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)

DOSE 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 effectively. See full prescribing information for BENDEKA.
- 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

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**INDICATIONS AND USAGE**

**Benenda® (bendamustine hydrochloride) injection**

**1** INDICATIONS AND USAGE

1.1 Chronic Lymphocytic Leukemia (CLL)

Benenda® 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)

Benenda® 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 Doses.**

Dose Modifications and Reinitiation of Therapy for CLL:

Delay Benenda administration in the event of Grade 4 hematologic toxicity or clinically significant Grade 3 or greater 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 x 10⁹/L, platelets greater than or equal to 75 x 10⁹/L], reinitiate Benenda (bendamustine hydrochloride) injection at the discretion of the treating physician. In addition, consider dose reduction.

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 Doses.**

Dose Modifications and Reinitiation of Therapy for NHL:

Delay Benenda administration in the event of a Grade 4 hematologic toxicity or clinically significant Grade 3 or greater 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 x 10⁹/L, platelets greater than or equal to 75 x 10⁹/L], reinitiate Benenda at the discretion of the treating physician. In addition, consider dose reduction.

2.3 Preparation for Intravenous Administration

Benenda® is a cytotoxic drug. Follow applicable special handling and disposal procedures.1 Benenda is in a multiple-dose vial. At room temperature, Benenda is a clear, colorless to yellow ready-to-dilute solution. Store Benenda 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 – 5.65 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.

**Table A: Volume of Benenda 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)**

<table>
<thead>
<tr>
<th>Body Surface Area (m²)</th>
<th>Volume of Benenda to withdrawing (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.8</td>
</tr>
<tr>
<td>1.1</td>
<td>5.3</td>
</tr>
<tr>
<td>1.2</td>
<td>6.2</td>
</tr>
<tr>
<td>1.3</td>
<td>6.7</td>
</tr>
<tr>
<td>1.4</td>
<td>7.2</td>
</tr>
<tr>
<td>1.5</td>
<td>7.7</td>
</tr>
<tr>
<td>1.6</td>
<td>8.2</td>
</tr>
<tr>
<td>1.7</td>
<td>8.7</td>
</tr>
<tr>
<td>1.8</td>
<td>9.1</td>
</tr>
<tr>
<td>1.9</td>
<td>9.6</td>
</tr>
<tr>
<td>2</td>
<td>10.1</td>
</tr>
<tr>
<td>2.1</td>
<td>10.6</td>
</tr>
<tr>
<td>2.2</td>
<td>11.1</td>
</tr>
<tr>
<td>2.3</td>
<td>11.5</td>
</tr>
<tr>
<td>2.4</td>
<td>12</td>
</tr>
<tr>
<td>2.5</td>
<td>12.5</td>
</tr>
<tr>
<td>2.6</td>
<td>12.9</td>
</tr>
<tr>
<td>2.7</td>
<td>13.4</td>
</tr>
<tr>
<td>2.8</td>
<td>13.9</td>
</tr>
<tr>
<td>3</td>
<td>14.4</td>
</tr>
</tbody>
</table>

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

Benenda 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 Benenda (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 Benenda 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)

Benenda is supplied in a multiple-dose vial. Although it does not contain any antimicrobial preservative, Benenda 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

Benenda 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).

Benenda 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 ≥ 1 x 10⁹/L and the platelet count should be ≥ 75 x 10⁹/L. [See Dosage and Administration (2.1)]
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 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 anaphylaxis 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 results, 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 chemistries, 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 ant cancer 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, discontinue and/or withold 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 within the first two 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 myelodysplasia and secondary hematologic 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 edema, 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 to use effective 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)]

<table>
<thead>
<tr>
<th>Body System</th>
<th>Number (%) of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENDEKA® (bendamustine hydrochloride) (N=153)</td>
<td>Chlorambucil (N=143)</td>
</tr>
<tr>
<td>Adverse Reaction</td>
<td>All Grades</td>
</tr>
<tr>
<td>Total number of patients</td>
<td>121 (79)</td>
</tr>
<tr>
<td>Gastrointestinal disorders</td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td>31 (20)</td>
</tr>
<tr>
<td>Vomiting</td>
<td>24 (16)</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>14 (9)</td>
</tr>
</tbody>
</table>

Table 1: Non-Hematologic Adverse Reactions Occurring in Randomized CLL Clinical Study in at Least 5% of Patients
Table 2: Incidence of Hematology Laboratory Abnormalities in Patients Who Received bendamustine hydrochloride compared with 6% of patients receiving chlorambucil. Red blood cell transfusions were administered to 20% of patients receiving bendamustine hydrochloride. 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 compared with 6% of patients receiving chlorambucil.

