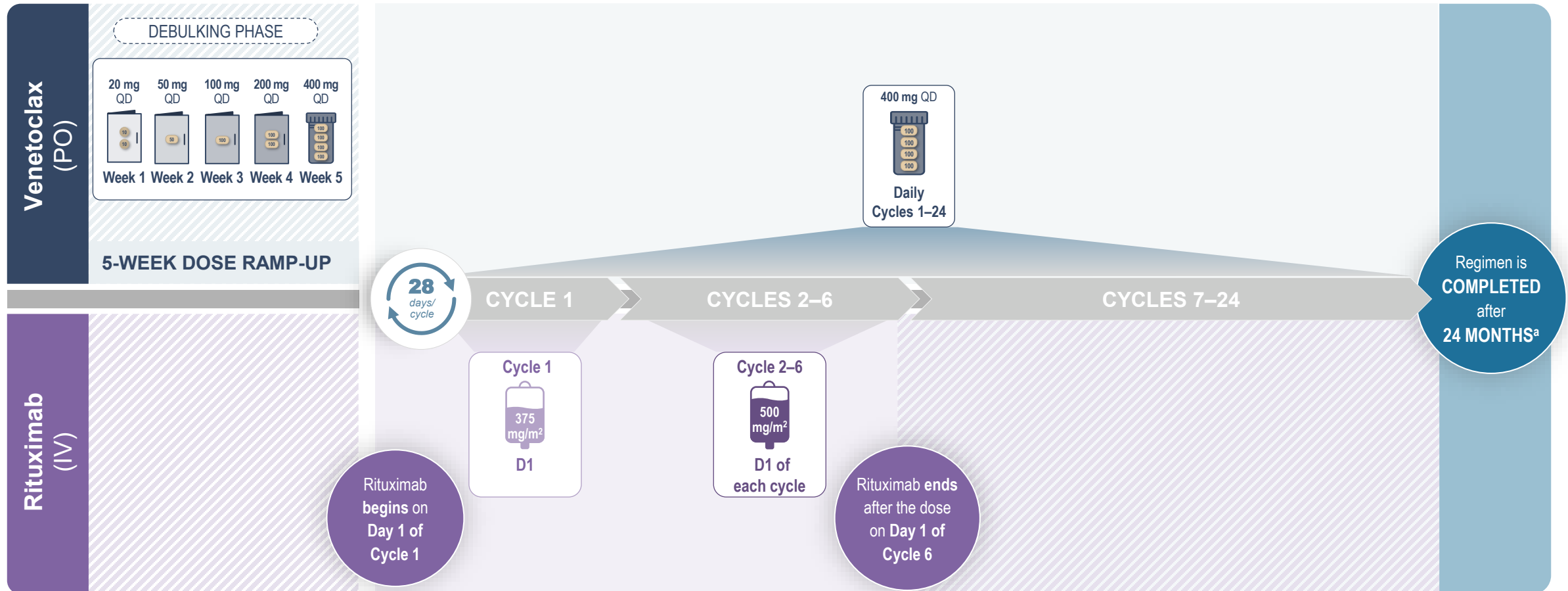


Dose modifications for drug interactions and adverse reactions



Appendix

# VENETOCLAX–RITUXIMAB DOSING SCHEDULE OVERVIEW



Rituximab general administration guidelines (view [here](#)).

<sup>a</sup>From Cycle 1, Day 1, of rituximab.

Graphic is not to scale. Each cycle is 28 days.

D=day; IV=intravenous; PO=oral; QD=once daily.

