

**ANNEX I**

**SUMMARY OF PRODUCT CHARACTERISTICS**

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

Kovaltry 250 IU powder and solvent for solution for injection  
Kovaltry 500 IU powder and solvent for solution for injection  
Kovaltry 1000 IU powder and solvent for solution for injection  
Kovaltry 2000 IU powder and solvent for solution for injection  
Kovaltry 3000 IU powder and solvent for solution for injection

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

### Kovaltry 250 IU powder and solvent for solution for injection

Kovaltry contains approximately 250 IU (100 IU / 1 mL) of recombinant human coagulation factor VIII (INN: octocog alfa) after reconstitution.

### Kovaltry 500 IU powder and solvent for solution for injection

Kovaltry contains approximately 500 IU (200 IU / 1 mL) of recombinant human coagulation factor VIII (INN: octocog alfa) after reconstitution.

### Kovaltry 1000 IU powder and solvent for solution for injection

Kovaltry contains approximately 1000 IU (400 IU / 1 mL) of recombinant human coagulation factor VIII (INN: octocog alfa) after reconstitution.

### Kovaltry 2000 IU powder and solvent for solution for injection

Kovaltry contains approximately 2000 IU (400 IU / 1 mL) of recombinant human coagulation factor VIII (INN: octocog alfa) after reconstitution.

### Kovaltry 3000 IU powder and solvent for solution for injection

Kovaltry contains approximately 3000 IU (600 IU / 1 mL) of recombinant human coagulation factor VIII (INN: octocog alfa) after reconstitution.

The potency (IU) is determined using the European Pharmacopoeia chromogenic assay. The specific activity of Kovaltry is approximately 4000 IU/mg protein.

Octocog alfa (Full length recombinant human coagulation factor VIII (rDNA)) is a purified protein that has 2,332 amino acids. It is produced by recombinant DNA technology in baby hamster kidney cells (BHK) into which the human factor VIII gene has been introduced. Kovaltry is prepared without the addition of any human or animal derived protein in the cell culture process, purification or final formulation.

For the full list of excipients, see section 6.1.

## **3. PHARMACEUTICAL FORM**

Powder and solvent for solution for injection

Powder: solid, white to slightly yellow.

Solvent: water for injections, a clear solution.

## **4. CLINICAL PARTICULARS**

### **4.1 Therapeutic indications**

Treatment and prophylaxis of bleeding in patients with haemophilia A (congenital factor VIII deficiency). Kovaltry can be used for all age groups.

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

Treatment should be under the supervision of a physician experienced in the treatment of haemophilia.

#### Treatment monitoring

During the course of treatment, appropriate determination of factor VIII levels is advised to guide the dose to be administered and the frequency of repeated infusions. Individual patients may vary in their response to factor VIII, demonstrating different half-lives and recoveries. Dose based on bodyweight may require adjustment in underweight or overweight patients.

In the case of major surgical interventions in particular, precise monitoring of the substitution therapy by means of coagulation analysis (plasma factor VIII activity) is indispensable.

#### Posology

The dose and duration of the substitution therapy depend on the severity of the factor VIII deficiency, on the location and extent of the bleeding and on the patient's clinical condition.

The number of units of factor VIII administered is expressed in International Units (IU), which are related to the current WHO standard for factor VIII products. Factor VIII activity in plasma is expressed either as a percentage (relative to normal human plasma) or in International Units (relative to an International Standard for factor VIII in plasma).

One International Unit (IU) of factor VIII activity is equivalent to that quantity of factor VIII in one mL of normal human plasma.

#### *On demand treatment*

The calculation of the required dose of factor VIII is based on the empirical finding that 1 International Unit (IU) factor VIII per kg body weight raises the plasma factor VIII activity by 1.5% to 2.5% of normal activity.

The required dose is determined using the following formula:

Required units = body weight (kg) x desired factor VIII rise (% or IU/dL) x reciprocal of observed recovery (i.e. 0.5 for recovery of 2.0%).

The amount to be administered and the frequency of administration should always be targeted to the clinical effectiveness required in the individual case.

In the case of the following haemorrhagic events, the factor VIII activity should not fall below the given level (in % of normal) in the corresponding period. The following table can be used to guide dosing in bleeding episodes and surgery:

**Table 1: Guide for dosing in bleeding episodes and surgery**

<b>Degree of haemorrhage/ Type of surgical procedure</b>	<b>Factor VIII level required (%) (IU/dL)</b>	<b>Frequency of doses (hours)/ Duration of therapy (days)</b>
<u>Haemorrhage</u>		
Early haemarthrosis, muscle bleeding or oral bleeding	20 - 40	Repeat every 12 to 24 hours. At least 1 day, until the bleeding episode as indicated by pain is resolved or healing is achieved.
More extensive haemarthrosis, muscle bleeding or haematoma	30 - 60	Repeat infusion every 12 - 24 hours for 3 - 4 days or more until pain and acute disability are resolved.
Life threatening haemorrhages	60 - 100	Repeat infusion every 8 to 24 hours until threat is resolved
<u>Surgery</u>		
Minor surgery including tooth extraction	30 - 60	Every 24 hours, at least 1 day, until healing is achieved.
Major surgery	80 - 100 (pre- and post-operative)	Repeat infusion every 8 - 24 hours until adequate wound healing, then therapy for at least another 7 days to maintain a factor VIII activity of 30% to 60% (IU/dL).

#### *Prophylaxis*

For long term prophylaxis against bleeding in patients with severe haemophilia A, the usual doses for adolescents ( $\geq 12$  years age) and adult patients are 20 to 40 IU of Kovaltry per kg body weight two to three times per week.

In some cases, especially in younger patients, shorter dose intervals or higher doses may be necessary.

#### *Paediatric population*

A safety and efficacy study has been performed in children of 0 - 12 years (see section 5.1).

The recommended prophylaxis doses are 20-50 IU/kg twice weekly, three times weekly or every other day according to individual requirements. For paediatric patients above the age of 12, the dose recommendations are the same as for adults.

#### Method of administration

Intravenous use.

Kovaltry should be injected intravenously over 2 to 5 minutes depending on the total volume. The rate of administration should be determined by the patient's comfort level (maximal rate of infusion: 2 mL/min).

For instructions on reconstitution of the medicinal product before administration, see section 6.6 and the package leaflet.

### **4.3 Contraindications**

- Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.
- Known allergic reactions to mouse or hamster proteins.

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

#### Traceability

In order to improve traceability of biological medicinal products, the name and the batch number of the administered product should be clearly recorded.

## Hypersensitivity

Allergic type hypersensitivity reactions are possible with Kovaltry.

If symptoms of hypersensitivity occur, patients should be advised to discontinue the use of the medicinal product immediately and contact their physician.

Patients should be informed of the early signs of hypersensitivity reactions including hives, generalised urticaria, tightness of the chest, wheezing, hypotension, and anaphylaxis.

In case of shock, standard medical treatment for shock should be implemented.

## Inhibitors

The formation of neutralising antibodies (inhibitors) to factor VIII is a known complication in the management of individuals with haemophilia A. These inhibitors are usually IgG immunoglobulins directed against the factor VIII procoagulant activity, which are quantified in Bethesda Units (BU) per mL of plasma using the modified assay. The risk of developing inhibitors is correlated to the severity of the disease as well as the exposure to factor VIII, this risk being highest within the first 50 exposure days but continues throughout life although the risk is uncommon.

The clinical relevance of inhibitor development will depend on the titre of the inhibitor, with low titre posing less of a risk of insufficient clinical response than high titre inhibitors.

In general, all patients treated with coagulation factor VIII products should be carefully monitored for the development of inhibitors by appropriate clinical observations and laboratory tests (see section 4.2).

If the expected factor VIII activity plasma levels are not attained, or if bleeding is not controlled with an appropriate dose, testing for factor VIII inhibitor presence should be performed. In patients with high levels of inhibitor, factor VIII therapy may not be effective and other therapeutic options should be considered. Management of such patients should be directed by physicians with experience in the care of haemophilia and factor VIII inhibitors.

## Cardiovascular events

In patients with existing cardiovascular risk factors, substitution therapy with FVIII may increase the cardiovascular risk.

## Catheter-related complications

If a central venous access device (CVAD) is required, risk of CVAD-related complications including local infections, bacteraemia and catheter site thrombosis should be considered.

It is strongly recommended that every time that Kovaltry is administered to a patient, the name and batch number of the product are recorded in order to maintain a link between the patient and the batch of the medicinal product.

## Paediatric population

The listed warnings and precautions apply both to adults and children.

## Sodium content

This medicinal product contains less than 1 mmol sodium (23 mg) per dose, i.e. essentially 'sodium-free'.

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

No interactions of human coagulation factor VIII (rDNA) products with other medicinal products have been reported.

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

##### Pregnancy

Animal reproduction studies have not been conducted with factor VIII. Based on the rare occurrence of haemophilia A in women, experience regarding the use of factor VIII during pregnancy is not available.

Therefore, factor VIII should be used during pregnancy only if clearly indicated.

##### Breast-feeding

It is unknown whether Kovaltry is excreted in human milk. The excretion in animals has not been studied. Therefore, factor VIII should be used during breast-feeding only if clearly indicated.

##### Fertility

No animal fertility studies have been conducted with Kovaltry and its effect on human fertility has not been established in controlled clinical trials. Since Kovaltry is a replacement protein of endogenous factor VIII, no adverse effects on fertility are expected.

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

If patients experience dizziness or other symptoms affecting their ability to concentrate and react, it is recommended that they do not drive or use machines until the reaction subsides.

#### **4.8 Undesirable effects**

##### Summary of the safety profile

Hypersensitivity or allergic reactions (which may include angioedema, burning and stinging at the infusion site, chills, flushing, generalised urticaria, headache, hives, hypotension, lethargy, nausea, restlessness, tachycardia, tightness of the chest, tingling, vomiting, wheezing) have been observed and may in some cases progress to severe anaphylaxis (including shock).

