# EPKINLY CONCENTRATE FOR SOLUTION FOR INJECTION 4 MG/0.8 ML EPKINLY SOLUTION FOR INJECTION 48 MG/0.8 ML

**Epcoritamab** 

#### 1. PRODUCT NAME

#### 1.1 Generic name

Epcoritamab

#### 1.2 Tradename

**EPKINLY** 

#### 2. INDICATION

EPKINLY is indicated for the treatment of adult patients with relapsed or refractory diffuse large B-cell lymphoma (DLBCL) after two or more lines of systemic therapy.

## 3. DOSAGE AND ADMINISTRATION

## 3.1 Recommended dosage and premedications

Epcoritamab is for subcutaneous (SC) injection only. Epcoritamab should be administered by a licensed healthcare professional.

Administered epcoritamab according to the following schedule in 28-day cycles.

**Table 1: Dosing Schedule** 

Dosing schedule	Cycle of treatment	Days	Epcoritamab dose (mg) <sup>a</sup>
Weekly	Cycle 1	1	0.16 mg (Step-up dose 1)
		8	0.8 mg (Step-up dose 2)
		15	48 mg (First full dose)
		22	48 mg
Weekly	Cycles 2 - 3	1, 8, 15, 22	48 mg
Every two weeks	Cycles 4 - 9	1, 15	48 mg
Every four weeks	Cycles 10 +	1	48 mg
<sup>a</sup> 0.16 mg is a priming	g dose, 0.8 mg is an interme	ediate dose and 48	mg is a full dose.

Administer epcoritamab until disease progression or unacceptable toxicity.

## Premedications and Prophylaxis

Epcoritamab should be administered to adequately hydrated patients.

Details on recommended premedication for CRS is shown in Table 2.

**Table 2: Epcoritamab Premedications** 

Cycle	Patient requiring premedication	Premedication	Administration
Cycle 1	All patients	Prednisolone (100 mg oral or IV) or equivalent	<ul> <li>30-120 minutes prior to each weekly administration of epcoritamab</li> <li>And for three consecutive days following each weekly administration of EPKINLY in Cycle 1</li> </ul>
		<ul> <li>Diphenhydramine (50 mg oral or IV) or equivalent</li> <li>Acetaminophen (650 to 1,000 mg oral)</li> </ul>	30-120 minutes prior to the administration of epcoritamab
Cycle 2 and beyond	Patients who experienced Grade 2 or 3 <sup>a</sup> CRS with previous dose	Prednisolone (100 mg oral or IV) or equivalent	<ul> <li>30-120 minutes prior to next administration of EPKINLY after a grade 2 or 3<sup>a</sup> CRS event</li> <li>And for three consecutive days following the next administration of EPKINLY until EPKINLY is given without subsequent CRS of Grade 2 or higher</li> </ul>
<sup>a</sup> Patients wi	ll be permanently disco	ontinued from EPKINLY a	after a Grade 4 CRS event.

Prophylaxis against *Pneumocystis jirovecii* pneumonia (PCP) and herpes virus infections is strongly recommended especially during concurrent use of steroids.

Monitor patients for potential CRS and immune effector cell-associated neurotoxicity syndrome (ICANS) following EPKINLY administrations during Cycle 1 and in subsequent cycles as needed at the physician's discretion. Following administration of the first full dose, patients should remain within close proximity to a healthcare facility that can assess and manage potential CRS and /or ICANS for at least 24 hours. Counsel patients on the signs and symptoms associated with CRS and ICANS and on seeking immediate medical attention should signs or symptoms occur at any time (see **Warnings and Precautions (5.1 and 5.2)**).

## 3.2 Missed or Delayed Dose

A re-priming Cycle (identical to Cycle 1 with standard CRS prophylaxis) is required:

- If there are more than 8 days between the priming dose (0.16 mg) and intermediate dose (0.8 mg), or
- If there are more than 14 days between the intermediate dose (0.8 mg) and first full dose (48 mg), or

• If there are more than 6 weeks between full doses (48 mg)

After the re-priming cycle, the patient should resume treatment with Day 1 of the next planned treatment cycle (subsequent to the cycle during which the dose was delayed).

# 3.3 Dosage Modifications and Management of Adverse Reactions

Cytokine Release Syndrome (CRS)

Patients treated with EPKINLY may develop CRS.

Evaluate for and treat other causes of fever, hypoxia, and hypotension. If CRS is suspected, manage according to the recommendations in Table 3. Patients who experience CRS should be monitored more frequently during next scheduled EPKINLY administrations.

**Table 3: CRS Grading and Management Guidance** 

Grade <sup>1</sup>	Recommended Therapy	<b>EPKINLY Dose Modification</b>
Grade 1 • Fever (temperature ≥	Anti-cytokine Therapy: Consider anti-cytokine therapy	Hold EPKINLY until resolution
38°C) without hypotension or hypoxia	in certain cases, e.g., advanced age, high tumor burden, circulating tumor cells, fever refractory to antipyretics.  Tocilizumab 8 mg/kg IV over 1 hour (not to exceed 800 mg per dose). Repeat tocilizumab after at least 8 hours as needed.  Maximum of 2 doses in a 24-hour period.	of CRS event.
	In case of concurrent ICANS choose alternative to tocilizumab (e.g., siltuximab, anakinra). See <b>Table 4.</b>	
	Corticosteroids In case of concurrent ICANS, initiation of corticosteroids are highly recommended. Consider Dexamethasone 10-20 mg per	
	day (or equivalent).	

Grade <sup>1</sup>	<b>Recommended Therapy</b>	<b>EPKINLY Dose Modification</b>
Grade 2 <sup>a</sup>	Anti-cytokine Therapy:	
• Fever (temperature ≥	Tocilizumab 8 mg/kg IV over 1	Hold EPKINLY until resolution
38°C)	hour (not to exceed 800 mg per	of CRS event.
	dose). Repeat tocilizumab after	
AND	at least 8 hours as needed.	
<b>TT</b>	Maximum of 2 doses in a 24-	
• Hypotension not requiring	hour period.	
vasopressors.	If CDS is refrectory to initial	
AND/OR	If CRS is refractory to initial anti-cytokine therapy,	
AND/OR	initiate/increase dose of	
• Hypoxia requiring low-	corticosteroid therapy and	
flow (≤6 L/minute)	consider alternative anti-	
nasal cannula	cytokine therapy.	
or blow-by	eytemme therapy.	
	In case of concurrent ICANS	
	choose alternative to	
	tocilizumab (e.g., siltuximab,	
	anakinra) See Table 4.	
	Corticosteroids:	
	In case of concurrent ICANS,	
	initiation of corticosteroids is	
	highly recommended. Consider	
	dexamethasone 10-20 mg per	
C 1- 28	day (or equivalent).	
Grade 3 <sup>a</sup>	Anti-cytokine therapy	Hold EPKINLY until resolution
• Fever (temperature ≥ 38°C)	Tocilizumab 8 mg/kg IV over 1 hour (not to exceed 800 mg per	of CRS event.
36 C)	dose). Repeat tocilizumab after	of CRS event.
AND	at least 8 hours as needed.	
	Maximum of 2 doses in a 24-	
• Hypotension requiring 1	hour period.	
vasopressor with or without	and F and an	
vasopressin.	If CRS is refractory to initial	
•	anti-cytokine therapy,	
AND/OR	initiate/increase dose of	
	corticosteroid therapy and	
<ul> <li>Hypoxia requiring high-</li> </ul>	consider alternative anti-	
flow (>6 L/minute) nasal	cytokine therapy.	
cannula, facemask, non-		
rebreather mask, or venturi	In case of concurrent ICANS	
mask	choose alternative to	
	tocilizumab (e.g., siltuximab,	
	anakinra) See <b>Table 4.</b>	

