

**ANNEX I**

**SUMMARY OF PRODUCT CHARACTERISTICS**

## **1. NAME OF THE MEDICINAL PRODUCT**

Onureg 200 mg film-coated tablets

Onureg 300 mg film-coated tablets

## **2. QUALITATIVE AND QUANTITATIVE COMPOSITION**

Onureg 200 mg film-coated tablets

Each film-coated tablet contains 200 mg azacitidine.

*Excipient with known effect*

Each film-coated tablet contains 3.61 mg of lactose (as lactose monohydrate).

Onureg 300 mg film-coated tablets

Each film-coated tablet contains 300 mg azacitidine.

*Excipient with known effect*

Each film-coated tablet contains 5.42 mg of lactose (as lactose monohydrate).

For the full list of excipients, see section 6.1.

## **3. PHARMACEUTICAL FORM**

Film-coated tablet (tablet).

Onureg 200 mg film-coated tablets

Pink, oval, film-coated tablet, 17.0x7.6 mm, debossed with “200” on one side and “ONU” on the other side.

Onureg 300 mg film-coated tablets

Brown, oval, film-coated tablet, 19.0x9.0 mm, debossed with “300” on one side and “ONU” on the other side.

## **4. CLINICAL PARTICULARS**

### **4.1 Therapeutic indications**

Onureg is indicated as maintenance therapy in adult patients with acute myeloid leukaemia (AML) who achieved complete remission (CR) or complete remission with incomplete blood count recovery (CRi) following induction therapy with or without consolidation treatment and who are not candidates for, including those who choose not to proceed to, hematopoietic stem cell transplantation (HSCT).

### **4.2 Posology and method of administration**

Onureg treatment should be initiated and monitored under the supervision of a physician experienced in the use of chemotherapeutic medicinal products.

Patients are to be treated with an anti-emetic 30 minutes prior to each dose of Onureg for the first 2 treatment cycles. Anti-emetic prophylaxis may be omitted after 2 cycles, if there has been no nausea and vomiting (see section 4.4).

#### Posology

The recommended dose is 300 mg azacitidine orally once daily. Each repeated cycle consists of a treatment period of 14 days followed by a treatment free period of 14 days (28-day treatment cycle).

Onureg treatment should be continued until no more than 15% blasts are observed in peripheral blood or bone marrow or until unacceptable toxicity (see dose schedule modification guidance for disease relapse).

Onureg should not be used interchangeably with injectable azacitidine due to differences in the exposure, dose and schedule of treatment. Healthcare professionals are recommended to verify the name of the medicinal product, dose and administration route.

#### Laboratory tests

Complete blood counts should be performed prior to initiation of therapy. Complete blood count monitoring is also recommended every other week for the first 2 cycles (56 days), every other week for the next 2 cycles after dose adjustment, and monthly thereafter, prior to the start of subsequent cycles of treatment (see section 4.4).

#### Dose schedule modification for AML disease relapse

In the case of disease relapse, with 5% to 15% blasts in peripheral blood or bone marrow, in conjunction with a clinical assessment, an extension of the dosing schedule from 14 to 21 days of repeated 28-day cycles should be considered. Dosing should not exceed 21 days during any 28-day period. Onureg should be discontinued if more than 15% blasts are observed in either the peripheral blood or bone marrow or at the physician's discretion.

#### Dose adjustment for adverse reactions

Dose modification guidelines for haematologic and non-haematologic adverse reactions are recommended based on clinical and laboratory findings (see Table 1).

**Table 1: Dose adjustments for haematologic and non-haematologic adverse reactions**

<b>Criteria*</b>	<b>Recommended action</b>
<b>Grade 4 neutropenia or Grade 3 neutropenia with fever</b>	<p><u>First occurrence</u></p> <ul style="list-style-type: none"> <li>Interrupt Onureg. Resume the treatment cycle at the same dose once neutrophils return to Grade 2 or lower.</li> <li>Use supportive care such as granulocyte colony stimulating factor (GCSF), as clinically indicated (see section 4.4).</li> </ul> <p><u>Occurrence in 2 consecutive cycles</u></p> <ul style="list-style-type: none"> <li>Interrupt Onureg. Resume the treatment cycle at a reduced dose of 200 mg after neutrophils return to Grade 2 or lower.</li> <li>If a patient continues to experience the toxicity after dose reduction, reduce the treatment duration by 7 days.</li> <li>If the toxicity continues or re-occurs after dose and schedule reduction, discontinue Onureg.</li> <li>Use supportive care such as GCSF, as clinically indicated (see section 4.4).</li> </ul>
<b>Grade 4 thrombocytopenia or Grade 3 thrombocytopenia with bleeding</b>	<p><u>First occurrence</u></p> <ul style="list-style-type: none"> <li>Interrupt Onureg. Resume the treatment cycle at the same dose once platelets return to Grade 2 or lower.</li> </ul> <p><u>Occurrence in 2 consecutive cycles</u></p> <ul style="list-style-type: none"> <li>Interrupt Onureg. Resume the treatment cycle at a reduced dose of 200 mg after platelets return to Grade 2 or lower.</li> <li>If a patient continues to experience the toxicity after dose reduction, reduce the treatment duration by 7 days.</li> <li>If the toxicity continues or re-occurs after dose and schedule reduction, discontinue Onureg.</li> </ul>

Criteria*	Recommended action
<b>Grade 3 or higher nausea, vomiting or diarrhoea</b>	<ul style="list-style-type: none"> <li>• Interrupt Onureg. Resume the treatment cycle at the same dose once toxicity has resolved to Grade 1 or lower.</li> <li>• Use supportive care such as anti-emetic therapy and treat diarrhoea at the onset of symptoms (see section 4.4).</li> <li>• If event re-occurs, interrupt dose until resolved to Grade 1 or lower and reduce the dose to 200 mg.</li> <li>• If a patient continues to experience the toxicity after dose reduction, reduce the treatment duration by 7 days.</li> <li>• If the toxicity continues or re-occurs after dose and schedule reduction, discontinue Onureg.</li> </ul>
<b>Other Grade 3 or higher non-haematological events</b>	<ul style="list-style-type: none"> <li>• Interrupt Onureg and provide medical support according to local recommendations. Resume the treatment cycle at the same dose once toxicity has resolved to Grade 1 or lower.</li> <li>• If the toxicity re-occurs, interrupt Onureg until resolved to Grade 1 or lower and reduce dose to 200 mg.</li> <li>• If a patient continues to experience the toxicity after dose reduction, reduce the treatment duration by 7 days.</li> <li>• If the toxicity continues or re-occurs after dose and schedule reduction, discontinue Onureg.</li> </ul>

\* Grade 1 is mild, Grade 2 is moderate, Grade 3 is severe, Grade 4 is life-threatening. Toxicity grades are in accordance with National Cancer Institute Common Terminology Criteria for Adverse Events Version 4.3 (NCI-CTCAE v4.3).

#### *Missed or delayed doses*

If a dose of Onureg is missed, or not taken at the usual time, the dose should be taken as soon as possible on the same day. Then, the next scheduled dose should be taken at the normal time the following day. Two doses should not be taken on the same day.

If a dose is vomited, another dose must not be taken on the same day. Instead return to the normal time of dose administration the following day.

#### *Special populations*

##### *Elderly patients*

No dose adjustments are recommended for patients over 65 years of age (see section 5.2).

##### *Renal impairment*

Onureg can be administered to patients with mild, moderate or severe renal impairment without initial dose adjustment (see section 5.2).

##### *Hepatic impairment*

No dose adjustment is recommended for patients with mild hepatic impairment (total bilirubin (BIL)  $\leq$  upper limit of normal (ULN) and aspartate aminotransferase (AST)  $>$  ULN, or BIL 1 to  $1.5 \times$  ULN and any AST) (see section 5.2).