Development of antibodies to mouse and hamster protein with related hypersensitivity reactions may occur.

Development of neutralising antibodies (inhibitors) may occur in patients with haemophilia A treated with factor VIII (FVIII), including with Kovaltry. If such inhibitors occur, the condition may manifest itself as an insufficient clinical response. In such cases, it is recommended that a specialised haemophilia centre be contacted.

##### Tabulated list of adverse reactions

The table presented below is according to the MedDRA system organ classification (SOC and Preferred Term Level). Frequencies have been evaluated according to the following convention: 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 ( $< 1/10,000$ ).

Within each frequency grouping, adverse reactions are presented in order of decreasing seriousness.

**Table 2: Frequency of adverse drug reactions in clinical trials**

<b>MedDRA System Organ Class</b>	<b>Adverse reactions</b>	<b>Frequency</b>
<b>Blood and lymphatic system disorders</b>	Lymphadenopathy	uncommon
	FVIII inhibitor	very common (PUPs)* uncommon (PTPs)*
<b>Immune system disorders</b>	Hypersensitivity	uncommon
<b>Psychiatric disorders</b>	Insomnia	common
<b>Nervous system disorders</b>	Headache	common
	Dizziness	common
	Dysgeusia	uncommon
<b>Cardiac disorders</b>	Palpitation	uncommon
	Sinus tachycardia	uncommon
<b>Vascular disorders</b>	Flushing	uncommon
<b>Gastrointestinal disorders</b>	Abdominal pain	common
	Abdominal discomfort	common
	Dyspepsia	common
<b>Skin and subcutaneous tissue disorders</b>	Pruritus	common
	Rash***	common
	Urticaria	common
	Dermatitis allergic	uncommon
<b>General disorders and administration site conditions</b>	Pyrexia	common
	Injection site reactions **	common
	Chest discomfort	uncommon

\* Frequency is based on studies with all FVIII products which included patients with severe haemophilia A. PTPs = previously treated patients, PUPs = previously untreated patients

\*\* includes injection site extravasation, hematoma, infusion site pain, pruritus, swelling

\*\*\* rash, rash erythematous, rash pruritic, rash vesicular

#### Description of selected adverse reactions

A total of 236 (193 PTPs, 43 PUPs/MTPs) patients constituted the pooled safety population in the three phase III studies in previously treated patients (PTPs), previously untreated patients (PUPs) and minimal treated patients (MTPs); LEOPOLD I, LEOPOLD II, LEOPOLD Kids studies. The median time on clinical trial for pooled safety population was 558 days (range 14 to 2436 days) with a median of 183 exposure days (EDs) (range 1 to 1230 EDs).

- The most frequently reported adverse reactions in the pooled population were pyrexia, headache and rash.
- The most frequently reported adverse reactions in the PTPs were related to potential hypersensitivity reactions, including headache, pyrexia, pruritus, rash and abdominal discomfort.
- The most frequently reported adverse reaction in PUPs/MTPs was FVIII inhibitor.

#### *Immunogenicity*

The immunogenicity of Kovaltry was evaluated in PTPs and PUPs/MTPs.

During clinical trials with Kovaltry in approximately 200 pediatric and adult patients diagnosed with severe hemophilia A (FVIII:C < 1%) with previous exposure to factor VIII concentrates  $\geq 50$  ED, one case of transient low titer inhibitor (peak titer 1.0 BU/mL) occurred in a 13 year old PTP after 549 EDs. The Factor VIII recovery was normal (2.7 IU/dL per IU/kg).

#### *Paediatric population*

In the clinical studies no age-specific differences in ADR were observed except for FVIII inhibitor in PUPs/MTPs.

#### 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**

No symptoms of overdose with recombinant human coagulation factor VIII have been reported.

## **5. PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: antihemorrhagics: blood coagulation factor VIII, ATC code B02BD02.

#### Mechanism of action

The factor VIII/von Willebrand factor (vWF) complex consists of two molecules (factor VIII and vWF) with different physiological functions. When infused into a haemophiliac patient, factor VIII binds to vWF in the patient's circulation. Activated factor VIII acts as a cofactor for activated factor IX, accelerating the conversion of factor X to activated factor X. Activated factor X converts prothrombin into thrombin. Thrombin then converts fibrinogen into fibrin and a clot can be formed. Haemophilia A is a sex-linked hereditary disorder of blood coagulation due to decreased levels of factor VIII:C and results in profuse bleeding into joints, muscles or internal organs, either spontaneously or as a result of accidental or surgical trauma. By replacement therapy the plasma levels of factor VIII are increased, thereby enabling a temporary correction of the factor deficiency and correction of the bleeding tendencies.

Of note, annualised bleeding rate (ABR) is not comparable between different factor concentrates and between different clinical studies.

Kovaltry does not contain von Willebrand factor.

#### Pharmacodynamic effects

The activated partial thromboplastin time (aPTT) is prolonged in people with haemophilia. Determination of aPTT is a conventional *in vitro* assay for biological activity of factor VIII. Treatment with rFVIII normalizes the aPTT similar to that achieved with plasma-derived factor VIII.

#### Clinical efficacy and safety

##### *Control and Prevention of Bleeding*

Two multi-centre, open-label, cross-over, uncontrolled, randomised studies in previously treated adults/adolescents with severe haemophilia A (< 1%) and one multi-centre, open-label, uncontrolled



study in PTPs < 12 years of age (Part A) and PUPs/MTPs <6 years of age (Part B) with severe haemophilia A were conducted.

A total of 247 subjects (204 PTPs and 43 PUPs/MTPs) have been exposed in the clinical trial program, 153 subjects  $\geq$  12 years and 94 subjects < 12 years. Two-hundred and eight (208) subjects (174 PTPs, 34 PUPs/MTPs) were treated for at least 360 days, and 98 of these subjects (78 PTPs, 20 PUPs/MTPs) for at least 720 days.

#### *Paediatric population <12 years*

Part A: The paediatric trial enrolled 51 PTPs with severe haemophilia A, 26 subjects in the age group 6-12 years and 25 subjects in the age group <6 years having accumulated a median number of 73 EDs (range: 37 to 103 EDs). Subjects were treated with 2 or 3 injections per week or up to every other day at a dose of 25 to 50 IU/kg. Consumption for prophylaxis and treatment of bleeds, annualised bleed rates and success rate for bleed treatment are presented in Table 3.

Part B: A total of 43 PUPs/MTPs were enrolled and accumulated a median of 46 EDs (range 1 to 55 EDs). The median dose for treatment of bleeds in all PUPs/MTPs was 40.5 IU/kg and 78.1% of the bleeds were successfully treated with  $\leq$  2 infusions.

The most frequently reported adverse reaction in PUPs/MTPs was Factor VIII inhibitor (see section 4.8). FVIII inhibitors were detected in 23 of 42 patients with a median (range) of 9 (4 – 42) EDs at the time of the first positive inhibitor test. Of these, 6 patients had low-titre inhibitors ( $\leq$  5.0 BU) and 17 patients had high-titre inhibitors.

Extension: Of the 94 treated subjects, 82 subjects entered the Leopold Kids extension study, 79 patients received treatment with Kovaltry and 67 patients received Kovaltry as prophylaxis treatment. The median time in the extension study was 3.1 years (range 0.3 to 6.4 years), the median total time in entire study (main plus extension study) was 3.8 years (range 0.8 to 6.7 years). During the extension study, 67 of 82 subjects received Kovaltry as prophylaxis treatment. Amongst the 67 subjects, a total of 472 bleeds were treated with Kovaltry, requiring 1-2 infusions for the majority of bleeds (83.5%), and response to treatment was good or excellent in most (87.9%) of the cases.

#### *Immune Tolerance Induction (ITI)*

Data on ITI has been collected in patients with haemophilia A. 11 subjects with high titer inhibitors received ITI with various treatment regimens of three times per week up to twice daily. 5 subjects completed ITI with a negative inhibitor result at the end of the study, and 1 subject had a low titer (1.2 BU/mL) at time of discontinuation.

**Table 3: Consumption and overall success rates (patients treated with prophylaxis only)**

	<b>Younger children (0 &lt;6 years)</b>	<b>Older children (6 &lt;12 years)</b>	<b>Adolescents and adults 12-65 years</b>			<b>Total</b>
			<b>Study 1</b>	<b>Study 2 2 x/week dosing</b>	<b>Study 2 3 x/week dosing</b>	
<b>Study participants</b>	25	26	62	28	31	172
<b>Dose/prophylaxis injection, IU/kg BW median (min, max)</b>	36 IU/kg (21; 58 IU/kg)	32 IU/kg (22; 50 IU/kg)	31 IU/kg (21; 43 IU/kg)	30 IU/kg (21; 34 IU/kg)	37 IU/kg (30; 42 IU/kg)	32 IU/kg (21; 58 IU/kg)
<b>ABR – all bleeds (median, Q1,Q3)</b>	2.0 (0.0; 6.0)	0.9 (0.0; 5.8)	1.0 (0.0; 5.1)	4.0 (0.0; 8.0)	2.0 (0.0; 4.9)	2.0 (0.0; 6.1)
<b>Dose/injection for bleed treatment Median (min; max)</b>	39 IU/kg (21;72 IU/kg)	32 IU/kg (22; 50 IU/kg)	29 IU/kg (13; 54 IU/kg)	28 IU/kg (19; 39 IU/kg)	31 IU/kg (21; 49 IU/kg)	31 IU/kg (13; 72 IU/kg)
<b>Success rate*</b>	92.4%	86.7%	86.3%	95.0%	97.7%	91.4%

ABR annualised bleed rate

Q1 first quartile; Q3 third quartile

BW: Body weight

\*Success rate defined as % of bleeds treated successfully with  $\leq 2$  infusions

## 5.2 Pharmacokinetic properties

The pharmacokinetic (PK) profile of Kovaltry was evaluated in PTPs with severe haemophilia A following 50 IU/kg in 21 subjects  $\geq 18$  years, 5 subjects  $\geq 12$  years and  $< 18$  years and 19 subjects  $< 12$  years of age.