Grade <sup>1</sup>	Recommended Therapy	<b>EPKINLY Dose Modification</b>
	Corticosteroids: Dexamethasone (e.g., 10-20 mg IV every 6 hours). If no response, initiate methylprednisolone 1000 mg/day.	
Grade 4	Anti-cytokine Therapy	
• Fever (temperature $\geq$ 38°C)	Tocilizumab 8 mg/kg IV over 1 hour (not to exceed 800 mg per dose). Repeat tocilizumab after	Permanently discontinue EPKINLY
AND	at least 8 hours as needed.  Maximum of 2 doses in a 24-	
Hypotension requiring ≥ 2 vasopressors (excluding	hour period.	
vasopressin)	If CRS is refractory to initial anti-cytokine therapy,	
AND/OR	initiate/increase dose of corticosteroid therapy and	
• Hypoxia requiring positive pressure ventilation (e.g. CPAP, BiPAP, intubation	consider alternative anti- cytokine therapy.	
and mechanical ventilation)	In case of concurrent ICANS choose alternative to	
	tocilizumab (e.g., siltuximab, anakinra) See <b>Table 4.</b>	
	Corticosteroids	
	Dexamethasone (e.g., 10-20	
	mg IV every 6 hours). If no	
	response, initiate methylprednisolone 1000	
	mg/day.	

<sup>&</sup>lt;sup>1</sup> CRS graded according to ASTCT consensus criteria (Lee et al., 2019)

# Immune Effector Cell Associated Neurotoxicity Syndrome (ICANS)

Monitor patients for signs and symptoms of ICANS. Rule out other causes of neurologic symptoms. If ICANS is suspected, manage according to the recommendations in Table 4.

**Table 4: ICANS Grading and Management Guidance** 

<sup>&</sup>lt;sup>a</sup> If Grade 2 or 3 CRS occurs with the second full dose or beyond, administer CRS prophylaxis with each subsequent dose until EPKINLY dose is given without subsequent CRS (of any grade).

Grade <sup>a</sup>	Recommended Therapy	EPKINLY Dose Modification
Grade 1 ICE score <sup>c</sup> 7-9 b	Dexamethasone, 10 mg IV every 12 hours	Hold EPKINLY until resolution of
or, depressed level of consciousness <sup>b</sup> : awakens	Consider non-sedating anti-seizure medication (e.g., levetiracetam) until resolution of ICANS	event.
spontaneously	Anti-cytokine therapy No concurrent CRS: Anti-cytokine therapy not recommended.	
	<ul> <li>Concurrent CRS: Anti-cytokine therapy recommended. Choose alternative to tocilizumab (e.g., siltuximab, anakinra) if possible.</li> <li>Consider anakinra as a daily dose of 100 mg SC or 200 mg SC (100 mg every 12 hours) depending on the severity of neurotoxicity and other concurrent toxicities. Anakinra should be given until resolution of neurotoxicity and other concurrent toxicities which could benefit from anakinra treatment.</li> <li>Consider siltuximab, 11 mg/kg IV over 1 hour, one time only.</li> </ul>	
Grade 2 ICE score <sup>c</sup> 3-6 or, depressed level of consciousness <sup>b</sup> : awakens to voice	Dexamethasone at 10-20 mg IV every 12 hours  Consider non-sedating anti-seizure medication (e.g., levetiracetam) until resolution of ICANS.  Anti-cytokine therapy: No concurrent CRS: Anti-cytokine therapy not recommended.	Hold EPKINLY until resolution of event.
	Concurrent CRS: Anti-cytokine therapy recommended. Choose alternative to tocilizumab (e.g., siltuximab, anakinra) if possible.  • Consider anakinra as a daily dose of 100 mg SC or 200 mg SC (100 mg every 12 hours) depending on the severity of neurotoxicity and other concurrent toxicities. Anakinra should be given until resolution of neurotoxicity and other	

<b>Grade</b> <sup>a</sup>	Recommended Therapy	EPKINLY Dose Modification
	<ul> <li>concurrent toxicities which could benefit from anakinra treatment.</li> <li>Consider siltuximab, 11 mg/kg IV over 1 hour, one time only.</li> </ul>	
Grade 3 ICE score <sup>c</sup> 0-2 or, depressed level of consciousness <sup>b</sup> : awakens only to tactile stimulus, or  seizures <sup>b</sup> , either:  any clinical seizure, focal or generalised that resolves rapidly, or  non-convulsive seizures on electroencephalogr am (EEG) that resolve with intervention, or raised intracranial pressure: focal/local oedema <sup>b</sup> on neuroimaging <sup>c</sup>	Dexamethasone 10-20 mg IV every 6 hours. If no response, initiate methylprednisolone 1000 mg/day.  Consider non-sedating anti-seizure medication (e.g., levetiracetam) until resolution of ICANS.  Anti-cytokine Therapy No concurrent CRS: Anti-cytokine therapy not recommended.  Concurrent CRS: Anti-cytokine therapy recommended: Choose alternative to tocilizumab (e.g., siltuximab, anakinra) if possible.  Consider anakinra as a daily dose of 100 mg SC or 200 mg SC (100 mg every 12 hours) depending on the severity of neurotoxicity and other concurrent toxicities. Anakinra should be given until resolution of neurotoxicity and other concurrent toxicities which could benefit from anakinra treatment.  Consider siltuximab, 11 mg/kg IV over 1 hour, one time only.	First episode: delay EPKINLY until full resolution of event.  Second episode: permanently discontinue EPKINLY.
Grade 4 ICE score <sup>c, b</sup> 0 or, depressed level of consciousness <sup>b</sup> either:  • patient is unarousable or requires vigorous or repetitive tactile stimuli to arouse, or  • stupor or coma, or	Dexamethasone 10-20 mg IV every 6 hours. If no response, initiate methylprednisolone 1000 mg/day.  Consider non-sedating anti-seizure medication (e.g., levetiracetam) until resolution of ICANS.  Anti-cytokine therapy: No concurrent CRS: Anti-cytokine therapy not recommended.	Permanently discontinue EPKINLY.

