

Entender mi tratamiento con BENDEKA®

BENDEKA es indicado para el tratamiento de pacientes con

- Leucemia linfocítica crónica (LLC). No se ha establecido la eficacia relativa a las terapias de primera línea aparte del clorambucil.
- Linfoma de no Hodgkin (LNH) indolente de células B que ha progresado durante o dentro de 6 meses de tratamiento con rituximab o un régimen que contiene rituximab.

Información de seguridad importante

BENDEKA no es indicado para todos, incluidos pacientes con una reacción alérgica conocida a la bendamustina, polietilenglicol 400, propilenglicol o monotioglicerol.

Sírvase leer la Información importante de seguridad a lo largo del folleto y en la página 7, además de la Información completa de prescripción a partir de la página 17 para conversar al respecto con su médico.



Para comenzar

¿Por qué mi oncólogo me recetó BENDEKA®?

Tratar el cáncer de la sangre es una travesía. Dependiendo de dónde esté en su travesía, su oncólogo puede recetarle BENDEKA, un tipo de quimioterapia. La quimioterapia es un tipo de tratamiento diseñado para matar células cancerosas.

Se receta BENDEKA para tratar dos tipos de cáncer:

- **Leucemia linfocítica crónica (LLC)**, que comienza con ciertos glóbulos blancos en la médula ósea y luego pasa a la sangre
 - Si se le ha diagnosticado LLC, puede recibir BENDEKA
- **Linfoma de no Hodgkin (LNH) de crecimiento lento**, que comienza con ciertos glóbulos blancos en el sistema linfático
 - Si antes ha recibido tratamiento para el LNH que ha continuado empeorando durante o después del tratamiento con otro medicamento, su médico puede cambiarlo a BENDEKA

BENDEKA es indicado para el tratamiento de pacientes con

- Leucemia linfocítica crónica (LLC). No se ha establecido la eficacia relativa a las terapias de primera línea aparte del clorambucil.
- Linfoma de no Hodgkin (LNH) indolente de células B que ha progresado durante o dentro de 6 meses de tratamiento con rituximab o un régimen que contiene rituximab.

Información de seguridad importante

BENDEKA puede causar efectos secundarios graves como: conteos bajos de glóbulos sanguíneos, infecciones o recurrencia de infecciones, respuestas imprevistas a BENDEKA al ponerlo en la sangre, respuestas alérgicas repentinas y severas, insuficiencia renal debido a la degradación rápida de las células cancerosas, otros tipos de cáncer y fugas de BENDEKA que sale de la vena afectando la piel circundante. Algunos de estos efectos secundarios, como los bajos conteos de glóbulos sanguíneos, infecciones, lesión hepática y respuestas dérmicas alérgicas graves (cuando se administró bendamustina HCl sola y en combinación con otros medicamentos anticáncer o alopurinol), han causado la muerte.

Sírvase leer la Información importante de seguridad a lo largo del folleto y en la página 7, además de la Información completa de prescripción a partir de la página 17 para conversar al respecto con su médico.



¿Cómo puede ayudarme este folleto?

Este folleto fue redactado para ayudarle a entender mejor lo que podría esperar durante el tratamiento con BENDEKA. Póngase en contacto con su equipo de atención médica si tiene preguntas que surjan a lo largo de su tratamiento.

APRENDERÁ

Cómo se administra BENDEKA

Cómo saber si está funcionando su tratamiento

Efectos secundarios graves y comunes que pueden ocurrir con el tratamiento de BENDEKA

Respuestas a preguntas comunes sobre BENDEKA

Recuerde que no todos responden igualmente al tratamiento. Esto es cierto también en cuanto a los efectos secundarios. También pueden variar las emociones de una persona a otra. Puede no ser fácil, pero trate de mantenerse motivado. Tenga presente también que no está solo en su travesía por el tratamiento.

Antes de comenzar el tratamiento, haga todas las preguntas que pueda tener a su médico o enfermera. Haga una lista de preguntas antes de cada cita. Lleve a un familiar o amigo a su cita para ayudarle a tomar nota de las respuestas y apoyarlo.

Esta información no está destinada a sustituir conversaciones con su equipo de atención médica acerca de su afección o tratamiento. Si tiene preguntas después de leer este folleto, hable con su equipo de atención médica.

Entender mi tratamiento

¿Cómo recibiré BENDEKA®?

BENDEKA puede administrarse en el consultorio de su médico, en el hospital o en un centro de infusión. Se administra en forma de infusión intravenosa (IV) que va directamente a la vena a través de una pequeña aguja que se le inserta en el brazo.



Como parte de su proceso de tratamiento,
una **infusión de BENDEKA**
dura unos **10 minutos.**

Información de seguridad importante

Dígale a su médico si sufre efectos secundarios como: salpullido, hinchazón facial o dificultades para respirar durante o poco después de su infusión con la inyección de BENDEKA. Estas son señales de una reacción alérgica. También debe decirle a su médico si siente falta de aliento, fatiga considerable, sangrado, hematomas, fiebre u otras señales de infección. Asimismo, dígale a su médico si sufre náuseas, vómitos, diarrea, pérdida de apetito o nota un tono amarillo en la piel. Además, su médico efectuará análisis de sangre para ver si tiene bajos conteos sanguíneos. Estas son cifras más bajas que lo normal en cuanto a glóbulos rojos, glóbulos blancos o plaquetas.

Algunos efectos secundarios graves pueden requerir cambios en la terapia, como disminuir la cantidad de BENDEKA que se administra, detener el uso de BENDEKA, o esperar más tiempo que lo previsto entre las dosis de BENDEKA.

Sírvase leer la Información importante de seguridad a lo largo del folleto y en la página 7, además de la Información completa de prescripción a partir de la página 17 para conversar al respecto con su médico.



Ciclo de tratamiento de la LLC

Este calendario muestra 1 ciclo de tratamiento de la LLC con BENDEKA. Cada ciclo dura 28 días. El calendario muestra cuáles días recibirá la infusión y por cuánto tiempo. Este ciclo de tratamiento puede repetirse hasta 6 veces.

Ciclo de 28 días							
1	2	3	4	5	6	7	
Infusión intravenosa de 10 min	Infusión intravenosa de 10 min						
8	9	10	11	12	13	14	
15	16	17	18	19	20	21	
22	23	24	25	26	27	28	

Ciclo de tratamiento del LNH

Este calendario muestra 1 ciclo de tratamiento del LNH con BENDEKA. Cada ciclo dura 21 días. El calendario muestra cuáles días recibirá la infusión y por cuánto tiempo. Este ciclo de tratamiento puede repetirse hasta 8 veces.

Ciclo de 21 días							
1	2	3	4	5	6	7	
Infusión intravenosa de 10 min	Infusión intravenosa de 10 min						
8	9	10	11	12	13	14	
15	16	17	18	19	20	21	

¿Cambiará alguna vez mi dosis?

Tal como se explicó anteriormente, no todos los pacientes reaccionan a los medicamentos del mismo modo; por eso puede ser necesario que su médico haga cambios a la dosis de BENDEKA para determinar lo que le conviene a usted o incluso dejar el tratamiento. Puede ser necesario cambiar la dosis o postergar el tratamiento si sufre efectos secundarios. El objetivo más importante es dar con la estrategia de tratamiento que le ayude a lograr los mejores resultados posibles. Su médico puede cambiar, postergar o incluso detener su tratamiento.



Hable con su equipo de atención médica acerca de la frecuencia con que recibirá el tratamiento. Así, usted puede planificar sus citas.

¿Cómo sabré si mi tratamiento está funcionando?



PRUEBAS QUE PUEDEN HACERSE

Su equipo de atención médica le hará un examen físico y le preguntará sobre sus síntomas. Pueden extraerse muestras de sangre o pueden hacerse otras pruebas. Estas pruebas muestran cómo está usted respondiendo al tratamiento con BENDEKA®.



TIPOS DE RESPUESTAS

Si las pruebas no muestran ninguna célula cancerosa, su respuesta se llama **respuesta completa**. Si se reduce el número de células cancerosas, su respuesta se llama **respuesta parcial**. A veces una persona puede no demostrar respuesta al tratamiento. Si desea saber más detalles sobre su respuesta al tratamiento, su médico puede darle más información.



HABLE CON SU MÉDICO

No se preocupe si no ve una respuesta inmediata. Puede tardar un poco antes de ver resultados positivos. Hable sobre el progreso con su médico. Pueden decidir juntos un plan de tratamiento que le convenga.

BENDEKA es indicado para el tratamiento de pacientes con

- Leucemia linfocítica crónica (LLC). No se ha establecido la eficacia relativa a las terapias de primera línea aparte del clorambucil.
- Linfoma de no Hodgkin (LNH) indolente de células B que ha progresado durante o dentro de 6 meses de tratamiento con rituximab o un régimen que contiene rituximab.

Sírvase leer la Información importante de seguridad a lo largo del folleto y en la página 7, además de la Información completa de prescripción a partir de la página 17 para conversar al respecto con su médico.



Información de seguridad importante

BENDEKA no es indicado para todos, incluidos pacientes con una reacción alérgica conocida a la bendamustina, polietilenglicol 400, propilenglicol o monotioglicerol.

BENDEKA puede causar efectos secundarios graves como: conteos bajos de glóbulos sanguíneos, infecciones o recurrencia de infecciones, respuestas imprevistas a BENDEKA al ponerlo en la sangre, respuestas alérgicas repentinas y severas, insuficiencia renal debido a la degradación rápida de las células cancerosas, otros tipos de cáncer y fugas de BENDEKA que sale de la vena afectando la piel circundante. Algunos de estos efectos secundarios, como los bajos conteos de glóbulos sanguíneos, infecciones, lesión hepática y respuestas dérmicas alérgicas graves (cuando se administró bendamustina HCl sola y en combinación con otros medicamentos anticáncer o alopurinol), han causado la muerte.

Dígale a su médico si sufre efectos secundarios como: salpullido, hinchazón facial o dificultades para respirar durante o poco después de su infusión con la inyección de BENDEKA. Estas son señales de una reacción alérgica. También debe decirle a su médico si siente falta de aliento, fatiga considerable, sangrado, hematomas, fiebre u otras señales de infección. Asimismo, dígale a su médico si sufre náuseas, vómitos, diarrea, pérdida de apetito o nota un tono amarillo en la piel. Además, su médico efectuará análisis de sangre para ver si tiene bajos conteos sanguíneos. Estas son cifras más bajas que lo normal en cuanto a glóbulos rojos, glóbulos blancos o plaquetas.