A population PK model was developed based on all available factor VIII measurements (from dense PK sampling and all recovery samples) throughout the 3 clinical studies allowing calculation of PK parameters for subjects in the various studies. The table 4 below provides PK parameters based on the population PK model.

**Table 4: PK parameters (geometric mean (%CV)) based on chromogenic assay. \***

PK parameter	≥ 18 years N=109	12-<18 years N=23	6-<12 years N=27	0-<6 years N=24
T <sub>1/2</sub> (h)	14.8 (34)	13.3 (24)	14.1 (31)	13.3 (24)
AUC (IU.h/dL)**	1,858 (38)	1,523 (27)	1,242 (35)	970 (25)
CL (dL/h/kg)	0.03 (38)	0.03 (27)	0.04 (35)	0.05 (25)
V <sub>ss</sub> (dL/kg)	0.56 (14)	0.61 (14)	0.77 (15)	0.92 (11)

\* Based on population PK estimates

\*\*AUC calculated for a dose of 50 IU/kg

Repeated PK measurements after 6 to 12 months of prophylaxis treatment with Kovaltry did not indicate any relevant changes in PK characteristics after long-term treatment.

In an international study involving 41 clinical laboratories, the performance of Kovaltry in FVIII:C assays was evaluated and compared to a marketed full length rFVIII product. Consistent results were determined for both products. The FVIII:C of Kovaltry can be measured in plasma with a one-stage coagulation assay as well as with a chromogenic assay using the routine methods of the laboratory.

The analysis of all recorded *incremental* recoveries in previously treated patients demonstrated a median rise of > 2% (> 2 IU/dL) per IU/kg body weight for Kovaltry. This result is similar to the reported values for factor VIII derived from human plasma. There was no relevant change over the 6-12 months treatment period.

**Table 5: Phase III incremental recovery results**

Study participants	N=115
Chromogenic assay results Median; (Q1; Q3) (IU/dL / IU/kg)	2.3 (1.8; 2.6)
One-stage assay results Median; (Q1; Q3) (IU/dL / IU/kg)	2.2 (1.8; 2.4)

### 5.3 Preclinical safety data

Non-clinical data reveal no special risk for humans based on safety pharmacology, *in vitro* genotoxicity, and short term repeat-dose toxicity studies. Repeat-dose toxicity studies longer than 5 days, reproductive toxicity studies, and carcinogenicity studies, have not been performed. Such studies are not considered meaningful due to the production of antibodies against the heterologous human protein in animals. Also factor VIII is an intrinsic protein and not known to cause any reproductive or carcinogenic effects.

## 6. PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

#### Powder

Sucrose

Histidine

Glycine (E 640)

Sodium chloride

Calcium chloride dihydrate (E 509)

Polysorbate 80 (E 433)

Acetic acid, glacial (for pH adjustment) (E 260)

#### Solvent

Water for injections

## **6.2 Incompatibilities**

In the absence of compatibility studies, this medicinal product must not be mixed with other medicinal products.

Only the provided infusion sets should be used for reconstitution and injection because treatment failure can occur as a consequence of human recombinant coagulation factor VIII adsorption to the internal surfaces of some infusion equipment.

## **6.3 Shelf life**

30 months

The chemical and physical in-use stability after reconstitution has been demonstrated for 3 hours at room temperature.

After reconstitution, from a microbiological point of view, the product should be used immediately. If not used immediately, in use storage times and conditions prior to use are the responsibility of the user.

Do not refrigerate after reconstitution.

## **6.4 Special precautions for storage**

Store in a refrigerator (2 °C - 8 °C).

Do not freeze.

Keep the vial and the pre filled syringe in the outer carton in order to protect from light.

Within its overall shelf life of 30 months the product when kept in its outer carton, may be stored up to 25 °C for a limited period of 12 months. In this case, the product expires at the end of this 12 month period or the expiry date on the product vial, whichever is earlier. The new expiry date must be noted on the outer carton.

For storage conditions after reconstitution of the medicinal product, see section 6.3.

## **6.5 Nature and contents of container and special equipment for use, administration or implantation**

Each single package of Kovaltry contains:

- one vial with powder (10 mL clear glass type 1 vial with grey halogenobutyl rubber blend stopper and aluminium seal)
- one pre-filled syringe (3 mL or 5 mL) with 2.5 mL (for 250 IU, 500 IU and 1000 IU) or 5 mL (for 2000 IU and 3000 IU) solvent (clear glass cylinder type 1 with grey bromobutyl rubber blend stopper)
- syringe plunger rod
- vial adapter
- one venipuncture set

### Pack sizes

- 1 single pack.
- 1 multipack with 30 single packs.

Not all pack sizes may be marketed.

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

Detailed instructions for preparation and administration are contained in the package leaflet provided with Kovaltry.

The reconstituted medicinal product is a clear and colourless solution.

Kovaltry powder should only be reconstituted with the supplied solvent (2.5 mL or 5 mL water for injections) in the prefilled syringe and the vial adapter. For infusion, the product must be prepared under aseptic conditions. If any component of the package is opened or damaged, do not use this component.

After reconstitution the solution is clear. Parenteral medicinal products should be inspected visually for particulate matter and discoloration prior to administration. Do not use Kovaltry if you notice visible particulate matter or turbidity.

After reconstitution, the solution is drawn back into the syringe. Kovaltry should be reconstituted and administered with the components (vial adapter, prefilled syringe, venipuncture set) provided with each package.

The reconstituted product must be filtered prior to administration to remove potential particulate matter in the solution. Filtering is achieved by using the vial adapter.

The venipuncture set provided with the product must not be used for drawing blood because it contains an in line filter.

For single use only.

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

## **7. MARKETING AUTHORISATION HOLDER**

Bayer AG  
51368 Leverkusen  
Germany

## **8. MARKETING AUTHORISATION NUMBERS**

EU/1/15/1076/002 - 1 x (Kovaltry 250 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/012 - 1 x (Kovaltry 250 IU - solvent (2.5 mL); pre-filled syringe (5 mL))  
EU/1/15/1076/004 - 1 x (Kovaltry 500 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/014 - 1 x (Kovaltry 500 IU - solvent (2.5 mL); pre-filled syringe (5 mL))  
EU/1/15/1076/006 - 1 x (Kovaltry 1000 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/016 - 1 x (Kovaltry 1000 IU - solvent (2.5 mL); pre-filled syringe (5 mL))  
EU/1/15/1076/008 - 1 x (Kovaltry 2000 IU - solvent (5 mL); pre-filled syringe (5 mL))  
EU/1/15/1076/010 - 1 x (Kovaltry 3000 IU - solvent (5 mL); pre-filled syringe (5 mL))  
EU/1/15/1076/017 - 30 x (Kovaltry 250 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/018 - 30 x (Kovaltry 250 IU - solvent (2.5 mL); pre-filled syringe (5 mL))  
EU/1/15/1076/019 - 30 x (Kovaltry 500 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/020 - 30 x (Kovaltry 500 IU - solvent (2.5 mL); pre-filled syringe (5 mL))  
EU/1/15/1076/021 - 30 x (Kovaltry 1000 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/022 - 30 x (Kovaltry 1000 IU - solvent (2.5 mL); pre-filled syringe (5 mL))  
EU/1/15/1076/023 - 30 x (Kovaltry 2000 IU - solvent (5 mL); pre-filled syringe (5 mL))  
EU/1/15/1076/024 - 30 x (Kovaltry 3000 IU - solvent (5 mL); pre-filled syringe (5 mL))

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

Date of first authorisation: 18 February 2016

Date of latest renewal:

## **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 OF THE BIOLOGICAL ACTIVE SUBSTANCE AND 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 OF THE BIOLOGICAL ACTIVE SUBSTANCE AND  
MANUFACTURER RESPONSIBLE FOR BATCH RELEASE**

Name and address of the manufacturer of the biological active substance

Bayer HealthCare LLC  
800 Dwight Way  
Berkeley  
CA 94710  
United States

Name and address of the manufacturer responsible for batch release

Bayer AG  
Kaiser-Wilhelm-Allee  
51368 Leverkusen  
Germany

**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.

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

- **Risk management plan (RMP)**

The marketing authorisation holder (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**

### **OUTER CARTON OF A SINGLE PACK (INCLUDING BLUE BOX)**

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

Kovaltry 250 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 250 IU (100 IU / 1 mL) octocog alfa after reconstitution.

#### **3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

#### **4. PHARMACEUTICAL FORM AND CONTENTS**

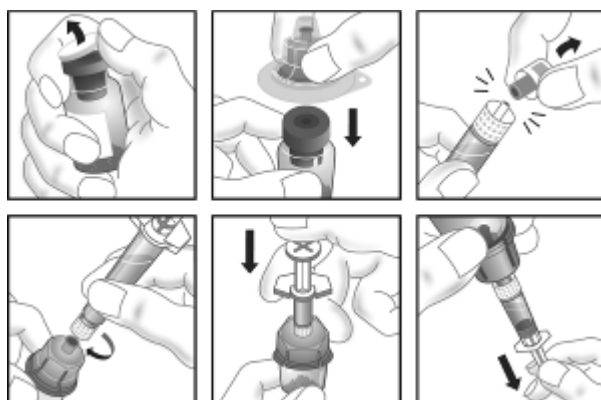
powder and solvent for solution for injection

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

For intravenous use. Single dose administration only.  
Read the package leaflet before use.