seizures <sup>b</sup> , either:  • life-threatening prolonged seizure (> 5 minutes), or  • repetitive clinical or electrical seizures without return to baseline in between, or  motor findings <sup>b</sup> :  • deep focal motor weakness such as hemiparesis or paraparesis, or  • raised intracranial pressure / cerebral oedema <sup>b</sup> , with signs/symptoms such as:  • diffuse cerebral oedema on neuroimaging, or  • decerebrate or decorticate posturing, or	Grade <sup>a</sup>	Recommended Therapy	<b>EPKINLY Dose Modification</b>
<ul> <li>cranial nerve         VI palsy, or</li> <li>papilloedema,         or</li> <li>Cushing's triad</li> <li>a ICANS graded according to ASTCT ICANS Consensus Grading (Lee et al., 2019)</li> </ul>	<ul> <li>life-threatening prolonged seizure (&gt; 5 minutes), or</li> <li>repetitive clinical or electrical seizures without return to baseline in between, or</li> <li>motor findings<sup>b</sup>:</li> <li>deep focal motor weakness such as hemiparesis or paraparesis, or</li> <li>raised intracranial pressure / cerebral oedema<sup>b</sup>, with signs/symptoms such as:         <ul> <li>diffuse</li> <li>cerebral oedema on neuroimaging, or</li> <li>decerebrate or decorticate posturing, or</li> <li>cranial nerve VI palsy, or</li> <li>papilloedema, or</li> <li>Cushing's triad</li> </ul> </li> </ul>	recommended. Choose alternative to tocilizumab (e.g., siltuximab, anakinra) if possible.  Consider anakinra as a daily dose of 100 mg SC or 200 mg SC (100 mg every 12 hours) depending on the severity of neurotoxicity and other concurrent toxicities. Anakinra should be given until resolution of neurotoxicity and other concurrent toxicities which could benefit from anakinra treatment.  Consider siltuximab, 11 mg/kg IV over 1 hour, one time only.	

<sup>a</sup> ICANS graded according to ASTCT ICANS Consensus Grading (Lee et al., 2019)
<sup>b</sup> ICANS grade is determined by the most severe event (ICE score, level of consciousness, seizures, motor findings, raised ICP/cerebral oedema) not attributable to any other cause
<sup>c</sup> If patient is arousable and able to perform Immune Effector Cell-Associated Encephalopathy (ICE) Assessment, assess: Orientation (oriented to year, month, city, hospital = 4 points); Naming (name 3 objects, e.g., point to clock, pen, button = 3 points); Following Commands (e.g., "show me 2 fingers" or "close your eyes and stick out your tongue" = 1 point); Writing (ability to write a standard sentence = 1 point; and Attention (count backwards from 100 by ten = 1 point). If patient is unarousable and unable to perform ICE Assessment (Grade 4 ICANS) = 0 points

**Table 5: Recommended Dosage Modifications for Other Adverse Reactions** 

Adverse Reaction <sup>1</sup>	Severity <sup>1</sup>	Action
Infections	Grades 1-4	Withhold EPKINLY in patients with active infection, until the infection resolves
		For Grade 4, consider permanent discontinuation of EPKINLY
Neutropenia or febrile neutropenia	Absolute neutrophil count less than 0.5 x 10 <sup>9</sup> /L	Withhold EPKINLY until absolute neutrophil count is 0.5 x 10 <sup>9</sup> /L or higher
Thrombocytopenia	Platelet count less than 50 x 10 <sup>9</sup> /L	Withhold EPKINLY until platelet count is 50 x 10 <sup>9</sup> /L or higher
Other Adverse Reactions	Grade 3 or higher	Withhold EPKINLY until the toxicity resolves to Grade 1 or baseline
<sup>1</sup> Based on National Cancer In CTCAE), version 5.0.	nstitute Common Terminology Crite	eria for Adverse Events (NCI

## 3.4 Preparation and Administration

Epcoritamab should be prepared and administered by a healthcare provider as subcutaneous injection (SC). Each vial of epcoritamab is intended for single dose only.

The administration of EPKINLY takes place over the course of 28-day cycles, following the dosing scheduled in Section 3.1.

Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit.

# Dose Preparation

Use aseptic technique to prepare EPKINLY. Filtration of the diluted solution is not required.

## Preparation instructions for 0.16 mg and 0.8 mg doses of EPKINLY

<u>0.16 mg Priming Dose Preparation Instructions – (2 dilutions required)</u>
Use an appropriately sized syringe, vial, and needle for each transfer step.

- 1) Prepare EPKINLY vial
  - a) Retrieve one 4 mg/0.8 mL EPKINLY vial from the refrigerator.
  - b) Allow the vial to come to room temperature for no more than 1 hour
  - c) Gently swirl the EPKINLY vial.
- **DO NOT** invert, vortex, or vigorously shake the vial.
- 2) Perform first dilution
  - a) Label an appropriately sized empty vial as "Dilution A".

- b) Transfer **0.8 mL of EPKINLY** into the **Dilution A** vial.
- c) Transfer 4.2 mL of 0.9% Sodium Chloride Injection, sterile solution, into the Dilution A vial.
- d) Gently swirl the **Dilution A** vial for 30 45 seconds.
- 3) Perform second dilution
  - a) Label an appropriately sized empty vial as "Dilution B".
  - b) Transfer **2 mL of solution** from the **Dilution A** into the **Dilution B** vial. The **Dilution A** vial is no longer needed.
  - c) Transfer 8 mL of 0.9% Sodium Chloride Injection, sterile solution, into the Dilution B vial to make a final concentration of 0.16 mg/ml.
  - d) Gently swirl the **Dilution B** vial for 30 45 seconds.
- 4) Withdraw dose
  - a) Withdraw 1 mL of the diluted epcoritamab from the Dilution B vial into a syringe.
- 5) Label syringe

Label the syringe with the dose strength (0.16 mg) and the time of day.

Discard the vial and any unused portion of EPKINLY in accordance with local requirements.

## 0.8 mg Intermediate Dose Preparation Instructions – (1 dilution required)

Use an appropriately sized syringe, vial, and needle for each transfer step.

#### 1) Prepare EPKINLY vial

- a) Retrieve one 4 mg/0.8 mL EPKINLY vial from the refrigerator.
- b) Allow the vial to come to room temperature for no more than 1 hour.
- c) Gently swirl the EPKINLY vial.

**DO NOT** invert, vortex, or vigorously shake the vial.

- 2) Perform dilution
  - a) Label an appropriately sized empty vial as "Dilution A".
  - b) Transfer 0.8 mL of EPKINLY into the Dilution A vial.
  - c) Transfer **4.2 mL of 0.9% Sodium Chloride Injection, sterile solution** into the **Dilution A** vial to make a final concentration of 0.8 mg/mL.
  - d) Gently swirl the **Dilution A** vial for 30 45 seconds.
- 3) Withdraw dose
  - a) Withdraw 1 mL of the diluted epcoritamab from the Dilution A vial into a syringe.
- 4) Label syringe

Label the syringe with the dose strength (0.8 mg) and the time of day.

Discard the vial and any unused portion of EPKINLY in accordance with local requirements.

# 48 mg Full Dose Preparation Instructions (No dilution required)

EPKINLY 48mg/0.8mL vial is supplied as ready-to-use solution that does not need dilution prior to administration.

