

Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Prothromplex TOTAL 500 IU powder and solvent for solution for injection

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Active substance: human prothrombin complex

Prothromplex TOTAL 500 IU is a powder for solution for intravenous application. Each vial nominally contains the following IU of human coagulation factors.

	per vial [IU]	after reconstitution in 17 ml sterilized water for injections [IU/ml]
Human coagulation factor II	375 – 708	22.5 – 42.5
Human coagulation factor VII	417	25
Human coagulation factor IX	500	30
Human coagulation factor X	500	30

The total protein content per vial is 250 – 625 mg. The specific activity of the product is at least 0.6 IU/mg, in relation to the factor IX activity.

One vial contains at least 333 IU protein C co-purified with the blood coagulation factors.

The activity (IU) of factor IX was determined by the one-step coagulation test described in the European Pharmacopoeia, which is calibrated against the International Standard for Factor IX Concentrates of the World Health Organisation (WHO).

The activity (IU) of factor II, factor VII and factor X was determined by the chromogenic assay described in the European Pharmacopoeia, which is calibrated against the International Standards for Factor II, Factor VII and Factor X Concentrates of the World Health Organisation (WHO).

The activity (IU) of protein C was determined by the chromogenic assay described in the European Pharmacopoeia, which is calibrated against the International Standard for protein C Concentrates of the World Health Organisation (WHO).

Excipients with known effect

Prothromplex TOTAL 500 IU contains 68 mg sodium per vial. Furthermore, each vial contains heparin sodium (max. 0.5 IU/IU factor IX).

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Powder and solvent for solution for injection.

Powder: White to light yellow, freeze dried powdery or compact dry substance.

Solvent: Sterilized water for injections.

After reconstitution, the pH value of the solution is 6.5 to 7.5 and the osmolality does not lie below 240 mosm/kg. The solution is clear or slightly opalescent.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Treatment of bleeding and perioperative prophylaxis of bleeding in acquired deficiency of prothrombin complex coagulation factors, such as a deficiency caused by treatment with vitamin K antagonists or in case of overdose with vitamin K antagonists, when rapid correction of the deficiency is required.

Treatment and perioperative prophylaxis of haemorrhages in congenital deficiency of vitamin K-dependent coagulation factors, when purified specific coagulation factor concentrate is not available.

Prothromplex TOTAL is indicated in adults. There are insufficient paediatric data to recommend the administration of Prothromplex TOTAL in children.

4.2 Posology and method of administration

Posology

Except for the therapy of bleeding and perioperative prophylaxis of bleeding during vitamin K antagonist treatment, only general dosage guidelines are given below. Treatment should be initiated under the supervision of a physician experienced in the treatment of coagulation disorders.

The dosage and duration of the substitution therapy depend on the severity of the coagulation disorder, on the location and extent of the bleeding and on the patient's clinical condition. Dosage and frequency of administration should be calculated on an individual patient basis. Dosage intervals must be adjusted to the different circulating half-lives of the various coagulation factors in the prothrombin complex (see section 5.2).

Individual dosage requirements can only be identified on the basis of regular determinations of the individual plasma levels of the coagulation factors of interest or on the global test of the prothrombin complex level (e.g., Quick's time value, INR, prothrombin time) and continuous monitoring of the patient's clinical condition.

In case of major surgical interventions precise monitoring of the substitution therapy by means of coagulation assays is essential (specific coagulation factor assays and/or global tests for prothrombin complex levels).

Bleeding and perioperative prophylaxis of bleeding during vitamin K antagonist treatment:

In severe haemorrhages or before operations with a high risk of bleeding, normal values (Quick's time value 100 %, INR 1.0) are to be aimed for. The following rule of thumb applies: 1 IU factor IX/kg body weight raises the Quick's time value by about 1 %. If Prothromplex TOTAL administration is based on the INR measurement the dose will depend on the INR before treatment and the targeted INR.

The dosing in the table below should be followed according to the recommendation made in the publication Makris et al. 2001.

[\[1\]](#)

dosing of Prothromplex TOTAL according to initial INR measurement	
INR	dose [IU/kg] (IUs refer to Factor IX)
2.0 – 3.9	25
4.0 – 6.0	35
> 6.0	50

The correction of the vitamin K antagonist induced impairment of haemostasis persists for approximately 6 – 8 hours. However, the effects of vitamin K, if administered simultaneously, are usually achieved within 4 – 6 hours. Thus, repeated treatment with human prothrombin complex is not usually required when vitamin K has been administered.

