

PRODUCT MONOGRAPH  
INCLUDING PATIENT MEDICATION INFORMATION

**PrKESIMPTA®**  
ofatumumab injection

Solution, 20 mg / 0.4 mL, for subcutaneous use

Professed Standard

Selective immunomodulator

Novartis Pharmaceuticals Canada Inc.  
385 Bouchard Blvd.  
Dorval, Quebec  
H9S 1A9

Date of Initial Authorization:  
January 22, 2021

Submission Control Number: 263000

Date of Revision:  
June 15, 2022

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**RECENT MAJOR LABEL CHANGES**

N/AP

**TABLE OF CONTENTS**

Sections or subsections that are not applicable at the time of authorization are not listed .

**RECENT MAJOR LABEL CHANGES ..... 2**

**TABLE OF CONTENTS ..... 2**

**PART I: HEALTH PROFESSIONAL INFORMATION ..... 4**

**1 INDICATIONS ..... 4**

    1.1 Pediatrics ..... 4

    1.2 Geriatrics..... 4

**2 CONTRAINDICATIONS ..... 4**

**4 DOSAGE AND ADMINISTRATION ..... 4**

    4.1 Dosing Considerations ..... 4

    4.2 Recommended Dose and Dosage Adjustment..... 5

    4.4 Administration..... 5

    4.5 Missed Dose ..... 6

**5 OVERDOSAGE ..... 6**

**6 DOSAGE FORMS, STRENGTHS, COMPOSITION AND PACKAGING ..... 6**

**7 WARNINGS AND PRECAUTIONS ..... 7**

    7.1 Special Populations..... 9

        7.1.1 Women of Childbearing Potential ..... 9

        7.1.2 Pregnant Women ..... 9

        7.1.3 Breast-feeding..... 10

        7.1.4 Pediatrics..... 10

        7.1.5 Geriatrics ..... 10

**8 ADVERSE REACTIONS ..... 10**

    8.1 Adverse Reaction Overview..... 10

    8.2 Clinical Trial Adverse Reactions ..... 10

    8.3 Less Common Clinical Trial Adverse Reactions ..... 12

    8.4 Abnormal Laboratory Findings: Hematologic, Clinical Chemistry and Other  
    Quantitative Data..... 12

<b>9</b>	<b>DRUG INTERACTIONS</b> .....	<b>13</b>
9.2	Drug Interactions Overview.....	13
9.4	Drug-Drug Interactions .....	13
9.5	Drug-Food Interactions.....	13
9.6	Drug-Herb Interactions .....	13
9.7	Drug-Laboratory Test Interactions.....	13
<b>10</b>	<b>CLINICAL PHARMACOLOGY</b> .....	<b>14</b>
10.1	Mechanism of Action.....	14
10.2	Pharmacodynamics .....	14
10.3	Pharmacokinetics.....	14
<b>11</b>	<b>STORAGE, STABILITY AND DISPOSAL</b> .....	<b>16</b>
<b>12</b>	<b>SPECIAL HANDLING INSTRUCTIONS</b> .....	<b>16</b>
<b>PART II: SCIENTIFIC INFORMATION</b> .....		<b>17</b>
<b>13</b>	<b>PHARMACEUTICAL INFORMATION</b> .....	<b>17</b>
<b>14</b>	<b>CLINICAL TRIALS</b> .....	<b>17</b>
14.1	Clinical Trials by Indication.....	18
14.3	Immunogenicity.....	21
<b>15</b>	<b>MICROBIOLOGY</b> .....	<b>22</b>
<b>16</b>	<b>NON-CLINICAL TOXICOLOGY</b> .....	<b>22</b>
<b>PATIENT MEDICATION INFORMATION</b> .....		<b>24</b>
<b>PATIENT MEDICATION INFORMATION</b> .....		<b>37</b>

## PART I: HEALTH PROFESSIONAL INFORMATION

### 1 INDICATIONS

KESIMPTA® (ofatumumab injection) is indicated for:

- the treatment of adult patients with relapsing remitting multiple sclerosis (RRMS) with active disease defined by clinical and imaging features (see [14 CLINICAL TRIALS](#)).

KESIMPTA treatment should be initiated and supervised by health professionals experienced in the treatment of patients with MS and who are familiar with the efficacy and safety profile of KESIMPTA (see [7 WARNINGS AND PRECAUTIONS](#)).

#### 1.1 Pediatrics

**Pediatrics (< 18 years of age):** The safety and efficacy of KESIMPTA in pediatric MS patients below the age of (<18 years of age) have not been studied. KESIMPTA is not authorized for pediatric use.

#### 1.2 Geriatrics

**Geriatrics:** Ofatumumab was not studied in patients ≥ 55 years of age.

### 2 CONTRAINDICATIONS

KESIMPTA is contraindicated in patients:

- Who are hypersensitive to this drug or to any ingredient in the formulation, including any non-medicinal ingredient, or component of the container. For a complete listing, see [6 DOSAGE FORMS, STRENGTHS, COMPOSITION AND PACKAGING](#).
- With active HBV infection (see [4 DOSAGE AND ADMINISTRATION](#) and [7 WARNINGS AND PRECAUTIONS](#))
- With severe, active infections (see [7 WARNINGS AND PRECAUTIONS](#))
- Who have or have had confirmed progressive multifocal leukoencephalopathy (PML) (see [7 WARNINGS AND PRECAUTIONS](#))
- Who are in a severely immunocompromised state (see [7 WARNINGS AND PRECAUTIONS](#))
- With known active malignancies

### 4 DOSAGE AND ADMINISTRATION

#### 4.1 Dosing Considerations

KESIMPTA is intended for patient self-administration by subcutaneous injection. Administration should be performed by an individual who has been trained to administer the product.

The first injection of KESIMPTA should be performed under the guidance of an experienced health professional (see [7 WARNINGS AND PRECAUTIONS](#)).

## Assessment Prior to First Dose of KESIMPTA

### Hepatitis B Virus Screening

Prior to initiating KESIMPTA, perform Hepatitis B virus (HBV) screening. KESIMPTA is contraindicated in patients with active HBV confirmed by positive results for HBsAg and anti-HBV tests. For patients who are negative for surface antigen [HBsAg] and positive for HB core antibody [HBcAb+] or are carriers of HBV [HBsAg+], consult liver disease experts before starting and during treatment (see [7 WARNINGS AND PRECAUTIONS](#)).

### Serum Immunoglobulins

Prior to initiating KESIMPTA, perform testing for quantitative serum immunoglobulins (see [7 WARNINGS AND PRECAUTIONS](#)). For patients with low serum immunoglobulins, consult immunology experts before initiating treatment with KESIMPTA.

### Vaccinations

Because vaccination with live-attenuated or live vaccines is not recommended during treatment and after discontinuation until B-cell repletion, administer all necessary immunizations according to immunization guidelines at least 4 weeks prior to initiation of KESIMPTA for live or live-attenuated vaccines, and whenever possible, at least 2 weeks prior to initiation of KESIMPTA for inactivated vaccines (see [7 WARNINGS AND PRECAUTIONS](#) and [10 CLINICAL PHARMACOLOGY](#)).

## Assessment before every injection

### Infection Assessment

In case of active infection, delaying injection of KESIMPTA should be considered until the infection resolves (see [7 WARNINGS AND PRECAUTIONS](#)).

### Premedication

The decision to initiate or continue premedication should be made on an individual patient basis (see [7 WARNINGS AND PRECAUTIONS](#)).

## 4.2 Recommended Dose and Dosage Adjustment

The recommended dosage of KESIMPTA is:

- initial dosing of 20 mg by subcutaneous injection at weeks 0, 1 and 2, followed by
- subsequent monthly dosing of 20 mg by subcutaneous injection, starting at week 4.

### **Special populations**

The pharmacokinetics of ofatumumab have not been studied in patients with renal or hepatic impairment, pediatric and geriatric patients (see [10 CLINICAL PHARMACOLOGY](#), Special population).

## 4.4 Administration

The usual sites for subcutaneous injections are the abdomen, the thigh and the upper outer arm.

Prior to administration, allow KESIMPTA to reach room temperature for about 15 to 30 minutes.

Visually inspect for particulate matter prior to administration. Do not use if the solution contains visible particles or is cloudy.

Do not freeze. Do not shake.

Comprehensive instructions for the administration of KESIMPTA are provided in the Patient Medication Information.

#### 4.5 Missed Dose

If an injection of KESIMPTA is missed, it should be administered as soon as possible without waiting until the next scheduled dose. Subsequent doses should be reset to administer the next sequential dose at the recommended once a month intervals.

### 5 OVERDOSAGE

No cases of overdose have been reported in RMS clinical studies.

Doses up to 700 mg have been administered intravenously in clinical studies with MS patients without dose-limiting toxicity. In the event of overdose, it is recommended that the patient be monitored for any signs or symptoms of adverse reactions and appropriate symptomatic treatment be instituted as necessary.

For management of a suspected drug overdose, contact your regional poison control centre.

### 6 DOSAGE FORMS, STRENGTHS, COMPOSITION AND PACKAGING

To help ensure the traceability of biologic products, including biosimilars, health professionals should recognise the importance of recording both the brand name and the non-proprietary (active ingredient) name as well as other product-specific identifiers such as the Drug Identification Number (DIN) and the batch/lot number of the product supplied.

**Table 1 – Dosage Forms, Strengths, Composition and Packaging**

Route of Administration	Dosage Form / Strength/Composition	Non-medicinal Ingredients
Subcutaneous injection	Solution for injection in Pre-filled syringe Pre-filled Sensoready® pen / 20 mg/0.4 mL	L-arginine; sodium acetate trihydrate; sodium chloride; polysorbate 80; disodium edetate dihydrate; hydrochloric acid and water for injection

The single-use solution for injection is sterile, preservative-free, clear to slightly opalescent, and colorless to slightly brownish-yellow.

KESIMPTA is supplied as follows:

- 20 mg/0.4 mL Solution for injection in a pre-filled syringe\*
- 20 mg/0.4 mL Solution for injection in a pre-filled Sensoready pen

Each pre-filled syringe and pre-filled Sensoready pen contains 20 mg ofatumumab solution for injection (0.4 mL of 50 mg/mL solution).

\*Pre-filled syringes are not available in Canada.

## **7 WARNINGS AND PRECAUTIONS**

### **Injection-related reactions**

Injection site reaction (local) symptoms observed in clinical studies included erythema, swelling, itching and pain.

Injection-related reactions with systemic symptoms observed in clinical studies occurred predominantly within 24 hours of the first injection, but were also observed with later injections. Symptoms observed include fever, headache, myalgia, chills and fatigue and were predominantly (99.8%) mild to moderate in severity. There were no life-threatening injection reactions in RMS clinical studies. Patients should be informed that injection-related reactions generally occur within 24 hours and predominantly following the first injection. Injection-related reactions can be managed with symptomatic treatment, should they occur.

Ofatumumab-treated patients who received premedication with methylprednisolone (or an equivalent steroid) experienced fewer symptoms such as fever, myalgia, chills, and nausea. However, in some patients, the use of steroid premedication increased the occurrence of flushing, chest discomfort, hypertension, tachycardia, and abdominal pain even in the absence of ofatumumab treatment (i.e. in patients receiving placebo injections). Therefore, the decision to initiate or continue premedication should be made on an individual patient basis (see [4 DOSAGE AND ADMINISTRATION, Premedication](#)).

The first injection of KESIMPTA should be performed under the guidance of an appropriately trained health professional.

### **Possible Increased Risk of Immunosuppressant Effects with other Immunosuppressants**

When initiating KESIMPTA after immunosuppressive therapy or initiating immunosuppressive therapy after KESIMPTA, consider the potential for increased immunosuppressive effects (see [9 DRUG INTERACTIONS](#) and [10 CLINICAL PHARMACOLOGY](#)).