## 1) Prepare EPKINLY vial

- a) Retrieve one 48 mg/0.8 mL EPKINLY vial from the refrigerator.
- b) Allow the vial to come to room temperature for no more than 1 hour.

c) Gently swirl the EPKINLY vial.

**DO NOT** invert, vortex, or vigorously shake the vial.

2) Withdraw dose

Withdraw 0.8 mL of the EPKINLY into a syringe.

3) Label syringe

Label the syringe with the dose strength (48 mg) and the time of day.

Discard the vial and any unused portion of EPKINLY in accordance with local requirements.

## Storage for Diluted and Prepared EPKINLY

Use immediately or store EPKINLY solution in a refrigerator and protect from light up to 24 hours at 2°C to 8 °C (36 F° to 46F°) from the time of preparation. Within these 24 hours, the EPKINLY solution can be stored for 12 hours at room temperature from the start of dose preparation to administration. Minimize exposure to daylight. Allow EPKINLY solution to equilibrate to room temperature before administration. Discard unused EPKINLY solution beyond the allowable storage time.

## **Site Administration**

The injection site should be preferably in the lower part of abdomen or the thigh. Change of injection site from left or right side or vice versa is recommended especially during the weekly administration (Cycles 1-3).

## 3.5 Dosing in Special Populations

## 3.5.1 Pediatrics

The safety and efficacy of epcoritamab in children aged less than 18 years of age have not yet been established.

#### 3.5.2 Geriatric

In patients with LBCL in EPCORE NHL-1, 48 (31%) were  $\geq$ 65 to <75 years of age and 29 (18%) were  $\geq$ 75 years of age. No clinically meaningful differences in safety or efficacy were observed between patients  $\geq$ 65 years of age compared with younger adult patients.

# 3.5.3 Renal impairment

Dose adjustments are not considered necessary in patients with mild to moderate renal impairment. No dose recommendations can be made for patients with severe renal impairment to end-stage renal disease.

# 3.5.4 Hepatic impairment

Dose adjustments are not considered necessary in patients with mild hepatic impairment. No dose recommendations can be made for patients with moderate to severe hepatic impairment.

#### 4. CONTRAINDICATIONS

Hypersensitivity to the active substance or to any of the excipients listed in section 15.2

#### 5. WARNINGS AND PRECAUTIONS

# 5.1 Cytokine Release Syndrome

Cytokine Release Syndrome, which may be life-threatening or fatal, occurred in patients receiving epcoritamab. The most common signs and symptoms of CRS include pyrexia, hypotension and hypoxia. Other signs and symptoms of CRS in greater than two patients include chills, tachycardia, headache and dyspnea.

The median time to onset of CRS from the most recent administered epcoritamab dose was 2 days (range: 1 to 11 days). The median time to onset after the first full dose was 20.6 hours (range: 0.2 days to 7 days). Most CRS events occurred in Cycle 1 and were associated with the first full dose of epcoritamab. The median duration of CRS was 2 days (range: 1 to 27 days). Administer prophylactic corticosteroids to mitigate the risk of CRS [see **Dosage and Administration (3.1)**].

Monitor patients for potential CRS following epcoritamab administrations during Cycle 1 and in subsequent cycles as needed at the physician's discretion. Following administration of the first full dose, patients should remain within close proximity to a healthcare facility that can assess and manage potential CRS for at least 24 hours. At the first signs or symptoms of CRS, institute treatment of supportive care with tocilizumab and/or corticosteroids as appropriate. Counsel patients on the signs and symptoms associated with CRS and instruct patients to contact their healthcare professional and seek immediate medical attention should signs or symptoms occur at any time. Management of CRS may require either temporary delay or discontinuation of epcoritamab based on the severity of CRS [see **Dosage and Administration (3.1, 3.3)**].

# 5.2 Immune Effector Cell Associated Neurotoxicity Syndrome (ICANS)

ICANS, including a fatal event, have occurred in patients receiving epcoritamab. ICANS may manifest as aphasia, altered level of consciousness, impairment of cognitive skills, motor weakness, seizures, and cerebral edema.

The median time to onset of ICANS from the start of epcoritamab treatment (Cycle 1 Day 1) was 16.5 days (range: 8 to 141 days). The majority of cases of ICANS occurred within the Cycle 1 of epcoritamab treatment, however some occurred with delayed onset. The median duration of ICANS was 5 days (range: 1, 9 days). The onset of ICANS can be concurrent with CRS, following resolution of CRS or in the absence of CRS.

Monitor patients for signs and symptoms of ICANS following epcoritamab administrations during Cycle 1 and in subsequent cycles as needed at the physician's discretion. Following administration of the first full dose, patients should remain within close proximity to a healthcare facility that can assess and manage potential ICANS for at least 24 hours. At the first signs or symptoms of ICANS institute treatment with corticosteroids and non-sedating-anti-seizure medications as appropriate. (See **Dosage and Administration** (3.3)). Counsel patients on the signs and symptoms of ICANS and that the onset of events may be delayed. Instruct patients to contact their healthcare professional and seek immediate medical attention should signs or symptoms occur at any time. Delay or discontinue epcoritamab as recommended [**Dosage and Administration** (3.1, 3.3)].

#### **5.3 Serious Infections**

Treatment with EPKINLY may lead to an increased risk of infections. Serious infections, including fatal infections were observed in patients treated with EPKINLY in clinical trials [Adverse Reactions (9.3)].

Avoid administration of EPKINLY in patients with clinically significant active systemic infections. As appropriate, administer prophylactic antimicrobials [Dosage and Administration (3.1)]. Monitor patients for signs and symptoms of infections prior to and during treatment and treat according to standard/local guidelines and practice. In the event of febrile neutropenia, patients should be evaluated for infection and managed with antibiotics, fluids and other supportive care, according to local guidelines.

#### 5.4 Immunization

Live and/or live-attenuated vaccines should not be given concurrently with EPKINLY. Studies have not been conducted in patients who received live vaccines.

## 5.5 Tumour lysis syndrome (TLS)

TLS has been reported in patients receiving EPKINLY [see Adverse Reactions (9.1)]. Patients at an increased risk for TLS are recommended to receive hydration and prophylactic treatment with a uric acid lowering agent. Patients should be monitored for signs or symptoms of TLS, especially patients with high tumour burden or rapidly proliferative tumours, and patients with reduced renal function. Patients should be monitored for blood chemistries and abnormalities should be managed promptly.

# 5.6 CD20-negative disease

There are limited data available on patients with CD20-negative DLBCL treated with EPKINLY, and it is possible that patients with CD20-negative DLBCL may have less benefit compared to patients with CD20-positive DLBCL. The potential risks and benefits associated with treatment of patients with CD20-negative DLBCL with EPKINLY should be considered.

#### 6. DRUG INTERACTIONS

No formal drug interaction studies have been conducted with EPKINLY.