For reconstitution read package leaflet before use.



#### **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****8. EXPIRY DATE**

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

**9. SPECIAL STORAGE CONDITIONS**

Store in a refrigerator. Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

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

Any unused solution must be discarded.

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

Bayer AG  
51368 Leverkusen  
Germany

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

EU/1/15/1076/002 – 1 x (Kovaltry 250 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/012 – 1 x (Kovaltry 250 IU - solvent (2.5 mL); pre-filled syringe (5 mL))

**13. BATCH NUMBER**

Lot

**14. GENERAL CLASSIFICATION FOR SUPPLY****15. INSTRUCTIONS ON USE**

<b>16. INFORMATION IN BRAILLE</b>
-----------------------------------

Kovaltry 250

<b>17. UNIQUE IDENTIFIER – 2D BARCODE</b>
---

2D barcode carrying the unique identifier included.

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

PC  
SN  
NN

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

**OUTER LABEL OF MULTIPACK WITH 30 SINGLE PACKS (INCLUDING BLUE BOX)**

**1. NAME OF THE MEDICINAL PRODUCT**

Kovaltry 250 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 250 IU (100 IU / 1 mL) octocog alfa after reconstitution.

**3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

**4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

**Multipack with 30 single packs, each containing:**

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

**For intravenous use.** Single dose administration only.  
Read the package leaflet before use.

**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**

**8. EXPIRY DATE**

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

#### **9. SPECIAL STORAGE CONDITIONS**

**Store in a refrigerator.**

Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

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

Any unused solution must be discarded.

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

Bayer AG  
51368 Leverkusen  
Germany

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

EU/1/15/1076/017 – 30 x (Kovaltry 250 IU - solvent (2.5 mL); pre-filled syringe (3 mL))

EU/1/15/1076/018 – 30 x (Kovaltry 250 IU - solvent (2.5 mL); pre-filled syringe (5 mL))

#### **13. BATCH NUMBER**

Lot

#### **14. GENERAL CLASSIFICATION FOR SUPPLY**

#### **15. INSTRUCTIONS ON USE**

#### **16. INFORMATION IN BRAILLE**

Kovaltry 250

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

2D barcode carrying the unique identifier included.

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
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PC  
SN  
NN



## **PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

### **INNER CARTON OF A MULTIPACK (WITHOUT BLUE BOX)**

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

Kovaltry 250 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 250 IU (100 IU / 1 mL) octocog alfa after reconstitution.

#### **3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

#### **4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

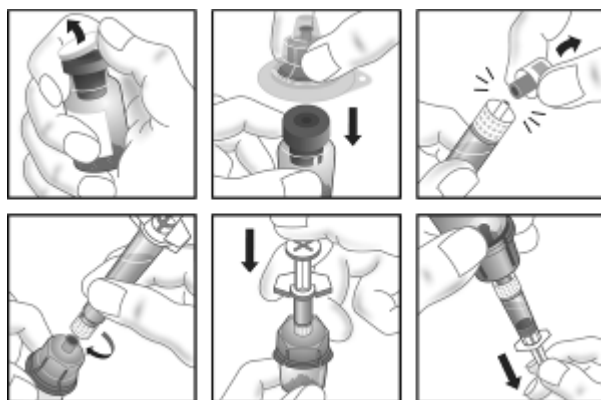
**Component of a multipack, can't be sold separately.**

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

**For intravenous use.** Single dose administration only.  
Read the package leaflet before use.

**For reconstitution read package leaflet before use.**



<b>6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN</b>
--

Keep out of the sight and reach of children.

<b>7. OTHER SPECIAL WARNING(S), IF NECESSARY</b>
--

<b>8. EXPIRY DATE</b>
-----------------------

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

<b>9. SPECIAL STORAGE CONDITIONS</b>
--------------------------------------

**Store in a refrigerator.** Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

<b>10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE</b>
--

Any unused solution must be discarded.

<b>11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER</b>
---

Bayer AG  
51368 Leverkusen  
Germany

<b>12. MARKETING AUTHORISATION NUMBER(S)</b>
--

EU/1/15/1076/017 – 30 x (Kovaltry 250 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/018 – 30 x (Kovaltry 250 IU - solvent (2.5 mL); pre-filled syringe (5 mL))

<b>13. BATCH NUMBER</b>
-------------------------

Lot

<b>14. GENERAL CLASSIFICATION FOR SUPPLY</b>
--

Medicinal product subject to medical prescription.

<b>15. INSTRUCTIONS ON USE</b>
--------------------------------

<b>16. INFORMATION IN BRAILLE</b>
-----------------------------------

Kovaltry 250

<b>17. UNIQUE IDENTIFIER – 2D BARCODE</b>
---

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

<b>MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS</b> <b>VIAL WITH POWDER FOR SOLUTION FOR INJECTION</b>
---

<b>1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION</b>
--

Kovaltry 250 IU powder for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**  
Intravenous use.

<b>2. METHOD OF ADMINISTRATION</b>
------------------------------------

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

EXP

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

Lot

<b>5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT</b>
--

250 IU (octocog alfa) (100 IU/mL after reconstitution).

<b>6. OTHER</b>
-----------------

Bayer-Logo

## **PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

### **OUTER CARTON OF A SINGLE PACK (INCLUDING BLUE BOX)**

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

Kovaltry 500 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 500 IU (200 IU / 1 mL) octocog alfa after reconstitution.

#### **3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

#### **4. PHARMACEUTICAL FORM AND CONTENTS**

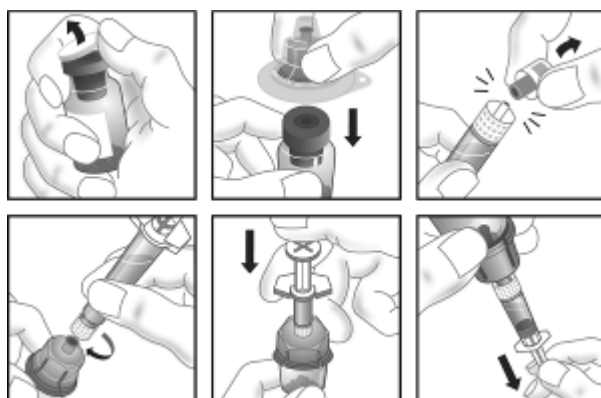
powder and solvent for solution for injection

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

For intravenous use. Single dose administration only.  
Read the package leaflet before use.

For reconstitution read package leaflet before use.



#### **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****8. EXPIRY DATE**

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

**9. SPECIAL STORAGE CONDITIONS**

Store in a refrigerator. Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

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

Any unused solution must be discarded.

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

Bayer AG  
51368 Leverkusen  
Germany

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

EU/1/15/1076/004 – 1 x (Kovaltry 500 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/014 – 1 x (Kovaltry 500 IU - solvent (2.5 mL); pre-filled syringe (5 mL))

**13. BATCH NUMBER**

Lot

**14. GENERAL CLASSIFICATION FOR SUPPLY****15. INSTRUCTIONS ON USE**

<b>16. INFORMATION IN BRAILLE</b>
-----------------------------------

Kovaltry 500

<b>17. UNIQUE IDENTIFIER – 2D BARCODE</b>
---

2D barcode carrying the unique identifier included.

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

PC  
SN  
NN

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

**OUTER LABEL OF MULTIPACK WITH 30 SINGLE PACKS (INCLUDING BLUE BOX)**

**1. NAME OF THE MEDICINAL PRODUCT**

Kovaltry 500 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 500 IU (200 IU / 1 mL) octocog alfa after reconstitution.

**3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

**4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

**Multipack with 30 single packs, each containing:**

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

**For intravenous use.** Single dose administration only.  
Read the package leaflet before use.

**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**

**8. EXPIRY DATE**

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**



May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

#### **9. SPECIAL STORAGE CONDITIONS**

**Store in a refrigerator.**

Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

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

Any unused solution must be discarded.

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

Bayer AG  
51368 Leverkusen  
Germany

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

EU/1/15/1076/019 – 30 x (Kovaltry 500 IU - solvent (2.5 mL); pre-filled syringe (3 mL))

EU/1/15/1076/020 – 30 x (Kovaltry 500 IU - solvent (2.5 mL); pre-filled syringe (5 mL))

#### **13. BATCH NUMBER**

Lot

#### **14. GENERAL CLASSIFICATION FOR SUPPLY**

#### **15. INSTRUCTIONS ON USE**

#### **16. INFORMATION IN BRAILLE**

Kovaltry 500

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

2D barcode carrying the unique identifier included.

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

PC  
SN  
NN

## **PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

### **INNER CARTON OF A MULTIPACK (WITHOUT BLUE BOX)**

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

Kovaltry 500 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 500 IU (200 IU / 1 mL) octocog alfa after reconstitution.

#### **3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

#### **4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

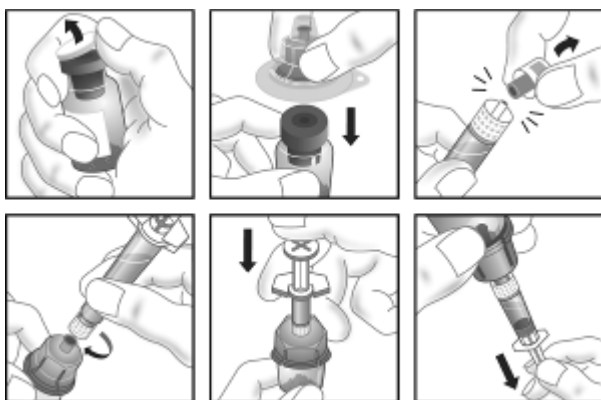
**Component of a multipack, can't be sold separately.**

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

**For intravenous use.** Single dose administration only.  
Read the package leaflet before use.

**For reconstitution read package leaflet before use.**



<b>6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN</b>
--

Keep out of the sight and reach of children.