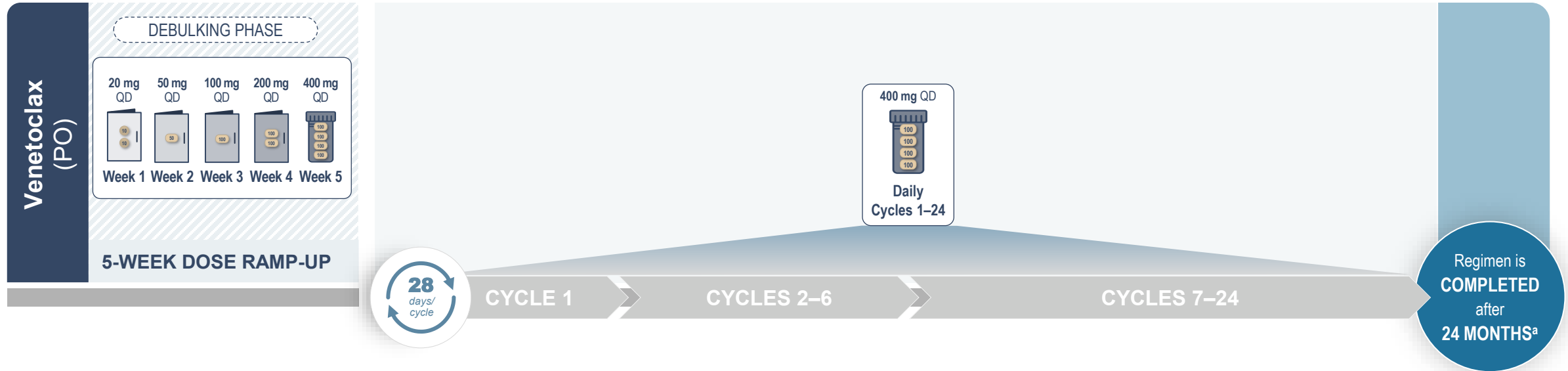
1. Venclaxta (venetoclax) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2024. 2. Seymour JF, et al. *N Engl J Med*. 2018;378:1107–1120 (suppl).



# VENETOCLAX RAMP-UP



# VENETOCLAX RAMP-UP



Preparing for Venetoclax Ramp-Up

Tumor Burden and TLS Risk Assessment

Venetoclax Ramp-Up: Low or Medium Tumor Burden/TLS Risk

Venetoclax Ramp-Up: High Tumor Burden/TLS Risk

<sup>a</sup>Following the venetoclax 5-week ramp up. Cycle 1, Day 1 of rituximab Venclaxta (venetoclax) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2024.



# PREPARING FOR VENETOCLAX RAMP-UP

## All patients

## Patients with hepatic impairment (Child-Pugh class C)

### TLS risk assessment



Reassess tumor burden (repeat ALC) and recategorize TLS risk as appropriate

### Hydration



Ensure adequate hydration every day during venetoclax ramp-up and with resumption after an interruption

### Blood chemistry



Assess blood chemistry (potassium, uric acid, phosphorus, calcium, and creatinine) and correct pre-existing abnormalities

### Drug interactions



Determine if the patient is taking any medications that interact with venetoclax, which may require an alternative medication or venetoclax dose modification

### Dose modification



Determine if venetoclax daily dose should be reduced by 50% for patients with hepatic impairment

Please see additional TLS prophylaxis considerations for rituximab administration.

Low/medium tumor burden/TLS risk

High tumor burden/TLS risk

Click for details on prophylaxis and monitoring by tumor burden/TLS risk.