As these recommendations are empirical and recovery and the duration of effect may vary, monitoring of INR during treatment is mandatory.

Bleeding and perioperative prophylaxis in congenital deficiency of any of the vitamin K-dependent coagulation factors when specific coagulation factor product is not available:

The calculated required dosage for treatment is based on the empirical finding that approximately 1 IU of factor IX per kg body weight raises the plasma factor IX activity by about 0.015 IU/ml; and 1 IU of factor VII per kg body weight raises the plasma factor VII activity by about 0.024 IU/ml. One IU of factor II or X per kg body weight raises the plasma factor II or X activity by 0.021 IU/ml. [2]

The dose of a specific factor administered is expressed in International Units (IU), which are related to the current WHO standard for each factor. The activity in plasma of a specific coagulation factor is expressed either as a percentage (relative to normal human plasma) or in International Units (relative to the international standard for specific factor concentrates).

One International Unit (IU) of a coagulation factor activity is equivalent to the quantity in one ml of normal human plasma. For example, the calculation of the required dosage of factor X is based on the empirical finding that one International Unit (IU) of factor X per kg body weight raises the plasma factor X activity by 0.017 IU/ml. The required dosage is determined using the following formula:

Required units = body weight (kg) x desired factor X rise (IU/ml) x 60

Where 60 (ml/kg) is the reciprocal of the estimated recovery. If the individual recovery is known that value should be used for calculation.

Maximum single dose:

In order to correct the INR, it is not necessary to exceed the dose of 50 IU/kg. If the severity of bleeding requires a higher dose, the risk/benefit has to be evaluated by the treating physician.

Paediatric population

The safety and efficacy of the use of Prothromplex TOTAL in paediatric patients have not been established in clinical trials.

Method of administration

Intravenous use

Prothromplex TOTAL should be administered via the intravenous route slowly. It is recommended not to administer more than 2 ml per minute (60 IU/min).

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

[1] Makris M, Watson HG: The Management of Coumarin-Induced Over-Anticoagulation Br.J. Haematol. 2001; 114: 271-280.

[2] Ostermann H, Haertel S, Knaub S, Kalina U, Jung K, Pabinger I. Pharmacokinetics of Beriplex P/N prothrombin complex concentrate in healthy volunteers. Thromb Haemost. 2007;98(4):790-797.

4.3 Contraindications

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

Known allergy to heparin or history of heparin-induced thrombocytopenia.

4.4 Special warnings and precautions for use

Traceability

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

The advice of a specialist experienced in the management of coagulation disorders should be sought.

In patients with acquired deficiency of the vitamin K-dependent coagulation factors (e.g., as induced by treatment with vitamin K antagonists) Prothromplex TOTAL should only be used when rapid correction of the prothrombin complex levels is necessary, such as major bleeding or emergency surgery. In other cases, reduction of the dose of vitamin K antagonist and/or administration of vitamin K is usually sufficient.

Patients receiving a vitamin K antagonist may have an underlying hypercoagulable state and infusion of human prothrombin complex may exacerbate this.

In congenital deficiency of any vitamin K-dependent factors, specific coagulation factor product should be used when available.

Allergic-type hypersensitivity reactions including anaphylactic reactions and anaphylactic shock have been reported with Prothromplex TOTAL.

If allergic or anaphylactic-type reactions occur, the injection/infusion should be stopped immediately. In the case of shock standard medical treatment for shock should be implemented.

Thromboembolism, DIC, Fibrinolysis

There is a risk of thrombosis and disseminated intravascular coagulation (DIC) when patients, with either congenital or acquired deficiency are treated with human prothrombin complex concentrates, including Prothromplex TOTAL, particularly with repeated dosing.

Arterial and venous thromboembolic events including myocardial infarction, cerebrovascular accident (e.g., stroke), pulmonary embolism as well as DIC have been reported with Prothromplex TOTAL.