<table>
<thead>
<tr>
<th>Laboratory Abnormality</th>
<th>Bendamustine Hydrochloride (N=153)</th>
<th>Chlorambucil (N=143)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin Decreased</td>
<td>36 (24) / 6 (4) / 8 (6) / 2 (1)</td>
<td>120 (85) / 19 (13) / 13 (9) / 1 (&lt;1)</td>
</tr>
<tr>
<td>Platelets Decreased</td>
<td>14 (9) / 2 (1) / 8 (6) / 0</td>
<td>102 (72) / 7 (5) / 1 (&lt;1) / 0</td>
</tr>
<tr>
<td>Leukocytes Decreased</td>
<td>13 (8) / 0 / 6 (4) / 0</td>
<td>98 (70) / 6 (4) / 1 (&lt;1) / 0</td>
</tr>
<tr>
<td>Lymphocytes Decreased</td>
<td>9 (6) / 0 / 1 (1) / 0</td>
<td>91 (65) / 5 (3) / 1 (&lt;1) / 0</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Laboratory Abnormality</th>
<th>Bendamustine Hydrochloride (N=150)</th>
<th>Chlorambucil (N=141)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin Decreased</td>
<td>134 (90) / 20 (13) / 115 (82) / 12 (9)</td>
<td>102 (72) / 19 (13) / 13 (9) / 1 (&lt;1)</td>
</tr>
<tr>
<td>Platelets Decreased</td>
<td>116 (77) / 16 (11) / 110 (78) / 14 (10)</td>
<td>98 (70) / 6 (4) / 1 (&lt;1) / 0</td>
</tr>
<tr>
<td>Leukocytes Decreased</td>
<td>92 (61) / 42 (28) / 26 (16) / 4 (3)</td>
<td>102 (70) / 70 (47) / 27 (19) / 6 (4)</td>
</tr>
<tr>
<td>Lymphocytes Decreased</td>
<td>102 (68) / 70 (47) / 27 (19) / 6 (4)</td>
<td>113 (75) / 65 (43) / 86 (61) / 30 (21)</td>
</tr>
</tbody>
</table>

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 were fatigue (57%), vomiting (40%), diarrhea (37%) and pyrexia (34%). The most common non-hematologic Grade 3 or 4 adverse reactions 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)

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

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

<table>
<thead>
<tr>
<th>Hematology Variable</th>
<th>Percent of Patients</th>
<th>All Grades</th>
<th>Grade 3/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphocytes Decreased</td>
<td>99</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td>Leukocytes Decreased</td>
<td>94</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Hemoglobin Decreased</td>
<td>88</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Neutrophils Decreased</td>
<td>86</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Platelets Decreased</td>
<td>86</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Patients may have reported more than 1 adverse reaction.

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 system 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: Pneumonia. 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. Advise pregnant women of the potential risk to their reproductive capacities. BENDEKA may impair male fertility due to exposure to bendamustine hydrochloride. Based on findings from animal studies, BENDEKA can cause embryo-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)].

6.5 Lactation

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)].

Infertility

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)].

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 (NCT01068884) 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.
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 (Clcr) < 30 mL/min [see Clinical Pharmacology (12.3)].