Transient elevation of certain proinflammatory cytokines by EPKINLY may suppress CYP450 enzyme activities. On initiation of EPKINLY therapy in patients being treated with CYP450 substrates with a narrow therapeutic index, therapeutic monitoring should be considered.

#### 7. PREGNANCY AND LACTATION

## 7.1 Pregnancy

Based on its mechanism of action, EPKINLY may cause fetal harm, including B-cell lymphocytopenia and alterations in normal immune responses, when administered to pregnant women. There are no data on the use of EPKINLY in pregnant women. Animal reproduction studies have not been conducted

with EPKINLY. IgG1 antibodies, such as EPKINLY, can cross the placenta resulting in fetal exposure. Advise pregnant women of the potential risk to a fetus. EPKINLY is not recommended during pregnancy and in women of childbearing potential not using contraception.

#### 7.1.1 Data (animal and/or human)

Animal reproduction studies have not been conducted with EPKINLY. There are no data on the use of EPKINLY in pregnant women.

#### 7.2 Lactation

It is not known whether EPKINLY is excreted in human milk or its effect on milk production. Since IgGs are known to be present in milk, neonatal exposure to EPKINLY may occur via lactational transfer. Breast feeding should be discontinued during treatment with EPKINLY and for at least 4 months after the last dose.

#### 7.3 Females and Males of Reproductive Potential

#### 7.3.1 Reproduction

Verify pregnancy status in females of reproductive potential prior to initiating EPKINLY treatment.

## 7.3.2 Contraception

Females of reproductive potential should use effective contraception during treatment with EPKINLY and for at least 4 months after the last dose.

# 7.3.3 Fertility (males)

No fertility studies have been conducted with EPKINLY (see PRE-CLINICAL SAFETY DATA (14)). The effect of EPKINLY on male and female fertility is unknown.

#### 8. EFFECTS ON ABILITY TO DRIVE AND USE MACHINES

No formal studies on the effect of EPKINLY on the ability to drive and operate machines have been performed. Due to the potential for ICANS, patients should be advised to exercise caution while (or avoid if symptomatic) driving or using heavy or potentially dangerous machines.

#### 9. ADVERSE REACTIONS

## 9.1 Clinical trials experience

#### EPCORETM NHL-1

The safety of EPKINLY was evaluated in a non-randomized, single-arm study in 167 patients with relapsed or refractory LBCL after two or more lines of systemic therapy and included all patients who enrolled to the 48 mg dose and received at least one dose of EPKINLY.

The median duration of exposure to EPKINLY was 3.7 months (range: 0 to 20 months).

Serious adverse reactions occurred in 40% of patients; the most frequent serious adverse reaction (≥ 10%) was cytokine release syndrome (31%). Two patients (1.2%) experienced a fatal adverse reaction; one each for ICANS and pneumonia.

Discontinuation due to adverse reactions occurred in 2.4% of patients. Discontinuation of epcoritamab due to pneumonia occurred in 2 patients and discontinuation due to CRS or ICANS occurred in 1 patient (each).

Dose delays due to adverse reactions occurred in 20% of patients. Adverse reactions leading to dose delays ( $\geq$ 3%) were CRS (7.2%), neutropenia (4.2%), pyrexia (3.0%), and thrombocytopenia (3.0%).

Table 6 provides adverse reactions reported in patients with relapsed or refractory LBCL. Adverse reactions are listed by MedDRA body system organ class, rate, and frequency. Frequencies are defined as very common ( $\geq 1/10$ ), common ( $\geq 1/100$  to < 1/10), uncommon ( $\geq 1/1,000$ ), rare ( $\geq 1/10,000$ ) to < 1/1,000), very rare (< 1/10,000), not known (cannot be estimated from available data). Within each frequency grouping, undesirable effects are presented in order of decreasing seriousness.

Table 6: Adverse Reactions Reported in Patients with Relapsed or Refractory LBCL treated with

**Epcoritamab in EPCORE NHL-1 Study** 

Adverse Reaction by Body System		Epcoritamab N=167	
	All Grades Frequency	All Grades (%)	Grade ≥3 (%)
Infections and infestation	S		
Pneumonia <sup>a</sup>	Common	7.2	3.6
Upper respiratory tract infection <sup>b</sup>	Common	6.0	1.2
Neoplasm benign, malign	ant and unspecified (ir	cluding cysts and pol	yps)
Tumour flare	Common	3.0	
Blood and lymphatic syst	em disorders		•
Neutropenia <sup>c</sup>	Very common	28	22
Anemia <sup>d</sup>	Very common	19	10
Thrombocytopenia <sup>e</sup>	Very common	15	7.2
Febrile Neutropenia	Common	2.4	2.4
Immune system disorder	S		
Cytokine release syndrome <sup>f</sup>	Very common	50	2.4
Metabolism and nutrition	ı disorders		
Tumor lysis syndrome <sup>g</sup>	Common	1.8	1.8
Nervous system disorders	S		
Headache	Very common	13	0.6

Adverse Reaction by Body System		Epcoritamab N=167	
	All Grades Frequency	All Grades (%)	Grade ≥3 (%)
Immune effector cell- associated neurotoxicity syndrome <sup>f</sup>	Common	6.0	0.6
<b>Gastrointestinal disorder</b>	S		
Nausea	Very Common	20	1.2
Diarrhea	Very Common	20	
Vomiting	Very Common	12	0.6
Skin and subcutaneous ti	ssue disorders		
Rash <sup>h</sup>	Common	7.8	
Pruritus	Common	6.6	
General disorders and ad	ministration site condi	tions	
Injection site reactions <sup>i</sup>	Very Common	30	
Pyrexia <sup>j</sup>	Very Common	23	

Events were graded using NCI CTCAE version 5.0.

CRS events were graded using ASTCT consensus criteria (Lee et. al., 2019)

## 9.2 Post marketing experience

• N/A

## 9.3 Important Adverse Reactions

#### Cytokine Release Syndrome

CRS of any grade occurred in 50% (84/167) of patients treated with EPKINLY. The incidence of Grade 1 was 31% (52/167), Grade 2 was 17% (28/167), and Grade 3 was 2.4% (4/167). The median time to

<sup>&</sup>lt;sup>a</sup> Pneumonia includes COVID-19 pneumonia and pneumonia.

<sup>&</sup>lt;sup>b</sup> Upper respiratory tract infection includes laryngitis, pharyngitis, respiratory syncytial virus infection, rhinitis, rhinovirus infection, and upper respiratory tract infection

<sup>&</sup>lt;sup>c</sup> Neutropenia includes neutropenia and neutrophil count decreased.

<sup>&</sup>lt;sup>d</sup> Anemia includes anemia and serum ferritin decreased.

<sup>&</sup>lt;sup>e</sup> Thrombocytopenia includes platelet count decreased and thrombocytopenia.

<sup>&</sup>lt;sup>f</sup> Events graded using American Society for Transplant and Cellular Therapy consensus criteria

<sup>&</sup>lt;sup>g</sup> Clinical Tumour Lysis Syndrome was graded based on Cairo-Bishop.

h Rash includes rash, rash erythematous, rash maculo-papular, and rash pustular.