Algunos efectos secundarios graves pueden requerir cambios en la terapia, como disminuir la cantidad de BENDEKA que se administra, detener el uso de BENDEKA, o esperar más tiempo que lo previsto entre las dosis de BENDEKA.

BENDEKA puede causar daño fetal si se toma estando embarazada. Si es posible que quede embarazada, su proveedor de atención médica efectuará un examen de embarazo antes de comenzar el tratamiento con BENDEKA. Las mujeres con potencial reproductivo deben usar anticonceptivos eficaces durante el tratamiento con BENDEKA y durante 6 meses después de la dosis final y los hombres con parejas de sexo femenino durante 3 meses después de la última dosis. BENDEKA también puede afectar la fertilidad masculina. Las mujeres no deben amamantar durante el tratamiento con BENDEKA y durante al menos 1 semana después de la dosis final.

Los efectos secundarios más comunes incluyen: fatiga, fiebre, náuseas y vómitos, diarrea, estreñimiento, pérdida del apetito, tos, dolor de cabeza, pérdida de peso, dificultades para respirar, salpullido, irritación bucal, bajo conteo de glóbulos rojos (células portadoras de oxígeno), bajo conteo de plaquetas (células que coagulan la sangre) y menor número de tres tipos diferentes de glóbulos blancos (células que combaten infecciones).

Estos no son todos los posibles efectos secundarios de BENDEKA. Para obtener más información, pregunte a su proveedor de atención médica.

Lo alentamos a informar a la FDA sobre efectos secundarios de medicamentos recetados. Visite www.fda.gov/medwatch o llame al 1-800-FDA-1088.

► Para obtener más información acerca de BENDEKA, pregúntele a su médico, llame al -800-896-5855 o visite BENDEKA.com

Entender los efectos secundarios graves

Mucha gente se preocupa acerca de los efectos secundarios graves que tenga su tratamiento del cáncer. Los efectos secundarios graves indicados en esta página y la siguiente se han presentado en algunos estudios con hidrocloruro de bendamustina. Por eso es importante hablar con su médico acerca de su tratamiento y todo síntoma que tenga.

BENDEKA® PUEDE CAUSAR EFECTOS SECUNDARIOS GRAVES RELACIONADOS CON LA SANGRE

Conteos de glóbulos sanguíneos más bajos que lo normal

- Un conteo bajo de glóbulos rojos puede hacerle sentir cansancio fácilmente o falta de aliento
- Un conteo bajo de glóbulos blancos puede hacer más propenso a una infección
- Un conteo bajo de plaquetas puede hacerlo más propenso a sangrados anormales para usted

Infecciones

- Dígale a su médico si siente falta de aliento, fatiga considerable, sangrado, fiebre u otras señales de infección

Cambios en el tratamiento

Algunos efectos secundarios pueden requerir cambios en el tratamiento, como:

- Bajar la cantidad de BENDEKA que se administra
- Esperar más tiempo entre dosis de BENDEKA
- Dejar de usar BENDEKA



Hable con su equipo de atención médica si tiene preguntas acerca de los efectos secundarios.

Sírvase leer la Información importante de seguridad a lo largo del folleto y en la página 7, además de la Información completa de prescripción a partir de la página 17 para conversar al respecto con su médico.

¿Quién no debe tomar BENDEKA?

Si tiene una reacción alérgica conocida a la bendamustina, no debe tomar BENDEKA, polietilenglicol 400, propilenglicol ni monotioglicerol.

¿Las embarazadas deben tomar BENDEKA?

Las mujeres deben evitar los embarazos mientras reciban BENDEKA porque puede causar daño fetal si toma BENDEKA estando embarazada. Si es posible que quede embarazada, su proveedor de atención médica efectuará un examen de embarazo antes de comenzar el tratamiento con BENDEKA. Las mujeres con potencial reproductivo deben usar anticonceptivos eficaces durante el tratamiento con BENDEKA y durante 6 meses después de la dosis final y los hombres con parejas de sexo femenino durante 3 meses después de la última dosis.

BENDEKA PUEDE CAUSAR EFECTOS SECUNDARIOS GRAVES NO RELACIONADOS CON LA SANGRE

Infecciones y recurrencia de las infecciones

Reacciones a la infusión

Respuestas alérgicas repentinas y severas

Insuficiencia renal debido a la degradación acelerada de las células cancerosas

Lesión hepática

Otros cánceres

Fugas de BENDEKA que sale de la vena afectando la piel circundante

¿Puede causar una reacción si recibo una infusión de BENDEKA?

Dígale a su médico si sufre efectos secundarios como: salpullido, hinchazón facial o dificultades para respirar durante o poco después de su infusión con la inyección de BENDEKA. Estas son señales de una reacción alérgica. También debe decirle a su médico si siente falta de aliento, fatiga considerable, sangrado, hematomas, fiebre u otras señales de infección. Asimismo, dígale a su médico si sufre náuseas, vómitos, diarrea, pérdida de apetito o nota un tono amarillo en la piel. Además, su médico efectuará análisis de sangre para ver si tiene bajos conteos sanguíneos. Estas son cifras más bajas que lo normal en cuanto a glóbulos rojos, glóbulos blancos o plaquetas.



Dígale a su médico o enfermera inmediatamente si tiene alguno de estos efectos secundarios relacionados con BENDEKA porque algunos de estos efectos secundarios pueden llegar a ser graves y podrían ser fatales si no se tratan oportunamente.

Entender los efectos secundarios comunes

¿Qué efectos secundarios son previsibles con BENDEKA®?

Tome nota de todo efecto secundario que pueda tener entre tratamientos. Recuerde mencionarlos a su médico y enfermera en su próxima cita.

EFFECTOS SECUNDARIOS MÁS COMUNES DE BENDEKA

Los efectos secundarios comunes incluyen:

fatiga, fiebre, náuseas y vómitos, diarrea, estreñimiento, pérdida del apetito, tos, dolor de cabeza, pérdida de peso, dificultades para respirar, salpullido, irritación bucal, bajo conteo de glóbulos rojos (células portadoras de oxígeno), bajo conteo de plaquetas (células

que coagulan la sangre) y menor número de tres tipos diferentes de glóbulos blancos (células que combaten infecciones). Estos no son todos los posibles efectos secundarios de BENDEKA. Para obtener más información, pregunte a su proveedor de atención médica.

Sírvase leer la Información importante de seguridad a lo largo del folleto y en la página 7, además de la Información completa de prescripción a partir de la página 17 para conversar al respecto con su médico.

BENDEKA es indicado para el tratamiento de pacientes con

- Leucemia linfocítica crónica (LLC). No se ha establecido la eficacia relativa a las terapias de primera línea aparte del clorambucil.
- Linfoma de no Hodgkin (LNH) indolente de células B que ha progresado durante o dentro de 6 meses de tratamiento con rituximab o un régimen que contiene rituximab.



Preguntas frecuentes sobre BENDEKA®

Es normal tener muchas preguntas sobre su tratamiento. Esperamos que encuentre algunas respuestas aquí. En el centro de tratamiento, encontrará personal de enfermería y apoyo que también podrá contestar sus preguntas antes de comenzar el tratamiento.

¿Puedo tomar otros medicamentos mientras recibo BENDEKA?

Hable con su médico acerca de todo fármaco que tome o piense tomar. Algunos tipos de medicamentos pueden afectar la manera en que funciona BENDEKA en el organismo.

¿Hay comidas que deba evitar durante el tratamiento?

Es importante seguir una dieta saludable durante su tratamiento del cáncer. La dieta correcta puede ayudarle a mantener su fortaleza y nivel de energía. Pero puede resultarle difícil alimentarse bien si no se siente bien. Algunas personas pierden el apetito o tienen dificultades para comer debido a los efectos secundarios de la quimioterapia.



Pruebe con estos consejos para asegurarse de recibir la nutrición correcta:

- Coma varios bocadillos durante el día, en vez de tres comidas grandes
- Coma alimentos ricos en proteínas, como yogurt, cereal, medio sándwich, un plato de sopa, queso y galletas saladas
- Evite los alimentos que empeoran los efectos secundarios. Por ejemplo, si tiene diarrea, no coma fruta ni verduras crudas. Si le duele la garganta, no coma alimentos secos ni ácidos.

Dígale a su equipo de atención médica si tiene inquietudes sobre la comida. Pueden ayudarle a hacer cambios en la dieta que le sirvan para enfrentar los efectos secundarios del tratamiento.

¿Puedo volver al trabajo o a mis actividades normales?

Eso dependerá de cómo responda a su tratamiento. Cada persona responde de manera diferente. Pregunte a su médico lo que es mejor para usted.

Al volver a sus actividades diarias, deje que su cuidador y sus amigos le ayuden. Durante su tratamiento, puede ser muy útil permitir a los amigos y familiares dar apoyo moral y emocional.

Sírvase leer la Información importante de seguridad a lo largo del folleto y en la página 7, además de la Información completa de prescripción a partir de la página 17 para conversar al respecto con su médico.

¿Qué debo hacer si tengo efectos secundarios con el tratamiento?

Póngase en contacto con su médico o enfermera inmediatamente si tiene efectos secundarios. No espere para comunicar esta información en su próxima visita al consultorio.

Dígale a su médico si sufre efectos secundarios como: salpullido, hinchazón facial o dificultades para respirar durante o poco después de su infusión con la inyección de BENDEKA. Estas son señales de una reacción alérgica. También debe decirle a su médico si siente falta de aliento, fatiga considerable, sangrado, hematomas, fiebre u otras señales de infección. Asimismo, dígale a su médico si sufre náuseas, vómitos, diarrea, pérdida de apetito o nota un tono amarillo en la piel. Además, su médico efectuará análisis de sangre para ver si tiene bajos conteos sanguíneos. Estas son cifras más bajas que lo normal en cuanto a glóbulos rojos, glóbulos blancos o plaquetas.

¿Se me va a caer el cabello?

En una evaluación de seguridad de un estudio clínico de LLC, ocurrió la caída del cabello en 1 de 153 pacientes tratados con hidrocloruro de bendamustina en comparación con 0 (cero) de los 143 pacientes tratados con clorambucil. En un estudio del LNH, ocurrió la caída del cabello en 3 de los 100 pacientes tratados con hidrocloruro de bendamustina.



Respuestas a preguntas sobre los costos del tratamiento

¿Cómo puedo averiguar si mi seguro cubre BENDEKA?