Preparing for Venetoclax Ramp-Up

Tumor Burden and TLS Risk Assessment

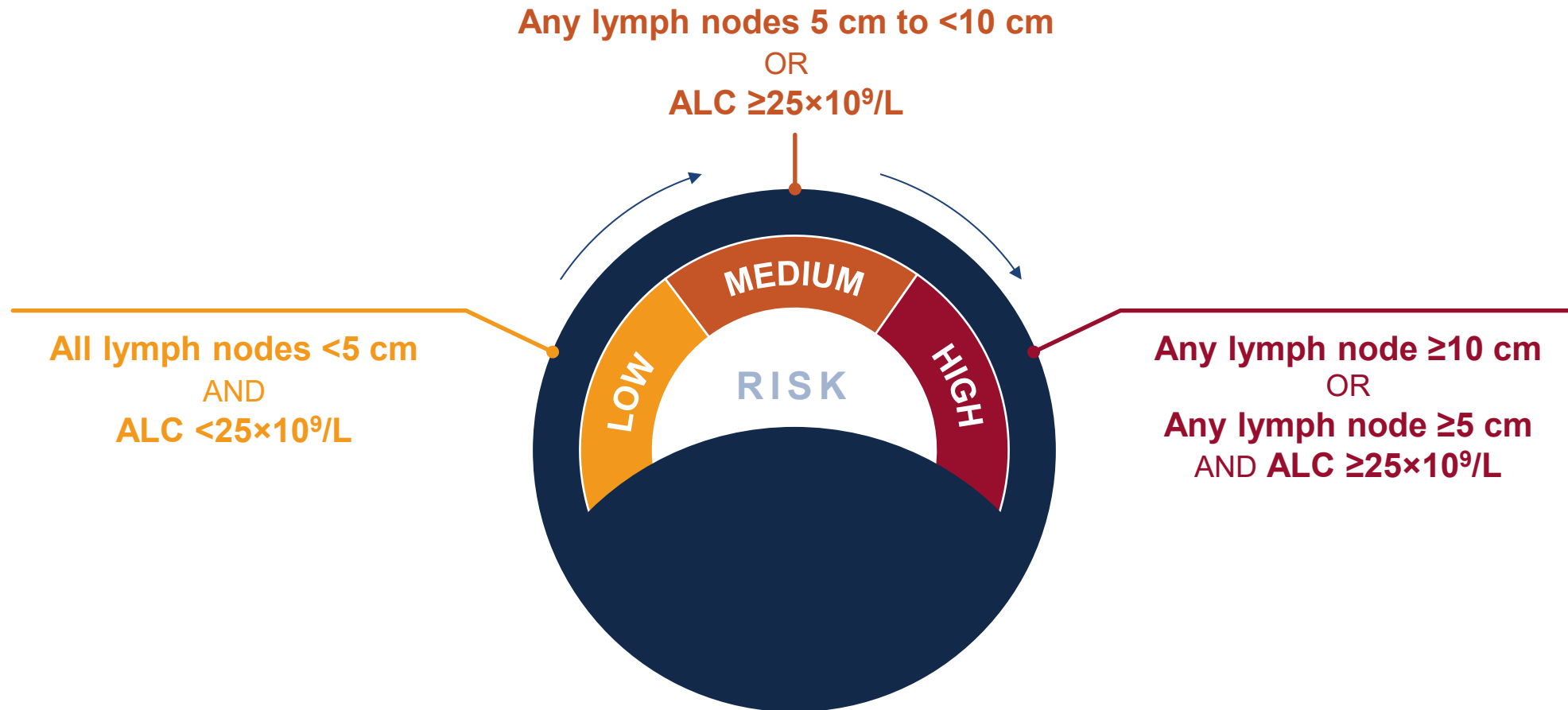
Venetoclax Ramp-Up: Low or Medium Tumor Burden/TLS Risk

Venetoclax Ramp-Up: High Tumor Burden/TLS Risk

ALC=absolute lymphocyte count; TLS=tumor lysis syndrome.

1. Venclaxta (venetoclax) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2024. 2. Seymour JF, et al. *N Engl J Med.* 2018;378:1107–1120 (protocol).

# TUMOR BURDEN AND TLS RISK ASSESSMENT





# VENETOCLAX RAMP-UP: **LOW OR MEDIUM** TUMOR BURDEN/TLS RISK

## 5-WEEK DOSE RAMP-UP

20 mg QD



Week 1

50 mg QD



Week 2

100 mg QD



Week 3

200 mg QD



Week 4

400 mg QD



Week 5

### TLS prophylaxis

#### Hydration



1.5–2.0 L/d PO<sup>a</sup> throughout the ramp-up phase beginning **at least** 2 days prior to and continuing for at least 24 hours after the first dose of each dose level.  
**For patients with medium tumor burden:** Consider IV hydration in addition to oral hydration during outpatient stay for the first doses of 20 mg and 50 mg.

#### Antihyperuricemic



Allopurinol 300 mg/d beginning **at least** 2 days prior to initiation of venetoclax and continuing until ramp-up is completed.

### Laboratory monitoring on the first day of each dose level

#### Setting



Outpatient

**For patients with medium tumor burden and CrCl <80 mL/min:** Consider hospitalization for the first venetoclax doses of 20 mg and 50 mg. For these patients, follow the TLS prophylaxis and monitoring plan for high tumor burden.