The risk may be higher in treatment of isolated F VII deficiency, since the other vitamin K-dependent coagulation factors, with longer half-lives, may accumulate to levels considerably higher than normal. Patients given human prothrombin complex concentrates should be observed closely for signs and symptoms of intravascular coagulation or thrombosis. Because of the risk of thromboembolic complications, particularly close monitoring should be exercised when administering prothrombin complex concentrates to

- patients with a history of coronary heart disease,
- patients with liver disease,
- pre- or post-operative patients,
- neonates, or
- other patients at risk of thromboembolic events or disseminated intravascular coagulation.

In each of these situations, the potential benefit of treatment should be weighed against the risk of these complications.

Virus safety

Standard measures to prevent infections which can be transmitted by medicinal products made from human blood or plasma include donor selection, testing of individual donations and plasma pools for specific infection markers and the execution of effective manufacturing steps to inactivate/remove viruses. Nevertheless, when medicinal products prepared from human blood or plasma are administered, infectious diseases due to transmission of infective agents cannot be totally excluded. This also applies to unknown or emerging viruses or other pathogens.

The measures taken are considered effective for enveloped viruses such as HIV, HBV, and HCV as well as against the non-enveloped HAV virus.

The measures taken may be of limited value against non-enveloped viruses such as parvovirus B19. Parvovirus B19 infection may be serious for pregnant women (foetal infection) and for individuals with immunodeficiency or increased erythropoiesis (e.g., haemolytic anaemia).

It is strongly recommended that every time that Prothromplex TOTAL 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 product.

When a medicinal product prepared from human blood or plasma is administered regularly/repeatedly, appropriate vaccinations (hepatitis A and B) must be considered.

Sodium

This medicinal product contains 68 mg sodium per vial or 0.14 mg sodium per International Unit equivalent to 3.4 % of the WHO recommended maximum daily intake of 2 g sodium for an adult.

Heparin

Heparin may cause allergic reactions and reduced blood cell counts, which may affect the blood clotting system. Patients with a history of heparin-induced allergic reactions should avoid the use of heparin-containing medicines.

Paediatric population

There are insufficient data to recommend the administration of Prothromplex TOTAL in children.

4.5 Interaction with other medicinal products and other forms of interaction

Human prothrombin complex products neutralize the effect of vitamin K antagonist treatment. No interaction studies have been performed.

Interference with biological testing:

When performing clotting tests, which are sensitive to heparin in patients receiving high doses of human prothrombin complex, the heparin as a constituent of the administered product must be taken into account.

4.6 Fertility, pregnancy and lactation

The effects of Prothromplex TOTAL on fertility have not been established in controlled clinical trials.

The safety of human prothrombin complex for use in human pregnancy and during lactation has not been established. There are no adequate data from the use of Prothromplex TOTAL in pregnant or lactating women.

Animal studies are not suitable to assess the safety with respect to pregnancy, embryonal/foetal development, parturition, or postnatal development. Therefore, Prothromplex TOTAL should be used during pregnancy and lactation only if clearly indicated.

See section 4.4 for information on the risk of Parvovirus B19 infection in pregnant women.

4.7 Effects on ability to drive and use machines

No studies on the effects on the ability to drive and use machines have been performed.

4.8 Undesirable effects

Summary of the safety profile

Immune system disorders

Replacement therapy with human prothrombin complex concentrates, including therapy with Prothromplex TOTAL, may result in the formation of circulating antibodies inhibiting one or more of the human prothrombin complex factors. If such inhibitors occur, the condition will manifest itself as a poor clinical response.

Allergic or anaphylactic-type reactions have been commonly observed.

General disorders and administration site conditions

Increase in body temperature has been commonly observed.

Vascular disorders

There is a risk of thromboembolic episodes, following the administration of human prothrombin complex (see section 4.4).

For safety with regard to transmissible agents, see section 4.4.

Tabulated list of adverse reactions

The acute myocardial infarction, venous thrombosis and pyrexia presented in the tabulated list of adverse reactions below have been reported in one clinical study with Prothromplex TOTAL in oral anticoagulant reversal in patients (n = 61) with acquired prothrombin complex coagulation factors (II, VII, IX, X) deficiency. The other adverse reactions included in the table have been reported from post-marketing experience only and the frequency category was assigned by statistics based on the assumption that each adverse reaction could have occurred in the clinical trial with 61 patients.