<sup>&</sup>lt;sup>i</sup> Injection site reactions include injection site bruising, injection site erythema, injection site hypertrophy, injection site inflammation, injection site mass, injection site pain, injection site pruritus, injection site rash, injection site reaction, injection site swelling, and injection site urticaria.

<sup>&</sup>lt;sup>j</sup> Pyrexia includes pyrexia and body temperature increased.

onset of CRS from the most recent administered EPKINLY dose was 2 days (range: 1 to 11 days). CRS resolved in 98.8% of patients, and the median duration of CRS events was 2 days (range 1-27 days).

The most common signs and symptoms of CRS included pyrexia 50% (83/167), hypotension 16% (26/167) and hypoxia 9.6% (16/167). Other signs and symptoms of CRS in greater than two patients included chills (4.8%), tachycardia (including sinus tachycardia [7.8%]), headache (13%) and dyspnea (7.8%). In addition to corticosteroids use, tocilizumab was used to manage CRS event in 15% of patients.

## Immune Effector Cell Associated Neurotoxicity Syndrome (ICANS)

ICANS occurred in 6% of patients treated with EPKINLY; 4.2% experienced Grade 1 and 1.2% experienced Grade 2. One patient (0.6%) experienced an ICANS event of Grade 5 (fatal). The median time to first ICANS onset from the start of EPKINLY treatment was 16.5 days (range: 8 to 141 days). ICANS resolved in 90% (9/10) of patients with supportive care. The median time to resolution of ICANS was 5 days (range: 1 to 9 days).

#### **Serious Infections**

Serious infections occurred in 16% of patients treated with EPKINLY. The most frequent serious infections were pneumonia (2.4%), sepsis (2.4%), COVID-19 (1.8%), COVID-19 pneumonia (1.8%), bacteremia (1.2%), septic shock (1.2%), and upper respiratory tract infection (1.2%). Fatal serious infections occurred in 4 (2.4%) patients.

# **Immunogenicity**

Epcoritamab has the potential to induce anti-drug-antibodies (ADA). The incidence of antibodies to epcoritamab was low and all the patients who were positive had low titers ( $\geq 1$  in 0.6% (1/158)). Due to the low number of patients with ADAs, a meaningful analysis of the impact of ADAs on safety is limited (see **Pharmacokinetics in special populations (12.4)**).

## Laboratory Abnormalities

Grade 3 or 4 laboratory abnormalities worsening from baseline reported in at least 10% of patients with LBCL within the EPCORE NHL-1 study were lymphocyte count decreased (78%), neutrophil count decreased (31%), hemoglobin decreased (13%), and platelets decreased (13%).

#### 10. DRUG ABUSE AND DEPENDENCY

N/A

#### 11. OVERDOSE

In the event of overdose, monitor the patient for any signs or symptoms of adverse reactions and administer appropriate supportive treatment.

#### 12. PHARMACOLOGIC PROPERTIES

#### 12.1 Mechanism of action

Epcoritamab is a humanized IgG1-bispecific antibody that binds to a specific extracellular epitope of CD20 on B cells and to CD3 on T cells. CD20 is expressed on most human B-cell lymphomas and leukemias and on B cells in peripheral blood, but not hematopoietic stem cells or plasma cells. The activity of epcoritamab is dependent upon simultaneous engagement of CD20-expressing cancer cells and CD3-expressing endogenous T cells by epcoritamab that induces specific T-cell activation and T-cell-mediated killing of CD20-expressing cells, as epcoritamab does not have direct immune effector mechanisms.

Epcoritamab Fc region is silenced for direct immune effector mechanisms, such as antibody-dependent cellular cytotoxicity (ADCC), complement-dependent cellular cytotoxicity (CDC), and antibody-dependent cellular phagocytosis (ADCP).

#### 12.2 Pharmacodynamics

Epcoritamab induced depletion of circulating B cells (defined as CD19 B-cell counts < 10 cell/µl in subjects who have detectable B cells at treatment initiation) after the first full dose (48 mg) which was sustained while patients remained on treatment. Subsequent treatment with epcoritamab induced expansion and activation of circulating T cells from baseline.

Following subcutaneous administration of epcoritamab, transient and modest elevations of circulating levels of selected cytokines (IFN- $\gamma$ , TNF $\alpha$ , IL-6, IL-2, and IL-10) occurred, mostly after the first full dose (48 mg) with peak levels between 1 to 4 days. Levels returned to baseline prior to the subsequent full dose.

#### 12.3 Pharmacokinetics

The population pharmacokinetics following subcutaneous administration of epcoritamab was described by a two-compartment model with first order subcutaneous absorption and target-mediated drug elimination. The moderate to high pharmacokinetic variability for epcoritamab was observed and characterized by inter-individual variability (IIV) ranging from 25.7% to 137.5% coefficient of variation (CV) for epcoritamab PK parameters.

Following the recommended SC dose of epcoritamab 48 mg, the geometric mean (% CV)  $C_{max}$  of epcoritamab is 10.8 mcg/mL (41.7%) and AUC0-7d is 68.9 day\*mcg/mL (45.1%) at the end of the weekly dosing schedule.

The geometric mean (% CV)  $C_{max}$  of epcoritamab is 7.52 mcg/mL (41.1%) and AUC0-14d is 82.6 day\*mcg/mL (49.3%) at the end of q2w schedule.

The geometric mean (% CV) C<sub>max</sub> of epcoritamab is 4.76 mcg/mL (51.6%) and AUC0-28d is 74.3 day\*mcg/mL (69.5%) at steady state during the q4w schedule.

# 12.3.1 Absorption

The peak concentrations occurred around 3-4 days (T<sub>max</sub>) in patients with LBCL receiving the 48 mg full dose.

## 12.3.2 Distribution

The geometric mean (% CV) central volume of distribution is 8.27 L (27.5%) based on population PK modeling.

## 12.3.3 Biotransformation

The metabolic pathway of epcoritamab has not been directly studied. Like other protein therapeutics, epcoritamab is expected to be degraded into small peptides and amino acids via catabolic pathways.

#### 12.3.4 Elimination

Epcoritamab is expected to undergo saturable target mediated clearance. The geometric mean (% CV) clearance (L/day) is 0.441 (27.8%). The half-life of epcoritamab is concentration dependent. The population PK model-derived geometric mean half-life of full dose epcoritamab (48 mg) ranged from 22 to 25 days based on frequency of dosing.

## 12.4 Pharmacokinetics in special populations

No clinically important effects on the pharmacokinetics of epcoritamab were observed based on age (20 to 89 years), sex, or race/ethnicity (White, Asian, and Other), mild to moderate renal impairment (CLcr ≥30 ml/min to CLcr <90 mL/min), and mild hepatic impairment (total bilirubin ≤ULN and AST > ULN, or total bilirubin 1 to 1.5 times ULN and any AST) after accounting for differences in bodyweight. No patients with severe to end-stage renal disease (CLcr <30ml/min) or severe hepatic impairment (total bilirubin > 3 times ULN and any AST) have been studied. There is very limited data in moderate hepatic impairment (total bilirubin >1.5 to 3 times ULN and any AST). Therefore, the pharmacokinetics of epcoritamab is unknown in these populations.