TEVA ONCOLOGY OFRECE UN RECURSO LLAMADO CORE®



El Programa integral de reembolso especializado de oncología (Comprehensive Oncology Reimbursement Expertise, CORE) ofrece apoyo así como herramientas en línea para facilitarle entender el proceso de reembolso.

La línea directa de CORE (1-888-587-3263) puede ayudarle a:

- Verificar beneficios y cobertura
- Ofrecer precertificación y apoyo con la autorización previa
- Explicar pautas de cobertura
- Proporcionar apoyo personalizado a lo largo del proceso de reclamaciones y apelaciones
- Identificar programas que puedan ayudarle a pagar el tratamiento

¿Qué pasa si no puedo pagar por mi medicamento?

El Programa de asistencia al paciente de la Teva Cares Foundation ofrece ciertos medicamentos Teva sin costo alguno para los pacientes elegibles en los EE. UU. La elegibilidad se basa en el ingreso y el seguro para medicamentos recetados que tenga el paciente.

BENDEKA es indicado para el tratamiento de pacientes con

- Leucemia linfocítica crónica (LLC). No se ha establecido la eficacia relativa a las terapias de primera línea aparte del clorambucil.
- Linfoma de no Hodgkin (LNH) indolente de células B que ha progresado durante o dentro de 6 meses de tratamiento con rituximab o un régimen que contiene rituximab.

Sírvase leer la Información importante de seguridad a lo largo del folleto y en la página 7, además de la Información completa de prescripción a partir de la página 17 para conversar al respecto con su médico.



Como parte de su proceso de tratamiento,
una **infusión de BENDEKA**
dura unos **10 minutos.**

 **BENDEKA**[®]
(bendamustine HCl)
injection



Información de seguridad importante (cont.)

BENDEKA no es indicado para todos, incluidos pacientes con una reacción alérgica conocida a la bendamustina, polietilenglicol 400, propilenglicol o monotioglicerol.



**Para obtener más información acerca de BENDEKA®,
visite BENDEKA.com**

Lo alentamos a informar a la FDA sobre efectos secundarios negativos de medicamentos recetados. Visite www.fda.gov/medwatch o llame al 1-800-FDA-1088.

Sírvase leer la Información importante de seguridad a lo largo del folleto y en la página 7, además de la Información completa de prescripción dentro del bolsillo para conversar al respecto con su doctor.



©2020 Cephalon, Inc., una subsidiaria en propiedad absoluta de Teva Pharmaceutical Industries Ltd.
BENDEKA® es una marca comercial de Cephalon, Inc. Todos los derechos reservados.
BEN-40889 Marzo 2020

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use BENDEKA safely and effectively. See full prescribing information for BENDEKA.

BENDEKA® (bendamustine hydrochloride injection), for intravenous use

Initial U.S. Approval: 2008

INDICATIONS AND USAGE

BENDEKA injection is an alkylating drug indicated for treatment of patients with:

- Chronic lymphocytic leukemia (CLL). Efficacy relative to first line therapies other than chlorambucil has not been established. (1.1)
- Indolent B-cell non-Hodgkin lymphoma (NHL) that has progressed during or within six months of treatment with rituximab or a rituximab-containing regimen. (1.2)

DOSAGE AND ADMINISTRATION

For CLL:

- 100 mg/m² infused intravenously over 10 minutes on Days 1 and 2 of a 28-day cycle, up to 6 cycles. (2.1)

For NHL:

- 120 mg/m² infused intravenously over 10 minutes on Days 1 and 2 of a 21-day cycle, up to 8 cycles. (2.2)

DOSAGE FORMS AND STRENGTHS

Injection: 100 mg/4 mL (25 mg/mL) in a multiple-dose vial. (3)

CONTRAINDICATIONS

BENDEKA is contraindicated in patients with a history of a hypersensitivity reaction to bendamustine, polyethylene glycol 400, propylene glycol, or monothioglycerol. Reactions to bendamustine hydrochloride have included anaphylaxis and anaphylactoid reactions (4, 5.3).

WARNINGS AND PRECAUTIONS

- Myelosuppression: Delay or reduce dose, and restart treatment based on ANC and platelet count recovery. (2.1, 5.1)
- Infections: Monitor for fever and other signs of infection or reactivation of infections and treat promptly. (5.2)
- Anaphylaxis and Infusion Reactions: Severe anaphylactic reactions have occurred. Monitor clinically and discontinue drug for severe reactions. Pre-medicate in subsequent cycles for milder reactions. (5.3)
- Tumor Lysis Syndrome: May lead to acute renal failure and death; anticipate and use supportive measures in patients at high risk. (5.4)

FULL PRESCRIBING INFORMATION: CONTENTS*

1 INDICATIONS AND USAGE

- 1.1 Chronic Lymphocytic Leukemia (CLL)
- 1.2 Non-Hodgkin Lymphoma (NHL)

2 DOSAGE AND ADMINISTRATION

- 2.1 Dosing Instructions for CLL
- 2.2 Dosing Instructions for NHL
- 2.3 Preparation for Intravenous Administration
- 2.4 Admixture Stability
- 2.5 Stability of Partially Used Vials (Needle Punched Vials)

3 DOSAGE FORMS AND STRENGTHS

4 CONTRAINDICATIONS

5 WARNINGS AND PRECAUTIONS

- 5.1 Myelosuppression
- 5.2 Infections
- 5.3 Anaphylaxis and Infusion Reactions
- 5.4 Tumor Lysis Syndrome
- 5.5 Skin Reactions
- 5.6 Hepatotoxicity
- 5.7 Other Malignancies
- 5.8 Extravasation Injury
- 5.9 Embryo-Fetal Toxicity

6 ADVERSE REACTIONS

- 6.1 Clinical Trials Experience
- 6.2 Clinical Trials Experience in CLL
- 6.3 Clinical Trials Experience in NHL
- 6.4 Postmarketing Experience

7 DRUG INTERACTIONS

- 7.1 Effect of Other Drugs on BENDEKA

- Skin Reactions: Discontinue for severe skin reactions. Cases of SJS, DRESS and TEN, some fatal, have been reported. (5.5)
- Hepatotoxicity: Monitor liver chemistry tests prior to and during treatment. (5.6)
- Other Malignancies: Pre-malignant and malignant diseases have been reported. (5.7)
- Extravasation Injury: Take precautions to avoid extravasation, including monitoring intravenous infusion site during and after administration. (5.8)
- Embryo-Fetal Toxicity: Can cause fetal harm. Advise females of reproductive potential of the potential risk to a fetus and to use an effective method of contraception. (5.9, 8.1, 8.3)

ADVERSE REACTIONS

- Adverse reactions (frequency >5%) during infusion and within 24 hours post-infusion are nausea and fatigue. (6.1)
- Most common adverse reactions (≥15%) for CLL are anemia, thrombocytopenia, neutropenia, lymphopenia, leukopenia, hyperbilirubinemia, pyrexia, nausea, vomiting. (6.2, 6.3)
- Most common adverse reactions (≥15%) for NHL are lymphopenia, leukopenia, anemia neutropenia, thrombocytopenia, nausea, fatigue, vomiting, diarrhea, pyrexia, constipation, anorexia, cough, headache, weight decreased, dyspnea, rash, and stomatitis.(6.2, 6.3).

To report SUSPECTED ADVERSE REACTIONS, contact Teva Pharmaceuticals at 1-888-483-8279 or FDA at 1-800-FDA-1088 or <http://www.fda.gov/medwatch>.

DRUG INTERACTIONS

Consider alternative therapies that are not CYP1A2 inducers or inhibitors during treatment with BENDEKA. (7.1)

USE IN SPECIFIC POPULATIONS

- Lactation: Advise not to breastfeed. (8.2)
- Infertility: May impair fertility. (8.3)
- Renal Impairment: Do not use in patients with creatinine clearance <30 mL/min. (8.6)
- Hepatic Impairment: Do not use in patients with total bilirubin 1.5-3 × ULN and AST or ALT 2.5-10 × ULN, or total bilirubin > 3 × ULN. (8.7)

See 17 for PATIENT COUNSELING INFORMATION

Revised: 10/2019

8 USE IN SPECIFIC POPULATIONS

- 8.1 Pregnancy
- 8.2 Lactation
- 8.3 Females and Males of Reproductive Potential
- 8.4 Pediatric Use
- 8.5 Geriatric Use
- 8.6 Renal Impairment
- 8.7 Hepatic Impairment

10 OVERDOSAGE

11 DESCRIPTION

12 CLINICAL PHARMACOLOGY

- 12.1 Mechanism of Action
- 12.2 Pharmacodynamics
- 12.3 Pharmacokinetics

13 NONCLINICAL TOXICOLOGY

- 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

14 CLINICAL STUDIES

- 14.1 Chronic Lymphocytic Leukemia (CLL)
- 14.2 Non-Hodgkin Lymphoma (NHL)

15 REFERENCES

16 HOW SUPPLIED/STORAGE AND HANDLING

- 16.1 Safe Handling and Disposal
- 16.2 How Supplied
- 16.3 Storage

17 PATIENT COUNSELING INFORMATION

*Sections or subsections omitted from the full prescribing information are not listed.

BENDEKA® (bendamustine hydrochloride) injection

FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

1.1 Chronic Lymphocytic Leukemia (CLL)

BENDEKA® is indicated for the treatment of patients with chronic lymphocytic leukemia. Efficacy relative to first line therapies other than chlorambucil has not been established.

1.2 Non-Hodgkin Lymphoma (NHL)

BENDEKA is indicated for the treatment of patients with indolent B-cell non-Hodgkin lymphoma that has progressed during or within six months of treatment with rituximab or a rituximab-containing regimen.

2 DOSAGE AND ADMINISTRATION

2.1 Dosing Instructions for CLL

Recommended Dosage:

The recommended dose is 100 mg/m² administered intravenously over 10 minutes on Days 1 and 2 of a 28-day cycle, up to 6 cycles.

Dose Delays, Dose Modifications and Reinitiation of Therapy for CLL:

Delay BENDEKA administration in the event of Grade 4 hematologic toxicity or clinically significant greater than or equal to Grade 2 non-hematologic toxicity. Once non-hematologic toxicity has recovered to less than or equal to Grade 1 and/or the blood counts have improved [Absolute Neutrophil Count (ANC) greater than or equal to $1 \times 10^9/L$, platelets greater than or equal to $75 \times 10^9/L$], reinstitute BENDEKA (bendamustine hydrochloride) injection at the discretion of the treating physician. In addition, consider dose reduction. [see Warnings and Precautions (5.1)]

Dose modifications for hematologic toxicity: for Grade 3 or greater toxicity, reduce the dose to 50 mg/m² on Days 1 and 2 of each cycle; if Grade 3 or greater toxicity recurs, reduce the dose to 25 mg/m² on Days 1 and 2 of each cycle.