Adverse reactions to treatment with Prothromplex TOTAL are classified by MedDRA System Organ Class (version 15.1). Within each frequency grouping, adverse reactions are presented in order of decreasing seriousness. Frequencies are defined as very common ($\geq 1/10$), common ($\geq 1/100$ to $< 1/10$), uncommon ($\geq 1/1\ 000$ to $< 1/100$), rare ($\geq 1/10\ 000$ to $< 1/1\ 000$), very rare ($< 1/10\ 000$), and not known (cannot be estimated from the available data).

System Organ Class (SOC)	Undesirable effect	Frequency
Blood and lymphatic system disorders	Disseminated intravascular coagulation Inhibitors to one or more of the prothrombin complex factors (factors II, VII, IX, X)*	Common
Immune system Disorders	Anaphylactic shock	Common
	Anaphylactic reaction	
	Hypersensitivity	
Nervous system disorders	Cerebrovascular accident	Common
	Headache	
Cardiac disorders	Heart failure	Common
	Acute myocardial infarction**	
	Tachycardia	
Vascular disorders	Arterial thrombosis	Common
	Venous thrombosis**	
	Hypotension	
	Flushing	
Respiratory thoracic and mediastinal disorders	Pulmonary embolism	Common
	Dyspnoea	
	Wheezing	
Gastrointestinal disorders	Vomiting	Common
	Nausea	
Skin and subcutaneous tissue disorders	Urticaria	Common
	Rash erythematous	
	Pruritus	
Renal and urinary disorders	Nephrotic syndrome	Common
General and administration site conditions	Pyrexia**	Common

* Development in patients with congenital deficient factors.

** Reported from the clinical study.

Class reactions

Skin and subcutaneous tissue disorders: Angioedema, Paraesthesia
General disorders and administrative site conditions: Infusion site reaction
Nervous system disorders: Lethargy
Psychiatric disorders: Restlessness

Paediatric population

For information on paediatric population, see statement in section 4.2.

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 HPRA Pharmacovigilance, Website: www.hpra.ie.

4.9 Overdose

The use of high doses of human plasma prothrombin complex products has been associated with instances of myocardial infarction, disseminated intravascular coagulation, venous thrombosis, and pulmonary embolism. Therefore, in case of overdose, the risk of the development of thromboembolic complications or disseminated intravascular coagulation is enhanced.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: antihæmorrhagics, coagulation factors IX, II, VII and X in combination, ATC Code: B02BD01.

The coagulation factors II, VII, IX and X, which are synthesized in the liver with the help of vitamin K, are commonly called the Prothrombin Complex.

Factor VII is the zymogen of the active serine protease factor VIIa by which the extrinsic pathway of blood coagulation is initiated. The tissue factor/factor VIIa complex activates coagulation factors X and IX, whereby factors IXa and Xa are formed. With further activation of the coagulation cascade, prothrombin (factor II) is activated and transformed to thrombin. By the action of thrombin, fibrinogen is converted to fibrin, which results in clot formation. The normal generation of thrombin is also of vital importance for platelet function as a part of primary haemostasis.

Isolated severe deficiency of factor VII leads to reduced thrombin formation and a bleeding tendency due to impaired fibrin formation and impaired primary haemostasis. Isolated deficiency of factor IX is one of the classical hæmophilias (hæmophilia B). Isolated deficiency of factors II or X is very rare, but in severe forms they cause a bleeding tendency similar to that seen in classical hæmophilia.

Acquired deficiencies of the vitamin K-dependent coagulation factors occur during treatment with vitamin K antagonists. If the deficiency becomes severe, a severe bleeding tendency results, characterized by retroperitoneal or cerebral bleeds rather than muscle and joint hæmorrhage. Severe hepatic insufficiency also results in markedly reduced levels of the vitamin K-dependent coagulation factors and a clinical bleeding tendency which, however, is often complex due to the simultaneous occurring low-grade intravascular coagulation, low platelet levels, deficiency of coagulation inhibitors and disturbed fibrinolysis.

The administration of human prothrombin complex concentrates provides an increase in plasma levels of the vitamin K-dependent coagulation factors and can temporarily correct the coagulation defect of patients with deficiency of one or several of these factors.

Paediatric population

There are insufficient data to recommend the administration of Prothromplex TOTAL in children.