#### Blood chemistry tests



Predose, 6–8 hours, and 24 hours

Predose, 6–8 hours, and 24 hours

Predose

Predose

Predose



Preparing for Venetoclax Ramp-Up

Tumor Burden and TLS Risk Assessment

**Venetoclax Ramp-Up: Low or Medium  
Tumor Burden/TLS Risk**
**Venetoclax Ramp-Up: High  
Tumor Burden/TLS Risk**

<sup>a</sup>Administer IV hydration to any patient who cannot tolerate oral hydration.

CrCl=creatinine clearance.

Venclexta (venetoclax) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2024.



# VENETOCLAX RAMP-UP: HIGH TUMOR BURDEN/TLS RISK

## 5-WEEK DOSE RAMP-UP

20 mg QD



Week 1

50 mg QD



Week 2

100 mg QD



Week 3

200 mg QD



Week 4

400 mg QD



Week 5

### TLS prophylaxis

#### Hydration



1.5–2.0 L/d PO<sup>a</sup> throughout the ramp-up phase beginning **at least** 2 days prior to and continuing for at least 24 hours after the first dose of each dose level.  
AND



IV hydration 150–200 mL/h as tolerated prior to the first dose of each dose level.

#### Antihyperuricemic



Allopurinol 300 mg/d beginning **at least** 2 days prior to initiation of venetoclax and continuing until ramp-up is completed.



Consider rasburicase for elevated uric acid (>8 mg/dL).

### Laboratory monitoring on the first day of each dose level

#### Setting



Hospital



Outpatient

#### Blood chemistry tests



Predose, 4, 8, 12, and 24 hours

Predose, 4, 8, 12, and 24 hours

Predose, 8 hours, and 24 hours

Predose, 8 hours, and 24 hours

Predose, 8 hours, and 24 hours



Preparing for Venetoclax Ramp-Up

Tumor Burden and TLS Risk Assessment

Venetoclax Ramp-Up: Low or Medium Tumor Burden/TLS Risk

Venetoclax Ramp-Up: High Tumor Burden/TLS Risk

<sup>a</sup>Administer IV hydration to any patient who cannot tolerate oral hydration.

1. Venclexxa (venetoclax) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2024. 2. Seymour JF, et al. *N Engl J Med*. 2018;378:1107–1120 (protocol).



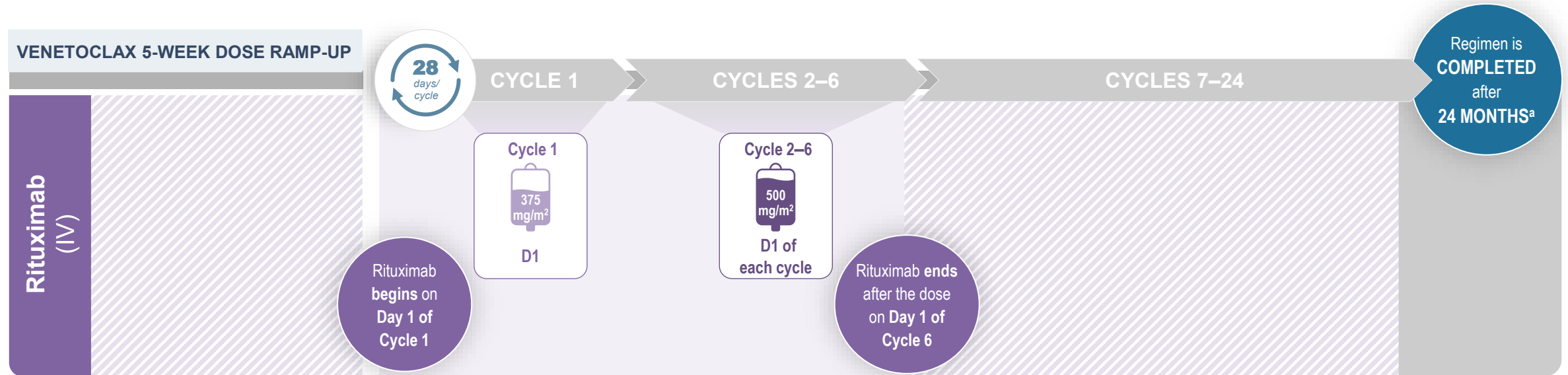
# RITUXIMAB INFUSIONS

**WARNING: FATAL INFUSION-RELATED REACTIONS, SEVERE MUCOCUTANEOUS REACTIONS, HEPATITIS B VIRUS REACTIVATION AND PROGRESSIVE MULTIFOCAL LEUKOENCEPHALOPATHY**

Please refer to the full [prescribing information](#) for additional details.