### **Immune**

#### **Vaccinations**

Physicians should review the immunization status of patients before starting treatment with KESIMPTA. All immunizations should be administered according to immunization guidelines at least 4 weeks prior to initiation of KESIMPTA for live or live-attenuated vaccines and, whenever possible, at least 2 weeks prior to initiation of KESIMPTA for inactivated vaccines.

KESIMPTA may interfere with the effectiveness of inactivated vaccines (see [9 DRUG INTERACTIONS; Vaccination](#)).

The safety of immunization with live or live-attenuated vaccines following KESIMPTA therapy has not been studied. Vaccination with live or live-attenuated vaccines is not recommended during treatment and after discontinuation until B-cell repletion (see [10 CLINICAL PHARMACOLOGY, Mechanism of Action](#)).

#### Vaccination of infants born to mothers treated with KESIMPTA during pregnancy

Due to the potential depletion of B cells in infants of mothers treated with KESIMPTA during pregnancy, live or live-attenuated vaccines should not be administered before the recovery of B-cell counts has been confirmed as measured by CD19+ B cells. Depletion of B-cells in these infants may increase the risks from live or live-attenuated vaccines (see [16 NON-CLINICAL TOXICOLOGY, Reproductive Toxicity](#) and [10 CLINICAL PHARMACOLOGY](#)).

Inactivated vaccines may follow the local immunization schedule, but physicians should assess whether a protective immune response was mounted. Physicians may consult vaccination experts as the efficacy of the vaccination of an infant may be decreased following KESIMPTA exposure (see [9 DRUG INTERACTIONS, Vaccination](#) and [7.1.2 WARNINGS AND PRECAUTIONS, Special Populations - Pregnant Women](#)).

#### **Infections**

Delay KESIMPTA administration in patients with an active infection until the infection is resolved.

An increased risk of infections has been observed with other anti-CD20 B-cell depleting therapies. KESIMPTA has the potential for an increased risk of infections, including serious bacterial, fungal, and new or reactivated viral infections; some of these infections have been fatal in patients treated with other anti-CD20 antibodies.

In Study G2301 and Study G2302, the proportion of patients with infections and serious infections was similar in the ofatumumab and the terflunomide treatment groups (51.6% vs 52.7%, and 2.5 vs 1.8%, respectively).

#### **Progressive Multifocal Leukoencephalopathy**

Progressive multifocal leukoencephalopathy (PML) is an opportunistic viral infection of the brain caused by the John Cunningham virus (JCV) that typically only occurs in patients who are immunocompromised, and that usually leads to death or severe disability.

Although no cases of PML have been reported for KESIMPTA in the RMS clinical studies, PML resulting in death has occurred in patients being treated with ofatumumab for CLL (at substantially higher intravenous doses than the recommended dose in MS but for a shorter duration of treatment). In addition, JCV infection resulting in PML has also been observed in patients treated with other anti-CD20 antibodies and other MS therapies. At the first sign or symptom suggestive of PML, withhold KESIMPTA and perform an appropriate diagnostic evaluation. MRI findings may be apparent before clinical signs or symptoms. Typical symptoms associated with PML are diverse, progress over days to weeks, and include



progressive weakness on one side of the body or clumsiness of limbs, disturbance of vision, and changes in thinking, memory, and orientation leading to confusion and personality changes.

If PML is confirmed, discontinue treatment of KESIMPTA.

### **Hepatitis B Virus Reactivation**

No cases of hepatitis B virus (HBV) reactivation were identified in KESIMPTA RMS clinical studies. However, HBV reactivation has occurred in patients treated with anti-CD20 antibodies, which in some cases resulted in fulminant hepatitis, hepatic failure and death.

Patients with active hepatitis B disease should not be treated with KESIMPTA (see [2 CONTRAINDICATIONS](#)). HBV screening should be performed in all patients before initiation of treatment with KESIMPTA. At minimum screening should include Hepatitis B surface antigen (HBsAg) and Hepatitis B Core Antibody (HBcAb) testing. These can be complemented with other appropriate markers as per local guidelines. For patients who are negative for HBsAg and positive for HB core antibody [HBcAb+] or are carriers of HBV [HBsAg+], -consult liver disease experts before starting, and during, treatment with KESIMPTA. These patients should be monitored and managed following local medical standards to prevent hepatitis B reactivation.

In the event of HBV reactivation, KESIMPTA and concomitant medications should be discontinued until the active infection is resolved.

## **7.1 Special Populations**

### **7.1.1 Women of Childbearing Potential**

Females of childbearing potential should use effective contraception (methods that result in less than 1% pregnancy rates) while receiving KESIMPTA and for 6 months after the last treatment of KESIMPTA.

### **7.1.2 Pregnant Women**

No studies have been conducted with KESIMPTA in pregnant women. Human IgG is known to cross the placental barrier; therefore, KESIMPTA may be transmitted from the mother to the developing fetus. Animal studies have shown that ofatumumab may cross the placenta and causes fetal B-cell depletion in monkeys. In addition, in monkeys, in utero exposure to ofatumumab resulted in incidences of B-cell depletion, infection, and deaths in infants. Ofatumumab was also detected in infant monkey blood (see [16 NON-CLINICAL TOXICOLOGY](#)).

Transient peripheral B-cell depletion and lymphocytopenia have been reported in infants born to mothers exposed to other anti-CD20 antibodies during pregnancy. The potential duration of B-cell depletion in infants exposed to ofatumumab in utero, and the impact of B-cell depletion on the safety and effectiveness of vaccines, are unknown (see [7 WARNINGS AND PRECAUTIONS, Immune – Vaccination](#) and [10 CLINICAL PHARMACOLOGY](#)).

### 7.1.3 Breast-feeding

There are no data on the presence of KESIMPTA in human milk, the effects on the breastfed infant, or the effects on human milk production. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for KESIMPTA and any potential adverse effects on the breastfed infant from KESIMPTA.

### 7.1.4 Pediatrics

**Pediatrics (< 18 years of age):** The safety and efficacy of KESIMPTA in pediatric MS patients below the age of 18 years have not been studied. KESIMPTA is not authorized for pediatric use.

### 7.1.5 Geriatrics

No studies have been performed in elderly MS patients. Ofatumumab was studied in patients with RMS aged 18 to 55 years.

## 8 ADVERSE REACTIONS

### 8.1 Adverse Reaction Overview

Approximately 1500 (n=1420 at the date of submission) patients with RMS received ofatumumab in clinical studies. In the two Phase 3 pivotal studies, 1882 patients with RMS were randomized, 946 of whom were treated with ofatumumab for a median duration of 85 weeks; 33% (n=312) of patients receiving ofatumumab were treated for more than 96 weeks (see [14 CLINICAL TRIALS](#)).

The proportion of patients with adverse events (AEs) (83.6% versus 84.2%) and the AEs leading to drug discontinuation (5.7% versus 5.2%) were similar in the ofatumumab and teriflunomide groups.

The most common adverse reactions occurring in >10% of patients treated with KESIMPTA, and more frequently than in patients treated with teriflunomide, were upper respiratory tract infections, injection-related reactions (systemic), headache, and injection-site reactions (local). The most common cause of discontinuation in patients treated with KESIMPTA was low immunoglobulin M (3.3%), defined in trial protocols as IgM at 10% below the lower limit of normal (LLN).

### 8.2 Clinical Trial Adverse Reactions

Clinical trials are conducted under very specific conditions. The adverse reaction rates observed in the clinical trials; therefore, may not reflect the rates observed in practice and should not be compared to the rates in the clinical trials of another drug. Adverse reaction information from clinical trials may be useful in identifying and approximating rates of adverse drug reactions in real-world use.

**Table 2 - Summary of Adverse Reactions associated with KESIMPTA with an incidence of ≥1%) and higher than teriflunomide**

Adverse drug reactions	Ofatumumab 20 mg n = 946 (%)	Teriflunomide 14 mg n = 936 (%)
<b>Gastrointestinal disorders</b>		
Constipation	24 (2.5)	14 (1.5)
<b>General disorders and administration site conditions</b>		
Injection site reaction (local)	103 (10.9)	52 (5.6) <sup>2</sup>
Pyrexia	37 (3.9)	26 (2.8)
Influenza like illness	21 (2.2)	10 (1.1)
<b>Infections and infestations</b>		
Nasopharyngitis	170 (18.0)	156 (16.7)
Urinary tract infection	97 (10.3)	78 (8.3)
<b>Injury, poisoning and procedural complications</b>		
Injection related reaction (systemic)	195 (20.6)	143 (15.3) <sup>2</sup>
<b>Investigations</b>		
Blood immunoglobulin M decreased	56 (5.9)	21 (2.2)
Immunoglobulins decreased	15 (1.6)	2 (0.2)
<b>Musculoskeletal and connective tissue disorders</b>		
Back pain	72 (7.6)	58 (6.2)
Muscular weakness	23 (2.4)	13 (1.4)
<b>Psychiatric disorders</b>		
Anxiety	43 (4.5)	33 (3.5)
<sup>1)</sup> Pooled data from treatment epochs of G2301 and G2302 (safety set)		
<sup>2)</sup> Teriflunomide group received matching placebo injections		

## Description of selected adverse drug reactions

### Upper Respiratory Tract Infections

A higher proportion of ofatumumab-treated patients experienced upper respiratory tract infections compared to teriflunomide-treated patients. In the RMS clinical studies, 39.4% of ofatumumab-treated patients experienced upper respiratory tract infections compared to 37.8% of teriflunomide-treated patients. The infections were predominantly mild to moderate and mostly consisted of nasopharyngitis, upper respiratory tract infection and influenza.

### **Injection related reactions and injection site reactions**

In patients treated with ofatumumab in the RMS Phase 3 clinical studies, injection related reactions (systemic) and injection-site reactions (local) were reported in 20.6% and 10.9% of patients treated with ofatumumab, respectively.

The incidence of injection-related reactions was highest with the first injection (14.4%), decreasing significantly with subsequent injections (4.4% with second, <3% from third injection). Injection-related reactions were mostly (99.8%) mild to moderate in severity. Only two (0.2%) ofatumumab-treated MS patients reported serious injection-related reactions. There were no life-threatening injection-related reactions. The most frequently reported symptoms ( $\geq 2\%$ ) included fever, headache, myalgia, chills, and fatigue.

Local reactions at the administration site were very common. Injection-site reactions were all mild to moderate in severity and non-serious in nature. The most frequently reported symptoms ( $\geq 2\%$ ) included erythema, pain, itching, and swelling (see [7 WARNINGS AND PRECAUTIONS](#)).

### **8.3 Less Common Clinical Trial Adverse Reactions**

In RMS clinical trials, there are no adverse reactions that occurred at an incidence rate of <1%.

### **8.4 Abnormal Laboratory Findings: Hematologic, Clinical Chemistry and Other Quantitative Data**

#### **Clinical Trial Findings**

##### **Immunoglobulins**

In Study G2301 and Study G2302, a decrease in mean level of immunoglobulin M (IgM) was observed in KESIMPTA-treated patients, but was not associated with risk of infections. In 14.3% of patients in Study G2301 and Study G2302, treatment with KESIMPTA resulted in a decrease in a serum IgM that reached a value below 0.34 g/L. KESIMPTA was associated with a decrease of 4.3% in mean IgG levels after 48 weeks of treatment and an increase of 2.2% after 96 weeks.

##### **Neutropenia**

The overall incidence of neutropenia-related AEs was low in ofatumumab group (9 patients, 1.0%), as compared to 32 patients (3.4%) in the teriflunomide group and were mostly grade 1 or 2 and transient in nature. Causality to KESIMPTA has not been established.