Like other therapeutic proteins, body weight (39 to 144 kg) has a statistically significant effect on the pharmacokinetics of epcoritamab, however this effect is not clinically relevant across body weight categories (<65kg, 65-<85,  $\ge85$ ).

#### 12.4.1 Pediatric

The pharmacokinetics of epcoritamab in pediatric patients has not been established.

#### 12.4.2 Immunogenicity

In EPCORE clinical study, 4 of 158 (2.5%) patients who were treated with EPKINLY at the full dose of 48 mg and evaluable for the presence of anti-drug antibodies (ADA) tested positive for anti-epcoritamab antibodies on treatment (two at cycle 2 day 22, one at cycle 1 day 22, and one at cycle 2 day 1) with titers of 1:320 or less. There was no evidence of an altered pharmacokinetic profile with anti-epcoritamab binding antibody development based on a population PK analysis. There are insufficient data to evaluate the effect of ADA on the safety or efficacy of epcoritamab.

## 12.5 Drug interactions

No formal drug-drug interaction studies have been performed.

#### 13. CLINICAL STUDIES

## EPCORE NHL-1

Study EPCORE NHL-1 was an open-label, multi-cohort, multicenter, single-arm trial that evaluated epcoritamab as monotherapy in patients with relapsed or refractory large B-cell lymphoma (LBCL) after two or more lines of systemic therapy, including diffuse large B-cell lymphoma (DLBCL).

The study includes a dose escalation part and an expansion part. The expansion part of the study included an aggressive non-Hodgkin lymphoma (aNHL) cohort, an indolent NHL (iNHL) cohort and a mantle-cell lymphoma (MCL) cohort. The pivotal aNHL cohort consisted of patients with LBCL (N=157), including patients with DLBCL (N=139, 12 patients of which had MYC, BCL2, and/or BCL6 rearrangements i.e., DH/TH), with high-grade B-cell lymphoma (HGBCL) (N=9), with follicular lymphoma grade 3B (FL) (N=5) and patients with primary mediastinal B-cell lymphoma (PMBCL) (N=4).

Patients included in the study were required to have documented CD20+ mature B-cell neoplasm according to WHO classification 2016 or WHO classification 2008 based on representative pathology report, failed prior autologous hematopoietic stem cell transplantation (HSCT) or were ineligible for autologous HSCT, had lymphocyte counts  $< 5 \times 10^9 / L$ , and received at least 1 prior anti-CD20 monoclonal antibody-containing therapy.

The study excluded patients with CNS involvement of lymphoma, allogeneic HSCT or solid organ transplant, ongoing active infectious diseases, any patients with known impaired T-cell immunity, a creatinine clearance of less than 45 mL/min, alanine aminotransferase >3 times the upper limit of normal and cardiac ejection fraction less than 45%. Efficacy was evaluated in 139 patients with DLBCL who had received EPKINLY subcutaneously (SC) in cycles of 4 weeks, i.e., 28 days. Epcoritamab was administered as a monotherapy as follows:

- Cycle 1: EPKINLY 0.16 mg on Day 1, 0.8 mg on Day 8, 48 mg on Day 15 and Day 22
- Cycles 2-3: EPKINLY 48 mg on Days 1, 8, 15, and 22
- Cycles 4-9: EPKINLY 48 mg on Days 1 and 15
- Cycles 10 and beyond: EPKINLY 48 mg on Day 1

Patients continued to receive epcoritamab until disease progression or unacceptable toxicity.

The demographics and baseline characteristics are shown in Table 7.

Table 7: Demographics and Baseline Characteristics of Patients with DLBCL in EPCORE NHL-1 study

Characteristics	(N=139)
Age	
Median, years (min, max)	66 (22, 83)
Males, (%)	61
Race	
White; %	60
Black, or African American; %	0
Asian; %	19
Other; %	4
Not Reported; %	17
ECOG performance status; %	
0	48
1	48
2	4
Number of Prior Lines of anti-lymphoma therapy, %	
Median (min, max)	3 (2, 11)
2	30
3	34
>4	37
Disease Type at Study Entry; (%)	
DLBCL	100
DLBCL Disease history; %	
De Novo DLBCL	70
DLBCL transformed from indolent lymphoma	29
FISH Analysis Per Centra Lab, N=88	
Double-hit/Triple-hit lymphoma, (%)	14
Prior Therapy; (%)	
Prior CAR-T	38
Prior autologous HSCT	19
Primary refractory disease <sup>a</sup>	59
Refractory to $\geq 2$ consecutive lines of prior antilymphoma therapy <sup>b</sup>	75
Refractory to the last line of systemic antineoplastic therapy <sup>b</sup>	82
Refractory to anti-CD20 therapy in last line	84
Refractory to CAR-T	28
PoliVy	9
Topoisomerase inhibitor	67

<sup>&</sup>lt;sup>a</sup> A patient is considered to be primary refractory if they are refractory to frontline anti-lymphoma therapy.

<sup>b</sup> A patient is considered to be refractory if they experience disease progression or stable disease as best response or disease progression within 6 months after therapy completion.

Efficacy was established based on overall response rate (ORR) determined by Lugano criteria (2014) as assessed by Independent Review Committee (IRC). The median follow-up time was 10.7 months (range: 0.3 to 17.9 months).

**Table 8: Efficacy Results in Study EPCORE NHL-1 in DLBCL Patients** 

Endpoint a	Epcoritamab
IRC assessment	(N=139)
ORR, n (%)	86 (62)
(95% CI)	(53.3, 70)
CR, n (%)	54 (39)
(95% CI)	(30.7, 47.5)
PR, n (%)	32 (23)
(95% CI)	(16.3, 30.9)
DOR	
Median (95% CI), months	12 (6.6, NR)
6-month estimate, % (95% CI)	63 (51.5, 73)
9-month estimate, % (95% CI)	62 (49.7, 71.5)
DOCR	
Median (95% CI), months	12 (9.7, NR)
6-month estimate, % (95% CI)	85 (70, 93.2)
9-month estimate, % (95% CI)	85 (70, 93.2)
DOR if Best Response is CR	
Median (95% CI), months	NR (12, NR)
6-month estimate, % (95% CI)	88 (74.6, 94.3)
9-month estimate, % (95% CI)	88 (74.6, 94.3)
PFS	
Median (95% CI), months	4 (3, 8.2)
6-month estimate % remaining in PFS,	44 (35.4, 52.4)
(95% CI)	
9-month estimate % remaining in PFS,	40 (31.2, 48.4)
(95% CI)	
TTR, median (range), months	1.4 (1.0, 8.4)
CI = confidence interval; CR = complete response; DOR = duration of	
response; IRC = independent review committee; ORR = overall response	
rate; PFS = progression-free survival; TTR = time to response	
<sup>a</sup> determined by Lugano criteria (2014) as assessed by independent review	
committee (IRC)	

The median time to CR was 2.7 months (range: 1.2 to 11.1 months).