# CYCLES 1 THROUGH 6: RITUXIMAB INFUSIONS



Tumor Lysis Syndrome Prophylaxis

Infection Prophylaxis

Premedications to Reduce IRR

Dosing Schedule and Infusion Rates

IRR Management

<sup>a</sup>From Cycle 1, Day 1, of rituximab. IRR=infusion-related reaction.

1. Rituxan (rituximab) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2021. 2. Seymour JF, et al. *N Engl J Med.* 2018;378:1107–1120 (suppl).



# TUMOR LYSIS SYNDROME PROPHYLAXIS

A high number of circulating malignant cells ( $\geq 25,000/\text{mm}^3$ ) or high tumor burden confers a greater risk of TLS and should receive prophylaxis

## TLS PROPHYLAXIS

ADEQUATE HYDRATION



ANTI-HYPERURICEMICS



## LABORATORY PARAMETERS

Monitor laboratory parameters of patients considered at risk for TLS during initial days of treatment

## FOR PATIENTS WITH TLS

Correct electrolyte abnormalities, monitor renal function and fluid balance, and administer supportive care, including dialysis as indicated.

Please see additional TLS prophylaxis considerations for venetoclax administration.

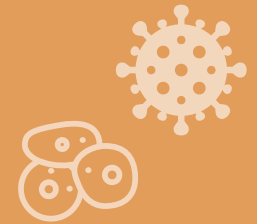




# INFECTION PROPHYLAXIS

## INFECTION PROPHYLAXIS

Provide prophylaxis for *Pneumocystis jirovecii* pneumonia (PCP) and Herpes virus infections during treatment and for up to 12 months following treatment as appropriate



**WARNING:** Hepatitis B Virus (HBV) Reactivation – HBV reactivation can occur in patients treated with rituximab, in some cases resulting in fulminant hepatitis, hepatic failure, and death. See full [prescribing information](#) for additional information.



Tumor Lysis Syndrome Prophylaxis

Infection Prophylaxis

Premedications to Reduce IRR

Dosing Schedule and Infusion Rates

IRR Management

HBV=hepatitis B virus; PCP=*Pneumocystis jirovecii* pneumonia .

1. Rituxan (rituximab) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2021. 2. Seymour JF, et al. *N Engl J Med.* 2018;378:1107–1120 (suppl).



# RITUXIMAB PREMEDICATIONS TO REDUCE IRRs

## ANTIPYRETIC

### DOSAGE

Acetaminophen **650 mg to 1000 mg PO**



### ADMINISTRATION

At least **30 minutes** before rituximab infusion

## ANTIHISTAMINE

### DOSAGE

Diphenhydramine **25–50 mg PO/IV** or equivalent



### ADMINISTRATION

At least **30 minutes** before rituximab infusion

## CORTICOSTEROID (*OPTIONAL*)<sup>a</sup>

### DOSAGE

A single dose of hydrocortisone 100 mg or equivalent dose of methylprednisolone



### ADMINISTRATION

With rituximab infusion (per institution protocol)

Cycles 1–6: All patients



Hypotension may occur during infusions. Consider withholding antihypertensive treatments for 12 hrs prior infusion.

**WARNING:** Rituximab administration can result in serious, including fatal, infusion related reactions. Please see [prescribing information](#) for additional information.



<sup>a</sup>If this is usual practice at institution.

1. Rituxan (rituximab) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2021. 2. Seymour JF, et al. *N Engl J Med.* 2018;378:1107–1120 (protocol).