## 9 DRUG INTERACTIONS

### 9.2 Drug Interactions Overview

Ofatumumab does not share a common clearance pathway with chemical drugs that are metabolized by the cytochrome P450 system or other drug metabolizing enzymes. Additionally, there is no evidence that CD20 monoclonal antibodies (mAbs) are involved in the regulation of the expression of drug metabolizing enzymes. Interactions between KESIMPTA and other medicinal products have not been investigated in formal studies.

#### Vaccinations

The safety of and the ability to generate a primary or anamnestic (recall) response to immunization with live, live-attenuated or inactivated vaccines during ofatumumab treatment has not been investigated. The response to vaccination could be impaired when B-cells are depleted. It is recommended that patients complete immunizations prior to the start of KESIMPTA therapy (see [7 WARNINGS AND PRECAUTIONS](#)).

#### Other Immunosuppressive or Immune-Modulating Therapies

Concomitant use of KESIMPTA with immunosuppressant drugs, including systemic corticosteroids, may increase the risk of infections. Consider the risk of additive immune system effects when co-administering immunosuppressive therapies with KESIMPTA.

When switching from therapies with prolonged immune effects, such as ocrelizumab, cladribine, fingolimod, natalizumab, teriflunomide, mitoxantrone, or dimethyl fumarate, the duration and mode of action of these therapies should be taken into account because of potential additive immunosuppressive effects when initiating KESIMPTA.

Patients in a severely immunocompromised state must not be treated until the condition resolves (see [2 CONTRAINDICATIONS](#)).

### 9.4 Drug-Drug Interactions

Interactions with other drugs have not been established.

### 9.5 Drug-Food Interactions

Interactions with food have not been established.

### 9.6 Drug-Herb Interactions

Interactions with herbal products have not been studied.

### 9.7 Drug-Laboratory Test Interactions

Interference of KESIMPTA with laboratory and/or diagnostic tests has not been studied.

## 10 CLINICAL PHARMACOLOGY

### 10.1 Mechanism of Action

B-cells play an important role in MS pathogenesis due to production of pro-inflammatory cytokines, release of auto-reactive antibodies and activation of pathogenic T cells.

Ofatumumab is a human monoclonal antibody (IgG1κ) that binds specifically to a distinct epitope encompassing both the small and large extracellular loops of the CD20 molecule. The CD20 molecule is a transmembrane phosphoprotein expressed on B lymphocytes from the pre-B to mature B lymphocyte stage. The CD20 molecule is also expressed on a small fraction of activated T cells.

The binding of ofatumumab to CD20 induces lysis of CD20+ B-cells primarily through complement-dependent cytotoxicity (CDC) and to a lesser extent, through antibody-dependent cell-mediated cytotoxicity (ADCC). Ofatumumab has also been shown to induce cell lysis in both high and low CD20-expressing cells. CD20-expressing T cells are also depleted by ofatumumab.

### 10.2 Pharmacodynamics

#### B-cell depletion

For B-cell counts, assays for CD-19+ B-cells are used because the presence of KESIMPTA interferes with CD20 assay. In Study G2301 and Study G2302, KESIMPTA administered as recommended, resulted in a reduction of CD19+ B-cells to below the LLN in 77% and 78.8% of patients, respectively, one week after treatment initiation, and 95% and 95.8% of patients, respectively, two weeks after treatment initiation (see [4 DOSAGE and ADMINISTRATION](#) and [14 CLINICAL TRIALS](#)). In Study G2301 and Study G2302, at week 12, 99.3% to 99.5% of patients had CD19+B-cell counts below LLN. The CD19+B-cell counts remained below LLN for approximately 97% of patients in Study G2301 and 92% of patients in Study G2302 from 12 weeks through 120 weeks while on KESIMPTA treatment.

In a study of bioequivalence using the same dosing regimen as in Study G2301 and Study G2302, before initiation of the maintenance phase, total CD19+B-cell levels below the defined threshold of 10 cells/ $\mu$ L were achieved in 94% of patients starting week 4 and 98% of patients at week 12.

#### B-cell repletion

Data from RMS clinical studies indicate B-cell recoveries over the LLN in at least 50% of patients in 24 to 36 weeks post treatment discontinuation. Modelling and simulation for B-cell repletion corroborates this data, predicting median time to B-cell recovery of 40 weeks post treatment discontinuation.

### 10.3 Pharmacokinetics

Ofatumumab exhibits a long half-life and low volume of distribution similar to that of other monoclonal antibodies. Ofatumumab is eliminated through a non-linear target-mediated route as well as a target-independent route mediated by non-specific endocytosis followed by

intracellular catabolism. Higher baseline B-cell count results in greater component of target-mediated elimination clearance and shorter ofatumumab half-life at the start of therapy. Subsequent ofatumumab dosing leads to potent depletion of B-cells resulting in reduced overall clearance.

### **Absorption**

A monthly subcutaneous dose of 20 mg leads to a mean AUC<sub>tau</sub> of 483 µg·h/mL and a mean C<sub>max</sub> of 1.43 µg/mL at steady state.

After subcutaneous administration, ofatumumab is believed to be predominantly absorbed via the lymphatic system similarly to other therapeutic monoclonal antibodies.

### **Distribution**

The volume of distribution at steady-state was estimated to be 5.42 L following subcutaneous administration of repeated KESIMPTA 20 mg dose.

### **Metabolism**

Ofatumumab is a protein for which the expected metabolic pathway is degradation to small peptides and amino acids by ubiquitous proteolytic enzymes.

### **Elimination**

Ofatumumab is eliminated in two ways: a target-independent route as with other IgG molecules and a target-mediated route that is related to binding to B-cells. Following a single s.c. administration of 30 to 100 mg in patients with rheumatoid arthritis, ofatumumab geometric mean elimination half-life values ranged from 5.2 to 6.8 days. Based on pharmacokinetic modelling of the data from the studies using s.c. administration and repeated 20 mg doses, an approximate half-life of ofatumumab of 14.9 days in men and 17.1 days in women was estimated.

**Linearity/non-linearity:** Ofatumumab had non-linear pharmacokinetics related to its decreasing clearance over time.

### **Special Populations and Conditions**

- **Pediatrics:** No studies have been conducted to investigate the pharmacokinetics in pediatric patients below the age of 18 years.
- **Geriatrics:** No studies have been performed in elderly MS patients. Ofatumumab was studied in patients with RMS aged 18 to 55 years.
- **Sex:** Gender had a modest (12%) effect on ofatumumab central volume of distribution in a cross-study population analysis, with higher C<sub>max</sub> and AUC values observed in female patients (48% of the patients in this analysis were male and 52% were female); these effects are not considered to have a significant change in the pharmacokinetics of ofatumumab.
- **Hepatic Insufficiency:** No formal pharmacokinetic study has been conducted. Since hepatic metabolism of monoclonal antibodies such as ofatumumab is negligible,

hepatic impairment is not expected to impact its pharmacokinetics.

- **Renal Insufficiency:** No formal pharmacokinetic study has been conducted. Ofatumumab is not excreted via urine; therefore, no significant change in the pharmacokinetics of ofatumumab is expected in patients with renal impairment.

## **11 STORAGE, STABILITY AND DISPOSAL**

Store between 2°C to 8°C.

Do not freeze. Do not shake.

Store in the original carton to protect from light.

If necessary, KESIMPTA may be stored unrefrigerated for a single period of up to 7 days at room temperature (not above 30°C). If not used during this period, KESIMPTA can then be returned to the refrigerator for a maximum of 7 days.

KESIMPTA must be kept out of the reach and sight of children.

## **12 SPECIAL HANDLING INSTRUCTIONS**

Any unused product or waste material should be disposed of in accordance with local regulations.



## PART II: SCIENTIFIC INFORMATION

### 13 PHARMACEUTICAL INFORMATION

#### Drug Substance

Proper name:	Ofatumumab
Chemical name:	Fully human monoclonal immunoglobulin G1 antibody (IgG1-kappa) against human CD20
Molecular formula and molecular mass:	$C_{6480}H_{10022}N_{1742}O_{2020}S_{44}$ 146062 Da
Structural formula:	Ofatumumab consists of two IgG1 heavy chains and two kappa light chains. Both heavy chains of Ofatumumab contain oligosaccharide chains linked to the protein backbone at Asn302.
Physicochemical properties:	The drug substance (DS) is a clear to opalescent, colorless to pale yellow aqueous solution of Ofatumumab. The pH of the aqueous solution is in the range of 5.3 – 5.7.

#### Product Characteristics:

Ofatumumab is a recombinant fully human monoclonal immunoglobulin G1 (IgG1) antibody against human CD20 expressed on B-cells. Ofatumumab is produced in a murine cell line (NS0) by recombinant DNA technology.

### 14 CLINICAL TRIALS

The efficacy and safety of KESIMPTA were evaluated in two randomized, double-blind, double-dummy, active-controlled Phase 3 pivotal studies of identical design (G2301 (ASCLEPIOS I) and G2302 (ASCLEPIOS II)) in patients with relapsing forms of MS (RMS), age 18 to 55 years, a disability status at screening with an Expanded Disability Status Scale (EDSS) score from 0 to 5.5, and who had experienced at least one documented relapse during the previous year or two relapses during the previous two years or a positive gadolinium (Gd)-enhancing MRI scan during the previous year.

## 14.1 Clinical Trials by Indication

**Table 3 - Summary of Trial Design and patient demographics for clinical trials in RMS**

	Study COMB157G2301 (ASCLEPIOS I)		Study COMB157G2302 (ASCLEPIOS II)	
<b>Study Summary</b>				
Trial Design	Double-blind, double-dummy, active-comparator controlled, parallel-group, multi-center study evaluating efficacy and safety of ofatumumab vs teriflunomide in patients with RMS			
Dosage and Route of Administration	Ofatumumab 20 mg/0.4 mL s.c. injections on Days 1, 7, 14 (loading dose regimen) and every 4 weeks thereafter starting at Week 4 (maintenance dose regimen)  Comparator: teriflunomide 14 mg capsules orally once daily			
Study Duration	Up to 30 months			
Study Subjects (n)	Ofatumumab: n = 465  Teriflunomide: n = 462		Ofatumumab: n = 481  Teriflunomide: n = 474	
<b>Baseline characteristics</b>	Ofatumumab (N=465)	Teriflunomide (N=462)	Ofatumumab (N=481)	Teriflunomide (N=474)
Mean age (years)	38.9	37.8	38.0	38.2
Age range (years)	19 - 55	18 - 55	18 - 55	18 - 55
Female (%)	68.4	68.6	66.3	67.3
Mean/Median duration of MS since first symptoms (years)	8.36 / 6.41	8.18 / 6.69	8.20 / 5.70	8.19 / 6.30
Mean/Median duration of MS since diagnosis (years)	5.77 / 3.94	5.64 / 3.49	5.59 / 3.15	5.48 / 3.10
Previously treated with DMTs (%)	58.9	60.6	59.5	61.8
Number of relapses in last 12 months (mean)	1.2	1.3	1.3	1.3
Mean/Median EDSS score	2.97 / 3.00	2.94 / 3.00	2.90 / 3.00	2.86 / 2.50
Mean total T2 lesion volume (cm <sup>3</sup> )	13.2	13.1	14.3	12.0

Patients free of Gd+ T1 lesions (%)	62.6	63.4	56.1	61.4
Number of Gd+ T1 lesions (mean)	1.7	1.2	1.6	1.5

In the two studies, 927 and 955 patients with RMS, respectively, were randomized 1:1 to receive either KESIMPTA 20 mg subcutaneous injections every 4 weeks starting at Week 4 after an initial dosing regimen of three weekly 20 mg doses in the first 14 days (on Days 1, 7 and 14) or teriflunomide 14 mg capsules orally once daily. Patients also received matching placebo corresponding to the other treatment arm to ensure blinding (double-dummy design). The treatment duration for individual patients was variable based on when the end of study criteria were met. The maximal duration of treatment for an individual patient was 120 weeks. Neurologic evaluations were performed at baseline, every 3 months during blinded treatment, and at the time of a suspected relapse. Brain MRI scans were performed at baseline, 1 and 2 years.