Dose modifications for non-hematologic toxicity: for clinically significant Grade 3 or greater toxicity, reduce the dose to 50 mg/m² on Days 1 and 2 of each cycle.

Consider dose re-escalation in subsequent cycles at the discretion of the treating physician.

2.2 Dosing Instructions for NHL

Recommended Dosage:

The recommended dose is 120 mg/m² administered intravenously over 10 minutes on Days 1 and 2 of a 21-day cycle, up to 8 cycles.

Dose Delays, Dose Modifications and Reinitiation of Therapy for NHL:

Delay BENDEKA administration in the event of a Grade 4 hematologic toxicity or clinically significant greater than or equal to Grade 2 non-hematologic toxicity. Once non-hematologic toxicity has recovered to less than or equal to Grade 1 and/or the blood counts have improved [Absolute Neutrophil Count (ANC) greater than or equal to $1 \times 10^9/L$, platelets greater than or equal to $75 \times 10^9/L$], reinstitute BENDEKA at the discretion of the treating physician. In addition, consider dose reduction. [see Warnings and Precautions (5.1)]

Dose modifications for hematologic toxicity: for Grade 4 toxicity, reduce the dose to 90 mg/m² on Days 1 and 2 of each cycle; if Grade 4 toxicity recurs, reduce the dose to 60 mg/m² on Days 1 and 2 of each cycle.

Dose modifications for non-hematologic toxicity: for Grade 3 or greater toxicity, reduce the dose to 90 mg/m² on Days 1 and 2 of each cycle; if Grade 3 or greater toxicity recurs, reduce the dose to 60 mg/m² on Days 1 and 2 of each cycle.

2.3 Preparation for Intravenous Administration

BENDEKA is a cytotoxic drug. Follow applicable special handling and disposal procedures.¹

BENDEKA is in a multiple-dose vial. At room temperature, BENDEKA is a clear, and colorless to yellow ready-to-dilute solution. Store BENDEKA at recommended refrigerated storage conditions (2-8°C or 36-46°F). When refrigerated, the contents may partially freeze. Allow the vial to reach room temperature (15-30°C or 59-86°F) prior to use. Do not use the product if particulate matter is observed after achieving room temperature.

Intravenous Infusion

- Aseptically withdraw the volume needed for the required dose from the 25 mg/mL solution as per Table A below and immediately transfer the solution to a 50 mL infusion bag of one of the following diluents:
 - 0.9% Sodium Chloride Injection, USP; or
 - 2.5% Dextrose/0.45% Sodium Chloride Injection, USP; or
 - 5% Dextrose Injection, USP.

The resulting final concentration of bendamustine hydrochloride in the infusion bag should be within 1.85 mg/mL – 5.6 mg/mL. After transferring, thoroughly mix the contents of the infusion bag. The admixture should be a clear, and colorless to yellow solution.

No other diluents have been shown to be compatible. The 5% Dextrose Injection, USP, offers a sodium-free method of administration for patients with certain medical conditions requiring restricted sodium intake.

BENDEKA® (bendamustine hydrochloride) injection

Table A: Volume (mL) of BENDEKA required for dilution into 50 mL of 0.9% saline, or 0.45% saline/2.5% dextrose or 5% dextrose for a given dose (mg/m²) and Body Surface Area (m²)

Body Surface Area (m ²)	Volume of BENDEKA to withdraw (mL)					
	120 mg/m ²	100 mg/m ²	90 mg/m ²	60 mg/m ²	50 mg/m ²	25 mg/m ²
1	4.8	4	3.6	2.4	2	1
1.1	5.3	4.4	4	2.6	2.2	1.1
1.2	5.8	4.8	4.3	2.9	2.4	1.2
1.3	6.2	5.2	4.7	3.1	2.6	1.3
1.4	6.7	5.6	5	3.4	2.8	1.4
1.5	7.2	6	5.4	3.6	3	1.5
1.6	7.7	6.4	5.8	3.8	3.2	1.6
1.7	8.2	6.8	6.1	4.1	3.4	1.7
1.8	8.6	7.2	6.5	4.3	3.6	1.8
1.9	9.1	7.6	6.8	4.6	3.8	1.9
2	9.6	8	7.2	4.8	4	2
2.1	10.1	8.4	7.6	5	4.2	2.1
2.2	10.6	8.8	7.9	5.3	4.4	2.2
2.3	11	9.2	8.3	5.5	4.6	2.3
2.4	11.5	9.6	8.6	5.8	4.8	2.4
2.5	12	10	9	6	5	2.5
2.6	12.5	10.4	9.4	6.2	5.2	2.6
2.7	13	10.8	9.7	6.5	5.4	2.7
2.8	13.4	11.2	10.1	6.7	5.6	2.8
2.9	13.9	11.6	10.4	7	5.8	2.9
3	14.4	12	10.8	7.2	6	3

Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration whenever solution and container permit. Any unused solution should be discarded according to institutional procedures for antineoplastics.

2.4 Admixture Stability

BENDEKA contains no antimicrobial preservative. Prepare the admixture as close as possible to the time of patient administration.

If diluted with 0.9% Sodium Chloride Injection, USP, or 2.5% Dextrose/0.45% Sodium Chloride Injection, USP, the final admixture is stable for 24 hours when stored refrigerated (2-8°C or 36-46°F) or for 6 hours when stored at room temperature (15-30°C or 59-86°F) and room light. Administration of diluted BENDEKA (bendamustine hydrochloride) injection must be completed within this period of time.

In the event that 5% Dextrose Injection, USP is utilized, the final admixture is stable for 24 hours when stored refrigerated (2-8°C or 36-46°F) or for only 3 hours when stored at room temperature (15-30°C or 59-86°F) and room light. Administration of diluted BENDEKA must be completed within this period of time.

Retain the partially used vial in original package to protect from light and store refrigerated (2-8°C or 36-46°F) if additional dose withdrawal from the same vial is intended.

2.5 Stability of Partially Used Vials (Needle Punched Vials)

BENDEKA is supplied in a multiple-dose vial. Although it does not contain any antimicrobial preservative, BENDEKA is bacteriostatic. The partially used vials are stable for up to 28 days when stored in its original carton under refrigeration (2-8°C or 36-46°F). Each vial is not recommended for more than a total of six (6) dose withdrawals.

After first use, store the partially used vial in the refrigerator in the original carton at 2-8°C or 36-46°F and then discard after 28 days.

3 DOSAGE FORMS AND STRENGTHS

Injection: 100 mg/4 mL (25 mg/mL) as a clear and colorless to yellow ready-to-dilute solution in a multiple-dose vial.

4 CONTRAINDICATIONS

BENDEKA is contraindicated in patients with a known hypersensitivity (e.g., anaphylactic and anaphylactoid reactions) to bendamustine, polyethylene glycol 400, propylene glycol, or monothioglycerol. [see Warnings and Precautions (5.3)]

5 WARNINGS AND PRECAUTIONS

5.1 Myelosuppression

Bendamustine hydrochloride caused severe myelosuppression (Grade 3-4) in 98% of patients in the two NHL studies (see Table 4). Three patients (2%) died from myelosuppression-related adverse reactions; one each from neutropenic sepsis, diffuse alveolar hemorrhage with Grade 3 thrombocytopenia, and pneumonia from an opportunistic infection (CMV).

BENDEKA causes myelosuppression. Monitor complete blood counts, including leukocytes, platelets, hemoglobin (Hgb), and neutrophils frequently. In the clinical trials, blood counts were monitored every week initially. Hematologic nadirs occurred predominantly in the third week of therapy. Myelosuppression may require dose delays and/or subsequent dose reductions if recovery to the recommended values has not occurred by the first day of the next scheduled cycle. Prior to the initiation of the next cycle of therapy, the ANC should be $\geq 1 \times 10^9/L$ and the platelet count should be $\geq 75 \times 10^9/L$. [see Dosage and Administration (2.1)]

BENDEKA® (bendamustine hydrochloride) injection

5.2 Infections

Infection, including pneumonia, sepsis, septic shock, hepatitis and death has occurred in adult and pediatric patients in clinical trials and in postmarketing reports for bendamustine hydrochloride. Patients with myelosuppression following treatment with bendamustine hydrochloride are more susceptible to infections. Advise patients with myelosuppression following BENDEKA treatment to contact a physician immediately if they have symptoms or signs of infection.

Patients treated with BENDEKA are at risk for reactivation of infections including (but not limited to) hepatitis B, cytomegalovirus, Mycobacterium tuberculosis, and herpes zoster. Patients should undergo appropriate measures (including clinical and laboratory monitoring, prophylaxis, and treatment) for infection and infection reactivation prior to administration.

5.3 Anaphylaxis and Infusion Reactions

Infusion reactions to bendamustine hydrochloride have occurred commonly in clinical trials. Symptoms include fever, chills, pruritus and rash. In rare instances, severe anaphylactic and anaphylactoid reactions have occurred, particularly in the second and subsequent cycles of therapy. Monitor clinically and discontinue drug for severe reactions. Ask patients about symptoms suggestive of infusion reactions after their first cycle of therapy. Patients who experienced Grade 3 or worse allergic-type reactions were not typically rechallenged. Consider measures to prevent severe reactions, including antihistamines, antipyretics and corticosteroids in subsequent cycles in patients who have experienced Grade 1 or 2 infusion reactions. Discontinue BENDEKA for patients with Grade 4 infusion reactions. Consider discontinuation for Grade 3 infusion reactions as clinically appropriate considering individual benefits, risks, and supportive care.

5.4 Tumor Lysis Syndrome

Tumor lysis syndrome associated with bendamustine hydrochloride has occurred in patients in clinical trials and in postmarketing reports. The onset tends to be within the first treatment cycle of bendamustine hydrochloride and, without intervention, may lead to acute renal failure and death. Preventive measures include vigorous hydration and close monitoring of blood chemistry, particularly potassium and uric acid levels. Allopurinol has also been used during the beginning of bendamustine hydrochloride therapy. However, there may be an increased risk of severe skin toxicity when bendamustine hydrochloride and allopurinol are administered concomitantly. [see Warnings and Precautions (5.5)]

5.5 Skin Reactions

Fatal and serious skin reactions have been reported with bendamustine hydrochloride injection treatment in clinical trials and postmarketing safety reports, including toxic skin reactions [Stevens-Johnson Syndrome (SJS), toxic epidermal necrolysis (TEN), and drug reaction with eosinophilia and systemic symptoms (DRESS)], bullous exanthema, and rash. Events occurred when bendamustine hydrochloride injection was given as a single agent and in combination with other anticancer agents or allopurinol. Where skin reactions occur, they may be progressive and increase in severity with further treatment. Monitor patients with skin reactions closely. If skin reactions are severe or progressive, withhold or discontinue BENDEKA.