Patients with moderate (BIL  $> 1.5$  to  $3 \times$  ULN) and severe hepatic impairment (BIL  $> 3 \times$  ULN) should be monitored more frequently for adverse reactions and appropriate dose adjustment should be made (see Table 1).

##### *Paediatric population*

The safety and efficacy of Onureg in children and adolescents below 18 years have not been established. No data are available.

#### Method of administration

Onureg is for oral use.

Onureg can be taken with or without food. The tablets should be swallowed whole with a glass of water at about the same time each day. They should not be split, crushed, dissolved or chewed (see section 6.6).

### **4.3 Contraindications**

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

Breast-feeding (see section 4.6).

### **4.4 Special warnings and precautions for use**

#### Haematological toxicity

Treatment with Onureg can be associated with neutropenia, thrombocytopenia and febrile neutropenia (see section 4.8 for frequencies). Interruption, reduction or discontinuation of Onureg may be necessary to manage haematological toxicities. Patients should be advised to promptly report febrile episodes. Patients with low platelet counts should be advised to report early signs or symptoms of bleeding. Supportive care such as antibiotics and/or antipyretics for management of infection/fever and GCSF for neutropenia should be provided based on individual patient characteristics, treatment response and according to the current clinical guidelines (see section 4.2 Table 1).

#### Differentiation syndrome

Cases of differentiation syndrome (also known as retinoic acid syndrome) have been reported in patients receiving oral azacitidine. Differentiation syndrome may be fatal and symptoms and clinical findings include respiratory distress, pulmonary infiltrates, fever, rash, pulmonary oedema, peripheral oedema, rapid weight gain, pleural effusions, pericardial effusions, hypotension and renal dysfunction (see section 4.8). Treatment with high-dose IV corticosteroids and haemodynamic monitoring should be considered at first onset of symptoms or signs suggestive of differentiation syndrome. Temporary discontinuation of oral azacitidine should be considered until resolution of symptoms and if resumed, caution is advised.

#### Gastrointestinal toxicity

Gastrointestinal toxicities were the most frequent adverse reactions in patients treated with Onureg (see section 4.8). Patients should be administered prophylactic anti-emetic therapy for the first 2 cycles of Onureg treatment (see section 4.2). Diarrhoea should be treated promptly at the onset of symptoms. Interruption, reduction or discontinuation of Onureg may be necessary to manage gastrointestinal toxicities (see section 4.2).

#### Women of childbearing potential/Contraception in males and females

Women of childbearing potential have to use effective contraception during and up to 6 months after treatment. Men have to use effective contraception during and up to 3 months after treatment (see section 4.6).

#### Lactose intolerance

Onureg tablets contain lactose. Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take this medicinal product.

#### Sodium content

This medicinal product contains less than 1 mmol sodium (23 mg) per tablet, that is to say essentially 'sodium-free'.

### **4.5 Interaction with other medicinal products and other forms of interaction**

No formal clinical drug-drug interaction studies with azacitidine have been conducted.

In case of concomitant administration with other antineoplastic agents, caution and monitoring is recommended as an antagonistic, additive, or synergistic pharmacodynamic effect cannot be excluded. These effects may be dependent on the dose, sequence and schedule of administration.

Onureg exposure was minimally affected when co-administered with a proton pump inhibitor (omeprazole). Therefore, dose modification is not required when Onureg is co-administered with proton pump inhibitors or other pH modifiers.

An *in vitro* study of azacitidine with human liver fractions indicated that azacitidine was not metabolised by cytochrome P450 isoforms (CYPs). Therefore, interactions with CYP inducers or inhibitors are considered unlikely (see section 5.2).

Clinically relevant inhibitory or inductive effects of azacitidine on the metabolism of cytochrome P450 substrates are unlikely (see section 5.2). No clinically relevant drug-drug interactions are expected when Onureg is co-administered with substrates of P-glycoprotein (P-gp), breast cancer resistance protein (BCRP), organic anion transporters (OAT) OAT1 and OAT3, organic anion transporting polypeptides (OATP) OATP1B1 and OATP1B3, or organic cation transporter (OCT) OCT2.

Azacitidine is not a substrate of P-gp, therefore it is not expected to interact with P-gp inducers or inhibitors.

#### **4.6 Fertility, pregnancy and lactation**

##### Women of childbearing potential/Contraception in males and females

Women of childbearing potential have to use effective contraception during and up to 6 months after treatment. Men should be advised not to father a child while receiving treatment and have to use effective contraception during and up to 3 months after treatment (see sections 4.4 and 5.3).

##### Pregnancy

There are no adequate data from the use of Onureg in pregnant women. Studies in mice and rats have shown reproductive and developmental toxicity (see section 5.3). The potential risk for humans is unknown. Based on results from animal studies and its mechanism of action, Onureg is not recommended during pregnancy (especially during the first trimester, unless clearly necessary) and in women of childbearing potential not using contraception. The advantages of treatment should be weighed against the possible risk for the foetus in every individual case. If a patient or partner becomes pregnant while taking Onureg, the patient should be informed of the potential risk to the foetus.

##### Breast-feeding

It is unknown whether azacitidine or its metabolites are excreted in human milk. Due to the potential serious adverse reactions in the breastfed child, breast-feeding is contraindicated during Onureg therapy (see section 4.3).

##### Fertility

There are no human data on the effect of azacitidine on fertility. In animals, adverse effects of azacitidine on male fertility have been documented (see section 5.3). Patients who wish to conceive a child should be advised to seek reproductive counselling and cryo-conservation of either the ovum or sperm prior to starting Onureg treatment.

#### **4.7 Effects on ability to drive and use machines**

Onureg has minor influence on the ability to drive and use machines. Fatigue has been reported with the use of Onureg. Therefore, caution is recommended when driving or operating machines.

## 4.8 Undesirable effects

### Summary of the safety profile

The most common adverse reactions are nausea (64.8%), vomiting (59.7%), diarrhoea (50.4%), neutropenia (44.5%), fatigue/asthenia (44.1%)<sup>5</sup>, constipation (38.6%), thrombocytopenia (33.5%), abdominal pain (21.6%)<sup>4</sup>, respiratory tract infection (17%)<sup>2</sup>, arthralgia (13.6%), decreased appetite (12.7%), febrile neutropenia (11.9%), back pain (11.9%), leucopenia (10.6%), pain in extremity (10.6%) and pneumonia (10.2%)<sup>1</sup>.

Serious adverse reactions occurred in 16.1% of patients receiving Onureg. The most common serious adverse reactions are febrile neutropenia (6.8%) and pneumonia (5.1%)<sup>1</sup>.

Permanent discontinuation of Onureg due to an adverse reaction occurred in 6.8% of patients. The most common adverse reactions requiring permanent discontinuation are nausea (2.1%), diarrhoea (1.7%), and vomiting (1.3%).

Dose interruptions due to an adverse reaction occurred in 36.4% of patients who received Onureg. Adverse reactions requiring dose interruption include neutropenia (19.9%), thrombocytopenia (8.5%), nausea (5.5%), diarrhoea (4.2%), vomiting (3.8%), pneumonia (3.4%)<sup>1</sup>, leucopenia (2.5%), febrile neutropenia (2.1%), and abdominal pain (2.1%)<sup>4</sup>.

Dose reductions due to an adverse reaction period occurred in 14% of patients who received Onureg. Adverse reactions requiring dose reduction included neutropenia (5.5%), diarrhoea (3.4%), thrombocytopenia (1.7%), and nausea (1.7%).