In Study G2301, a total of 927 patients were randomized to receive KESIMPTA (n = 465) or teriflunomide (n = 462). Of those randomized to KESIMPTA, 89.5% completed the study; of those randomized to teriflunomide, 81.4% completed the study. In Study G2302, a total of 955 patients were randomized to receive KESIMPTA (n = 481) or teriflunomide (n = 474). Of those randomized to KESIMPTA, 82.5% completed the study; of those randomized to teriflunomide, 82.1% completed the study.

Patients with active disease were enrolled in the studies. These included both newly diagnosed patients and patients switching from their current treatment due to lack of efficacy, safety or tolerability considerations. Demographics and baseline characteristics were well-balanced across treatment arms and both studies (Table 3).

The primary efficacy endpoint of both studies was the annualized rate of confirmed relapses (ARR) based on EDSS. Key secondary efficacy endpoints included the time to disability progression on EDSS (confirmed at 3 months and 6 months), defined as an increase in EDSS of  $\geq 1.5$ ,  $\geq 1$ , or  $\geq 0.5$  in patients with a baseline EDSS of 0, 1 to 5, or  $\geq 5.5$ , respectively. Further key secondary endpoints were the number of Gd-enhancing T1 lesions per MRI scan, and the annualized rate of new or enlarging T2 lesions. Disability-related key-secondary endpoints were evaluated in a pooled analysis of combined data from studies G2301 and G2302, as defined in the study protocols.

In both studies, KESIMPTA significantly lowered the ARR compared to teriflunomide.

KESIMPTA significantly reduced the risk of 3-month confirmed disability progression and 6-month confirmed disability progression compared to teriflunomide based on a pooled analysis of both studies.

In both studies, KESIMPTA significantly reduced the number of Gd-enhancing T1 lesions and the rate of new or enlarging T2 lesions.

The efficacy results for both studies are summarized in Table 4 and Figure 1.

**Table 4 – Results of Key Clinical and MRI Endpoints from the Phase 3 studies in RMS**

Endpoints	Study G2301 (ASCLEPIOS I)		Study G2302 (ASCLEPIOS II)	
	Ofatumumab 20 mg (n=465)	Teriflunomide 14 mg (n=462)	Ofatumumab 20 mg (n=481)	Teriflunomide 14 mg (n=474)
<b>Endpoints based on separate studies</b>				
Annualized relapse rate (ARR) (Primary Endpoint) <sup>1</sup>	0.11	0.22	0.10	0.25
ARR ratio (95% CI) <sup>2</sup>	0.495 (0.374, 0.654)		0.415 (0.308, 0.559)	
Rate reduction	50.5% (p<0.001)		58.5% (p<0.001)	
Mean number of T1 Gd-enhancing lesions per MRI scan	0.0115	0.4523	0.0317	0.5141
Rate ratio (95% CI) <sup>3</sup>	0.025 (0.013, 0.049)		0.062 (0.037, 0.101)	
Relative Reduction	97.5% (p<0.001)		93.8% (p<0.001)	
Number of new or enlarging T2 lesions per year	0.72	4.00	0.64	4.15
Rate ratio (95% CI) <sup>4</sup>	0.18 (0.15, 0.22)		0.15 (0.13, 0.19)	
Relative Reduction	81.9% (p<0.001)		84.5% (p<0.001)	
<b>Endpoints based on pre-specified pooled analyses</b>				
Proportion of patients with 3-month confirmed disability progression <sup>5</sup>	10.9% ofatumumab vs. 15.0% teriflunomide			
Hazard ratio (95% CI) <sup>6</sup>	0.656 (0.499, 0.862)			
Risk reduction	34.4% (p=0.002)			
Proportion of patients with 6-month confirmed disability progression <sup>5</sup>	8.1% ofatumumab vs. 12.0% teriflunomide			
Hazard ratio (95% CI) <sup>6</sup>	0.675 (0.498, 0.916)			
Risk reduction	32.5% (p=0.012)			

<sup>1</sup> confirmed relapses (accompanied by a clinically relevant change in the EDSS)

<sup>2</sup> estimated from a negative binomial regression model with log-link to the number of relapses, adjusted for treatment and region as factors, number of relapses in previous year, baseline EDSS, baseline number of Gd-enhancing lesions and the patient's age at baseline as covariates. The natural log of the time-in-study was used as offset to annualize the relapse rate.

<sup>3</sup> estimated from a negative binomial regression model with log-link to the total number of Gd-enhancing lesions, adjusted for treatment and region as factors, baseline number of Gd-enhancing lesions and patient's age at baseline as covariates. The natural log of the number of MRI-scans with evaluable Gd-enhancing lesion counts was used as the offset to obtain the lesion rate per scan.

<sup>4</sup> estimated from a negative binomial regression model with log-link to the number of new or enlarging T2 lesions, adjusted for treatment and region as factors, baseline volume of T2 lesions and patient's age at baseline as covariates. The natural log of the time (in years) from the screening scan to the last scheduled scan was used as the offset.

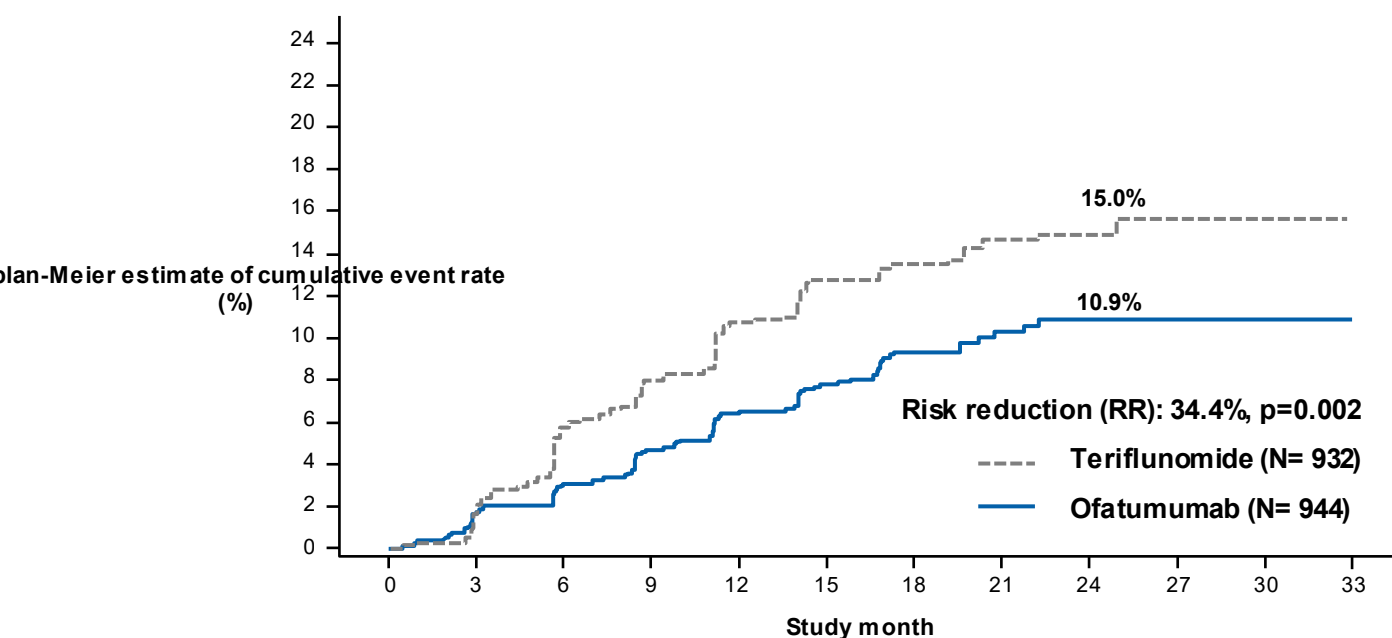
Endpoints	Study G2301 (ASCLEPIOS I)		Study G2302 (ASCLEPIOS II)	
	Ofatumumab 20 mg (n=465)	Teriflunomide 14 mg (n=462)	Ofatumumab 20 mg (n=481)	Teriflunomide 14 mg (n=474)

<sup>5</sup> Kaplan-Meier estimates at Month 24. Disability progression was defined as an increase in EDSS of at least 1.5, 1, or 0.5 points in patients with a baseline EDSS of 0, 1 to 5, or 5.5 or greater, respectively.

<sup>6</sup> estimated from a Cox regression model adjusted for study as stratum, treatment, and region as factors and baseline EDSS as a continuous covariate.

The Type 1 error rate was controlled using a graphical procedure that included procedures at the trial-level and across the two trials.

**Figure 1 Time to first 3-month confirmed disability progression by treatment (G2301 and G2302 combined, full analysis set)**



Number of patients at risk		0	3	6	9	12	15	18	21	24	27	30	33
Ofatumumab	944	908	878	844	810	784	534	319	176	49	1	0	0
Teriflunomide	932	901	841	804	756	718	478	298	146	41	1	0	0

### 14.3 Immunogenicity

As with all therapeutic proteins, there is potential for immunogenicity.

As a fully human monoclonal antibody, ofatumumab has a low potential of inducing anti-drug antibodies (ADA). In RMS Phase 3 studies, the overall incidence of ADAs was very low: treatment induced ADA were detected in 2 of 914 ofatumumab treated patients and no patients with treatment enhancing or neutralizing ADA were identified. There was no impact of positive ADA titers on PK, safety profile or B-cell kinetics in any patient.

## 15 MICROBIOLOGY

No microbiological information is required for this drug product.

## 16 NON-CLINICAL TOXICOLOGY

**General Toxicology:** Repeated intravenous administration of ofatumumab to cynomolgus monkeys at doses of 20 and 100 mg/kg over 7 months (administered weekly in first 2 months and monthly thereafter) resulted in CD20+ B cell-depletion, attenuation of the humoral immune response to keyhole limpet hemocyanin (KLH), and atrophy of lymphoid organs, which are consistent with the pharmacological effects of ofatumumab. Partial or complete recovery was observed within 6 months of dosing cessation. The following mortalities occurred in this study: two deaths were considered subsequent to gastrointestinal infection possibly exacerbated by immunosuppression; and three other deaths were considered related to the immunogenic response in monkeys (hemolytic anemia or immune-complex disease) The dose of 100 mg/kg was considered to be the no-observed-adverse-effect level (NOAEL) and is associated with an AUC-based safety margin of 118-fold when compared with the human exposure following subcutaneous administration at the therapeutic dose of 20 mg monthly.

In cynomolgus monkeys administered ofatumumab subcutaneously at 20 or 100 mg/kg or intravenously at 100 mg/kg on Days 1 and 15 of a 2-dose study, the expected pharmacological effect of B cell-depletion, as well as the rate of B cell recovery during the off-dose phase, were similar between the subcutaneous and intravenous routes of administration. There were no significant local effects at the intravenous and subcutaneous injection sites.

**Carcinogenicity:** No carcinogenicity studies have been performed to assess the carcinogenic potential of ofatumumab.

**Genotoxicity:** No genotoxicity studies have been performed to assess the genotoxic potential of ofatumumab. As an antibody, ofatumumab is not expected to interact directly with DNA.

**Reproductive and Developmental Toxicology:** Fertility, embryo-fetal development (EFD) and enhanced pre-/post-natal development (ePPND) studies were conducted in cynomolgus monkeys using the intravenous route of administration.

In the 13-week fertility study, the dosing regimen consisted of an initial dose of 10 or 100 mg/kg given weekly for the first 5 weeks followed by a dose of 3 or 20 mg/kg given every 2 weeks. Male and female fertility-related endpoints were unaffected by administration with ofatumumab. The NOAEL for fertility-related endpoints was therefore the 100/20 mg/kg dose, resulting in male and female AUC-based safety margins of 335-fold and 257-fold, respectively, when compared with the human exposure following subcutaneous administration at the therapeutic dose of 20 mg monthly.