Response durations were longer in patients who achieved CR, as compared to patients with a best response of partial response (PR) (Table 8).

The overall response rates and complete response rates with EPKINLY were consistent across the following subgroups: age, number of or response to prior lines of therapy, and prior CAR-T experience.

In subgroup analysis of patients (n = 53) who received CAR-T, the ORR was 53% (95% CI: 39, 67), and the CR rate was 34% (95% CI: 22, 48). Median duration of response for these patients was 9.7 months (95% CI: 5.4, NR), and the median progression-free survival was 2.7 months (95% CI: 1.4, 11).

In subgroup analysis of patients (n = 86) with no prior CAR-T, the ORR was 67% (95% CI: 56, 77), and the CR rate was 42% (95% CI: 31, 53). Median duration of response for these patients was 12 months (95% CI: 5.6, NR); and the median progression-free survival was 5.4 months (95% CI: 3.7, NR).

In a pre-specified subgroup analysis of patients (n = 82) who were primary refractory to anti-lymphoma therapy, the ORR was 54% (95% CI: 42, 65), and the CR rate was 30% (95% CI: 21, 42). Median overall survival (OS) for patient on EPKINLY was not reached.

Key patient reported outcomes (PROs) were captured by the FACT-Lym to assess the impact of EPKINLY on patient quality of life. The FACT-Lym is a fully validated questionnaire to assess the quality-of-life patients with lymphoma. It consists of a general quality of life instrument (FACT-G) and a condition specific module, Lym. The FACT-G covers 5 subscales (Physical Well-Being, Social/Family Well-Being, Emotional Well-Being, Functional Well-Being, and Additional Concerns). The Lym module consists of 15 statements patients need to endorse on an identical 5-point scale. The Trial Outcome Index (TOI) is a subscore consisting of the Physical Well-Being, Functional Well-Being and Lym subscales (LymS).

Six questions from the FACT Lym addresses six key lymphoma symptoms (body pain, fever, night sweats, lack of energy, tires easily, and weight loss), as well as FACT-LymS and FACT-TOI. While on treatment, there were improvements in the patient reported symptoms across all six key lymphoma symptoms from C2D1 to C13D1. Steady and consistent improvements in FACT-LymS and FACT-TOI were also observed while patients were on treatment.

Mean (Standard Deviation) scores from C2D1 to C13D1 are as follows: Body pain: 1.3 (1.25) to 0.4 (0.6); Fever: 0.4 (0.85) to 0.0 (0.00); Night sweats: 0.5 (0.80) to 0.2 (0.42); Lack of energy: 1.8 (1.12) to 0.6 (0.61); Tires easily: 1.8 (1.11) to 0.9 (0.66); Weight loss: 0.8 (0.93) to 0.1 (0.32).

Mean (standard deviation) FACT-LymS scores improved from 42.4 (10) at baseline (C1D1, N=122) to 51.1 (6.36) at C9D1 (N=43), the final on-treatment time point measured. The mean (standard deviation) change in FACT-LymS scores from baseline consistently increased from 3.6 (6.98) by C3D1 to 5.7 (7.73) at C9D1.

Mean (standard deviation) FACT-TOI scores improved from 79.7 (20.03) at baseline (C1D1, N=122) to 94.2 (13.06) at C9D1 (N=43), the final on-treatment time point measured. The magnitude of improvement was reflected in the mean (standard deviation) change in TOI scores from baseline ranging from 5.0 (12.26) by C3D1 to 8.5 (15.52) at C9D1.

The PRO results should be interpreted with caution in the context of the open-label and single-arm study design.

In patients with HGBCL including HGBCL NOS (N=9) and HGBCL with MYC and BCL2 and/or BCL6 rearrangements (DLBCL DH/TH; N=12) using central FISH analysis, the ORR was 47.6% (95% CI: 25.7, 70.2) and CR rate was 28.6% (95% CI: 11.3, 52.2). Patients with HGBCL had a median DOR of 12.0 months (95% CI: 1.1, NR) and a median DOCR of 12.0 months (95% CI, NR, NR).

#### 14. PRE-CLINICAL SAFETY DATA

## 14.1 Carcinogenicity

Carcinogenicity studies have not been conducted with epcoritamab.

#### 14.2 Mutagenicity

Mutagenicity studies have not been conducted with epcoritamab.

#### 14.3 Impairment of fertility

Animal fertility studies have not been conducted with epcoritamab, however, epcoritamab did not cause toxicological changes in the reproductive organs of male or female cynomolgus monkeys at doses up to 1 mg/kg/week in intravenous general toxicity study of 5-week duration.

## 14.4 Animal pharmacology and/or toxicology

Effects generally consistent with the pharmacologic mechanism of action of epcoritamab were observed in cynomolgus monkeys. These findings included dose-related adverse clinical signs (including vomiting, decreased activity, and mortality [at high doses]) and cytokine release, reversible hematologic alterations, reversible B-cell depletion in peripheral blood, and reversible decreased lymphoid cellularity in secondary lymphoid tissues.

#### 15. PHARMACEUTICAL PROPERTIES

#### 15.1 Description

Epcoritamab is a humanized bispecific antibody that specifically binds to CD3+ T-cells and CD20+ B cells. Epcoritamab is manufactured from two biological intermediates, which are produced in Chinese hamster ovary (CHO) cells using recombinant DNA technology and has an approximate molecular weight of 149 kDa.

Epcoritamab has a regular IgG1 structure and biochemical characteristics typical of human IgG1.

Each single-dose 4 mg vial contains 4 mg of epcoritamab, 2.82 mg of sodium acetate trihydrate, 0.19 mg of acetic acid, 21.9 mg of D-sorbitol, 0.32 mg of polysorbate 80, and water for injection, adjusted to a pH of 5.5.

Each single-dose 48 mg vial contains 48 mg of epcoritamab, 2.82 mg of sodium acetate trihydrate, 0.19 mg of acetic acid, 21.9 mg of D-sorbitol, 0.32 mg of polysorbate 80, and water for injection, adjusted to a pH of 5.5.

# 15.2 List of excipients

Sodium acetate trihydrate Acetic acid D-sorbitol Polysorbate 80 Water for injection

# 15.3 Instruction for preparation

See Section 3.4

# 15.4 Storage

Store and transport refrigerated (2°C - 8°C).

Keep in the original carton to protect from light. Do not freeze. Do not shake.

# 15.5 How Supplied

Epcoritamab concentrate for solution, for subcutaneous injection (4 mg [5 mg/mL]) or epcoritamab solution for subcutaneous injection (48 mg [60 mg/mL]) is a sterile, preservative free, clear to slightly opalescent, colorless to slightly yellow solution, practically free of visible particles, supplied in glass vials as:

- 4 mg per 0.8 mL single dose vial
- 48 mg per 0.8 mL single dose vial.

## **Product Registrant:**

AbbVie Pte. Ltd. 9 North Buona Vista Drive The Metropolis #19-01 Singapore 138588

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Date of issue: DD MMM YYYY