### Tabulated list of adverse reactions

Table 2 presents the frequency category of ADRs reported during clinical trials with Onureg and post-marketing use. A total of 236 patients received Onureg in the pivotal Phase 3 study. The median treatment duration was 11.6 months (range: 0.5 to 74.3 months) in the Onureg arm.

Frequencies are defined as: very common ( $\geq 1/10$ ); common ( $\geq 1/100$  to  $< 1/10$ ); uncommon ( $\geq 1/1,000$  to  $< 1/100$ ); rare ( $\geq 1/10,000$  to  $< 1/1,000$ ); very rare ( $< 1/10,000$ ); not known (cannot be estimated from the available data). Within each frequency grouping, undesirable effects are presented in order of decreasing seriousness. Adverse reactions are presented in the table below according to the highest frequency observed.

**Table 2: Adverse drug reactions (ADRs) in AML patients receiving Onureg maintenance therapy**

System organ class	All grades <sup>a</sup> frequency
<b>Infections and infestations</b>	<b><u>Very common</u></b> Pneumonia <sup>1,6</sup> , respiratory tract infection <sup>2</sup>  <b><u>Common</u></b> Influenza, urinary tract infection <sup>3</sup> , bronchitis, rhinitis
<b>Neoplasms benign, malignant and unspecified (incl. cysts and polyps)</b>	<b><u>Not known</u></b> Differentiation syndrome
<b>Blood and lymphatic system disorders</b>	<b><u>Very common</u></b> Neutropenia, thrombocytopenia <sup>6</sup> , febrile neutropenia <sup>6</sup> , leucopenia
<b>Metabolism and nutrition disorders</b>	<b><u>Very common</u></b> Decreased appetite
<b>Psychiatric disorders</b>	<b><u>Common</u></b> Anxiety
<b>Gastrointestinal disorders</b>	<b><u>Very common</u></b> Nausea, vomiting, diarrhoea, constipation, abdominal pain <sup>4</sup>

System organ class	All grades <sup>a</sup> frequency
<b>Musculoskeletal and connective tissue disorders</b>	<b><u>Very common</u></b> Arthralgia, back pain, pain in extremity
<b>General disorders and administration site conditions</b>	<b><u>Very common</u></b> Fatigue / asthenia <sup>5</sup>
<b>Investigations</b>	<b><u>Common</u></b> Weight decreased

<sup>a</sup> All AEs with at least 5.0% of patients in the Onureg arm and at least 2.0% higher frequency than the placebo arm.

<sup>1</sup> Grouped terms include pneumonia, bronchopulmonary aspergillosis, lung infection, Pneumocystis jirovecii pneumonia, atypical pneumonia, pneumonia bacterial, and pneumonia fungal.

<sup>2</sup> Grouped terms include upper respiratory tract infection, respiratory tract infection, and respiratory tract infection viral.

<sup>3</sup> Grouped terms include urinary tract infection, urinary tract infection bacterial, Escherichia urinary tract infection, and cystitis.

<sup>4</sup> Grouped terms include abdominal pain, abdominal pain upper, abdominal discomfort, and gastrointestinal pain.

<sup>5</sup> Grouped terms include fatigue and asthenia.

<sup>6</sup> Adverse reactions in which at least one was considered to be life threatening (if the outcome of the reaction was death, it is included with death cases).

### Description of selected adverse reactions

#### *Haematological toxicity*

New or worsening Grade 3 or higher neutropenia (41.1%), thrombocytopenia (22.5%), or febrile neutropenia (11.4%) were commonly reported adverse reactions in patients treated with Onureg. The first occurrence of Grade 3 or 4 neutropenia, thrombocytopenia, or febrile neutropenia occurred within the first 2 cycles in 19.9%, 10.6%, and 1.7%, respectively in patients treated with Onureg. See section 4.2 for monitoring and management guidance.

#### *Gastrointestinal toxicity*

Gastrointestinal toxicities were the most frequent adverse reactions in patients treated with Onureg. Nausea (64.8%), vomiting (59.7%), and diarrhoea (50.4%) were reported in patients treated with Onureg. Grade 3 or higher diarrhoea occurred in 5.1% of patients and Grade 3 or higher vomiting and nausea occurred in 3.0% and 2.5%, respectively in patients treated with Onureg. The first occurrence of Grade 3 or 4 nausea, vomiting, or diarrhoea occurred within the first 2 cycles in 1.7%, 3.0%, and 1.3%, respectively, in patients treated with Onureg. See section 4.2 for monitoring and management guidance.

### Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the national reporting system listed in [Appendix V](#).

## **4.9 Overdose**

In the event of overdose, the patient should be monitored with appropriate blood counts and supportive treatment should be provided, as necessary, according to local recommendations. There is no known specific antidote for an overdose with Onureg.

## **5. PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: Antineoplastic agents, antimetabolites, pyrimidine analogues, ATC code: L01BC07



### Mechanism of action

Azacitidine is a DNA methyltransferase inhibitor and epigenetic modifier. Azacitidine is incorporated into DNA and RNA following cellular uptake and enzymatic biotransformation to nucleotide triphosphates. Incorporation of azacitidine into the DNA of AML cells, modified epigenetic pathways through the inhibition of DNA methyltransferases, and reduction of DNA methylation. This led to alteration of gene expression, including re-expression of genes regulating tumour suppression, immune pathways, cell cycle, and cell differentiation. Incorporation of azacitidine into the RNA of AML cells, inhibited RNA methyltransferase, reduced RNA methylation, decreased RNA stability, and decreased protein synthesis.

### Clinical efficacy and safety

The efficacy and safety of Onureg was studied in a multi-centre, placebo-controlled, Phase 3 study QUAZAR AML-001 (CC-486-AML-001) with a double-blind, randomised, parallel-group design which evaluated Onureg versus placebo as maintenance therapy in AML patients. Patients were enrolled with *de novo* AML, AML secondary to prior diagnosis of myelodysplastic syndromes (MDS), or chronic myelomonocytic leukaemia (CMML); the patients were aged  $\geq 55$  years, and had achieved first complete remission (CR) or complete remission with incomplete blood count recovery (CRi) within 4 months ( $\pm 7$  days) after intensive induction chemotherapy with or without consolidation therapy. Patients were not eligible for HSCT at the time of randomisation, which included patients who did not have a transplant donor, or who chose not to proceed to HSCT.

Patients in both treatment arms received best supportive care as deemed necessary by the investigator. Best supportive care included, but was not limited to, treatment with red blood cell (RBC) transfusions, platelet transfusions, use of erythropoiesis stimulating agent, antibiotic, antiviral and/or antifungal therapy, GCSF, anti-emetic therapy, and nutritional support.

Patients who achieved a CR/CRi after completion of intensive induction therapy with or without consolidation were administered Onureg 300 mg (N = 236) or placebo (N = 233) once daily on Days 1 through 14 of each 28-day cycle. In the event of disease relapse (5% to 15% blasts in peripheral blood or bone marrow), the dose schedule was extended to 21 days of repeated 28-day treatment cycles per medical discretion. Treatment continued until disease progression (more than 15% blasts were observed in peripheral blood or bone marrow) or until unacceptable toxicity.

A total of 472 patients were randomised 1:1 between Onureg and placebo treatment arms. Baseline demographic and disease characteristics for the AML patient population were balanced between treatment arms as shown in Table 3. The median treatment duration was 11.6 months (range: 0.5 to 74.3 months) for the Onureg arm *versus* 5.7 months (range: 0.7 to 68.5 months) for the placebo arm. A total of 51 patients (21%) receiving Onureg and 40 patients (17%) receiving placebo extended their dose schedule to 300 mg daily for 21 days due to AML disease relapse.