5.2 Pharmacokinetic properties

Coagulation factor Half life

Factor II	40 – 60 hours
Factor VII	3 – 5 hours
Factor IX	16 – 30 hours
Factor X	30 – 60 hours

5.3 Preclinical safety data

The factors of the human prothrombin complex (in a concentrate) are normal components of human plasma and behave like endogenous coagulation factors. Since higher doses lead to volume overload, toxicity testing after single administration has no significance. Toxicity studies after repeated administration in animal tests are unfeasible since interference through the development of antibodies to heterologous proteins occurs.

Since human coagulation factors are not seen as cancerogenic or mutagenic, experimental studies, especially in heterologous species, were not deemed necessary.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Powder:

- Sodium chloride
- Sodium citrate
- Heparin sodium 0.2 – 0.5 IU/IU FIX
- Antithrombin III 12.5 – 25 IU per vial (0.75 – 1.5 IU/ml)

Solvent:

- Sterilized water for injections

6.2 Incompatibilities

This medicinal product must not be mixed with other medicinal products except those mentioned in section 6.6. For reconstitution only the enclosed reconstitution set should be used.

As with all coagulation factor preparations, the efficacy and tolerance of the medicinal product may be impaired by mixing with other medicinal products. It is advisable to rinse a common venous access with isotonic saline solution before and after the administration of Prothromplex TOTAL.

6.3 Shelf life

3 years

Within the stated shelf life, the product can be stored at room temperature (max. 25 °C) for one period of up to six months. The beginning and end of storage at room temperature should be recorded on the package. After storage at room temperature, Prothromplex TOTAL must not be returned to the refrigerator (2 °C to 8 °C) but must be used within six months or be disposed of.

The chemical and physical in-use stability has been demonstrated for three hours at 20 – 25 °C.

From a microbiological point of view, Prothromplex TOTAL should be used immediately after reconstitution since the preparation does not contain any preservatives. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user. The ready-to-use solution must not be returned to the refrigerator.

6.4 Special precautions for storage

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

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

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

6.5 Nature and contents of container

The powder is supplied in vials made of surface treated, colourless glass (hydrolytic class II), the solvent in vials made of surface treated, colourless glass (hydrolytic class I). Both the product vials and the solvent vials are closed by stoppers made of butyl rubber.

Content of package

- 1 vial with Prothromplex TOTAL 500 IU powder for solution for injection
- 1 vial with 17 ml sterilized water for injections
- 1 Mix2vial for reconstitution

Pack size





- 1 x 500 IU






6.6 Special precautions for disposal and other handling



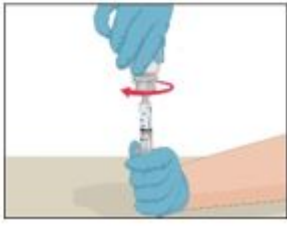
General Instructions

- Only the enclosed reconstitution set is to be used for reconstitution.
- Check the expiry date and ensure that the Prothromplex TOTAL powder and water for injections (solvent) are at room temperature prior to preparation. Do not use after the expiry date stated on the labels and carton.
- Use antiseptic technique (clean and low-germ conditions) and a flat work surface during the reconstitution procedure. Wash your hands and put on clean exam gloves (the use of gloves is optional).
- Warm the unopened vial containing the solvent (sterilized water for injections) to room or body temperature (maximum 37 °C).
- Prothromplex TOTAL is only to be reconstituted immediately before administration. The solution is clear or slightly opalescent. Cloudy solutions or those with deposits are to be disposed of.

Instructions for reconstitution of the powder for solution for injection:

Steps	Image	
1	<ul style="list-style-type: none"> Remove protective caps from the powder vial and the solvent vial. 	
2	<ul style="list-style-type: none"> Disinfect each stopper with a separate sterile alcohol swab (or other suitable sterile solution) by wiping the stopper for several seconds. Allow the rubber stopper to dry. Place the vials on a flat surface. 	
3	<ul style="list-style-type: none"> Open the Mix2Vial device package by completely peeling away the lid, without touching the inside of the package. Do not remove the Mix2Vial device from the package. 	
4	<ul style="list-style-type: none"> Turn the package with the Mix2Vial device upside down and place it over the top of the solvent vial. Firmly insert the blue plastic spike of the device into the centre of the solvent vial stopper by pushing straight down. Grip the package at its edge and lift it off the Mix2Vial device. Be careful not to touch the clear plastic spike. The solvent vial now has the Mix2Vial device connected to it and is ready to be connected to the Prothromplex TOTAL vial. 	