## RITUXIMAB DOSING SCHEDULE AND INFUSION RATES

### CYCLE 1

DAY 1



- Initiate infusion at a rate of 50 mg/h
  - In the absence of infusion toxicity, increase infusion rate by 50 mg/h increments every 30 minutes, to a maximum of 400 mg/h
- If an IRR develops, stop or slow the infusion
  - Administer infusion-reaction medications and supportive care in accordance with institutional guidelines
  - If the reaction resolves, resume the infusion at a 50% reduction in rate<sup>a</sup>

### CYCLES 2–6

DAY 1



- Initiate infusion at a rate of 100 mg/h
  - In the absence of infusion toxicity, increase infusion rate by 100 mg/h increments at 30 minute intervals, to a maximum of 400 mg/h
- If the patient experienced an infusion-related or hypersensitivity reaction during the prior infusion, begin infusion at an initial rate of 50 mg/h and follow instructions for first infusion (Cycle 1, Day 1)
- If an IRR develops, stop or slow the infusion
  - Administer infusion-reaction medications and supportive care in accordance with institutional guidelines
  - If the reaction resolves, resume the infusion at a 50% reduction in rate<sup>a</sup>

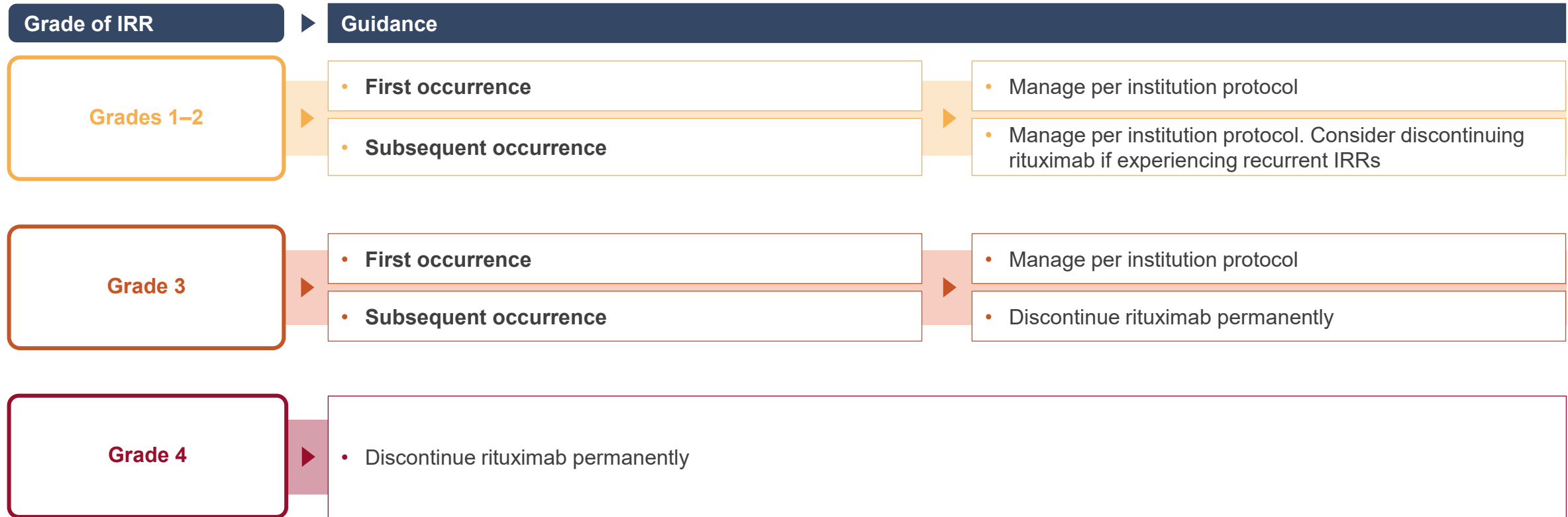


<sup>a</sup>For example, resume infusion at 50% of the rate used at the time that the reaction occurred.

1. Rituxan (rituximab) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2021. 2. Seymour JF, et al. *N Engl J Med.* 2018;378:1107–1120 (protocol).



# MANAGEMENT OF RITUXIMAB INFUSION-RELATED REACTIONS





# DOSE MODIFICATIONS FOR DRUG INTERACTIONS AND ADVERSE REACTIONS



# VENETOCLAX DOSE MODIFICATIONS FOR DRUG INTERACTIONS

COADMINISTERED DRUG	INITIATION AND RAMP-UP PHASE	STEADY DAILY DOSE (post ramp-up phase) <sup>a</sup>
<b>Posaconazole</b>	Contraindicated	Reduce to 70 mg
<b>Other strong CYP3A inhibitor</b>	Contraindicated	Reduce to 100 mg
<b>Moderate CYP3A inhibitor</b>	Reduce by at least 50%	Reduce by at least 50% (to 200 mg or less)
<b>P-gp inhibitor</b>	Reduce by at least 50%	Reduce by at least 50% (to 200 mg or less)

<sup>a</sup>Consider alternative medications or reduce the venetoclax dose as described.  
 CYP3A=cytochrome P450, family 3, subfamily A; P-gp=P-glycoprotein.  
 Venclexta (venetoclax) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2024.