Of the 469 patients in the Phase 3 study who received treatment, 61% (285/469) were 65 years of age or older and 11% (51/469) were 75 years of age or older. No overall differences in safety or efficacy of Onureg were observed between these patients and younger patients.

**Table 3: Baseline demographics and disease-related characteristics in study CC-486-AML-001**

Parameter	Onureg (N = 238)	Placebo (N = 234)
Age (years)		
Median (min, max)	68.0 (55, 86)	68.0 (55, 82)
Age category, n (%)		
< 65 years	66 (27.7)	68 (29.1)
$\geq 65$ years to < 75 years	144 (60.5)	142 (60.7)
$\geq 75$ years	28 (11.8)	24 (10.3)

<b>Parameter</b>	<b>Onureg (N = 238)</b>	<b>Placebo (N = 234)</b>
<b>Sex, n (%)</b>		
Male	118 (49.6)	127 (54.3)
Female	120 (50.4)	107 (45.7)
<b>Race, n (%)</b>		
White	216 (90.8)	197 (84.2)
Black or African American	2 (0.8)	6 (2.6)
Asian	6 (2.5)	20 (8.5)
Other	12 (5.0)	11 (4.7)
Not collected or reported	2 (0.8)	0 (0)
<b>ECOG performance status, n (%)</b>		
0	116 (48.7)	111 (47.4)
1	101 (42.4)	106 (45.3)
2	21 (8.8)	15 (6.4)
3	0 (0)	2 (0.9)
<b>Cytogenetic risk status at diagnosis, n (%)</b>		
Intermediate risk <sup>1</sup>	203 (85.3)	203 (86.6)
Poor risk <sup>2</sup>	35 (14.7)	31 (13.2)
<b>Initial AML classification, n (%)</b>		
AML with recurrent genetic abnormalities	39 (16.4)	46 (19.7)
AML with myelodysplasia-related changes	49 (20.6)	42 (17.9)
Therapy related myeloid neoplasms	2 (0.8)	0 (0)
AML not otherwise specified	148 (62.2)	145 (62.0)
Missing	0 (0)	1 (0.4)
<b>Type of AML, n (%)</b>		
Primary (de novo)	213 (89.5)	216 (92.3)
Secondary	25 (10.5)	18 (7.7)
<b>MRD status at randomisation<sup>3</sup>, n (%)</b>		
Negative	133 (55.9)	111 (47.4)
Positive	103 (43.3)	116 (49.6)
Missing	2 (0.8)	7 (3.0)

AML = Acute myelogenous leukaemia; MDS = Myelodysplastic syndrome; CMML = Chronic myelomonocytic Leukaemia; ECOG = Eastern cooperative oncology group; CR = Morphologic complete remission; CRi = Morphologic CR with incomplete blood count recovery.

<sup>1</sup> Intermediate risk was defined as normal cytogenetics +8, t(9;11), or other undefined.

<sup>2</sup> Poor risk was defined as complex ( $\geq 3$  abnormalities): -5; 5q-; -7; 7q-; 11q23 - non t(9;11); inv(3); t(3;3); t(6;9); or t(9;22). Source for Intermediate and Poor Risk: National comprehensive cancer network clinical practice guidelines in oncology for AML.

<sup>3</sup>MRD status in bone marrow was measured during screening period by flow cytometric assay at a sensitivity level of 0.1%.

Most patients received consolidation therapy after induction therapy in both the Onureg (78%) and placebo (82%) treatment arms; more than 90% of these patients in each treatment arm received 1 or 2 cycles of consolidation therapy after induction therapy (Table 4).

**Table 4: Consolidation therapy in study CC-486-AML-001**

Parameter	Onureg (N = 238)	Placebo (N = 234)
<b>Received consolidation therapy following induction</b>		
Yes, n (%)	186 (78.2)	192 (82.1)
1 Cycle, n (%)	110 (46.2)	102 (43.6)
2 Cycles, n (%)	70 (29.4)	77 (32.9)
3 Cycles, n (%)	6 (2.5)	13 (5.6)
No, n (%)	52 (21.8)	42 (17.9)
<b>CR / CRi status at randomisation</b>		
CR, n (%)	183 (76.9)	177 (75.6)
CRi, n (%)	50 (21.0)	44 (18.8)
Not in CR/CRi <sup>a</sup> , n (%)	5 (2.1)	11 (4.7)
Missing, n (%)	0 (0)	2 (0.9)

CR = Complete remission; CRi = Morphologic CR with incomplete blood count recovery.

<sup>a</sup>These patients had baseline bone marrow of less than 5% blasts and both ANC < 1 x 10<sup>9</sup> and platelets < 100 x 10<sup>9</sup>.

The efficacy of Onureg in adult patients with AML was established based on overall survival (OS) and relapse-free survival (RFS).

The efficacy results are summarised in the Table 5.

**Table 5: CC-486-AML-001 efficacy results (ITT Population)**

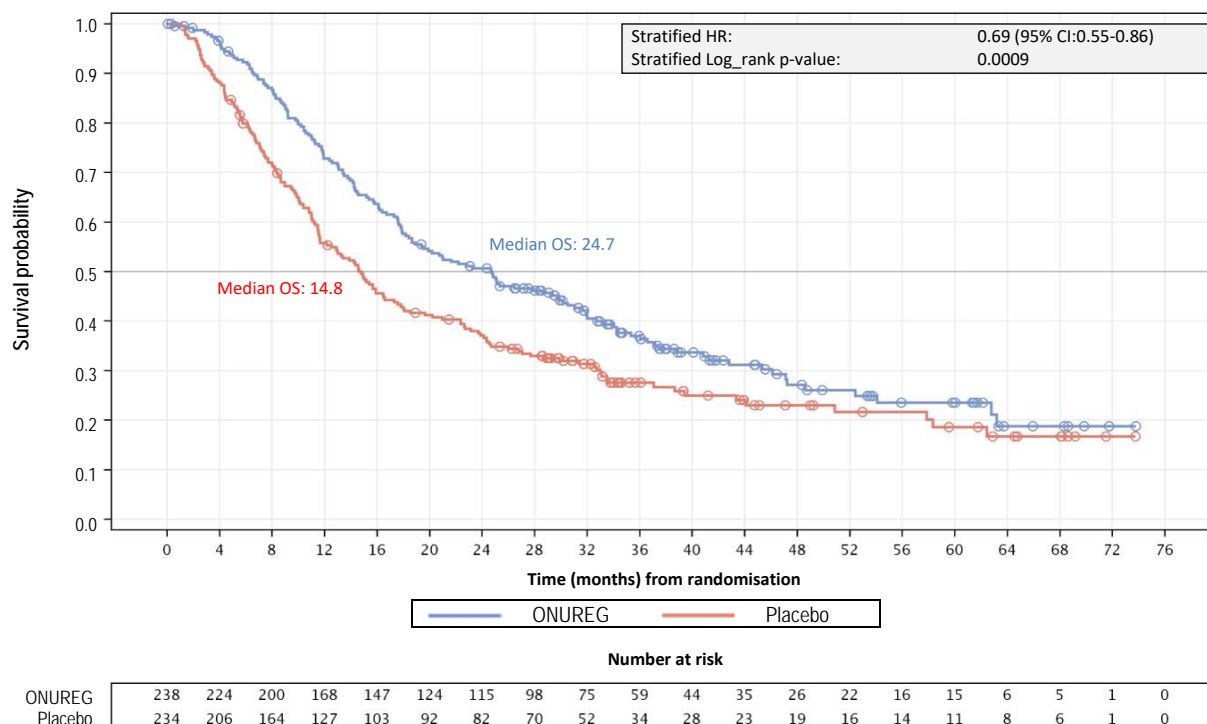
Endpoints	Onureg (N = 238)	Placebo (N = 234)
<b>Overall survival</b>		
OS events, n (%)	158 (66.4)	171 (73.1)
Median OS, months (95% CI)	24.7 (18.7, 30.5)	14.8 (11.7, 17.6)
Hazard ratio (95% CI) p-value	0.69 (0.55, 0.86) 0.0009	
<b>Relapse-free survival</b>		
Events, n (%)	164 (68.9)	181 (77.4)
Median RFS, months (95% CI)	10.2 (7.9, 12.9)	4.8 (4.6, 6.4)
Hazard ratio (95% CI) p-value	0.65 (0.52, 0.81) 0.0001	
<b>Time to relapse</b>		
Relapsed, n (%)	154 (64.7)	179 (76.5)
Median time to relapse, months (95% CI)	10.2 (8.3, 13.4)	4.9 (4.6, 6.4)
<b>Time to discontinuation from treatment</b>		
Treatment discontinued, n (%)	193 (81.1)	208 (88.9)
Median time to treatment discontinuation, months (95% CI)	11.4 (9.8, 13.6)	6.1 (5.1, 7.4)
Treatment discontinued – disease relapse, n (%)	143 (60.1)	180 (76.9)