Steps	Image
<p>5</p> <ul style="list-style-type: none"> To connect the solvent vial to the Prothromplex TOTAL vial, turn the solvent vial over and place it on top of the vial containing Prothromplex TOTAL powder. Fully insert the clear plastic spike into the Prothromplex TOTAL vial stopper by firmly pushing straight down. This should be done right away to keep the liquid free of germs. The solvent will flow into the Prothromplex TOTAL vial by vacuum. Check that all the solvent has transferred. Do not use if the vacuum has been lost and the solvent does not flow into the Prothromplex TOTAL vial. 	
<p>6</p> <ul style="list-style-type: none"> Gently and continuously swirl the connected vials until dissolved or allow the reconstituted product to stand for 5 minutes then gently swirl to ensure the powder is completely dissolved. Do not shake. Shaking will adversely affect the product. Do not refrigerate after reconstitution. 	
<p>7</p> <ul style="list-style-type: none"> Disconnect the two sides of the Mix2Vial from each other by holding the clear plastic side of the Mix2Vial device attached to the Prothromplex TOTAL vial with one hand and the blue plastic side of the Mix2Vial device attached to the solvent vial with the other hand. Turn the blue plastic side counterclockwise and gently pull the two vials apart. Do not touch the end of the plastic connector attached to the Prothromplex TOTAL vial containing the dissolved product. Place the Prothromplex TOTAL vial on a flat work surface. Discard the empty solvent vial. 	
<p>8</p> <ul style="list-style-type: none"> Draw air into an empty, sterile disposable plastic syringe by pulling back on the plunger. The amount of air should equal the amount of reconstituted Prothromplex TOTAL that you will withdraw from the vial. 	
<p>9</p> <ul style="list-style-type: none"> Leaving the Prothromplex TOTAL vial (containing the reconstituted product) on your flat work surface, connect the syringe to the clear plastic connector and turn the syringe clockwise. 	

Steps	Image
10 <ul style="list-style-type: none"> Hold the vial with one hand and use the other hand to push all the air from the syringe into the vial. 	
11 <ul style="list-style-type: none"> Flip connected syringe and Prothromplex TOTAL vial, so the vial is on top. Be sure to keep the syringe plunger pressed in. Draw the Prothromplex TOTAL into the syringe by pulling plunger back slowly. Do not push and pull solution back and forth between syringe and vial. Doing so may harm the medicine. 	
12 <ul style="list-style-type: none"> When ready to infuse, disconnect the syringe by turning it counterclockwise. Inspect the syringe visually for particulate matter; the solution should be clear and slightly opalescent. If the solution is cloudy or with deposits, do not use the solution. 	

Instructions for Administration

Inspect the prepared solution in the syringe for particulate matter and discoloration prior to administration. The solution should be clear, colourless and free from particles. The filter included in the Mix2Vial device removes those particles completely. Filtration does not influence dosage calculations. **The solution in the syringe** should not be used if it is cloudy or contains flakes or particles after filtration.

- Attach the infusion needle to a syringe containing Prothromplex TOTAL solution. For comfort, a winged (butterfly) infusion set is recommended. Point the needle up and remove any air bubbles by gently tapping the syringe with your finger and slowly and carefully pushing air out of the syringe and needle.
- Apply a tourniquet and get the infusion site ready by wiping the skin well with a sterile alcohol swab (or other suitable sterile solution).
- Insert the needle into the vein and remove the tourniquet. Slowly infuse Prothromplex TOTAL. Do not infuse any faster than 2 mL per minute. Disconnect the empty syringe. **Note:** Do not remove butterfly needle until all syringes have been infused and do not touch the Luer port that connects to the syringe.
- Take the needle out of the vein and use sterile gauze to put pressure on the infusion site for several minutes.

Do not recap the needle. Place the needle, syringe, and empty Prothromplex TOTAL and solvent vial in a hard-walled sharps container for proper disposal. Do not dispose of these supplies in ordinary household trash.

7 MARKETING AUTHORISATION HOLDER

Baxalta Innovations GmbH
 Industriestrasse 67
 A-1221 Vienna
 Austria

8 MARKETING AUTHORISATION NUMBER

PA2004/005/002

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 9th June 2023

10 DATE OF REVISION OF THE TEXT