In the EFD study, weekly administration of ofatumumab at 20 or 100 mg/kg to pregnant monkeys during organogenesis (gestation day [GD] 20 to 50; total of 5 doses) caused no maternal toxicity, no teratogenicity, and no adverse effects on embryofetal development. The pharmacologically expected depletion of CD20+ B cells was seen in maternal animals and their

fetuses, which also had decreased spleen weights at 100 mg/kg without histological correlates. The dose of 100 mg/kg was considered to be the NOAEL, resulting in a maternal AUC-based safety margin of 1288-fold when compared with the human exposure following subcutaneous administration at the therapeutic dose of 20 mg monthly.

In the ePPND study, pregnant monkeys were administered ofatumumab starting from GD20 with an initial dose of 10 or 100 mg/kg given weekly for the first 5 weeks, followed by a maintenance dose of 3 or 20 mg/kg given every 2 weeks until parturition. Exposure to ofatumumab during gestation caused no maternal toxicity. The expected depletion of CD20+ B-cells was seen in maternal animals and their infants, along with a reduced humoral immune response to KLH in infants at 100/20 mg/kg. All were reversible during the 6-month postnatal period. In infants, early postnatal mortality was observed at 100/20 mg/kg and was likely due to potential infections secondary to immunomodulation. No other adverse effects were observed in surviving infants. The dose of 10/3 mg/kg was considered to be the NOAEL for infants, resulting in a maternal AUC-based safety margin of 22-fold when compared with the human exposure following subcutaneous administration at the therapeutic dose of 20 mg monthly.

Ofatumumab was detected in cord blood (EFD study) and in infant blood (ePPND study), supporting that ofatumumab crosses the placental barrier.

## **PATIENT MEDICATION INFORMATION**

### **READ THIS FOR SAFE AND EFFECTIVE USE OF YOUR MEDICINE**

**Pr**KESIMPTA®

#### **ofatumumab injection**

##### **Pre-filled Syringe**

Read this carefully before you start taking **KESIMPTA**® and each time you get a refill. This leaflet is a summary and will not tell you everything about this drug. Talk to your healthcare professional about your medical condition and treatment and ask if there is any new information about **KESIMPTA**.

##### **What is KESIMPTA used for?**

- KESIMPTA is used for the treatment of adults with relapsing remitting multiple sclerosis.
- It is not known whether KESIMPTA is safe and effective in children.

##### **How does KESIMPTA work?**

The active substance in KESIMPTA, ofatumumab is a type of protein called a monoclonal antibody designed to recognize and attach to a target called CD20 on the surface of certain types of white blood cells which are part of the immune system (so called B-cells).

Once an abnormal response by the body's immune system is triggered, these white blood cells play a role in multiple sclerosis by attacking the sheaths around the nerves in the brain and spinal cord, causing inflammation and damage. By targeting and removing the B-cells, KESIMPTA helps to reduce their activity and thereby reduces the chance of having a relapse, relieves symptoms and slows down the progression of the disease.

In controlled clinical studies in patients with relapsing forms of MS, KESIMPTA cut down significantly the number of attacks, significantly prolonged the time without relapses and slowed down the progression of the disease. The average number of relapses in patients treated with KESIMPTA was a little bit more than half in comparison to patients treated with another MS medicine teriflunomide.

If you have any questions about how KESIMPTA works or why this medicine has been prescribed for you, ask your healthcare professional.

##### **What are the ingredients in KESIMPTA?**

Medicinal ingredient: ofatumumab

Non-medicinal ingredients: L-arginine; sodium acetate trihydrate; sodium chloride; polysorbate 80; disodium edetate dihydrate; hydrochloric acid and water for injection.

##### **KESIMPTA comes in the following dosage forms:**

KESIMPTA is supplied as a 20 mg/0.4 mL pre-filled syringe\* or a 20 mg/0.4 mL pre-filled Sensoready® pen.



\*Pre-filled syringes are not available in Canada.

**Do not use KESIMPTA if:**

- you are allergic to ofatumumab or any of the other ingredients in KESIMPTA (listed above) or component of the container
- you have active Hepatitis B virus (HBV) infection
- you have severe, active infections
- you have or have had confirmed progressive multifocal leukoencephalopathy (PML)
- you have been told that you have severe problems with your immune system
- you have cancer

**To help avoid side effects and ensure proper use, talk to your healthcare professional before you take KESIMPTA. Talk about any health conditions or problems you may have, including if you:**

- **have an infection** before initiation of treatment with KESIMPTA, your healthcare professional may decide that you cannot receive KESIMPTA or may delay your treatment with KESIMPTA until the infection is resolved.
- **have a weakened immune system.** KESIMPTA taken before or after other medicines that weaken the immune system could increase your risk of getting infections.

**After the initiation of treatment with KESIMPTA**

**Tell your healthcare professional during your treatment with KESIMPTA:**

- **if you have injection-related reactions or injection site reactions.** Injection-related reactions (general) and injection site reactions (local) are the most common side effects of KESIMPTA treatment. They generally occur after the first subcutaneous injection of KESIMPTA and up to 24 hours after the injection. The first subcutaneous injection should take place under the guidance of a healthcare professional.
- **if you have an infection.** Any infection that you already have may get worse. Infections could be serious and sometimes life-threatening.
- **if you have a lowered immune response** (due to a disease or medicines that suppress the immune system, see “Taking other medicines”). You may get infections more easily or an infection you already have may get worse. This is because the immune cells that KESIMPTA targets also help to fight infection.
- **Tell your healthcare professional immediately,** if you get any of the following symptoms or diseases **during your treatment** with KESIMPTA, because these may be the symptoms of a rare brain disorder caused by infection and called progressive multifocal leukoencephalopathy (PML):  
if you believe your MS is getting worse (e.g. weakness or visual changes) or if you notice any new or unusual symptoms. These may also include weakness on one side of your body, loss of coordination in arms and legs, vision problems, changes in thinking and memory which may lead to confusion and personality changes.

**Other warnings you should know about:**

## **Before initiation of treatment with KESIMPTA**

- **Your healthcare professional will check if you are at risk of hepatitis B infection.** Before initiation of treatment with KESIMPTA, your healthcare professional will check if you are at risk of hepatitis B infection. All patients will have a blood test and patients who have had hepatitis B or are carriers of the hepatitis B virus will be referred to a specialized healthcare professional. KESIMPTA may cause the hepatitis B virus to become active again.
- **Your healthcare professional will check your immunoglobulin levels.** KESIMPTA may cause a decrease in some types of antibodies. Your healthcare professional will do blood tests to check your blood immunoglobulin levels.
- **If you plan to receive a vaccine,** tell your healthcare professional before initiation of treatment with KESIMPTA. You should receive your vaccines at least 4 weeks prior to starting KESIMPTA for live or live-attenuated vaccines and at least 2 weeks prior to starting KESIMPTA for the other vaccines. You should not receive certain types of vaccines (live or live-attenuated vaccines) during treatment with KESIMPTA. For the other vaccines, they can be less effective if administered during treatment with KESIMPTA.

## **Children and adolescents (below 18 years)**

KESIMPTA has not been studied in patients below 18 years.

## **Older people**

You can use KESIMPTA if you are aged 55 years or over at the same dose as younger adults.

## **Pregnancy and breast-feeding**

**If you are pregnant or breast-feeding, think you might be pregnant or are planning to have a baby, ask your healthcare professional for advice before using this medicine.**

Your healthcare professional will discuss with you the potential risks of using KESIMPTA during pregnancy. This is because KESIMPTA can reduce immune cells (B-cells) in the mother and unborn baby.

**Talk with your healthcare professional before breast-feeding while you use KESIMPTA.**

KESIMPTA can pass into breast milk. Ask and discuss with your healthcare professional about the benefits and the risks of breast-feeding your baby while you use KESIMPTA.

**Talk with your healthcare professional before vaccinating your newborn.**

Ask your healthcare professional for advice before vaccinating your newborn, if you have used KESIMPTA during your pregnancy.

## **Females of child-bearing potential**

**You should avoid becoming pregnant while using KESIMPTA and for 6 months after you stop using it.** KESIMPTA may harm your unborn baby. Female patients who might become pregnant

should use effective birth control methods during treatment and for 6 months after stopping KESIMPTA. Ask your healthcare professional about options of effective birth control.

**If you become pregnant or think you are pregnant,** tell your healthcare professional right away. You and your healthcare professional will decide what is best for you and your baby.

**Tell your healthcare professional about all the medicines you take, including any drugs, vitamins, minerals, natural supplements or alternative medicines.**

Before you use KESIMPTA, tell your healthcare professional if you are taking any of the following medicines:

- **Medicines that suppress or modulate the immune system including other medicines used to treat MS** such as ocrelizumab, cladribine, fingolimod, natalizumab, teriflunomide, mitoxantrone, or dimethyl fumarate due to a possible added effect on the immune system.
- **Vaccines.** If you need to receive a vaccine, seek your healthcare professional's advice first. During treatment with KESIMPTA, administration of some vaccines containing live virus (live-attenuated vaccines for example BCG for tuberculosis or vaccines against yellow fever) may result in infection.

#### **How to take KESIMPTA:**

- Always use this medicine exactly as your healthcare professional has told you. Check with your healthcare professional if you are not sure.
- Do not exceed the recommended dose prescribed by your healthcare professional.
- Your healthcare professional will give you or your caregiver training in the right way to prepare and inject. Do not try to inject KESIMPTA until you or your caregiver have been shown the right way by your healthcare professional.
- If recommended by your healthcare professional, before you take KESIMPTA, you may receive other medicines to prevent or reduce possible side effects of the injection.

#### **When to use KESIMPTA**

You can use KESIMPTA at any time (morning, afternoon, evening) for the scheduled dose.

#### **How to use KESIMPTA**

KESIMPTA is given by subcutaneous injection (injection under the skin). See Instruction for Use at the end of this leaflet for the details.

#### **How long to use KESIMPTA**

Continue using KESIMPTA every month for as long as your healthcare professional tells you.

This is a long-term treatment, possibly lasting for months or years. Your healthcare professional will regularly monitor your condition to check that the treatment is having the desired effect.

If you have questions about how long to use KESIMPTA, talk to your healthcare professional.

#### **If you stop using KESIMPTA**

Do not stop using KESIMPTA or change your dose without talking with your healthcare professional.

Some side effects can be related to having low level of B-cells in your blood. After you stop KESIMPTA your blood B-cells count will gradually increase to normal levels. This can take several months. During this time some side effects described in this leaflet may still occur .

If you have any further questions on the use of this medicine, ask your healthcare professional.

**Usual dose:**

- The initial dosing is 20 mg KESIMPTA administered by subcutaneous injection at weeks 0, 1 and 2. There is no injection at week 3.
- Starting at week 4 and then every month, the recommended dose is 20 mg KESIMPTA administered by subcutaneous injection.

**Dosage regimen with subcutaneous injection of KESIMPTA**

<b>Time</b>	<b>Dose</b>
Week 0 (beginning of treatment)	20 mg
Week 1	20 mg
Week 2	20 mg
Week 4	20 mg
Every month (starting from week 4)	20 mg

**Overdose:**

If you have used too much KESIMPTA at one time, or if you have used a first dose of KESIMPTA by mistake, contact your healthcare professional right away.

If you think you, or a person you are caring for, have taken too much KESIMPTA, contact a healthcare professional, hospital emergency department, or regional poison control centre immediately, even if there are no symptoms.

**Missed Dose:**

If an injection of KESIMPTA is missed, it should be administered as soon as possible. Do not wait until the next scheduled dose. The treatment interval as recommended should be maintained for the following doses.