CI = Confidence interval.

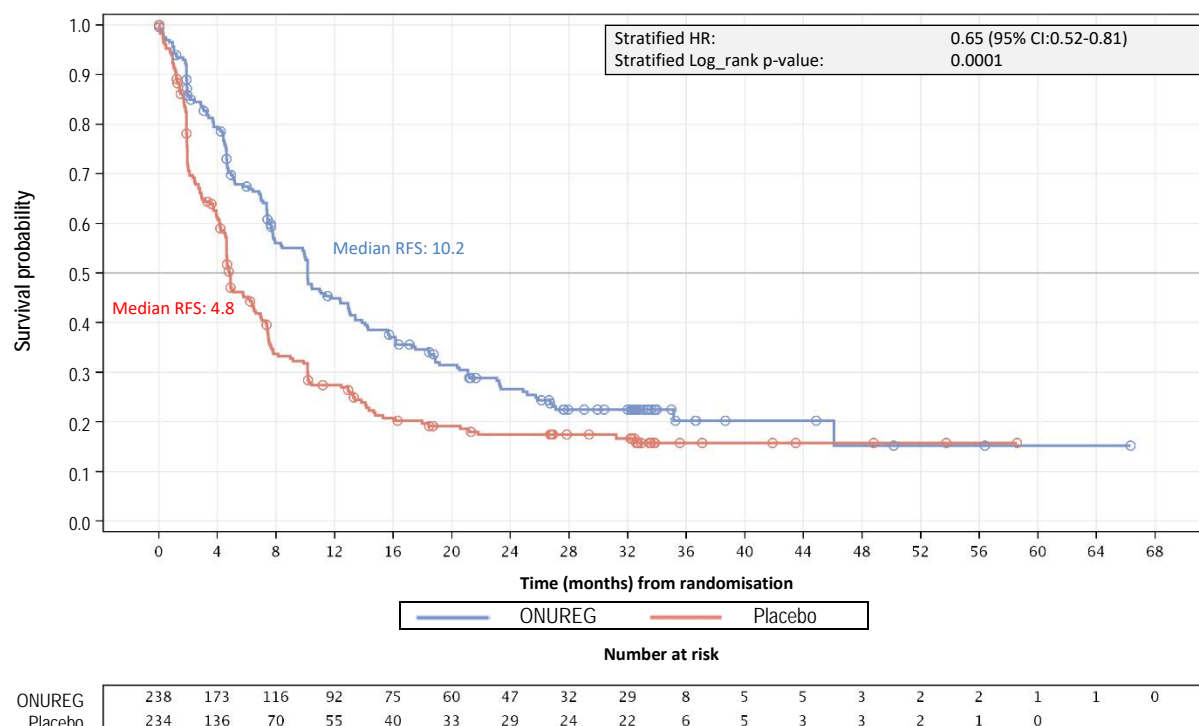
Prespecified subgroup analyses of OS and RFS showed a consistent treatment effect for Onureg across demographic and disease-related subgroups including baseline cytogenetic risk, the number of prior consolidation cycles received, and CR/CRi status.

The Kaplan-Meier curves display the OS (see Figure 1) and RFS (see Figure 2) results.

**Figure 1: Kaplan-Meier curve for overall survival: Onureg *versus* placebo (ITT Population)**



**Figure 2: Kaplan-Meier curve for relapse free survival: Onureg *versus* placebo (ITT Population)**



In patients who had their dose schedule extended to 300 mg for 21 days due to disease relapse, the median OS (22.8 months for Onureg and 14.6 months for placebo) and median RFS (7.4 months for Onureg and 4.6 months for placebo) were comparable to the overall study results.

Onureg demonstrated a favorable treatment effect for OS compared with placebo in both minimal residual disease (MRD)-positive and MRD-negative patients. The treatment effect for OS was more pronounced in MRD-positive patients (HR = 0.69; 95% CI: 0.51, 0.93) than in MRD-negative patients (HR = 0.81; 95% CI: 0.59, 1.12).

#### *Health related quality of life (HRQoL)*

HRQoL was assessed using the Functional assessment of chronic illness therapy-fatigue scale (FACIT – fatigue scale) and the Five dimensions three levels (EQ-5D-3L) health utility index and visual analogue scale (VAS). At baseline, patients had a low level of fatigue and good level of HRQoL that were generally comparable to those of the general population of similar age. This level of HRQoL was maintained over time with Onureg, as compared to baseline, as well as to placebo. Both the time to definitive deterioration and the proportion of patients experiencing clinically meaningful deterioration was found to be similar between those receiving Onureg and placebo. Overall, the findings demonstrate that HRQoL was similar between Onureg treatment and placebo arms, with no clinically meaningful deterioration over time.

## **5.2 Pharmacokinetic properties**

### Absorption

Exposure was generally linear with dose-proportional increases in systemic exposure; high intersubject variability was observed. The geometric mean (coefficient of variation [%CV])  $C_{\max}$  and AUC values after oral administration of a 300 mg single dose were 145.1 ng/mL (63.7) and 241.6 ng h/mL (64.5), respectively. Multiple dosing at the recommended dose regimen did not result in drug accumulation. Absorption of azacitidine was rapid, with a median  $T_{\max}$  of 1 hour post dose. Mean oral bioavailability relative to subcutaneous (SC) administration was approximately 11%.

### Effect of food

The impact of food on the exposure of Onureg was minimal. Therefore, Onureg can be administered with or without food.

### Distribution

After oral administration, the geometric mean apparent volume of distribution was 12.6 L/kg for a 70 kg person. The plasma protein binding of azacitidine was 6 to 12%.

### Biotransformation

Based on *in vitro* data, azacitidine metabolism does not appear to be mediated by cytochrome P450 isoenzymes (CYPs). Azacitidine undergoes spontaneous hydrolysis and deamination mediated by cytidine deaminase.

### Elimination

The geometric mean apparent clearance was 1242 L/hour and the geometric mean half-life was approximately 0.5 hours. Following intravenous administration of  $^{14}\text{C}$  azacitidine to 5 cancer patients, the cumulative urinary excretion was 85% of the radioactive dose. Faecal excretion accounted for <1% of administered radioactivity over 3 days. Mean excretion of radioactivity in urine following subcutaneous administration of  $^{14}\text{C}$ -azacitidine was 50%. The amount of unchanged azacitidine recovered in urine relative to dose was < 2% following either subcutaneous (SC) or oral administration. Faecal excretion has not been measured following oral administration.