<b>7. OTHER SPECIAL WARNING(S), IF NECESSARY</b>
--

<b>8. EXPIRY DATE</b>
-----------------------

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

<b>9. SPECIAL STORAGE CONDITIONS</b>
--------------------------------------

**Store in a refrigerator.** Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

<b>10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE</b>
--

Any unused solution must be discarded.

<b>11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER</b>
---

Bayer AG  
51368 Leverkusen  
Germany

<b>12. MARKETING AUTHORISATION NUMBER(S)</b>
--

EU/1/15/1076/019 – 30 x (Kovaltry 500 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/020 – 30 x (Kovaltry 500 IU - solvent (2.5 mL); pre-filled syringe (5 mL))

<b>13. BATCH NUMBER</b>
-------------------------

Lot

<b>14. GENERAL CLASSIFICATION FOR SUPPLY</b>
--

Medicinal product subject to medical prescription.

<b>15. INSTRUCTIONS ON USE</b>
--------------------------------

<b>16. INFORMATION IN BRAILLE</b>
-----------------------------------

Kovaltry 500

<b>17. UNIQUE IDENTIFIER – 2D BARCODE</b>
---

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

<b>MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS</b> <b>VIAL WITH POWDER FOR SOLUTION FOR INJECTION</b>
---

<b>1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION</b>
--

Kovaltry 500 IU powder for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**  
Intravenous use.

<b>2. METHOD OF ADMINISTRATION</b>
------------------------------------

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

EXP

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

Lot

<b>5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT</b>
--

500 IU (octocog alfa) (200 IU/mL after reconstitution).

<b>6. OTHER</b>
-----------------

Bayer-Logo

## **PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

### **OUTER CARTON OF A SINGLE PACK (INCLUDING BLUE BOX)**

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

Kovaltry 1000 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 1000 IU (400 IU / 1 mL) octocog alfa after reconstitution.

#### **3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

#### **4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

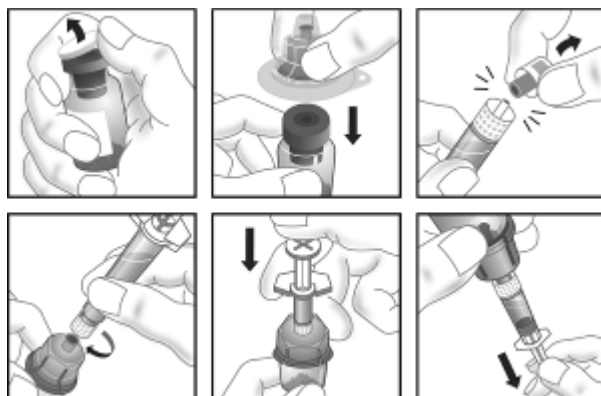
1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

For intravenous use. Single dose administration only.

Read the package leaflet before use.

For reconstitution read package leaflet before use.



<b>6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN</b>
--

Keep out of the sight and reach of children.

<b>7. OTHER SPECIAL WARNING(S), IF NECESSARY</b>
--

<b>8. EXPIRY DATE</b>
-----------------------

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

<b>9. SPECIAL STORAGE CONDITIONS</b>
--------------------------------------

Store in a refrigerator. Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

<b>10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE</b>
--

Any unused solution must be discarded.

<b>11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER</b>
---

Bayer AG  
51368 Leverkusen  
Germany

<b>12. MARKETING AUTHORISATION NUMBER(S)</b>
--

EU/1/15/1076/006 – 1 x (Kovaltry 1000 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/016 – 1 x (Kovaltry 1000 IU - solvent (2.5 mL); pre-filled syringe (5 mL))

<b>13. BATCH NUMBER</b>
-------------------------

Lot

<b>14. GENERAL CLASSIFICATION FOR SUPPLY</b>
--



<b>15. INSTRUCTIONS ON USE</b>
--------------------------------

<b>16. INFORMATION IN BRAILLE</b>
-----------------------------------

Kovaltry 1000

<b>17. UNIQUE IDENTIFIER – 2D BARCODE</b>
---

2D barcode carrying the unique identifier included.

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

PC  
SN  
NN

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

**OUTER LABEL OF MULTIPACK WITH 30 SINGLE PACKS (INCLUDING BLUE BOX)**

**1. NAME OF THE MEDICINAL PRODUCT**

Kovaltry 1000 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 1000 IU (400 IU / 1 mL) octocog alfa after reconstitution.

**3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

**4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

**Multipack with 30 single packs, each containing:**

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

**For intravenous use.** Single dose administration only.

Read the package leaflet before use.

**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**

**8. EXPIRY DATE**

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

#### **9. SPECIAL STORAGE CONDITIONS**

**Store in a refrigerator.**

Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

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

Any unused solution must be discarded.

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

Bayer AG  
51368 Leverkusen  
Germany

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

EU/1/15/1076/021 – 30 x (Kovaltry 1000 IU - solvent (2.5 mL); pre-filled syringe (3 mL))

EU/1/15/1076/022 – 30 x (Kovaltry 1000 IU - solvent (2.5 mL); pre-filled syringe (5 mL))

#### **13. BATCH NUMBER**

Lot

#### **14. GENERAL CLASSIFICATION FOR SUPPLY**

#### **15. INSTRUCTIONS ON USE**

#### **16. INFORMATION IN BRAILLE**

Kovaltry 1000

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

2D barcode carrying the unique identifier included.

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

PC  
SN  
NN

## **PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

### **INNER CARTON OF A MULTIPACK (WITHOUT BLUE BOX)**

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

Kovaltry 1000 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 1000 IU (400 IU / 1 mL) octocog alfa after reconstitution.

#### **3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

#### **4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

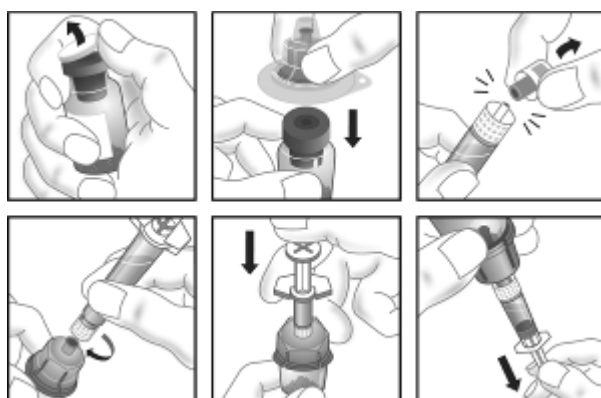
**Component of a multipack, can't be sold separately.**

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

**For intravenous use.** Single dose administration only.  
Read the package leaflet before use.

**For reconstitution read package leaflet before use.**



<b>6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN</b>
--

Keep out of the sight and reach of children.

<b>7. OTHER SPECIAL WARNING(S), IF NECESSARY</b>
--

<b>8. EXPIRY DATE</b>
-----------------------

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

<b>9. SPECIAL STORAGE CONDITIONS</b>
--------------------------------------

**Store in a refrigerator.** Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

<b>10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE</b>
--

Any unused solution must be discarded.

<b>11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER</b>
---

Bayer AG  
51368 Leverkusen  
Germany

<b>12. MARKETING AUTHORISATION NUMBER(S)</b>
--

EU/1/15/1076/021 – 30 x (Kovaltry 1000 IU - solvent (2.5 mL); pre-filled syringe (3 mL))  
EU/1/15/1076/022 – 30 x (Kovaltry 1000 IU - solvent (2.5 mL); pre-filled syringe (5 mL))

<b>13. BATCH NUMBER</b>
-------------------------

Lot

<b>14. GENERAL CLASSIFICATION FOR SUPPLY</b>
--

Medicinal product subject to medical prescription.

<b>15. INSTRUCTIONS ON USE</b>
--------------------------------

<b>16. INFORMATION IN BRAILLE</b>
-----------------------------------

Kovaltry 1000

<b>17. UNIQUE IDENTIFIER – 2D BARCODE</b>
---

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

<b>MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS</b> <b>VIAL WITH POWDER FOR SOLUTION FOR INJECTION</b>
---

<b>1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION</b>
--

Kovaltry 1000 IU powder for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**  
Intravenous use.

<b>2. METHOD OF ADMINISTRATION</b>
------------------------------------

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

EXP

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

Lot

<b>5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT</b>
--

1000 IU (octocog alfa) (400 IU/mL after reconstitution).

<b>6. OTHER</b>
-----------------

Bayer-Logo



## **PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

### **OUTER CARTON OF A SINGLE PACK (INCLUDING BLUE BOX)**

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

Kovaltry 2000 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 2000 IU (400 IU / 1 mL) octocog alfa after reconstitution.

#### **3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

#### **4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

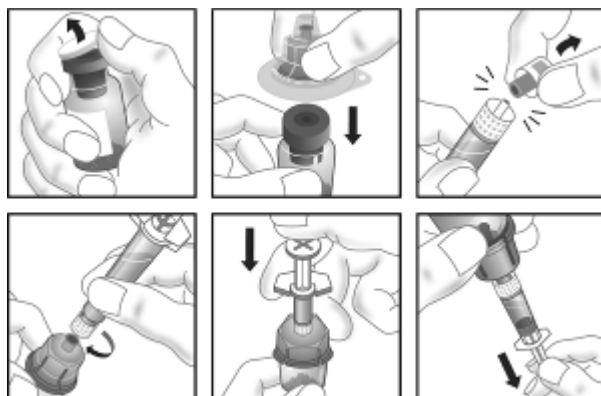
1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

For intravenous use. Single dose administration only.

Read the package leaflet before use.

For reconstitution read package leaflet before use.



<b>6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN</b>
--

Keep out of the sight and reach of children.