To get the full benefit of KESIMPTA, it is important that you receive each subcutaneous injection when it is due.

**What are possible side effects from using KESIMPTA?**

As with all medicines, patients treated with KESIMPTA may experience side effects, although not everybody gets them.

Side effects include the following listed below. If these side effects become severe, please tell your healthcare professional.

Most of the side effects are mild to moderate and will generally disappear after a few days to a few weeks of treatment.

**Very Common:** *may affect more than 1 in 10 people*

- Upper respiratory tract infection with symptoms such as sore throat and runny nose
- Injection site reactions (local) such as redness, pain, itching and swelling at the injection site
- Injection-related reactions (general) such as fever, headache, muscle pain, chills and tiredness
- **Laboratory values (blood test results):** Decrease in specific proteins in the blood (immunoglobulins M) which help protect against infection

If you have a troublesome symptom or side effect that is not listed here or becomes bad enough to interfere with your daily activities, talk to your healthcare professional.

#### **Reporting Side Effects**

You can report any suspected side effects associated with the use of health products to Health Canada by:

- Visiting the Web page on Adverse Reaction Reporting (<https://www.canada.ca/en/health-canada/services/drugs-health-products/medeffect-canada.html>) for information on how to report online, by mail or by fax; or
- Calling toll-free at 1-866-234-2345.

*NOTE: Contact your healthcare professional if you need information about how to manage your side effects. The Canada Vigilance Program does not provide medical advice.*

#### **Storage:**

- Keep out of reach and sight of children.
- Do not use this medicine after the expiry date, which is stated on the carton.
- Store between 2 to 8°C. Keep in the original package.
- Protect from light. Do not freeze.
- If necessary, KESIMPTA can be left out of the refrigerator for a single period of up to 7 days at room temperature (not above 30°C). If not used during this period KESIMPTA can then be returned to the refrigerator for a maximum of 7 days.

Ask your healthcare professional how to dispose of medicines you no longer use.

#### **If you want more information about KESIMPTA:**

- Talk to your healthcare professional
- Find the full product monograph that is prepared for healthcare professionals and includes

this Patient Medication Information by visiting the Health Canada website:  
(<https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/drug-product-database.html>); the manufacturer's website ([www.novartis.ca](http://www.novartis.ca)), or  
by calling 1-800-363-8883.

This leaflet was prepared by Novartis Pharmaceuticals Canada Inc.

Last Revised: June 15, 2022

KESIMPTA and Sensoready are registered trademarks.

## Instruction for Use

### Instructions for Use of KESIMPTA pre-filled syringe

Be sure that you read, understand, and follow these “Instructions for Use” before injecting KESIMPTA. Talk to your healthcare professional if you have any questions before you use KESIMPTA for the first time.

#### Remember:

- **Do not use** the KESIMPTA pre-filled syringe if either the seal on the outer carton or the seal of the blister is broken. Keep the KESIMPTA pre-filled syringe in the sealed carton until you are ready to use it.
- **Do not shake** the KESIMPTA pre-filled syringe.
- The pre-filled syringe has a needle guard that will be activated to cover the needle after the injection is finished. The needle guard will help to prevent needle stick injuries to anyone who handles the pre-filled syringe after injection.
- Do not remove the needle cap until just before you give the injection.
- Avoid touching the syringe guard wings before use. Touching them may cause the needle guard to be activated too early.
- Throw away (dispose of) the used KESIMPTA pre-filled syringe right away after use. **Do not re-use a KESIMPTA pre-filled syringe.** See “**How should I dispose of used KESIMPTA pre-filled syringe?**” at the end of these “Instructions for Use”.

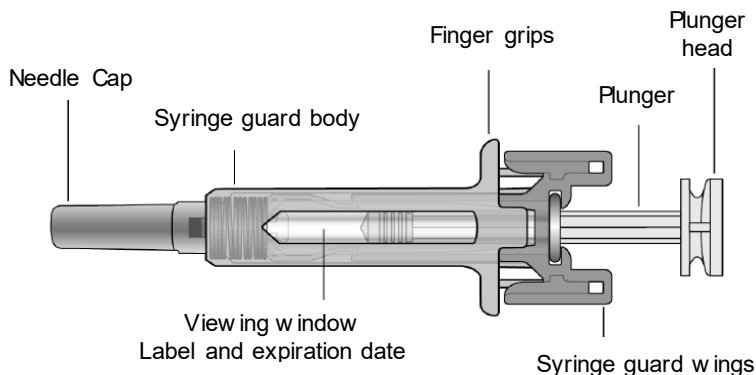
#### How should I store KESIMPTA?

- Store your carton of the KESIMPTA pre-filled syringe in a refrigerator, 2°C to 8°C.
- Keep the KESIMPTA pre-filled syringe in the original carton until ready to use to protect from light.
- **Do not freeze** the KESIMPTA pre-filled syringe.
- **If necessary**, KESIMPTA can be left out of the refrigerator for a single period of up to 7 days at room temperature (not above 30°C). If not used during this period KESIMPTA can then be returned to the refrigerator for a maximum of 7 days.

**Keep KESIMPTA and all medicines out of the reach of children.**

## KESIMPTA pre-filled syringe parts (see Figure A):

Figure A



### What you need for your injection:

Included in the carton:

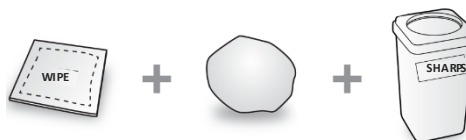
A new KESIMPTA pre-filled syringe.

Not included in the carton (see Figure B):

- 1 alcohol wipe
- 1 cotton ball or gauze
- Sharps disposal container

See “**How should I dispose of used KESIMPTA pre-filled syringes?**” at the end of these “Instructions for Use”.

Figure B



### Prepare the KESIMPTA pre-filled syringe

Step 1. Find a clean, well-lit, flat work surface.

Step 2. Take the carton containing the KESIMPTA pre-filled syringe out of the refrigerator and leave it **unopened** on your work surface for about 15 to 30 minutes so that it reaches room temperature.

Step 3. Wash your hands well with soap and water.

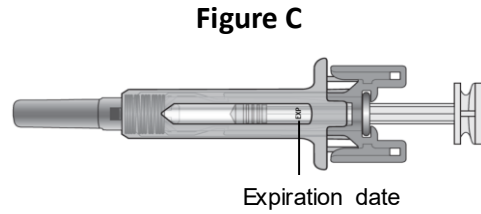
Step 4. Remove the pre-filled syringe from the outer carton and take it out of the blister by holding the syringe guard body.

Step 5. Look through the viewing window on the pre-filled syringe. The liquid inside should be clear to slightly cloudy. You may see a small air bubble in the liquid, which is normal. **Do not use** the pre-filled syringe if the liquid contains visible particles or is cloudy.



Step 6. **Do not use** the pre-filled syringe if it is broken. Return the pre-filled syringe and the package it came in to the pharmacy.

Step 7. **Do not use** the pre-filled syringe if the expiration date has passed (**see Figure C**). Return the expired pre-filled syringe and the package it came in to the pharmacy.

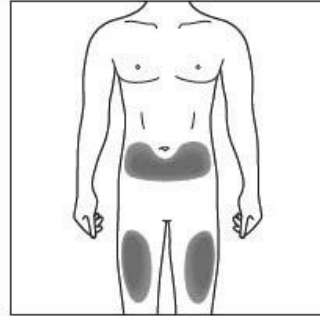


## Choose and clean the injection site

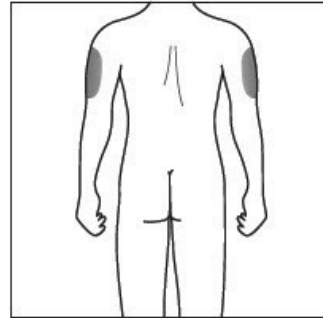
- Areas of your body that you may use as injection sites include:
  - the front of your thighs (**see Figure D**)
  - the lower stomach-area (abdomen), but not the area five cm (2 inches) around your navel (belly button) (**see Figure D**)
  - your upper outer arms, if a healthcare professional or caregiver is giving you the injection (**see Figure E**).
- Choose a different site each time you inject KESIMPTA.
- **Do not inject** into areas where the skin is tender, bruised, red, scaly, or hard. Avoid areas with scars or stretch marks.

Step 8. Using a circular motion, clean the injection site with the alcohol wipe. Leave it to dry before injecting. Do not touch the cleaned area again before injecting.

**Figure D**



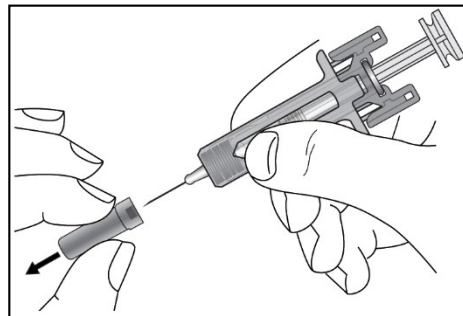
**Figure E**  
**(Caregiver and healthcare professional only)**



## Giving your injection

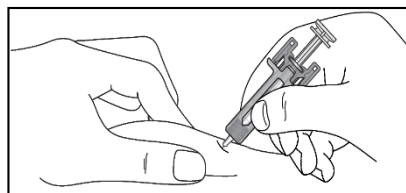
Step 9. Carefully remove the needle cap from the pre-filled syringe (**see Figure F**). Throw away the needle cap. You may see a drop of liquid at the end of the needle. This is normal.

**Figure F**



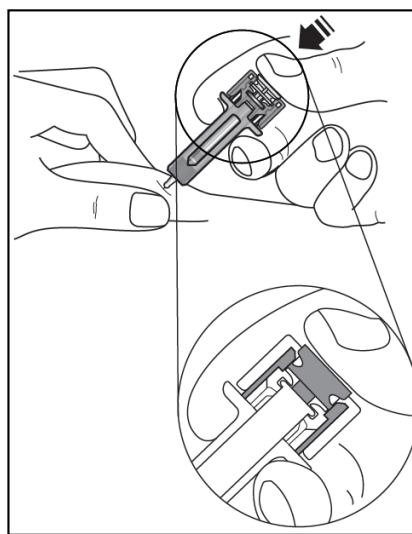
Step 10. With one hand, gently pinch the skin at the injection site. With your other hand insert the needle into your skin as shown (**see Figure G**). Push the needle all the way in to make sure that you inject your full dose.

**Figure G**



Step 11. Hold the pre-filled syringe finger grips as shown (**see Figure H**). Slowly press down on the plunger as far as it will go, so that the plunger head is completely between the syringe guard wings.

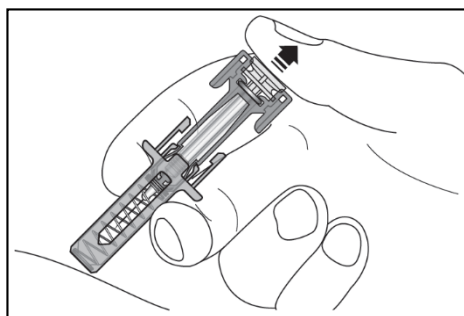
**Figure H**



Step 12. Continue to press fully on the plunger for an additional 5 seconds. Hold the syringe in place for the full 5 seconds.

**Figure I**

Step 13. **Slowly** release the plunger until the needle is covered (**see Figure I**), and then remove the syringe from the injection site.