5.6 Hepatotoxicity

Fatal and serious cases of liver injury have been reported with bendamustine hydrochloride injection. Combination therapy, progressive disease or reactivation of hepatitis B were confounding factors in some patients [see Warnings and Precautions (5.2)]. Most cases were reported within the first three months of starting therapy. Monitor liver chemistry tests prior to and during BENDEKA therapy.

5.7 Other Malignancies

There are reports of pre-malignant and malignant diseases that have developed in patients who have been treated with bendamustine hydrochloride, including myelodysplastic syndrome, myeloproliferative disorders, acute myeloid leukemia and bronchial carcinoma. The association with bendamustine hydrochloride therapy has not been determined.

5.8 Extravasation Injury

Bendamustine hydrochloride extravasations have been reported in postmarketing resulting in hospitalizations from erythema, marked swelling, and pain. Assure good venous access prior to starting drug infusion and monitor the intravenous infusion site for redness, swelling, pain, infection, and necrosis during and after administration of BENDEKA.

5.9 Embryo-Fetal Toxicity

Based on findings from animal reproduction studies and the drug's mechanism of action, BENDEKA can cause fetal harm when administered to a pregnant woman. Single intraperitoneal doses of bendamustine (that approximated the maximum recommended human dose based on body surface area) to pregnant mice and rats during organogenesis caused adverse developmental outcomes, including an increase in resorptions, skeletal and visceral malformations, and decreased fetal body weights. Advise pregnant women of the potential risk to a fetus. Advise females of reproductive potential to use an effective method of contraception during treatment with BENDEKA and for at least 6 months after the final dose. Advise males with female partners of reproductive potential to use effective contraception during treatment with BENDEKA and for at least 3 months after the final dose. [see Use in Specific Populations (8.1, 8.3) and Clinical Pharmacology (12.1)]

6 ADVERSE REACTIONS

The following clinically significant adverse reactions have been associated with bendamustine hydrochloride in clinical trials and are discussed in greater detail in other sections of the prescribing information.

- Myelosuppression [see Warnings and Precautions (5.1)]
- Infections [see Warnings and Precautions (5.2)]
- Anaphylaxis and Infusion Reactions [see Warnings and Precautions (5.3)]

BENDEKA® (bendamustine hydrochloride) injection

- Tumor Lysis Syndrome [see Warnings and Precautions (5.4)]
- Skin Reactions [see Warnings and Precautions (5.5)]
- Hepatotoxicity [see Warnings and Precautions (5.6)]
- Other Malignancies [see Warnings and Precautions (5.7)]
- Extravasation Injury [see Warnings and Precautions (5.8)]

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

The data described below reflect exposure to bendamustine hydrochloride in 329 patients who participated in an actively controlled trial (N=153) for the treatment of CLL and two single arm studies (N=176) for the treatment of indolent B cell NHL. Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice. The safety of BENDEKA administered IV as a 50 mL admixture over a 10-minute infusion is supported by clinical trials using bendamustine hydrochloride administered IV as a 500 mL admixture over 30-60 minutes infusion time, as well as an open-label, crossover study in 81 'end-of-life' cancer patients treated with BENDEKA. In total, safety data from clinical studies are available from over 400 cancer patients exposed to bendamustine hydrochloride at doses in the range used in the treatment of CLL and NHL.

No clinically significant differences in the adverse reaction profile were noted among bendamustine hydrochloride administered as a 500 mL admixture over standard infusion time (30-60 minutes) and BENDEKA administered as a 50 mL admixture in a 'short-time' infusion over 10 minutes.

The safety and tolerability of BENDEKA was evaluated in an 8-week clinical study of BENDEKA in 81 'end-of-life' cancer patients, diagnosed with solid tumors and hematologic malignancies (excluding CLL). The population was 40-82 years of age, 58% females, 84% white, 12.3% Black, 1.2% Asian and 2.5% were classified as 'other'. BENDEKA was administered IV at a 120 mg/m² dose as a 50 mL admixture over 10 minutes. Patients in the study received BENDEKA (50 mL IV, over 10 minutes) or bendamustine hydrochloride (500 mL IV, over 60 minutes) on Days 1 and 2 every 28 days for two consecutive 2-day cycles.

Adverse reactions (any grade) that occurred with a frequency greater than 5% during BENDEKA infusion and within one hour post-infusion were nausea (8.2%) and fatigue (5.5%).

Adverse reactions (any grade) that occurred with a frequency greater than 5% within 24 hours of BENDEKA were nausea (10.9%) and fatigue (8.2%).

Adverse reactions leading to study withdrawal in 4 patients receiving BENDEKA were pyrexia (1.2%), nausea (1.2%), vomiting (1.2%), pneumonia (1.2%) and fatigue (1.2%).

6.2 Clinical Trials Experience in CLL

The data described below reflect exposure to bendamustine hydrochloride in 153 patients. Bendamustine hydrochloride was studied in an active-controlled randomized trial. The population was 45-77 years of age, 63% male, 100% white, and had treatment naïve CLL. All patients started the study at a dose of 100 mg/m² intravenously over 30 minutes on Days 1 and 2 every 28 days.

Adverse reactions were reported according to NCI CTC v.2.0. In the randomized CLL clinical study, non-hematologic adverse reactions (any grade) in the bendamustine hydrochloride group that occurred with a frequency greater than 15% were pyrexia (24%), nausea (20%), and vomiting (16%).

Other adverse reactions seen frequently in one or more studies included asthenia, fatigue, malaise, and weakness; dry mouth; somnolence; cough; constipation; headache; mucosal inflammation and stomatitis.

Worsening hypertension was reported in 4 patients treated with bendamustine hydrochloride in the randomized CLL clinical study and in none treated with chlorambucil. Three of these 4 adverse reactions were described as a hypertensive crisis and were managed with oral medications and resolved.

The most frequent adverse reactions leading to study withdrawal for patients receiving bendamustine hydrochloride were hypersensitivity (2%) and pyrexia (1%). Table 1 contains the treatment emergent adverse reactions, regardless of attribution, that were reported in ≥ 5% of patients in either treatment group in the randomized CLL clinical study.

Table 1: Non-Hematologic Adverse Reactions Occurring in Randomized CLL Clinical Study in at Least 5% of Patients

Body System Adverse Reaction	Number (%) of patients			
	Bendamustine Hydrochloride (N=153)	Chlorambucil (N=143)		
All Grades	Grade 3/4	All Grades	Grade 3/4	
Total number of patients with at least 1 adverse reaction	121 (79)	52 (34)	96 (67)	25 (17)
Gastrointestinal disorders				
Nausea	31 (20)	1 (<1)	21 (15)	1 (<1)
Vomiting	24 (16)	1 (<1)	9 (6)	0
Diarrhea	14 (9)	2 (1)	5 (3)	0

continued

BENDEKA® (bendamustine hydrochloride) injection

BENDEKA® (bendamustine hydrochloride) injection

	Number (%) of patients			
	Bendamustine Hydrochloride (N=153)		Chlorambucil (N=143)	
Body System Adverse Reaction	All Grades	Grade 3/4	All Grades	Grade 3/4
General disorders and administration site conditions				
Pyrexia	36 (24)	6 (4)	8 (6)	2 (1)
Fatigue	14 (9)	2 (1)	8 (6)	0
Asthenia	13 (8)	0	6 (4)	0
Chills	9 (6)	0	1 (<1)	0
Immune system disorders				
Hypersensitivity	7 (5)	2 (1)	3 (2)	0
Infections and infestations				
Nasopharyngitis	10 (7)	0	12 (8)	0
Infection	9 (6)	3 (2)	1 (<1)	1 (<1)
Herpes simplex	5 (3)	0	7 (5)	0
Investigations				
Weight decreased	11 (7)	0	5 (3)	0
Metabolism and nutrition disorders				
Hyperuricemia	11 (7)	3 (2)	2 (1)	0
Respiratory, thoracic and mediastinal disorders				
Cough	6 (4)	1 (<1)	7 (5)	1 (<1)
Skin and subcutaneous tissue disorders				
Rash	12 (8)	4 (3)	7 (5)	3 (2)
Pruritus	8 (5)	0	2 (1)	0

The Grade 3 and 4 hematology laboratory test values by treatment group in the randomized CLL clinical study are described in Table 2. These findings confirm the myelosuppressive effects seen in patients treated with bendamustine hydrochloride. Red blood cell transfusions were administered to 20% of patients receiving bendamustine hydrochloride compared with 6% of patients receiving chlorambucil.

Table 2: Incidence of Hematology Laboratory Abnormalities in Patients Who Received bendamustine hydrochloride or Chlorambucil in the Randomized CLL Clinical Study

Laboratory Abnormality	Bendamustine Hydrochloride N=150		Chlorambucil N=141	
	All Grades n (%)	Grade 3/4 n (%)	All Grades n (%)	Grade 3/4 n (%)
Hemoglobin Decreased	134 (89)	20 (13)	115 (82)	12 (9)
Platelets Decreased	116 (77)	16 (11)	110 (78)	14 (10)
Leukocytes Decreased	92 (61)	42 (28)	26 (18)	4 (3)
Lymphocytes Decreased	102 (68)	70 (47)	27 (19)	6 (4)
Neutrophils Decreased	113 (75)	65 (43)	86 (61)	30 (21)

In the randomized CLL trial, 34% of patients had bilirubin elevations, some without associated significant elevations in AST and ALT. Grade 3 or 4 increased bilirubin occurred in 3% of patients. Increases in AST and ALT of Grade 3 or 4 were limited to 1% and 3% of patients, respectively. Patients treated with bendamustine hydrochloride may also have changes in their creatinine levels. If abnormalities are detected, monitoring of these parameters should be continued to ensure that significant deterioration does not occur.

6.3 Clinical Trials Experience in NHL

The data described below reflect exposure to bendamustine hydrochloride in 176 patients with indolent B-cell NHL treated in two single-arm studies. The population was 31-84 years of age, 60% male, and 40% female. The race distribution was 89% White, 7% Black, 3% Hispanic, 1% other, and <1% Asian. These patients received bendamustine hydrochloride at a dose of 120 mg/m² intravenously on Days 1 and 2 for up to eight 21-day cycles.