### Pharmacodynamic effects

The epigenetic regulatory effect of azacitidine on DNA global methylation reduction in the blood was sustained with prolonged exposure of 300 mg daily administered for 14 or 21 days of a 28-day cycle in myeloid cancers including AML patients from a Phase 1/2 study. A positive correlation was observed between azacitidine plasma exposure and the pharmacodynamic effect of reduction in global DNA methylation in blood.

## Special populations

### *Elderly*

In a population pharmacokinetics (PK) analysis from 286 AML patients, age (46 to 93 years) did not have clinically meaningful effects on the PK of Onureg. Therefore, dose modification for Onureg is not required, regardless of patient age.

### *Hepatic impairment*

No formal studies have been conducted in patients with hepatic impairment. Hepatic impairment is unlikely to affect the PK to a clinically relevant extent since azacitidine undergoes spontaneous hydrolysis and deamination mediated by cytidine deaminase. A population PK analysis determined that AST (8 to 155 U/L), ALT (5 to 185 U/L) and mild hepatic impairment (BIL  $\leq$  ULN and AST  $>$  ULN, or BIL 1 to 1.5  $\times$  ULN and any AST) did not have clinically meaningful effects on the PK of azacitidine. The effects of moderate to severe hepatic impairment (BIL  $>$  1.5  $\times$  ULN and any AST) on the PK of azacitidine is unknown.

### *Renal impairment*

In patients with cancer, the PK of azacitidine in 6 patients with normal renal function (CLcr  $>$ 80 mL/min) and 6 patients with severe renal impairment (CLcr  $<$ 30 mL/min) were compared following daily subcutaneous dosing (Days 1 through 5) at 75 mg/m<sup>2</sup>/day. Severe renal impairment increased azacitidine exposure by approximately 70% after single and 41% after multiple subcutaneous administrations. This increase in exposure was not correlated with an increase in adverse events.

A population PK analysis following a 300 mg dose of Onureg determined that patients with mild (CLcr:  $\geq$  60 to  $<$  90 mL/min), moderate (CLcr:  $\geq$  30 to  $<$  60 mL/min), and severe (CLcr:  $<$  30 mL/min) renal impairment had 19%, 25%, and 38% increases in azacitidine plasma AUC, respectively. The effect of severe renal impairment on Onureg was similar to the above referenced clinical renal impairment study with injectable azacitidine (~40% increase in AUC). The exposure of azacitidine (AUC) is approximately 75% lower after oral administration relative to the exposure achieved following SC administration; therefore, an increase in exposure of approximately 40% following oral administration is still considered safe and tolerable. Thus, no dose adjustment of Onureg is recommended in patients with mild, moderate, or severe renal impairment.

### *Race/ethnicity*

The effects of race/ethnicity on the PK of Onureg is unknown.

## **5.3 Preclinical safety data**

In a 14-day oral toxicity study in dogs, mortality occurred at doses of 8 and 16 mg/m<sup>2</sup>/day. The maximum tolerated dose (MTD) was 4 mg/m<sup>2</sup>/day. At 1 or all doses, pancytopenia correlated with bone marrow hypoplasia, lymphoid depletion, gland/lumen dilation and single cell necrosis in mucosal crypts of small and large intestines and/or centrilobular hepatocellular vacuolation were observed. At the MTD, these findings were partially or completely resolved after 3 weeks. Following parenteral azacitidine administrations at comparable dose ranges, mortality and similar target organ toxicities were observed in rodents, dogs and monkeys. Non-clinical data from repeat-dose toxicity studies with azacitidine revealed no special hazard for humans.

Azacitidine induces both gene mutations and chromosomal aberrations in bacterial and mammalian cell systems in vitro. The potential carcinogenicity of azacitidine was evaluated in mice and rats. Azacitidine induced tumours of the haematopoietic system in female mice, when administered intraperitoneally 3 times per week for 52 weeks. An increased incidence of tumours in the lymphoreticular system, lung, mammary gland, and skin was seen in mice treated with azacitidine administered intraperitoneally for 50 weeks. A tumorigenicity study in rats revealed an increased incidence of testicular tumours.

Early embryotoxicity studies in mice revealed a 44% frequency of intrauterine embryonal death (increased resorption) after a single intraperitoneal injection of azacitidine during organogenesis. Developmental abnormalities in the brain have been detected in mice given azacitidine on or before closure of the hard palate. In rats, azacitidine caused no adverse reactions when given pre-implantation, but it was clearly embryotoxic when given during organogenesis. Foetal abnormalities during organogenesis in rats included: Central nervous system (CNS) anomalies (exencephaly/encephalocele), limb anomalies (micromelia, club foot, syndactyly, oligodactyly) and others (microphthalmia, micrognathia, gastroschisis, oedema, and rib abnormalities).

Administration of azacitidine to male mice prior to mating with untreated female mice resulted in decreased fertility and loss of offspring during subsequent embryonic and postnatal development. Treatment of male rats resulted in decreased weight of the testes and epididymides, decreased sperm counts, decreased pregnancy rates, an increase in abnormal embryos and increased loss of embryos in mated females (see section 4.6).

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

#### Tablet content

Croscarmellose sodium (E468)

Magnesium stearate (E572)

Mannitol (E421)

Silicified microcrystalline cellulose (E460, E551)

#### Onureg 200 mg tablet coating

Opadry II pink containing:

Hypromellose (E464)

Titanium dioxide (E171)

Lactose monohydrate

Polyethylene glycol/macrogols (E1521)

Triacetin (E1518)

Iron oxide red (E172)

#### Onureg 300 mg tablet coating

Opadry II brown containing:

Hypromellose (E464)

Titanium dioxide (E171)

Lactose monohydrate

Polyethylene glycol/macrogols (E1521)

Triacetin (E1518)

Iron oxide red (E172)

Iron oxide yellow (E172)

Iron oxide black (E172)

### **6.2 Incompatibilities**

Not applicable.

### **6.3 Shelf life**

3 years.

### **6.4 Special precautions for storage**

This medicinal product does not require any special storage conditions.

## **6.5 Nature and contents of container**

The film-coated tablets are packaged in nylon (OPA) / polyvinyl chloride (PVC) aluminium blisters with push through aluminium foil.

Pack size of 7 or 14 film-coated tablets.

Not all pack sizes may be marketed.

## **6.6 Special precautions for disposal and other handling**

Onureg is a cytotoxic medicinal product. If powder from the film-coated tablets makes contact with the skin, the skin should be washed immediately and thoroughly with soap and water. If the powder comes in contact with mucous membranes, the area should be thoroughly flushed with water.

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

## **7. MARKETING AUTHORISATION HOLDER**

Bristol-Myers Squibb Pharma EEIG  
Plaza 254  
Blanchardstown Corporate Park 2  
Dublin 15, D15 T867  
Ireland

## **8. MARKETING AUTHORISATION NUMBER(S)**

Onureg 200 mg film-coated tablets  
EU/1/21/1556/001  
EU/1/21/1556/002

Onureg 300 mg film-coated tablets  
EU/1/21/1556/003  
EU/1/21/1556/004

## **9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of first authorisation: 17 June 2021

## **10. DATE OF REVISION OF THE TEXT**

Detailed information on this medicinal product is available on the website of the European Medicines Agency <http://www.ema.europa.eu>.



## **ANNEX II**

- A. MANUFACTURER RESPONSIBLE FOR BATCH RELEASE**
- B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE**
- C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION**
- D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT**

## **A. MANUFACTURER RESPONSIBLE FOR BATCH RELEASE**

### Name and address of the manufacturer responsible for batch release

Celgene Distribution B.V.  
Orteliuslaan 1000  
3528 BD Utrecht  
Netherlands

## **B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE**

Medicinal product subject to restricted medical prescription (see Annex I: Summary of Product Characteristics, section 4.2).