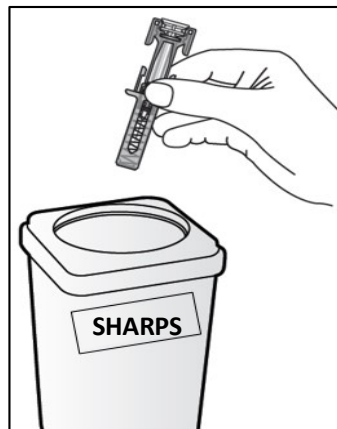
Step 14. There may be a small amount of blood at the injection site. You can press a cotton ball or gauze over the injection site and hold it for 10 seconds. Do not rub the injection site. You may cover the injection site with a small adhesive bandage, if needed.

## How should I dispose of used KESIMPTA pre-filled syringe?

Step 15. Dispose of your used pre-filled syringe:

- Dispose of the used pre-filled syringe in a sharps disposal container (i.e. a puncture-resistant closable container, or similar) (see **Figure J**).
- **Do not throw away (dispose of)** your used pre-filled syringe in your household trash.
- Never try to reuse your pre-filled syringe.

**Keep the sharps container out of the reach of children.**



**Figure J**

## **PATIENT MEDICATION INFORMATION**

### **READ THIS FOR SAFE AND EFFECTIVE USE OF YOUR MEDICINE**

**Pr** **KESIMPTA**<sup>®</sup>

**ofatumumab injection**

**Pre-filled Sensoready**<sup>®</sup> **pen**

Read this carefully before you start taking **KESIMPTA**<sup>®</sup> and each time you get a refill. This leaflet is a summary and will not tell you everything about this drug. Talk to your healthcare professional about your medical condition and treatment and ask if there is any new information about **KESIMPTA**.

#### **What is KESIMPTA used for?**

- **KESIMPTA** is used for the treatment of adults with relapsing remitting multiple sclerosis.
- It is not known whether **KESIMPTA** is safe and effective in children.

#### **How does KESIMPTA work?**

The active substance in **KESIMPTA**, ofatumumab is a type of protein called a monoclonal antibody designed to recognize and attach to a target called CD20 on the surface of certain types of white blood cells which are part of the immune system (so called B-cells).

Once an abnormal response by the body's immune system is triggered, these white blood cells play a role in multiple sclerosis by attacking the sheaths around the nerves in the brain and spinal cord, causing inflammation and damage. By targeting and removing the B-cells, **KESIMPTA** helps to reduce their activity and thereby reduces the chance of having a relapse, relieves symptoms and slows down the progression of the disease.

In controlled clinical studies in patients with relapsing forms of MS, **KESIMPTA** cut down significantly the number of attacks, significantly prolonged the time without relapses and slowed down the progression of the disease. The average number of relapses in patients treated with **KESIMPTA** was a little bit more than half in comparison to patients treated with another MS medicine teriflunomide.

If you have any questions about how **KESIMPTA** works or why this medicine has been prescribed for you, ask your healthcare professional.

#### **What are the ingredients in KESIMPTA?**

Medicinal ingredient: ofatumumab

Non-medicinal ingredients: L-arginine; sodium acetate trihydrate; sodium chloride; polysorbate 80; disodium edetate dihydrate; hydrochloric acid and water for injection.

#### **KESIMPTA comes in the following dosage forms:**

**KESIMPTA** is supplied as a 20 mg/0.4 mL pre-filled syringe\* or a 20 mg/0.4 mL pre-filled Sensoready pen.

\*Pre-filled syringes are not available in Canada.

**Do not use KESIMPTA if:**

- you are allergic to ofatumumab or any of the other ingredients in KESIMPTA (listed above) or component of the container
- you have active Hepatitis B virus (HBV) infection
- you have severe, active infections
- you have or have had confirmed progressive multifocal leukoencephalopathy (PML)
- you have been told that you have severe problems with your immune system
- you have cancer

**To help avoid side effects and ensure proper use, talk to your healthcare professional before you take KESIMPTA. Talk about any health conditions or problems you may have, including if you:**

- **have an infection** before initiation of treatment with KESIMPTA, your healthcare professional may decide that you cannot receive KESIMPTA or may delay your treatment with KESIMPTA until the infection is resolved.
- **have a weakened immune system.** KESIMPTA taken before or after other medicines that weaken the immune system could increase your risk of getting infections.

**After the initiation of treatment with KESIMPTA**

**Tell your healthcare professional during your treatment with KESIMPTA:**

- **if you have injection-related reactions or injection site reactions.** Injection-related reactions (general) and injection site reactions (local) are the most common side effects of KESIMPTA treatment. They generally occur after the first subcutaneous injection of KESIMPTA and up to 24 hours after the injection. The first subcutaneous injection should take place under the guidance of a healthcare professional.
- **if you have an infection.** Any infection that you already have may get worse. Infections could be serious and sometimes life-threatening.
- **if you have a lowered immune response** (due to a disease or medicines that suppress the immune system, see “Taking other medicines”). You may get infections more easily or an infection you already have may get worse. This is because the immune cells that KESIMPTA targets also help to fight infection.
- **Tell your healthcare professional immediately,** if you get any of the following symptoms or diseases **during your treatment** with KESIMPTA, because there may be symptoms of a rare brain disorder caused by infection and called progressive multifocal leukoencephalopathy (PML):

if you believe your MS is getting worse (e.g. weakness or visual changes) or if you notice any new or unusual symptoms. These may also include weakness on one side of your body, loss of coordination in arms and legs, vision problems, changes in thinking and memory which may lead confusion and personality changes.

**Other warnings you should know about:**

## **Before initiation of treatment with KESIMPTA**

- **Your healthcare professional will check if you are at risk of hepatitis B infection.** Before initiation of treatment with KESIMPTA, your healthcare professional will check if you are at risk of hepatitis B infection. All patients will have a blood test and patients who have had hepatitis B or are carriers of the hepatitis B virus will be referred to a specialized healthcare professional. KESIMPTA may cause the hepatitis B virus to become active again.
- **Your healthcare professional will check your immunoglobulin levels.** KESIMPTA may cause a decrease in some types of antibodies. Your healthcare professional will do blood tests to check your blood immunoglobulin levels.
- **If you plan to receive a vaccine,** tell your healthcare professional before initiation of treatment with KESIMPTA. You should receive your vaccines at least 4 weeks prior to starting KESIMPTA for live or live-attenuated vaccines and at least 2 weeks prior to starting KESIMPTA for the other vaccines. You should not receive certain types of vaccines (live or live-attenuated vaccines) during treatment with KESIMPTA. For the other vaccines, they can be less effective if administered during treatment with KESIMPTA.

## **Children and adolescents (below 18 years)**

KESIMPTA has not been studied in patients below 18 years.

## **Older people**

You can use KESIMPTA if you are aged 55 years or over at the same dose as younger adults.

## **Pregnancy and breast-feeding**

**If you are pregnant or breast-feeding, think you might be pregnant or are planning to have a baby, ask your healthcare professional for advice before using this medicine.**

Your healthcare professional will discuss with you the potential risks of using KESIMPTA during pregnancy. This is because KESIMPTA can reduce immune cells (B-cells) in the mother and unborn baby.

**Talk with your healthcare professional before breast-feeding while you use KESIMPTA.**

KESIMPTA can pass into breast milk. Ask and discuss with your healthcare professional about the benefits and the risks of breast-feeding your baby while you use KESIMPTA.

**Talk with your healthcare professional before vaccinating your newborn.**

Ask your healthcare professional for advice before vaccinating your newborn, if you have used KESIMPTA during your pregnancy.

## **Females of child-bearing potential**

**You should avoid becoming pregnant while using KESIMPTA and for 6 months after you stop using it.** KESIMPTA may harm your unborn baby. Female patients who might become pregnant should use effective birth control methods during treatment and for 6 months after stopping KESIMPTA. Ask your healthcare professional about options of effective birth control.

**If you become pregnant or think you are pregnant**, tell your healthcare professional right away. You and your healthcare professional will decide what is best for you and your baby.

**Tell your healthcare professional about all the medicines you take, including any drugs, vitamins, minerals, natural supplements or alternative medicines.**

Before you use KESIMPTA, tell your healthcare professional if you are taking any of the following medicines:

- **Medicines that suppress or modulate the immune system including other medicines used to treat MS** such as ocrelizumab, cladribine, fingolimod, natalizumab, teriflunomide, mitoxantrone, or dimethyl fumarate due to a possible added effect on the immune system.
- **Vaccines.** If you need to receive a vaccine, seek your healthcare professional's advice first. During treatment with KESIMPTA, administration of some vaccines containing live virus (live-attenuated vaccines for example BCG for tuberculosis or vaccines against yellow fever) may result in infection.

#### **How to take KESIMPTA:**

- Always use this medicine exactly as your healthcare professional has told you. Check with your healthcare professional if you are not sure.
- Do not exceed the recommended dose prescribed by your healthcare professional.
- Your healthcare professional will give you or your caregiver training in the right way to prepare and inject. Do not try to inject KESIMPTA until you or your caregiver have been shown the right way by your healthcare professional.
- If recommended by your healthcare professional, before you take KESIMPTA, you may receive other medicines to prevent or reduce possible side effects of the injection.

#### **When to use KESIMPTA**

You can use KESIMPTA at any time (morning, afternoon, evening) for the scheduled dose.

#### **How to use KESIMPTA**

KESIMPTA is given by subcutaneous injection (injection under the skin). See Instruction for Use at the end of this leaflet for the details.

#### **How long to use KESIMPTA**

Continue using KESIMPTA every month for as long as your healthcare professional tells you.

This is a long-term treatment, possibly lasting for months or years. Your healthcare professional will regularly monitor your condition to check that the treatment is having the desired effect.

If you have questions about how long to use KESIMPTA, talk to your healthcare professional.

#### **If you stop using KESIMPTA**

Do not stop using KESIMPTA or change your dose without talking with your healthcare professional.



Some side effects can be related to having low level of B-cells in your blood. After you stop KESIMPTA your blood B-cells count will gradually increase to normal levels. This can take several months. During this time some side effects described in this leaflet may still occur .

If you have any further questions on the use of this medicine, ask your healthcare professional.

**Usual dose:**

- The initial dosing is 20 mg KESIMPTA administered by subcutaneous injection at weeks 0, 1 and 2. There is no injection at week 3.
- Starting at week 4 and then every month, the recommended dose is 20 mg KESIMPTA administered by subcutaneous injection.

**Dosage regimen with subcutaneous injection of KESIMPTA**

<b>Time</b>	<b>Dose</b>
Week 0 (beginning of treatment)	20 mg
Week 1	20 mg
Week 2	20 mg
Week 4	20 mg
Every month (starting from week 4)	20 mg

**Overdose:**

If you have used too much KESIMPTA at one time, or if you have used a first dose of KESIMPTA by mistake, contact your healthcare professional right away.

If you think you, or a person you are caring for, have taken too much KESIMPTA, contact a healthcare professional, hospital emergency department, or regional poison control centre immediately, even if there are no symptoms.

**Missed Dose:**

If an injection of KESIMPTA is missed, it should be administered as soon as possible. Do not wait until the next scheduled dose. The treatment interval as recommended should be maintained for the following doses.

To get the full benefit of KESIMPTA, it is important that you receive each subcutaneous injection when it is due.

**What are possible side effects from using KESIMPTA?**

As with all medicines, patients treated with KESIMPTA may experience side effects, although not everybody gets them.

Side effects include the following listed below. If these side effects become severe, please tell your healthcare professional.

Most of the side effects are mild to moderate and will generally disappear after a few days to a few weeks of treatment.

**Very common:** *may affect more than 1 in 10 people*

- Upper respiratory tract infection with symptoms such as sore throat and runny nose
- Injection site reactions (local) such as redness, pain, itching and swelling at the injection site
- Injection-related reactions (general) such as fever, headache, muscle pain, chills and tiredness
- **Laboratory values (blood test results):** Decrease in specific proteins in the blood (immunoglobulins M) which help protect against infection

If you have a troublesome symptom or side effect that is not listed here or becomes bad enough to interfere with your daily activities, talk to your healthcare professional.