The adverse reactions occurring in at least 5% of the NHL patients, regardless of severity, are shown in Table 3. The most common non-hematologic adverse reactions ($\geq 30\%$) were nausea (75%), fatigue (57%), vomiting (40%), diarrhea (37%) and pyrexia (34%). The most common non-hematologic Grade 3 or 4 adverse reactions ($\geq 5\%$) were fatigue (11%), febrile neutropenia (6%), and pneumonia, hypokalemia and dehydration, each reported in 5% of patients.

Table 3: Non-Hematologic Adverse Reactions Occurring in at Least 5% of NHL Patients Treated with bendamustine hydrochloride by System Organ Class and Preferred Term (N=176)

Body System	Number (%) of patients*	
Adverse Reaction	All Grades	Grade 3/4
Total number of patients with at least 1 adverse reaction	176 (100)	94 (53)
Cardiac Disorders		
Tachycardia	13 (7)	0
Gastrointestinal disorders		
Nausea	132 (75)	7 (4)
Vomiting	71 (40)	5 (3)
Diarrhea	65 (37)	6 (3)
Constipation	51 (29)	1 (<1)
Stomatitis	27 (15)	1 (<1)
Abdominal pain	22 (13)	2 (1)
Dyspepsia	20 (11)	0
Gastroesophageal reflux disease	18 (10)	0
Dry mouth	15 (9)	1 (<1)
Abdominal pain upper	8 (5)	0
Abdominal distension	8 (5)	0
General disorders and administration site conditions		
Fatigue	101 (57)	19 (11)
Pyrexia	59 (34)	3 (2)
Chills	24 (14)	0
Edema peripheral	23 (13)	1 (<1)
Asthenia	19 (11)	4 (2)
Chest pain	11 (6)	1 (<1)
Infusion site pain	11 (6)	0
Pain	10 (6)	0
Catheter site pain	8 (5)	0
Infections and infestations		
Herpes zoster	18 (10)	5 (3)
Upper respiratory tract infection	18 (10)	0
Urinary tract infection	17 (10)	4 (2)
Sinusitis	15 (9)	0
Pneumonia	14 (8)	9 (5)
Febrile neutropenia	11 (6)	11 (6)
Oral candidiasis	11 (6)	2 (1)
Nasopharyngitis	11 (6)	0
Investigations		
Weight decreased	31 (18)	3 (2)
Metabolism and nutrition disorders		
Anorexia	40 (23)	3 (2)
Dehydration	24 (14)	8 (5)
Decreased appetite	22 (13)	1 (<1)
Hypokalemia	15 (9)	9 (5)
Musculoskeletal and connective tissue disorders		
Back pain	25 (14)	5 (3)
Arthralgia	11 (6)	0
Pain in extremity	8 (5)	2 (1)
Bone pain	8 (5)	0
Nervous system disorders		
Headache	36 (21)	0
Dizziness	25 (14)	0
Dysgeusia	13 (7)	0
Psychiatric disorder		
Insomnia	23 (13)	0
Anxiety	14 (8)	1 (<1)
Depression	10 (6)	0

continued

BENDEKA® (bendamustine hydrochloride) injection**BENDEKA® (bendamustine hydrochloride) injection**

Body System	Number (%) of patients*	
Adverse Reaction	All Grades	Grade 3/4
Respiratory, thoracic and mediastinal disorders		
Cough	38 (22)	1 (<1)
Dyspnea	28 (16)	3 (2)
Pharyngolaryngeal pain	14 (8)	1 (<1)
Wheezing	8 (5)	0
Nasal congestion	8 (5)	0
Skin and subcutaneous tissue disorders		
Rash	28 (16)	1 (<1)
Pruritus	11 (6)	0
Dry skin	9 (5)	0
Night sweats	9 (5)	0
Hyperhidrosis	8 (5)	0
Vascular disorders		
Hypotension	10 (6)	2 (1)

*Patients may have reported more than 1 adverse reaction.

NOTE: Patients counted only once in each preferred term category and once in each system organ class category.

Hematologic toxicities, based on laboratory values and CTC grade, in NHL patients treated in both single arm studies combined are described in Table 4. Clinically important chemistry laboratory values that were new or worsened from baseline and occurred in >1% of patients at grade 3 or 4, in NHL patients treated in both single arm studies combined were hyperglycemia (3%), elevated creatinine (2%), hyponatremia (2%), and hypocalcemia (2%).

Table 4: Incidence of Hematology Laboratory Abnormalities in Patients Who Received bendamustine hydrochloride in the NHL Studies

Hematology Variable	Percent of Patients	
	All Grades	Grade 3/4
Lymphocytes Decreased	99	94
Leukocytes Decreased	94	56
Hemoglobin Decreased	88	11
Neutrophils Decreased	86	60
Platelets Decreased	86	25

In both studies, serious adverse reactions, regardless of causality, were reported in 37% of patients receiving bendamustine hydrochloride. The most common serious adverse reactions occurring in ≥5% of patients were febrile neutropenia and pneumonia. Other important serious adverse reactions reported in clinical trials and/or postmarketing experience were acute renal failure, cardiac failure, hypersensitivity, skin reactions, pulmonary fibrosis, and myelodysplastic syndrome.

Serious drug-related adverse reactions reported in clinical trials included myelosuppression, infection, pneumonia, tumor lysis syndrome and infusion reactions. [see Warnings and Precautions (5)] Adverse reactions occurring less frequently but possibly related to bendamustine hydrochloride treatment were hemolysis, dysgeusia/taste disorder, atypical pneumonia, sepsis, herpes zoster, erythema, dermatitis, and skin necrosis.

6.4 Postmarketing Experience

The following adverse reactions have been identified during post-approval use of bendamustine hydrochloride. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Blood and lymphatic systems disorders: Pancytopenia.

Cardiovascular disorders: Atrial fibrillation, congestive heart failure (some fatal), myocardial infarction (some fatal), palpitation.

General disorders and administration site conditions: Injection site reactions (including phlebitis, pruritus, irritation, pain, swelling), infusion site reactions (including phlebitis, pruritus, irritation, pain, swelling).

Immune system disorders: Anaphylaxis.

Infections and infestations: Pneumocystis jiroveci pneumonia.

Respiratory, thoracic and mediastinal disorders: Pneumonitis.

Skin and subcutaneous tissue disorders: Stevens-Johnson syndrome, Toxic epidermal necrolysis, DRESS (Drug reaction with eosinophilia and systemic symptoms). [see Warnings and Precautions (5.5)]

7 DRUG INTERACTIONS

7.1 Effect of Other Drugs on BENDEKA

CYP1A2 Inhibitors

The coadministration of BENDEKA with CYP1A2 inhibitors may increase bendamustine plasma concentrations and may result in increased incidence of adverse reactions with BENDEKA [see Clinical Pharmacology (12.3)]. Consider alternative therapies that are not CYP1A2 inhibitors during treatment with BENDEKA.

CYP1A2 Inducers

The coadministration of BENDEKA with CYP1A2 inducers may decrease bendamustine plasma concentrations and may result in decreased efficacy of BENDEKA [see Clinical Pharmacology (12.3)]. Consider alternative therapies that are not CYP1A2 inducers during treatment with BENDEKA.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary

In animal reproduction studies, intraperitoneal administration of bendamustine to pregnant mice and rats during organogenesis at doses 0.6 to 1.8 times the maximum recommended human dose (MRHD) resulted in embryo-fetal and/or infant mortality, structural abnormalities, and alterations to growth (see Data). There are no available data on bendamustine hydrochloride use in pregnant women to evaluate for a drug-associated risk of major birth defects, miscarriage or adverse maternal or fetal outcomes. Advise pregnant women of the potential risk to a fetus.

The estimated background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively.

Data

Animal Data

Bendamustine hydrochloride was intraperitoneally administered once to mice from 210 mg/m² (approximately 1.8 times the MRHD) during organogenesis and caused an increase in resorptions, skeletal and visceral malformations (exencephaly, cleft palate, accessory rib, and spinal deformities) and decreased fetal body weights. This dose did not appear to be maternally toxic and lower doses were not evaluated. Repeat intraperitoneal administration of bendamustine hydrochloride to mice on gestation days 7-11 resulted in an increase in resorptions from 75 mg/m² (approximately 0.6 times the MRHD) and an increase in abnormalities from 112.5 mg/m² (approximately 0.9 times the MRHD), similar to those seen after a single intraperitoneal administration.

Bendamustine hydrochloride was intraperitoneally administered once to rats from 120 mg/m² (approximately the MRHD) on gestation days 4, 7, 9, 11, or 13 and caused embryo and fetal lethality as indicated by increased resorptions and a decrease in live fetuses. A significant increase in external (effect on tail, head, and herniation of external organs [exomphalos]) and internal (hydronephrosis and hydrocephalus) malformations were seen in dosed rats.

8.2 Lactation

Risk Summary

There are no data on the presence of bendamustine hydrochloride or its metabolites in either human or animal milk, the effects on the breastfed child, or the effects on milk production. Because of the potential for serious adverse reactions in the breastfed child, advise patients that breastfeeding is not recommended during treatment with BENDEKA, and for at least 1 week after the last dose.

8.3 Females and Males of Reproductive Potential

BENDEKA can cause fetal harm when administered to a pregnant woman [see Warnings and Precautions (5.9) and Use in Specific Populations (8.1)].

Pregnancy Testing

Pregnancy testing is recommended for females of reproductive potential prior to initiation BENDEKA [see Use in Specific Populations (8.1)].

Contraception

Females

BENDEKA can cause embryo-fetal harm when administered to pregnant women [see Use in Specific Populations (8.1)]. Advise female patients of reproductive potential to use effective contraception during treatment with BENDEKA and for 6 months after the final dose.

Males

Based on genotoxicity findings, advise males with female partners of reproductive potential to use effective contraception during treatment with BENDEKA and for at least 3 months after the final dose [see Nonclinical Toxicology (13.1)].

Infertility

Males

Based on findings from clinical studies, BENDEKA may impair male fertility. Impaired spermatogenesis, azoospermia, and total germinal aplasia have been reported in male patients treated with alkylating agents, especially in combination with other drugs. In some instances spermatogenesis may return in patients in remission, but this may occur only several years after intensive chemotherapy has been discontinued. Advise patients of the potential risk to their reproductive capacities.