## **C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION**

- **Periodic safety update reports (PSURs)**

The requirements for submission of PSURs for this medicinal product are set out in the list of Union reference dates (EURD list) provided for under Article 107c(7) of Directive 2001/83/EC and any subsequent updates published on the European medicines web-portal.

The marketing authorisation holder (MAH) shall submit the first PSUR for this product within 6 months following authorisation.

## **D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT**

- **Risk management plan (RMP)**

The MAH shall perform the required pharmacovigilance activities and interventions detailed in the agreed RMP presented in Module 1.8.2 of the marketing authorisation and any agreed subsequent updates of the RMP.

An updated RMP should be submitted:

- At the request of the European Medicines Agency;
- Whenever the risk management system is modified, especially as the result of new information being received that may lead to a significant change to the benefit/risk profile or as the result of an important (pharmacovigilance or risk minimisation) milestone being reached.

**ANNEX III**  
**LABELLING AND PACKAGE LEAFLET**

## **A. LABELLING**

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING****CARTON****1. NAME OF THE MEDICINAL PRODUCT**

Onureg 200 mg film-coated tablets  
azacitidine

**2. STATEMENT OF ACTIVE SUBSTANCE(S)**

Each film-coated tablet contains 200 mg of azacitidine.

**3. LIST OF EXCIPIENTS**

Contains lactose. See leaflet for further information.

**4. PHARMACEUTICAL FORM AND CONTENTS**

Film-coated tablet  
7 film-coated tablets  
14 film-coated tablets

**5. METHOD AND ROUTE(S) OF ADMINISTRATION**

Read the package leaflet before use.  
For oral use.

Do not split, crush, dissolve or chew the tablets.

**6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN**

Keep out of the sight and reach of children.

**7. OTHER SPECIAL WARNING(S), IF NECESSARY**

Cytotoxic: handle with caution.

**8. EXPIRY DATE**

EXP

**9. SPECIAL STORAGE CONDITIONS**

This medicine does not require any special storage conditions.

**10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE**

Dispose of in accordance with local requirements.

**11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER**

Bristol-Myers Squibb Pharma EEIG  
Plaza 254  
Blanchardstown Corporate Park 2  
Dublin 15, D15 T867  
Ireland

**12. MARKETING AUTHORISATION NUMBER(S)**

EU/1/21/1556/001 (Pack size of 7 film-coated tablets)  
EU/1/21/1556/002 (Pack size of 14 film-coated tablets)

**13. BATCH NUMBER**

Lot

**14. GENERAL CLASSIFICATION FOR SUPPLY****15. INSTRUCTIONS ON USE****16. INFORMATION IN BRAILLE**

Onureg 200 mg

**17. UNIQUE IDENTIFIER – 2D BARCODE**

2D barcode carrying the unique identifier included.

**18. UNIQUE IDENTIFIER - HUMAN READABLE DATA**

PC  
SN  
NN

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING****CARTON****1. NAME OF THE MEDICINAL PRODUCT**

Onureg 300 mg film-coated tablets  
azacitidine

**2. STATEMENT OF ACTIVE SUBSTANCE(S)**

Each film-coated tablet contains 300 mg of azacitidine.

**3. LIST OF EXCIPIENTS**

Contains lactose. See leaflet for further information.

**4. PHARMACEUTICAL FORM AND CONTENTS**

Film-coated tablet  
7 film-coated tablets  
14 film-coated tablets

**5. METHOD AND ROUTE(S) OF ADMINISTRATION**

Read the package leaflet before use.  
For oral use.

Do not split, crush, dissolve or chew the tablets.

**6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN**

Keep out of the sight and reach of children.

**7. OTHER SPECIAL WARNING(S), IF NECESSARY**

Cytotoxic: handle with caution.

**8. EXPIRY DATE**

EXP

**9. SPECIAL STORAGE CONDITIONS**

This medicine does not require any special storage conditions.

**10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE**

Dispose of in accordance with local requirements.

**11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER**

Bristol-Myers Squibb Pharma EEIG  
Plaza 254  
Blanchardstown Corporate Park 2  
Dublin 15, D15 T867  
Ireland

**12. MARKETING AUTHORISATION NUMBER(S)**

EU/1/21/1556/003 (Pack size of 7 film-coated tablets)  
EU/1/21/1556/004 (Pack size of 14 film-coated tablets)

**13. BATCH NUMBER**

Lot

**14. GENERAL CLASSIFICATION FOR SUPPLY****15. INSTRUCTIONS ON USE****16. INFORMATION IN BRAILLE**

Onureg 300 mg

**17. UNIQUE IDENTIFIER – 2D BARCODE**

2D barcode carrying the unique identifier included.

**18. UNIQUE IDENTIFIER - HUMAN READABLE DATA**

PC  
SN  
NN



<b>MINIMUM PARTICULARS TO APPEAR ON BLISTERS OR STRIPS</b>
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<b>BLISTERS</b>
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<b>1. NAME OF THE MEDICINAL PRODUCT</b>
---

Onureg 200 mg tablets  
azacitidine

<b>2. NAME OF THE MARKETING AUTHORISATION HOLDER</b>
--

Bristol-Myers Squibb Pharma

<b>3. EXPIRY DATE</b>
-----------------------

EXP

<b>4. BATCH NUMBER</b>
------------------------

Lot

<b>5. OTHER</b>
-----------------

<b>MINIMUM PARTICULARS TO APPEAR ON BLISTERS OR STRIPS</b>
--

<b>BLISTERS</b>
-----------------

<b>1. NAME OF THE MEDICINAL PRODUCT</b>
---

Onureg 300 mg tablets  
azacitidine

<b>2. NAME OF THE MARKETING AUTHORISATION HOLDER</b>
--

Bristol-Myers Squibb Pharma

<b>3. EXPIRY DATE</b>
-----------------------

EXP

<b>4. BATCH NUMBER</b>
------------------------

Lot

<b>5. OTHER</b>
-----------------

## **B. PACKAGE LEAFLET**

## **Package leaflet: Information for the user**

**Onureg 200 mg film-coated tablets**

**Onureg 300 mg film-coated tablets**

azacitidine

**Read all of this leaflet carefully before you start taking this medicine because it contains important information for you.**

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor, pharmacist or nurse.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. See section 4.

### **What is in this leaflet**

1. What Onureg is and what it is used for
2. What you need to know before you take Onureg
3. How to take Onureg
4. Possible side effects
5. How to store Onureg
6. Contents of the pack and other information

#### **1. What Onureg is and what it is used for**

##### **What Onureg is**

Onureg is an anti-cancer medicine that belongs to a group of medicines called anti-metabolites. Onureg contains the active substance azacitidine.

##### **What Onureg is used for**

Onureg is used to treat adults with acute myeloid leukaemia (AML). This is a form of cancer which affects your bone marrow and can cause problems with producing normal blood cells.

Onureg is used to keep the disease in control (remission, when the disease is less severe or not active).

##### **How Onureg works**

Onureg works by preventing cancer cells from growing. Azacitidine, the active substance in Onureg, works by altering the way the cell turns genes on and off. It also reduces the production of new genetic material (RNA and DNA). These effects are thought to block growth of cancer cells in leukaemia.

Talk to your doctor or nurse if you have any questions about how Onureg works or why this medicine has been prescribed for you.

#### **2. What you need to know before you take Onureg**

##### **Do not take Onureg**

- if you are allergic to azacitidine or any of the other ingredients of this medicine (listed in section 6).
- if you are breast-feeding.