<b>7. OTHER SPECIAL WARNING(S), IF NECESSARY</b>
--

<b>8. EXPIRY DATE</b>
-----------------------

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

<b>9. SPECIAL STORAGE CONDITIONS</b>
--------------------------------------

Store in a refrigerator. Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

<b>10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE</b>
--

Any unused solution must be discarded.

<b>11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER</b>
---

Bayer AG  
51368 Leverkusen  
Germany

<b>12. MARKETING AUTHORISATION NUMBER(S)</b>
--

EU/1/15/1076/008 – 1 x (Kovaltry 2000 IU - solvent (5 mL); pre-filled syringe (5 mL))

<b>13. BATCH NUMBER</b>
-------------------------

Lot

<b>14. GENERAL CLASSIFICATION FOR SUPPLY</b>
--

<b>15. INSTRUCTIONS ON USE</b>
--------------------------------

<b>16. INFORMATION IN BRAILLE</b>
-----------------------------------

Kovaltry 2000

<b>17. UNIQUE IDENTIFIER – 2D BARCODE</b>
---

2D barcode carrying the unique identifier included.

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

PC  
SN  
NN

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

**OUTER LABEL OF MULTIPACK WITH 30 SINGLE PACKS (INCLUDING BLUE BOX)**

**1. NAME OF THE MEDICINAL PRODUCT**

Kovaltry 2000 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 2000 IU (400 IU / 1 mL) octocog alfa after reconstitution.

**3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

**4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

**Multipack with 30 single packs, each containing:**

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

**For intravenous use.** Single dose administration only.

Read the package leaflet before use.

**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**

**8. EXPIRY DATE**

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

#### **9. SPECIAL STORAGE CONDITIONS**

**Store in a refrigerator.**

Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

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

Any unused solution must be discarded.

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

Bayer AG  
51368 Leverkusen  
Germany

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

EU/1/15/1076/023 – 30 x (Kovaltry 2000 IU - solvent (5 mL); pre-filled syringe (5 mL))

#### **13. BATCH NUMBER**

Lot

#### **14. GENERAL CLASSIFICATION FOR SUPPLY**

#### **15. INSTRUCTIONS ON USE**

#### **16. INFORMATION IN BRAILLE**

Kovaltry 2000

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

2D barcode carrying the unique identifier included.

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

PC  
SN  
NN

## **PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

### **INNER CARTON OF A MULTIPACK (WITHOUT BLUE BOX)**

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

Kovaltry 2000 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 2000 IU (400 IU / 1 mL) octocog alfa after reconstitution.

#### **3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

#### **4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

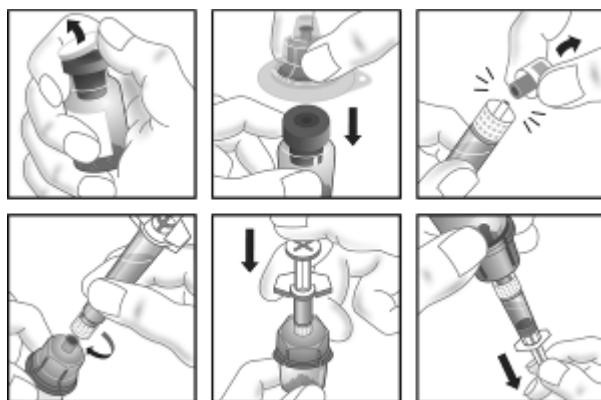
**Component of a multipack, can't be sold separately.**

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

**For intravenous use.** Single dose administration only.  
Read the package leaflet before use.

**For reconstitution read package leaflet before use.**



<b>6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN</b>
--

Keep out of the sight and reach of children.

<b>7. OTHER SPECIAL WARNING(S), IF NECESSARY</b>
--

<b>8. EXPIRY DATE</b>
-----------------------

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

<b>9. SPECIAL STORAGE CONDITIONS</b>
--------------------------------------

**Store in a refrigerator.** Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

<b>10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE</b>
--

Any unused solution must be discarded.

<b>11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER</b>
---

Bayer AG  
51368 Leverkusen  
Germany

<b>12. MARKETING AUTHORISATION NUMBER(S)</b>
--

EU/1/15/1076/023 – 30 x (Kovaltry 2000 IU - solvent (5 mL); pre-filled syringe (5 mL))

<b>13. BATCH NUMBER</b>
-------------------------

Lot

<b>14. GENERAL CLASSIFICATION FOR SUPPLY</b>
--

Medicinal product subject to medical prescription.



<b>15. INSTRUCTIONS ON USE</b>
--------------------------------

<b>16. INFORMATION IN BRAILLE</b>
-----------------------------------

Kovaltry 2000

<b>17. UNIQUE IDENTIFIER – 2D BARCODE</b>
---

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

<b>MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS</b> <b>VIAL WITH POWDER FOR SOLUTION FOR INJECTION</b>
---

<b>1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION</b>
--

Kovaltry 2000 IU powder for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**  
Intravenous use.

<b>2. METHOD OF ADMINISTRATION</b>
------------------------------------

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

EXP

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

Lot

<b>5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT</b>
--

2000 IU (octocog alfa) (400 IU/mL after reconstitution).

<b>6. OTHER</b>
-----------------

Bayer-Logo

## **PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

### **OUTER CARTON OF A SINGLE PACK (INCLUDING BLUE BOX)**

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

Kovaltry 3000 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 3000 IU (600 IU / 1 mL) octocog alfa after reconstitution.

#### **3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

#### **4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

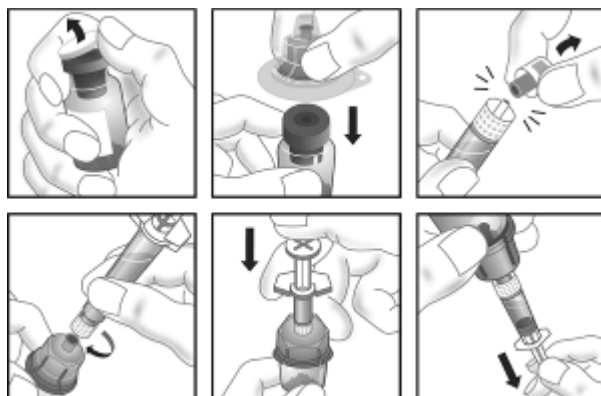
1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

For intravenous use. Single dose administration only.

Read the package leaflet before use.

For reconstitution read package leaflet before use.



<b>6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN</b>
--

Keep out of the sight and reach of children.

<b>7. OTHER SPECIAL WARNING(S), IF NECESSARY</b>
--

<b>8. EXPIRY DATE</b>
-----------------------

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

<b>9. SPECIAL STORAGE CONDITIONS</b>
--------------------------------------

Store in a refrigerator. Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

<b>10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE</b>
--

Any unused solution must be discarded.

<b>11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER</b>
---

Bayer AG  
51368 Leverkusen  
Germany

<b>12. MARKETING AUTHORISATION NUMBER(S)</b>
--

EU/1/15/1076/010 – 1 x (Kovaltry 3000 IU - solvent (5 mL); pre-filled syringe (5 mL))

<b>13. BATCH NUMBER</b>
-------------------------

Lot

<b>14. GENERAL CLASSIFICATION FOR SUPPLY</b>
--

<b>15. INSTRUCTIONS ON USE</b>
--------------------------------

<b>16. INFORMATION IN BRAILLE</b>
-----------------------------------

Kovaltry 3000

<b>17. UNIQUE IDENTIFIER – 2D BARCODE</b>
---

2D barcode carrying the unique identifier included.

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

PC  
SN  
NN

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

**OUTER LABEL OF MULTIPACK WITH 30 SINGLE PACKS (INCLUDING BLUE BOX)**

**1. NAME OF THE MEDICINAL PRODUCT**

Kovaltry 3000 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 3000 IU (600 IU / 1 mL) octocog alfa after reconstitution.

**3. LIST OF EXCIPIENTS**

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

**4. PHARMACEUTICAL FORM AND CONTENTS**

powder and solvent for solution for injection

**Multipack with 30 single packs, each containing:**

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

**For intravenous use.** Single dose administration only.  
Read the package leaflet before use.

**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**

**8. EXPIRY DATE**

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

#### **9. SPECIAL STORAGE CONDITIONS**

**Store in a refrigerator.**

Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

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

Any unused solution must be discarded.

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

Bayer AG  
51368 Leverkusen  
Germany

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

EU/1/15/1076/024 – 30 x (Kovaltry 3000 IU - solvent (5 mL); pre-filled syringe (5 mL))

#### **13. BATCH NUMBER**

Lot

#### **14. GENERAL CLASSIFICATION FOR SUPPLY**

#### **15. INSTRUCTIONS ON USE**

#### **16. INFORMATION IN BRAILLE**

Kovaltry 3000

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

2D barcode carrying the unique identifier included.

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

PC  
SN  
NN



## PARTICULARS TO APPEAR ON THE OUTER PACKAGING

### INNER CARTON OF A MULTIPACK (WITHOUT BLUE BOX)

#### 1. NAME OF THE MEDICINAL PRODUCT

Kovaltry 3000 IU powder and solvent for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**

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

Kovaltry contains 3000 IU (600 IU / 1 mL) octocog alfa after reconstitution.

#### 3. LIST OF EXCIPIENTS

Sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

#### 4. PHARMACEUTICAL FORM AND CONTENTS

powder and solvent for solution for injection

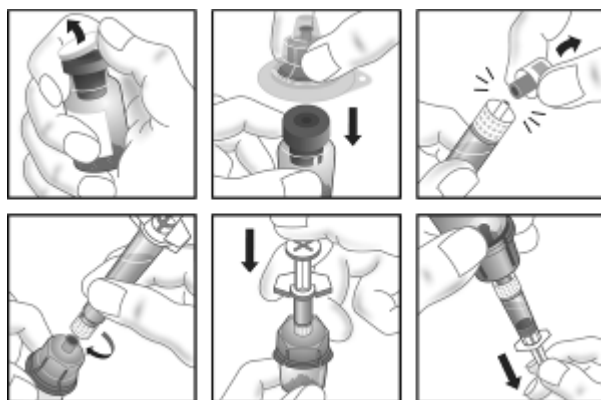
**Component of a multipack, can't be sold separately.**

1 vial with powder, 1 pre-filled syringe with water for injections, 1 vial adapter and 1 venipuncture set.