Based on findings from animal studies, BENDEKA may impair male fertility due to an increase in morphologically abnormal spermatozoa. The long-term effects of BENDEKA on male fertility, including the reversibility of adverse effects, have not been studied [see Nonclinical Toxicology (13.1)].

8.4 Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

Safety, pharmacokinetics and efficacy were assessed in a single open-label trial (NCT01088984) in patients aged 1-19 years with relapsed or refractory acute leukemia, including 27 patients with acute lymphocytic leukemia (ALL) and 16 patients with acute myeloid leukemia (AML). Bendamustine hydrochloride was administered as an intravenous infusion over 60 minutes on Days 1 and 2 of each 21-day cycle. There was no treatment response (CR+ CRp) in any patient. The safety profile in these patients was consistent with that seen in adults, and no new safety signals were identified.

BENDEKA® (bendamustine hydrochloride) injection

BENDEKA® (bendamustine hydrochloride) injection

The pharmacokinetics of bendamustine in 43 patients, aged 1 to 19 years (median age of 10 years) were within range of values previously observed in adults given the same dose based on body surface area.

8.5 Geriatric Use

No overall differences in safety were observed between patients ≥ 65 years of age and younger patients. Efficacy was lower in patients 65 and over with CLL receiving bendamustine hydrochloride based upon an overall response rate of 47% for patients 65 and over and 70% for younger patients. Progression free survival was also longer in younger patients with CLL receiving bendamustine (19 months vs. 12 months). No overall differences in efficacy in patients non-Hodgkin Lymphoma were observed between geriatric patients and younger patients.

8.6 Renal Impairment

Do not use BENDEKA in patients with creatinine clearance (CL_{Cr}) < 30 mL/min [see Clinical Pharmacology (12.3)].

8.7 Hepatic Impairment

Do not use BENDEKA in patients with AST or ALT $2.5\text{--}10 \times$ upper limit of normal (ULN) and total bilirubin $1.5\text{--}3 \times$ ULN, or total bilirubin $> 3 \times$ ULN [see Clinical Pharmacology (12.3)].

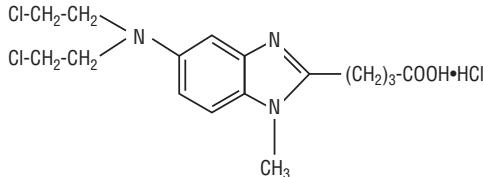
10 OVERDOSAGE

The intravenous LD₅₀ of bendamustine hydrochloride is 240 mg/m² in the mouse and rat. Toxicities included sedation, tremor, ataxia, convulsions and respiratory distress. Across all clinical experience, the reported maximum single dose received was 280 mg/m². Three of four patients treated at this dose showed ECG changes considered dose-limiting at 7 and 21 days post-dosing. These changes included QT prolongation (one patient), sinus tachycardia (one patient), ST and T wave deviations (two patients) and left anterior fascicular block (one patient). Cardiac enzymes and ejection fractions remained normal in all patients.

No specific antidote for bendamustine hydrochloride overdose is known. Management of overdosage should include general supportive measures, including monitoring of hematologic parameters and ECGs.

11 DESCRIPTION

BENDEKA (bendamustine hydrochloride) injection is an alkylating agent. The chemical name of bendamustine hydrochloride is 1H-benzimidazole-2-butanoic acid, 5-[bis(2-chloroethyl)amino]-1 methyl-, monohydrochloride. Its empirical molecular formula is C₁₆H₂₁Cl₂N₃O₂ · HCl, and the molecular weight is 394.7. Bendamustine hydrochloride contains a mechlorethamine group and a benzimidazole heterocyclic ring with a butyric acid substituent, and has the following structural formula:



BENDEKA (bendamustine hydrochloride) injection for intravenous use is supplied as a sterile, clear, and colorless to yellow ready-to-dilute solution in a multiple-dose clear glass vial. Each milliliter contains 25 mg of bendamustine hydrochloride, 0.1 mL of Propylene Glycol, USP, 5 mg of Monothioglycerol, NF, in Polyethylene Glycol 400, NF. Sodium hydroxide may have been used to adjust the acidity of polyethylene glycol 400.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Bendamustine is a bifunctional mechlorethamine derivative containing a purine-like benzimidazole ring. Mechlorethamine and its derivatives form electrophilic alkyl groups. These groups form covalent bonds with electron-rich nucleophilic moieties, resulting in interstrand DNA crosslinks. The bifunctional covalent linkage can lead to cell death via several pathways. Bendamustine is active against both quiescent and dividing cells. The exact mechanism of action of bendamustine remains unknown.

12.2 Pharmacodynamics

Based on the pharmacokinetics/pharmacodynamics analyses of data from adult patients with NHL, nausea increased with increasing bendamustine C_{max}.

Cardiac Electrophysiology

The effect of bendamustine on the QTc interval was evaluated in 53 patients with indolent NHL and mantle cell lymphoma on Day 1 of Cycle 1 after administration of rituximab at 375 mg/m² intravenous infusion followed by a 30-minute intravenous infusion of bendamustine at 90 mg/m²/day. No mean changes greater than 20 milliseconds were detected up to one hour post infusion. The potential for delayed effects on the QT interval after one hour was not evaluated.

12.3 Pharmacokinetics

Following a single dose of 120 mg/m² of bendamustine hydrochloride over 10-minute infusion, the mean C_{max} achieved was 35 µg/mL (range 6 to 49 µg/mL), occurring typically at the end of infusion. Little or no accumulation in plasma is expected for bendamustine administered on Days 1 and 2 of a 28-day cycle.

Distribution

The protein binding of bendamustine ranged from 94–96% and was concentration independent from 1–50 µg/mL. The blood to plasma concentration ratios in human blood ranged from 0.84 to 0.86 over a concentration range of 10 to 100 µg/mL. The mean steady-state volume of distribution (V_{ss}) of bendamustine was approximately 20–25 L.

Elimination

After a single intravenous dose of 120 mg/m² of bendamustine over 1 hour, the intermediate half-life (t_{1/2}) of the parent compound is approximately 40 minutes. The mean terminal elimination t_{1/2} of two active metabolites, γ-hydroxybendamustine (M3) and N desmethylbendamustine (M4) are approximately 3 hours and 30 minutes, respectively. Bendamustine clearance in humans is approximately 700 mL/min.

Metabolism

Bendamustine is extensively metabolized via hydrolytic, oxidative, and conjugative pathways. Bendamustine is primarily metabolized via hydrolysis to monohydroxy (HP1) and dihydroxybendamustine (HP2) metabolites with low cytotoxic activity in vitro. Two active minor metabolites, M3 and M4, are primarily formed via CYP1A2 in vitro. M3 and M4 concentrations of these metabolites in plasma are 1/10th and 1/100th that of the parent compound, respectively.

Excretion

Following IV infusion of radiolabeled bendamustine hydrochloride in cancer patients, approximately 76% of the dose was recovered. Approximately 50% of the dose was recovered in the urine (3.3% unchanged) and approximately 25% of the dose was recovered in the feces. Less than 1% of the dose was recovered in the urine as M3 and M4, and less than 5% of the dose was recovered in the urine as HP2.

Specific Populations

No clinically meaningful effects on the pharmacokinetics of bendamustine were observed based on age (31 to 84 years), sex, mild to moderate renal impairment (CL_{Cr} ≥ 30 mL/min), or hepatic impairment with total bilirubin 1.5 $<$ ULN and AST or ALT $< 2.5 \times$ ULN. The effects of severe renal impairment (CL_{Cr} < 30 mL/min), or hepatic impairment with total bilirubin 1.5–3 \times ULN and AST or ALT 2.5–10 \times ULN or total bilirubin $> 3 \times$ ULN on the pharmacokinetics of bendamustine is unknown.

Race/Ethnicity

Exposures in Japanese subjects (n=6) were 40% higher than that in non-Japanese subjects receiving the same dose. The clinical importance of this difference on the safety and efficacy of bendamustine hydrochloride in Japanese subjects has not been established.

Drug Interaction Studies

In Vitro Studies

Effect of Bendamustine on CYP Substrates

Bendamustine did not inhibit CYP1A2, 2C9/10, 2D6, 2E1, or 3A4/5. Bendamustine did not induce metabolism of CYP1A2, CYP2A6, CYP2B6, CYP2C8, CYP2C9, CYP2C19, CYP2E1, or CYP3A4/5.

Effect of Transporters on Bendamustine Hydrochloride

Bendamustine is a substrate of P-glycoprotein and breast cancer resistance protein (BCRP).

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Bendamustine was carcinogenic in mice. After intraperitoneal injections at 37.5 mg/m²/day (the lowest dose tested, approximately 0.3 times the maximum recommended human dose [MRHD]) and 75 mg/m²/day (approximately 0.6 times the MRHD) for 4 days, peritoneal sarcomas in female AB/Jena mice were produced. Oral administration at 187.5 mg/m²/day (the only dose tested, approximately 1.6 times the MRHD) for 4 days induced mammary carcinomas and pulmonary adenomas. Bendamustine is a mutagen and clastogen. In a bacterial reverse mutation assay (Ames assay), bendamustine was shown to increase revertant frequency in the absence and presence of metabolic activation. Bendamustine was clastogenic in human lymphocytes in vitro, and in rat bone marrow cells in vivo (increase in micronucleated polychromatic erythrocytes) from 37.5 mg/m², (the lowest dose tested, approximately 0.3 times the MRHD).

Bendamustine induced morphologic abnormalities in spermatozoa in mice. Following tail vein injection of bendamustine at 120 mg/m² or a saline control on days 1 and 2 for a total of 3 weeks, the number of spermatozoa with morphologic abnormalities was 16% higher in the bendamustine-treated group as compared to the saline control group.

14 CLINICAL STUDIES

14.1 Chronic Lymphocytic Leukemia (CLL)

The safety and efficacy of bendamustine hydrochloride were evaluated in an open-label, randomized, controlled multicenter trial comparing bendamustine hydrochloride to chlorambucil. The trial was conducted in 301 previously-untreated patients with Binet Stage B or C (Rai Stages I – IV) CLL requiring treatment. Need-to-treat criteria included hematopoietic insufficiency, B-symptoms, rapidly progressive disease or risk of complications from bulky lymphadenopathy. Patients with autoimmune hemolytic anemia or autoimmune thrombocytopenia, Richter's syndrome, or transformation to prolymphocytic leukemia were excluded from the study.