## **Warnings and precautions**

### **Blood tests**

You will have blood tests before you begin treatment with Onureg and during treatment with Onureg to check that you have enough blood cells and that your liver and kidneys are working properly. Your doctor will decide how often you have blood tests.

Tell your doctor, pharmacist or nurse straight away if you get any of these symptoms during treatment with Onureg:

- bruising or bleeding - this could be due to a low count of blood cells called platelets;
- fever - this could be due to an infection as a result of having low levels of white blood cells, which can be life-threatening;
- diarrhoea, vomiting or nausea (feeling sick).

Azacitidine can cause a serious immune reaction called 'differentiation syndrome' (see section 4 'Possible side effects').

Your doctor may need to change the dose, interrupt treatment or stop treatment with Onureg completely. The doctor may prescribe other medicines to help manage these symptoms.

### **Children and adolescents**

Onureg is not recommended for use in children and adolescents below the age of 18.

### **Other medicines and Onureg**

Tell your doctor if you are taking, have recently taken or might take any other medicines. This is because Onureg may affect the way some other medicines work. Also, some other medicines may affect the way Onureg works.

### **Pregnancy, contraception and breast-feeding**

If you are pregnant or breast-feeding, you think you may be pregnant or are planning to have a baby, ask your doctor for advice before taking this medicine. Men should not father a child while receiving treatment with Onureg.

#### Pregnancy

Do not take Onureg during pregnancy as it may be harmful to your baby. Tell your doctor straight away if you become pregnant during treatment.

#### Contraception

If you are a woman who can become pregnant you should use an effective method of contraception while taking Onureg and for 6 months after stopping treatment with Onureg. Men should use an effective method of contraception while taking Onureg and for 3 months after stopping treatment with Onureg.

Your doctor will discuss with you the most suitable method of contraception for you to use.

#### Breast-feeding

Do not breast-feed while taking Onureg as it may be harmful to your child.

### **Fertility**

Onureg may affect your ability to have a baby. Talk to your doctor for advice before using it.

### **Driving and using machines or tools**

You may feel tired, weak or have trouble concentrating. If this happens to you or if you have other side effects, do not drive or use any machines or tools.

**Onureg contains lactose**

Onureg contains lactose. If you have been told by your doctor that you have intolerance to some sugars, contact your doctor before taking this medicine.

**Onureg contains sodium**

This medicine contains less than 1 mmol sodium (23 mg) per tablet, that is to say essentially 'sodium-free'.

**3. How to take Onureg**

Always take this medicine exactly as your doctor has told you. Check with your doctor if you are not sure.

**How much to take**

- The recommended dose is 300 mg taken by mouth once daily.
- Your doctor may reduce your dose to 200 mg once daily.

Onureg is given in treatment cycles of 28 days.

- You take Onureg every day for the first 14 days of each 28-day cycle.
- This is followed by a treatment-free period of 14 days for the rest of the cycle.

Your doctor will tell you what dose of Onureg to take. The doctor may decide to:

- extend your treatment beyond 14 days in each treatment cycle
- lower your dose or temporarily stop treatment
- reduce your treatment to 7 days.

Always take Onureg as prescribed by your doctor.

Your doctor will give you a medicine that helps to reduce nausea (feeling sick) and vomiting. You take it 30 minutes before each Onureg tablet, during your first and second treatment cycles. Your doctor will tell you to take it for a longer period, if you need it.

**Taking this medicine**

- Take Onureg once a day - at the same time each day.
- Swallow the tablets whole with a full glass of water.
- To make sure you get the right dose, do not break, crush, dissolve or chew the tablets.
- You can take the medicine with food or between meals.

If you vomit after taking a tablet, do not take another dose on the same day. Instead, wait till the next day and take your next scheduled dose then. Do not take two doses on the same day.

If powder from a broken tablet touches your skin, wash the skin straight away and thoroughly with soap and water. If the powder gets into your eyes, nose or mouth, flush the area thoroughly with water.

**If you take more Onureg than you should**

If you take more tablets than you should, contact your doctor or go to a hospital straightaway. If possible, take the medicine pack and this leaflet with you.

**If you forget to take Onureg**

If you forget to take Onureg at the usual time, take your usual dose as soon as you remember on the same day and take your next dose at the usual time the next day. Do not take a double dose to make up for a forgotten or vomited tablet.

**If you stop taking Onureg**

Do not stop taking Onureg unless your doctor tells you to.

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

#### **4. Possible side effects**

Like all medicines, this medicine can cause side effects, although not everybody gets them.

##### **Serious side effects**

**Tell your doctor, pharmacist or nurse straight away** if you get any of these symptoms during treatment with Onureg:

- bruising or bleeding - this could be due to a low count of blood cells called platelets;
- fever - this could be due to an infection as a result of having low levels of white blood cells, which can be life-threatening;
- diarrhoea, vomiting or nausea (feeling sick).

##### **Other side effects include:**

**Very common side effects** (may affect more than 1 in 10 people):

- constipation
- pain in your belly
- infections of the nose, sinuses and throat
- infection of the lungs
- feeling tired or weak
- loss of appetite
- pain that affect different parts of the body - this can range from a sharp pain to a dull ache
- stiff joints
- back pain.

**Common side effects** (may affect up to 1 in 10 people):

- flu
- infection of the urinary tract
- hay fever
- anxiety
- loss of weight.

**Not known** (frequency cannot be estimated from the available data)

- Serious immune reaction (differentiation syndrome) that may cause fever, cough, difficulty breathing, rash, decreased urine, low blood pressure (hypotension), swelling of the arms or legs and rapid weight gain.

##### **Reporting of side effects**

If you get any side effects, talk to your doctor. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the national reporting system listed in [Appendix V](#). By reporting side effects you can help provide more information on the safety of this medicine.

#### **5. How to store Onureg**

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the blister and the carton after EXP. The expiry date refers to the last day of that month.

This medicine does not require any special storage conditions.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

## **6. Contents of the pack and other information**

### **What Onureg contains**

- The active substance is azacitidine. Each film-coated tablet contains either 200 mg or 300 mg azacitidine.
- The other ingredients are croscarmellose sodium (E468), magnesium stearate (E572), mannitol (E421), and silicified microcrystalline cellulose (E460, E551).
- The 200 mg tablet coating – Opadry II pink contains: hypromellose (E464), titanium dioxide (E171), lactose monohydrate, polyethylene glycol/macrogols (E1521), triacetin (E1518), and iron oxide red (E172). See section 2 “Onureg contains sodium”.
- The 300 mg tablet coating – Opadry II brown contains: hypromellose (E464), titanium dioxide (E171), lactose monohydrate, polyethylene glycol/macrogols (E1521), triacetin (E1518), iron oxide red (E172), iron oxide yellow (E172), and iron oxide black (E172). See section 2 “Onureg contains sodium”.

### **What Onureg looks like and contents of the pack**

Onureg 200 mg film-coated tablets are pink and oval shaped with “200” imprinted on one side and “ONU” on the other side.

Onureg 300 mg film-coated tablets are brown and oval shaped with “300” imprinted on one side and “ONU” on the other side.

The film-coated tablets are packaged in aluminium foil blisters.

Each pack contains either 7 or 14 film-coated tablets. Not all pack sizes may be marketed.

### **Marketing Authorisation Holder**

Bristol-Myers Squibb Pharma EEIG  
Plaza 254  
Blanchardstown Corporate Park 2  
Dublin 15, D15 T867  
Ireland

### **Manufacturer**

Celgene Distribution B.V.  
Orteliuslaan 1000  
3528 BD Utrecht  
Netherlands

For any information about this medicine, please contact the local representative of the Marketing Authorisation Holder:

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**Other sources of information**

Detailed information on this medicine is available on the European Medicines Agency web site:  
<http://www.ema.europa.eu>.