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

**For intravenous use.** Single dose administration only.  
Read the package leaflet before use.

**For reconstitution read package leaflet before use.**



<b>6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN</b>
--

Keep out of the sight and reach of children.

<b>7. OTHER SPECIAL WARNING(S), IF NECESSARY</b>
--

<b>8. EXPIRY DATE</b>
-----------------------

EXP

EXP (End of the 12 month period, if stored up to 25 °C): .....

**Do not use after this date.**

May be stored at temperatures up to 25 °C for up to 12 months within the expiry date indicated on the label. Note the new expiry date on the carton.

After reconstitution, the product must be used within 3 hours. **Do not refrigerate after reconstitution.**

<b>9. SPECIAL STORAGE CONDITIONS</b>
--------------------------------------

**Store in a refrigerator.** Do not freeze.

Keep the vial and the pre-filled syringe in the outer carton in order to protect from light.

<b>10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE</b>
--

Any unused solution must be discarded.

<b>11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER</b>
---

Bayer AG  
51368 Leverkusen  
Germany

<b>12. MARKETING AUTHORISATION NUMBER(S)</b>
--

EU/1/15/1076/024 – 30 x (Kovaltry 3000 IU - solvent (5 mL); pre-filled syringe (5 mL))

<b>13. BATCH NUMBER</b>
-------------------------

Lot

<b>14. GENERAL CLASSIFICATION FOR SUPPLY</b>
--

Medicinal product subject to medical prescription.

<b>15. INSTRUCTIONS ON USE</b>
--------------------------------

<b>16. INFORMATION IN BRAILLE</b>
-----------------------------------

Kovaltry 3000

<b>17. UNIQUE IDENTIFIER – 2D BARCODE</b>
---

<b>18. UNIQUE IDENTIFIER - HUMAN READABLE DATA</b>
--

<b>MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS</b> <b>VIAL WITH POWDER FOR SOLUTION FOR INJECTION</b>
---

<b>1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION</b>
--

Kovaltry 3000 IU powder for solution for injection

**octocog alfa (recombinant human coagulation factor VIII)**  
Intravenous use.

<b>2. METHOD OF ADMINISTRATION</b>
------------------------------------

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

EXP

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

Lot

<b>5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT</b>
--

3000 IU (octocog alfa) (600 IU/mL after reconstitution).

<b>6. OTHER</b>
-----------------

Bayer-Logo

<b>MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS</b> <b>PRE-FILLED SYRINGE WITH WATER FOR INJECTIONS</b>
--

<b>1. NAME OF THE MEDICINAL PRODUCT AND IF NECESSARY ROUTE(S) OF ADMINISTRATION</b>
---

water for injections

<b>2. METHOD OF ADMINISTRATION</b>
------------------------------------

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

EXP

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

Lot

<b>5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT</b>
--

2.5 mL [for reconstitution of strengths 250/500/1000 IU]

<b>6. OTHER</b>
-----------------

<b>MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS</b> <b>PRE-FILLED SYRINGE WITH WATER FOR INJECTIONS</b>
--

<b>1. NAME OF THE MEDICINAL PRODUCT AND IF NECESSARY ROUTE(S) OF ADMINISTRATION</b>
---

water for injections

<b>2. METHOD OF ADMINISTRATION</b>
------------------------------------

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

EXP

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

Lot

<b>5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT</b>
--

5 mL [for reconstitution of strengths 2000/3000 IU]

<b>6. OTHER</b>
-----------------

## **B. PACKAGE LEAFLET**

## Package Leaflet: Information for the user

**Kovaltry 250 IU powder and solvent for solution for injection**  
**Kovaltry 500 IU powder and solvent for solution for injection**  
**Kovaltry 1000 IU powder and solvent for solution for injection**  
**Kovaltry 2000 IU powder and solvent for solution for injection**  
**Kovaltry 3000 IU powder and solvent for solution for injection**  
octocog alfa (recombinant human coagulation factor VIII)

**Read all of this leaflet carefully before you start using 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 or pharmacist.
- 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 or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

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

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

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

Kovaltry contains the active substance human recombinant coagulation factor VIII, also called octocog alfa. Kovaltry is prepared by recombinant technology without addition of any human- or animal derived components in the manufacturing process. Factor VIII is a protein naturally found in the blood that helps to clot it.

Kovaltry is used to **treat and prevent bleeding** in adults, adolescents and children of all ages with haemophilia A (hereditary factor VIII deficiency).

### **2. What you need to know before you use Kovaltry**

**Do not use Kovaltry** if you are

- allergic to octocog alfa or to any of the other ingredients of this medicine (listed in section 6).
- allergic to mouse or hamster proteins.

### **Warnings and precautions**

**Talk to your doctor or pharmacist** if you have:

- tightness in the chest, dizziness (including when you get up from sitting or lying down), itchy nettle-rash, wheezing, feeling sick or faint. These may be signs of a rare severe sudden allergic reaction to Kovaltry. **Stop administering the product** immediately and seek medical advice if this occurs.
- bleeding that is not being controlled with your usual dose of Kovaltry. The formation of inhibitors (antibodies) is a known complication that can occur during treatment with all Factor VIII medicines. These inhibitors, especially at high levels, stop the treatment working properly, patients receiving Kovaltry will be monitored carefully for the development of these inhibitors. If your or your child's bleeding is not being controlled with Kovaltry, tell your doctor immediately.



- previously developed factor VIII inhibitors to a different product. If you switch factor VIII products, you may be at risk of your inhibitor coming back.
- a confirmed heart disease or are at risk of heart disease.
- to use a central venous access device for the administration of Kovaltry. You may be at risk of device related complications where the catheter is inserted including:
  - local infections
  - bacteria in the blood
  - a blood clot in the blood vessel.

### **Children and adolescents**

The listed warnings and precautions apply to patients of all ages, adults and children.

### **Other medicines and Kovaltry**

Tell your doctor or pharmacist if you are using, have recently used or might use any other medicines.

### **Pregnancy and breast-feeding**

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

Kovaltry is not likely to affect the fertility in male or female patients, as the active substance is naturally occurring in the body.

### **Driving and using machines**

If you experience dizziness or any other symptoms affecting your ability to concentrate and react, do not drive or use machines until the reaction subsides.

### **Kovaltry contains sodium**

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

## **3. How to use Kovaltry**

Treatment with Kovaltry will be started by a doctor who is experienced in the care of patients with haemophilia A. Always use this medicine exactly as your doctor has told you. Check with your doctor if you are not sure.

The number of factor VIII units is expressed in International Units (IU).

### **Treatment of bleeding**

To treat a bleed, your doctor will calculate and adjust your dose and how often it should be given, depending on factors such as:

- your weight
- the severity of your haemophilia A
- where the bleed is and how serious it is
- whether you have inhibitors and how high their level is
- the factor VIII level that is needed.

### **Prevention of bleeding**

If you are using Kovaltry to prevent bleeding, your doctor will calculate the dose for you. This will usually be in the range of 20 to 40 IU of octocog alfa per kg of body weight, injected two or three times per week. However, in some cases, especially for younger patients, shorter dose intervals or higher doses may be necessary.

### **Laboratory tests**

Laboratory tests at suitable intervals help to ensure you always have adequate factor VIII levels. For major surgery in particular, your blood clotting must be closely monitored.

### **Use in children and adolescents**

Kovaltry can be used in children of all ages. In children below the age of 12 higher doses or more frequent injections than prescribed for adults may be needed.

### **Patients with inhibitors**

If you have been told by your doctor that you have developed factor VIII inhibitors you may need to use a larger dose of Kovaltry to control bleeding. If this dose does not control your bleeding your doctor may consider giving you another product.

Speak to your doctor if you would like further information on this.

Do not increase the dose of Kovaltry to control your bleeding without checking with your doctor.

### **Duration of treatment**

Usually, Kovaltry treatment for haemophilia is needed life-long.

### **How Kovaltry is given**

Kovaltry is injected into a vein over 2 to 5 minutes depending on the total volume and your comfort level and should be used within 3 hours after reconstitution.

### **How Kovaltry is prepared for administration**

Use only the components (vial adapter, pre filled syringe containing solvent and venipuncture set) provided with each package of this medicine. Please contact your doctor if these components cannot be used. Do not use if any component of the package is opened or damaged.

The reconstituted product **must be filtered by using the vial adapter** before administration to remove any possible particles in the solution.

Do not use the venipuncture set provided for drawing blood because it contains an in-line filter.

This medicine must **not** be mixed with other infusion solutions. Do not use solutions containing visible particles or that are cloudy. Follow the instructions for use given by your doctor **and provided at the end of this leaflet**.

### **If you use more Kovaltry than you should**

Tell your doctor if this occurs. No cases of overdose have been reported.

### **If you forget to use Kovaltry**

Administer your next dose immediately and continue at regular intervals as advised by your doctor. Do not use a double dose to make up for a forgotten dose.

### **If you stop using Kovaltry**

Do not stop using this medicine without checking with your doctor.

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.