# DOSE MODIFICATIONS FOR ADVERSE REACTIONS (1 of 2)

Adverse reaction	Occurrence	Venetoclax dose modification	Rituximab dose modification (Cycles 1–6)
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## Hematologic adverse reactions

<p><b>Grade 3 neutropenia with infection or fever</b></p> <p>OR</p> <p><b>Grade 4 hematologic toxicities (except lymphopenia)</b></p>	1st occurrence	<ul style="list-style-type: none"> <li>Interrupt venetoclax</li> <li>Upon resolution to Grade 1 or baseline level, resume venetoclax at the same dose</li> </ul>	<ul style="list-style-type: none"> <li>Withhold rituximab</li> <li>Upon resolution, resume rituximab at the same dose</li> </ul>
	2nd and subsequent occurrences	<ul style="list-style-type: none"> <li>Interrupt venetoclax</li> <li>Upon resolution, resume venetoclax at the reduced dose<sup>a</sup></li> </ul>	
	Any occurrence	<ul style="list-style-type: none"> <li>Consider G-CSF or growth factors for neutropenia as indicated</li> </ul>	

## Non-hematologic adverse reactions

<b>Grade 2 non-hematologic toxicities</b>	Any occurrence	<ul style="list-style-type: none"> <li>Delay venetoclax and rituximab</li> <li>Upon resolution to Grade ≤1 or baseline, resume at same doses</li> </ul>	
<p><b>Grade 3 or 4 non-hematologic toxicities</b></p>	1st occurrence	<ul style="list-style-type: none"> <li>Interrupt venetoclax</li> <li>Upon resolution to Grade 1 or baseline level, resume venetoclax at the same dose</li> </ul>	<ul style="list-style-type: none"> <li>Delay rituximab</li> <li>Upon resolution to Grade 1 or baseline, resume rituximab at the same dose</li> </ul>
	2nd and subsequent occurrences	<ul style="list-style-type: none"> <li>Interrupt venetoclax</li> <li>Upon resolution, resume venetoclax at the reduced dose<sup>a</sup></li> </ul>	

<sup>a</sup>See next slide for dose reductions. G-CSF=granulocyte-colony stimulating factor.

1. Venclexta (venetoclax) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2024. 2. Seymour JF, et al. *N Engl J Med.* 2018;378:1107–1120 (protocol).



## DOSE MODIFICATIONS FOR ADVERSE REACTIONS (2 of 2)

Adverse reaction	Occurrence	Venetoclax dose modification
<b>Tumor lysis syndrome</b>		
Blood chemistry changes or symptoms suggestive of TLS	Any occurrence	<ul style="list-style-type: none"> <li>Withhold the next day's dose. If resolved within 24–48 hours of last dose, resume at the same dose</li> <li>For any blood chemistry changes requiring more than 48 hours to resolve, resume at the reduced dose</li> <li>For any events of clinical TLS,<sup>a</sup> resume at the reduced dose following resolution</li> </ul>

Consider discontinuing venetoclax for patients who require dose reductions to less than 100 mg for more than 2 weeks.

Venetoclax dose at interruption, mg	Venetoclax restart dose, mg <sup>b,c</sup>
400	300
300	200
200	100
100	50
50	20
20	10

<sup>a</sup>Clinical TLS was defined as laboratory TLS with clinical consequences such as renal failure, cardiac arrhythmias, or sudden death and/or seizures. <sup>b</sup>During the ramp-up phase, continue the reduced dose for 1 week before increasing the dose.

<sup>c</sup>If a dosage interruption lasts more than 1 week during the ramp-up phase or more than 2 weeks after completion of ramp-up, reassess the risk of TLS and determine whether reinitiation at a reduced dosage is necessary.

1. Venclexta (venetoclax) [prescribing information]. South San Francisco, CA: Genentech, Inc.; 2024.