### Reporting Side Effects

You can report any suspected side effects associated with the use of health products to Health Canada by:

- Visiting the Web page on Adverse Reaction Reporting (<https://www.canada.ca/en/health-canada/services/drugs-health-products/medeffect-canada.html>) for information on how to report online, by mail or by fax; or
- Calling toll-free at 1-866-234-2345.

*NOTE: Contact your healthcare professional if you need information about how to manage your side effects. The Canada Vigilance Program does not provide medical advice.*

### Storage:

- Keep out of reach and sight of children.
- Do not use this medicine after the expiry date, which is stated on the carton.
- Store between 2 to 8°C. Keep in the original package.
- Protect from light. Do not freeze.
- If necessary, KESIMPTA can be left out of the refrigerator for a single period of up to 7 days at room temperature (not above 30°C). If not used during this period KESIMPTA can then be returned to the refrigerator for a maximum of 7 days.

Ask your healthcare professional how to dispose of medicines you no longer use.

### If you want more information about KESIMPTA:

- Talk to your healthcare professional
- Find the full product monograph that is prepared for healthcare professionals and includes this Patient Medication Information by visiting the Health Canada website: (<https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/drug-product-database.html>); the manufacturer's website ([www.novartis.ca](http://www.novartis.ca)), or by calling 1-800-363-8883.

This leaflet was prepared by Novartis Pharmaceuticals Canada Inc.

Last Revised: April 26, 2022

KESIMPTA and Sensoready are registered trademarks.

## Instruction for Use

### Instructions for Use of KESIMPTA pre-filled Sensoready pen

Be sure that you read, understand, and follow this “Instructions for Use” before injecting KESIMPTA. Talk to your healthcare professional if you have any questions before you use KESIMPTA Sensoready pen for the first time.

#### Remember:

- **Do not use** the KESIMPTA Sensoready pen if either the seal on the outer carton or the seal on the Sensoready pen is broken. Keep the KESIMPTA Sensoready pen in the sealed outer carton until you are ready to use it.
- **Do not shake** the KESIMPTA Sensoready pen.
- If you drop your KESIMPTA Sensoready pen, **do not use** it if the Sensoready pen looks damaged, or if you dropped it with the cap removed.

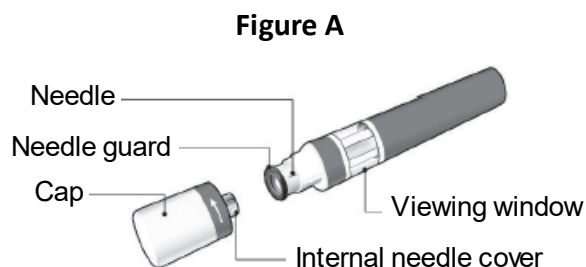
Throw away (dispose of) the used KESIMPTA Sensoready pen right away after use. **Do not re-use a KESIMPTA Sensoready pen.** See “How should I dispose of used KESIMPTA Sensoready pen?” at the end of this “Instructions for Use”.

#### How should I store KESIMPTA?

- Store your carton of KESIMPTA Sensoready pen in a refrigerator, 2°C to 8°C.
- Keep KESIMPTA Sensoready pen in the original carton until ready to use to protect from light.
- **Do not freeze** KESIMPTA Sensoready pen.
- **If necessary**, KESIMPTA can be left out of the refrigerator for a single period of up to 7 days at room temperature (not above 30°C). If not used during this period KESIMPTA can then be returned to the refrigerator for a maximum of 7 days.

**Keep KESIMPTA and all medicines out of the reach of children.**

#### KESIMPTA Sensoready pen parts (see Figure A):



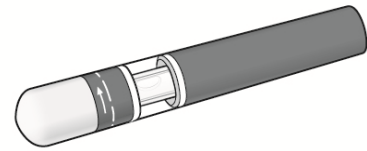
The KESIMPTA Sensoready pen is shown with the cap removed. **Do not** remove the cap until you are ready to inject.

**What you need for your injection:**

Included in the carton:

A new KESIMPTA Sensoready pen (see Figure B).

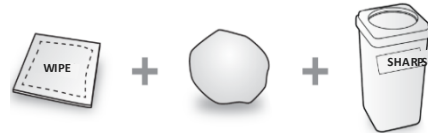
**Figure B**



Not included in the carton (see Figure C):

- 1 alcohol wipe
- 1 cotton ball or gauze
- Sharps disposal container

**Figure C**



See “**How should I dispose of used KESIMPTA Sensoready pen?**” at the end of this “Instructions for Use”

**Before your injection:**

Take the KESIMPTA Sensoready pen out of the refrigerator **15 to 30 minutes before injecting** to allow it to reach room temperature.

**Step 1. Important safety checks before you inject (see Figure D):**

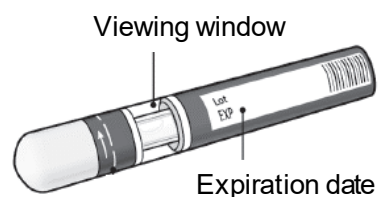
- Look through the viewing window. The liquid should be clear to slightly cloudy.  
**Do not use** if the liquid contains visible particles or is cloudy.

You may see a small air bubble, which is normal.

- Look at the **expiration date (EXP)** on your KESIMPTA Sensoready pen. **Do not use** your Sensoready pen if the expiration date has passed.

Contact your healthcare professional if your Sensoready pen fails any of these checks.

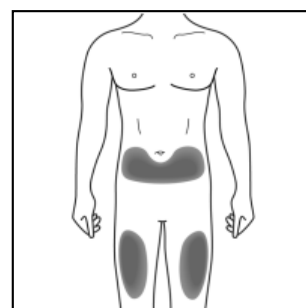
**Figure D**



**Step 2. Choose your injection site:**

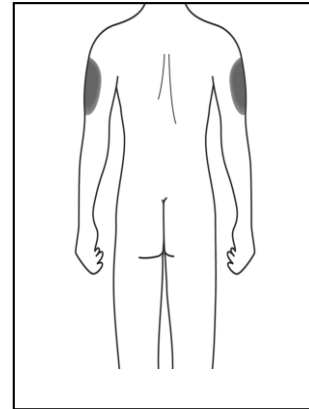
- The recommended site is the front of the thighs. You may also use the lower stomach area (lower abdomen), but **not** the area five cm (2 inches) around the navel (belly button) (**see Figure E**).
- Choose a different site each time you inject KESIMPTA.
- Do not inject into areas where the skin is tender, bruised, red, scaly or hard. Avoid areas with scars or stretch marks.

**Figure E**



If a **caregiver** or **healthcare professional** is giving you your injection, they may also inject into your upper outer arm (see **Figure F**).

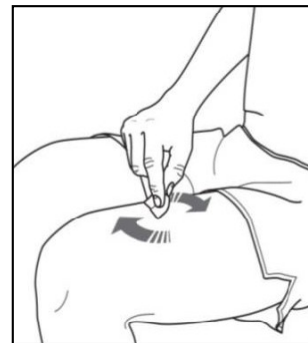
**Figure F**  
(Caregiver and healthcare professional only)



**Step 3. Clean your injection site:**

- Wash your hands with soap and water.
- Using a circular motion, clean the injection site with the alcohol wipe. Leave it to dry before injecting (see **Figure G**).
- Do not touch the cleaned area again before injecting.

**Figure G**



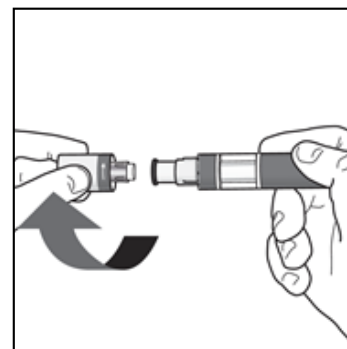
**Your injection:**

**Step 4. Remove the cap:**

- Only remove the cap when you are ready to use the Sensoready pen.
- Twist off the cap in the direction of the arrow (see **Figure H**).
- Throw away the cap. **Do not try to re-attach the cap.**
- Use the Sensoready pen within 5 minutes of removing the cap.

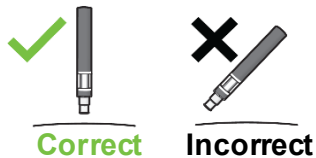
You may see a few drops of medicine come out of the needle. This is normal.

**Figure H**

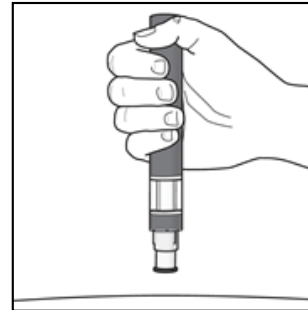


**Step 5. Hold your KESIMPTA Sensoready pen:**

- Hold the Sensoready pen at 90 degrees to the cleaned injection site (**see Figure I**).



**Figure I**



**Important: During the injection you will hear 2 loud clicks:**

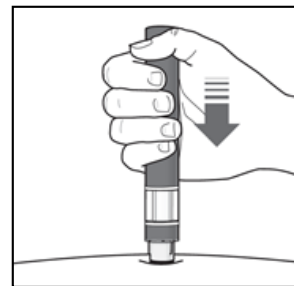
- The **1<sup>st</sup> click** indicates that **the injection has started**.
- A **2<sup>nd</sup> click** will indicate that **the injection is almost complete**.

You must keep holding the KESIMPTA Sensoready pen firmly against your skin until the **green indicator** fills the window and stops moving.

**Step 6. Start your injection:**

- Press the Sensoready pen firmly against the skin to start the injection (**see Figure J**).
- The **1<sup>st</sup> click** indicates the injection has started.
- **Keep holding** the Sensoready pen firmly against your skin.
- The **green indicator** shows the progress of the injection.

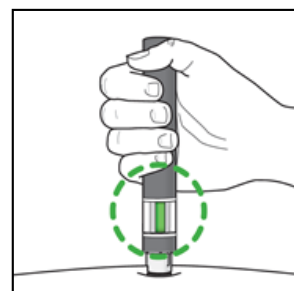
**Figure J**



**Step 7. Complete your injection:**

- Listen for the **2<sup>nd</sup> click**. This indicates that the injection is **almost complete**.
- Check to see if the **green indicator** fills the window and has stopped moving (**see Figure K**).
- The Sensoready pen can now be removed (**see Figure L**).

**Figure K**

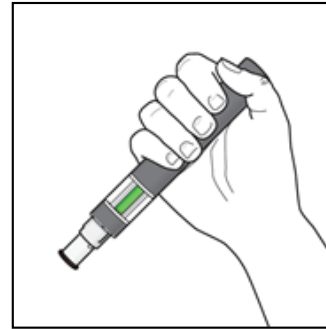




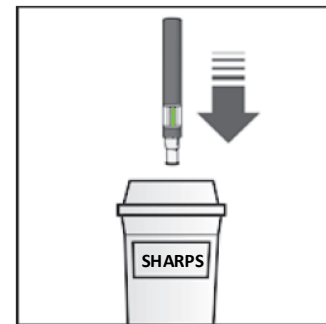
**After your injection:**

- In case the green indicator does not fill the window, it means the medicine has not been delivered. Contact your healthcare professional if the green indicator is not visible.
- There may be a small amount of blood at the injection site. You can press a cotton ball or gauze over the injection site and hold it for 10 seconds. Do not rub the injection site. You may cover the injection site with a small adhesive bandage, if needed.

**Figure L**



**Figure M**



**How should I dispose of used KESIMPTA Sensoready pens?**

**Step 8. Dispose of your KESIMPTA Sensoready pen:**

- Dispose of the used Sensoready pen in a sharps disposal container (i.e. a puncture-resistant closable container, or similar) (**see Figure M**).
- Never try to reuse your Sensoready pen.

**Keep the sharps container out of the reach of children.**