The patient populations in the bendamustine hydrochloride and chlorambucil treatment groups were balanced with regard to the following baseline characteristics: age (median 63 vs. 66 years), gender (63% vs. 61% male), Binet stage (71% vs. 69% Binet B), lymphadenopathy (79% vs. 82%), enlarged spleen (76% vs. 80%), enlarged liver (48% vs. 46%), hypercellular bone marrow (79% vs. 73%), "B" symptoms (51% vs. 53%), lymphocyte count (mean $65.7 \times 10^9/L$ vs. $65.1 \times 10^9/L$), and serum lactate dehydrogenase concentration (mean 370.2 vs. 388.4 U/L). Ninety percent of patients in both treatment groups had immuno-phenotypic confirmation of CLL (CD5, CD23 and either CD19 or CD20 or both).

Patients were randomly assigned to receive either bendamustine hydrochloride at 100 mg/m², administered intravenously over a period of 30 minutes on Days 1 and 2 or chlorambucil at 0.8 mg/kg (Broca's normal weight) administered orally on Days 1 and 15 of each 28-day cycle. Efficacy endpoints of objective response rate and

BENDEKA® (bendamustine hydrochloride) injection

progression-free survival were calculated using a pre-specified algorithm based on NCI working group criteria for CLL.

The results of this open-label randomized study demonstrated a higher rate of overall response and a longer progression-free survival for bendamustine hydrochloride compared to chlorambucil (see Table 5). Survival data are not mature.

Table 5: Efficacy Data for CLL

	Bendamustine Hydrochloride (N=153)	Chlorambucil (N=148)	p-value
Response Rate n (%)			
Overall response rate	90 (59)	38 (26)	<0.0001
(95% CI)	(51, 66.6)	(18.6, 32.7)	
Complete response (CR)*	13 (8)	1 (<1)	
Nodular partial response (nPR)**	4 (3)	0	
Partial response (PR)†	73 (48)	37 (25)	
Progression-Free Survival‡			
Median, months (95% CI)	18 (11.7, 23.5)	6 (5.6, 8.6)	
Hazard ratio (95% CI)	0.27 (0.17, 0.43)		<0.0001

CI = confidence interval

*CR was defined as peripheral lymphocyte count $\leq 4 \times 10^9/L$, neutrophils $\geq 1.5 \times 10^9/L$, platelets $>100 \times 10^9/L$, hemoglobin $>110g/L$, without transfusions, absence of palpable hepatosplenomegaly, lymph nodes ≤ 1.5 cm, $< 30\%$ lymphocytes without nodularity in at least a normocellular bone marrow and absence of "B" symptoms. The clinical and laboratory criteria were required to be maintained for a period of at least 56 days.

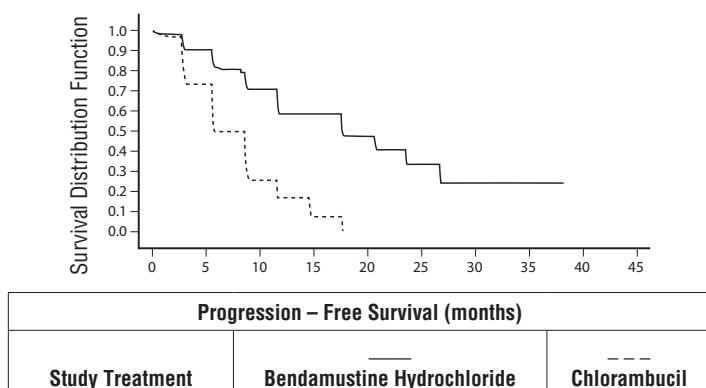
**nPR was defined as described for CR with the exception that the bone marrow biopsy shows persistent nodules.

†PR was defined as $\geq 50\%$ decrease in peripheral lymphocyte count from the pretreatment baseline value, and either $\geq 50\%$ reduction in lymphadenopathy, or $\geq 50\%$ reduction in the size of spleen or liver, as well as one of the following hematologic improvements: neutrophils $\geq 1.5 \times 10^9/L$ or 50% improvement over baseline, platelets $>100 \times 10^9/L$ or 50% improvement over baseline, hemoglobin $>110g/L$ or 50% improvement over baseline without transfusions, for a period of at least 56 days.

‡PFS was defined as time from randomization to progression or death from any cause.

Kaplan-Meier estimates of progression-free survival comparing bendamustine hydrochloride with chlorambucil are shown in Figure 1.

Figure 1. Progression-Free Survival



14.2 Non-Hodgkin Lymphoma (NHL)

The efficacy of bendamustine hydrochloride was evaluated in a single arm study (NCT00139841) of 100 patients with indolent B-cell NHL that had progressed during or within six months of treatment with rituximab or a rituximab-containing regimen. Patients were included if they relapsed within 6 months of either the first dose (monotherapy) or last dose (maintenance regimen or combination therapy) of rituximab. All patients received bendamustine hydrochloride intravenously at a dose of 120 mg/m², on Days 1 and 2 of a 21-day treatment cycle. Patients were treated for up to 8 cycles.

The median age was 60 years, 65% were male, and 95% had a baseline WHO performance status of 0 or 1. Major tumor subtypes were follicular lymphoma (62%), diffuse small lymphocytic lymphoma (21%), and marginal zone lymphoma (16%). Ninety-nine percent of patients had received previous chemotherapy, 91% of patients had received previous alkylator therapy, and 97% of patients had relapsed within 6 months of either the first dose (monotherapy) or last dose (maintenance regimen or combination therapy) of rituximab.

Efficacy was based on the assessments by a blinded independent review committee (IRC) and included overall response rate (complete response + complete response unconfirmed + partial response) and duration of response (DR) as summarized in Table 6.

BENDEKA® (bendamustine hydrochloride) injection

Table 6: Efficacy Data for NHL*

	Bendamustine Hydrochloride (N=100)
Response Rate (%)	
Overall response rate (CR+CRu+PR)	74
(95% CI)	(64.3, 82.3)
Complete response (CR)	13
Complete response unconfirmed (CRu)	4
Partial response (PR)	57
Duration of Response (DR)	
Median, months (95% CI)	9.2 months (7.1, 10.8)

CI = confidence interval

*IRC assessment was based on modified International Working Group response criteria (IWG-RC). Modifications to IWG-RC specified that a persistently positive bone marrow in patients who met all other criteria for CR would be scored as PR. Bone marrow sample lengths were not required to be ≥ 20 mm.

15 REFERENCES

- OSHA Hazardous Drugs. OSHA. [Accessed on 09/09/2015, from <http://www.osha.gov/SLTC/hazardousdrugs/index.html>]

16 HOW SUPPLIED/STORAGE AND HANDLING

16.1 Safe Handling and Disposal

BENDEKA (bendamustine hydrochloride) injection is a cytotoxic drug. Follow applicable special handling and disposal procedures.¹ Care should be exercised in the handling and preparation of solutions prepared from BENDEKA (bendamustine hydrochloride) injection. The use of gloves and safety glasses is recommended to avoid exposure in case of breakage of the vial or other accidental spillage. If a solution of BENDEKA (bendamustine hydrochloride) injection contacts the skin, wash the skin immediately and thoroughly with soap and water. If BENDEKA (bendamustine hydrochloride) injection contacts the mucous membranes, flush thoroughly with water.

16.2 How Supplied

BENDEKA (bendamustine hydrochloride) injection is supplied in individual cartons of 5 mL clear multiple-dose vials containing 100 mg of bendamustine hydrochloride as a clear, and colorless to yellow ready-to-dilute solution.

- NDC 63459-348-04, 100 mg/4 mL (25 mg/mL)

16.3 Storage

Store BENDEKA (bendamustine hydrochloride) injection in refrigerator, 2°-8°C (36°-46°F). Retain in original carton until time of use to protect from light.

17 PATIENT COUNSELING INFORMATION

Allergic (Hypersensitivity) Reactions

Inform patients of the possibility of serious or mild allergic reactions and to immediately report rash, facial swelling, or difficulty breathing during or soon after infusion [see Warnings and Precautions (5.5)].

Myelosuppression

Inform patients of the likelihood that BENDEKA (bendamustine hydrochloride) injection will cause a decrease in white blood cells, platelets, and red blood cells. They will need frequent monitoring of these parameters. They should be instructed to report shortness of breath, significant fatigue, bleeding, fever, or other signs of infection [see Warnings and Precautions (5.1)].

Hepatotoxicity

Inform patients of the possibility of developing liver function abnormalities and serious hepatic toxicity. Advise patients to immediately contact their healthcare provider if signs of liver failure occur, including jaundice, anorexia, bleeding or bruising [see Warnings and Precautions (5.6)].

Fatigue

Advise patients that BENDEKA (bendamustine hydrochloride) injection may cause tiredness and to avoid driving any vehicle or operating any dangerous tools or machinery if they experience this side effect [see Adverse Reactions (6.1)].

Nausea and Vomiting

Advise patients that BENDEKA (bendamustine hydrochloride) injection may cause nausea and/or vomiting. Patients should report nausea and vomiting so that symptomatic treatment may be provided [see Adverse Reactions (6.1)].

Diarrhea

Advise patients that BENDEKA (bendamustine hydrochloride) injection may cause diarrhea. Patients should report diarrhea to the physician so that symptomatic treatment may be provided [see Adverse Reactions (6.1)].

Rash

Advise patients that a mild rash or itching may occur during treatment with BENDEKA (bendamustine hydrochloride) injection. Advise patients to immediately report severe or worsening rash or itching [see Warnings and Precautions (5.5)].

Embryo-Fetal Toxicity

Advise pregnant women and females of reproductive potential of the potential risk to a fetus. Advise females to inform their healthcare provider of a known or suspected pregnancy [see Warnings and Precautions (5.9), Use in Specific Populations (8.1, 8.3), and Nonclinical Toxicology (13.1)]. Advise female patients of reproductive potential to use effective contraception during treatment with BENDEKA and for 6 months after the final dose [see Use in Specific Populations (8.1, 8.3)]. Advise males

BENDEKA® (bendamustine hydrochloride) injection

with female partners of reproductive potential to use effective contraception during treatment with BENDEKA and for 3 months after the final dose [*see Use in Specific Populations (8.3), and Nonclinical Toxicology (13.1)*].

Lactation

Advise females not to breastfeed during treatment with BENDEKA and for at least 1 week after the final dose [*see Use in Specific Populations (8.2)*].

Infertility

Advise males of reproductive potential that BENDEKA may impair fertility [*see Use in Specific Populations (8.3)*].

BEN-009

Distributed By:

Teva Pharmaceuticals USA, Inc.

North Wales, PA 19454

All rights reserved.

BEN-40814