8.7 Hepatic Impairment
Do not use BENDEKA in patients with AST or ALT 2.5-10 × upper limit of normal (ULN) and total bilirubin 1.5-3 × ULN, or total bilirubin > 3 × 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 overdose 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-carboxylic acid, 5-[bis(2-chloroethyl)amino]-1-methyl-, monohydrochloride. Its empirical molecular formula is C₁₆H₂₁Cl₂N₃O₂ ∙ HCl, and the molecular weight is 394.7. Bendamustine 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 Monothioglycolic acid, NF, in Polyethylene Glycol 400. NF Sodium hydroxide may have been used to adjust the acidiity of polyethylene glycol 400.**

12 CLINICAL PHARMACOLOGY
12.1 Mechanism of Action
Bendamustine is a bifunctional mechloretamine derivative containing a purine-like benzimidazole ring. Mechloretamine 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 Pharmacokinetics
Based on the pharmacokinetics/pharmacodynamics analyses of data from adult patients with NHL, nausea increased with increasing bendamustine Cₘₚₚ.

**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 observed from baseline. Following a single dose of 120 mg/m² of bendamustine over 10-minute tail vein injection of bendamustine at 120 mg/m² or a saline control 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 (Vss) 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 (t₁/₂) of the parent compound is approximately 40 minutes. The mean terminal elimination t₁/₂ 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.

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 78% 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 (Clcr ≥ 30 mL/min), or hepatic impairment with total bilirubin 1.5 × ULN and AST or ALT < 2.5 × ULN. The effects of severe renal impairment (Clcr < 30 mL/min), or hepatic impairment with total bilirubin 1.5-3 × ULN and AST or ALT 2.5-10 × ULN or total bilirubin > 3 × 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 significance 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, CYP2C9, CYP2C19, CYP3A4, 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 of S9, and, moreover, the increase in the absence 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 65.7x10⁹/L vs. 65.1x10⁹/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...
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

<table>
<thead>
<tr>
<th>Response Rate n (%)</th>
<th>Bendamustine Hydrochloride (N=153)</th>
<th>Chlorambucil (N=148)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall response rate</td>
<td>90 (59)</td>
<td>38 (26)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>(95% CI)</td>
<td>(51.6 - 66.6)</td>
<td>(18.6 - 32.7)</td>
<td></td>
</tr>
<tr>
<td>Complete response (CR)*</td>
<td>13 (8)</td>
<td>1 (-1)</td>
<td></td>
</tr>
<tr>
<td>Nodular partial response (nPR)**</td>
<td>4 (3)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Partial response (PR†)</td>
<td>73 (48)</td>
<td>37 (25)</td>
<td></td>
</tr>
</tbody>
</table>

CI = confidence interval
*CR was defined as peripheral lymphocyte count ≤ 4 x 10⁹/L, neutrophils ≥ 1.5 x 10⁹/L, platelets > 100 x 10⁹/L, hemoglobin > 110 g/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 ≥50% decrease in peripheral lymphocyte count from the pretreatment baseline value, and either ≥50% reduction in lymphadenopathy, or ≥50% reduction in the size of spleen or liver, as well as one of the following hematologic improvements: neutrophils ≥ 1.5 x 10⁹/L or 50% improvement over baseline, platelets > 100 x 10⁹/L or 50% improvement over baseline, hemoglobin > 110 g/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**

![Progression – Free Survival (months)](image)

**Study Treatment**
- Bendamustine Hydrochloride
- Chlorambucil

**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.

### Table 6: Efficacy Data for NHL*

<table>
<thead>
<tr>
<th>Response Rate (%)</th>
<th>Bendamustine Hydrochloride (N=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall response rate (CR+CRu+PR)</td>
<td>74 (95% CI)</td>
</tr>
<tr>
<td>Complete response (CR)</td>
<td>13</td>
</tr>
<tr>
<td>Complete response unconfirmed (CRu)</td>
<td>4</td>
</tr>
<tr>
<td>Partial response (PR)</td>
<td>57</td>
</tr>
<tr>
<td>Median, months (95% CI)</td>
<td>9.2 months</td>
</tr>
</tbody>
</table>

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

### 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. 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 63499-348-04, 100 mg/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/or lack of energy. Advise patients to immediately report fatigue 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 treatment may be provided [see Warnings and Precautions (5.7)].

#### 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 (5.9)].

#### 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, 8.5), 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
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)].

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