The most **serious** side effects are **allergic reactions** which may be severe allergic reaction. **Stop injecting Kovaltry immediately and speak to your doctor at once if such reactions occur.** The following symptoms **could** be an early warning of these reactions:

- chest tightness/general feeling of being unwell
- dizziness
- feeling faint upon standing indicating a reduction in blood pressure
- feeling sick (nausea)

For children not previously treated with factor VIII medicines, **inhibitors** (see section 2) may form very commonly (more than 1 in 10 patients). For patients who have received previous treatment with factor VIII (more than 150 days of treatment) inhibitor antibodies (see section 2) may form uncommonly (less than 1 in 100 patients). If this happens **your medicine may stop working properly and you may experience persistent bleeding. If this happens, please contact your doctor immediately.**

#### **Other possible side effects:**

**Common** (may affect up to 1 in 10 users):

- stomach pain or discomfort
- indigestion
- fever
- local reactions where you injected the medicine (e.g. bleeding under the skin, intense itching, swelling, burning sensation, temporary redness)
- headache
- trouble sleeping
- hives
- rash/itchy rash

**Uncommon** (may affect up to 1 in 100 users):

- lymph nodes enlarged (swelling under the skin of the neck, armpit or groin)
- heart palpitations (feeling your heart beating hard, rapidly, or irregularly)
- rapid heartbeat
- dysgeusia (strange taste)
- flushing (redness of the face)

#### **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 Kovaltry**

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

**Do not** use this medicine after the expiry date which is stated on labels and cartons. The expiry date refers to the last day of that month.

Store in a refrigerator (2 °C – 8 °C). Do not freeze.

Store this medicine in the original package in order to protect from light.

This medicine may be stored at room temperature (up to 25 °C) for up to 12 months when you keep it in its outer carton. If you store it at room temperature it expires after 12 months or at the expiry date if this is earlier.

The new expiry date must be noted on the outer carton when the medicine is removed from the refrigerator.

**Do not** refrigerate the solution after reconstitution. The reconstituted solution must be used within 3 hours. This product is for single use only. Any unused solution must be discarded.

**Do not** use this medicine if you notice any particles in the solution or if the solution is cloudy.

**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 Kovaltry contains**

The **active** substance is octocog alfa (human coagulation factor VIII). Each vial of Kovaltry contains nominally 250, 500, 1000, 2000 or 3000 IU octocog alfa.

The **other** ingredients are sucrose, histidine, glycine (E 640), sodium chloride, calcium chloride dihydrate (E 509), polysorbate 80 (E 433), acetic acid glacial (E 260) and water for injections.

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

Kovaltry is provided as a powder and solvent for solution for injection. The powder is dry and white to slightly yellow. The solvent is a clear liquid.

Each single pack of Kovaltry contains

- a glass vial with powder
- a pre filled syringe with solvent
- a separate plunger rod
- a vial adapter
- a venipuncture set (for injection into a vein).

Kovaltry is available in pack sizes of:

- 1 single pack
- 1 multipack with 30 single packs

Not all pack sizes may be marketed.

### **Marketing Authorisation Holder**

Bayer AG  
51368 Leverkusen  
Germany

### **Manufacturer**

Bayer AG  
Kaiser-Wilhelm-Allee  
51368 Leverkusen  
Germany

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

**België/Belgique/Belgien**

Bayer SA-NV

Tél/Tel: +32-(0)2-535 63 11

**България**

Байер България ЕООД

Тел.: +359-(0)2-424 72 80

**Česká republika**

Bayer s.r.o.

Tel: +420 266 101 111

**Danmark**

Bayer A/S

Tlf: +45 45 23 50 00

**Deutschland**

Bayer Vital GmbH

Tel: +49 (0)214-30 513 48

**Eesti**

Bayer OÜ

Tel: +372 655 8565

**Ελλάδα**

Bayer Ελλάς ABEE

Τηλ: +30-210-61 87 500

**España**

Bayer Hispania S.L.

Tel: +34-93-495 65 00

**France**

Bayer HealthCare

Tél (N° vert): +33-(0)800 87 54 54

**Hrvatska**

Bayer d.o.o.

Tel: +385-(0)1-6599 900

**Ireland**

Bayer Limited

Tel: +353 1 216 3300

**Ísland**

Icepharma hf.

Sími: +354 540 8000

**Italia**

Bayer S.p.A.

Tel: +39 02 397 81

**Κύπρος**

NOVAGEM Limited

Τηλ: +357 22 48 38 58

**Latvija**

SIA Bayer

Tel: +371 67 84 55 63

**Lietuva**

UAB Bayer

Tel. +37 05 23 36 868

**Luxembourg/Luxemburg**

Bayer SA-NV

Tél/Tel: +32-(0)2-535 63 11

**Magyarország**

Bayer Hungária KFT

Tel:+36 14 87-41 00

**Malta**

Alfred Gera and Sons Ltd.

Tel: +35 621 44 62 05

**Nederland**

Bayer B.V.

Tel: +31-(0)297-28 06 66

**Norge**

Bayer AS

Tlf: +47 23 13 05 00

**Österreich**

Bayer Austria Ges.m.b.H.

Tel: +43-(0)1-711 46-0

**Polska**

Bayer Sp. z o.o.

Tel: +48 22 572 35 00

**Portugal**

Bayer Portugal, Lda.

Tel: +351 21 416 42 00

**România**

SC Bayer SRL

Tel: +40 21 529 59 00

**Slovenija**

Bayer d. o. o.

Tel: +386 (0)1 58 14 400

**Slovenská republika**

Bayer spol. s r.o.

Tel. +421 2 59 21 31 11

**Suomi/Finland**

Bayer Oy

Puh/Tel: +358- 20 785 21

**Sverige**

Bayer AB

Tel: +46 (0) 8 580 223 00

**United Kingdom (Northern Ireland)**

Bayer AG


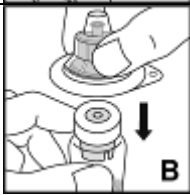
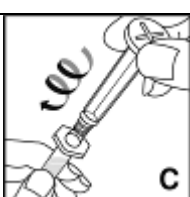
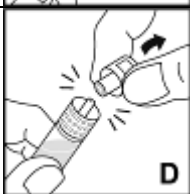
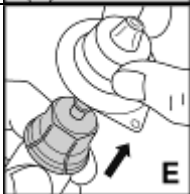
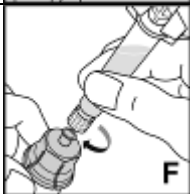
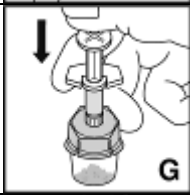
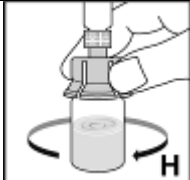
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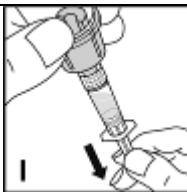

**This leaflet was last revised in**

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

## Detailed instructions for reconstitution and administration of Kovaltry

You will need alcohol swabs, gauze pads, plasters and tourniquet. These items are not included in the Kovaltry package.

1.	Wash your hands thoroughly using soap and warm water.	
2.	Hold an unopened vial and also a syringe in your hands to warm it to a comfortable temperature (do not exceed 37 °C).	
3.	Remove the protective cap from the vial ( <b>A</b> ). Wipe the rubber stopper on the vial with an alcohol swab and allow the stopper to air dry before use.	
4.	Place <b>the powder vial</b> on a firm, non slip surface. Peel off the paper cover on the plastic housing of the vial adapter. <b>Do not remove</b> the adapter from the plastic housing. Holding the adapter housing, place over the powder vial and firmly press down ( <b>B</b> ). The adapter will snap over the vial cap. <b>Do not remove</b> the adapter housing at this point.	
5.	Hold the pre filled syringe with solvent upright. Grasp the plunger rod as per the picture and attach the rod by turning it firmly clockwise into the threaded stopper ( <b>C</b> ).	
6.	Holding the syringe by the barrel, snap the syringe cap off the tip ( <b>D</b> ). Do not touch the syringe tip with your hand or any surface. Set the syringe aside for further use.	
7.	Now remove and discard the adapter housing ( <b>E</b> ).	
8.	Attach the pre filled syringe to the threaded vial adapter by turning clockwise ( <b>F</b> ).	
9.	Inject the solvent by slowly pushing down on the plunger rod ( <b>G</b> ).	
10.	Swirl vial gently until all the powder is dissolved ( <b>H</b> ). Do not shake vial. Be sure that the powder is completely dissolved. Look to check there are no particles or discoloration before you use the solution. Do not use solutions containing visible particles or that are cloudy.	

<p>11. Hold the vial on the end above the vial adapter and syringe (<b>I</b>). Fill the syringe by drawing the plunger out slowly and smoothly. Ensure that the full content of the vial is drawn into the syringe. Hold the syringe upright and push the plunger until no air is left in the syringe.</p>	
<p>12. Apply a tourniquet to your arm.</p>	
<p>13. Determine the point of injection and clean the skin with an alcohol swab.</p>	
<p>14. Puncture the vein and secure the venipuncture set with a plaster.</p>	
<p>15. Holding the vial adapter in place, remove the syringe from the vial adapter (the adapter should remain attached to the vial). Attach the syringe to the venipuncture set (<b>J</b>). Ensure that no blood enters the syringe.</p>	
<p>16. Remove tourniquet.</p>	
<p>17. Inject the solution into a vein over 2 to 5 minutes, keeping an eye on the position of the needle. The speed of injection should be based on your comfort, but should not be faster than 2 mL per minute.</p>	
<p>18. If a further dose is needed, use a new syringe with the powder reconstituted as described above.</p>	
<p>19. If no further dose is required, remove the venipuncture set and syringe. Hold a pad firmly over the injection site on your outstretched arm for about 2 minutes. Finally, apply a small pressure dressing to the injection site and consider if a plaster is necessary.</p>	
<p>20. It is recommended that every time you use Kovaltry, you note down the name and the batch number of the product.</p>	
<p>21. Do not throw away any medicines via wastewater or household waste. Ask your pharmacist or physician how to throw away medicines you no longer use. These measures will help protect the environment</p>	