SCHEDULING STATUS:

S4

1. NAME OF MEDICINE:

INNOKLOD 2,5 mg Film-coated Tablets.

INNOKLOD 5 mg Film-coated Tablets

2. QUALITATIVE AND QUANTITATIVE COMPOSITION:

Each film coated tablet contains either 2,5 mg or 5 mg apixaban.

Contains sugar (anhydrous lactose and lactose monohydrate).

Excipients with known effect

Each **INNOKLOD** 2,5 mg tablet contains 50,25 mg anhydrous lactose and the film coat (in Opadry II) contains 28,00 % w/w lactose monohydrate.

Each **INNOKLOD** 5 mg tablet contains 100,50 mg anhydrous lactose and the film coat (in Opadry II) contains 28,00 % w/w lactose monohydrate.

For full list of excipients, **see section 6.1.**

3. PHARMACEUTICAL FORM:

Film-coated tablets

INNOKLOD 2,5 mg: Yellow coloured, round shaped, film-coated tablets debossed with ‘2.5’ on one side and ‘A’ on the other side.

INNOKLOD 5 mg: Pink coloured, oval shaped, film-coated tablets debossed with ‘’5’’ on one side and ‘’A’’ on other side.

4. CLINICAL PARTICULARS:

4.1 Therapeutic Indications

Prevention of VTE: elective hip or knee replacement surgery:

INNOKLOD is indicated for the prevention of venous thromboembolic events (VTE) in adult patients who have undergone elective hip or knee replacement surgery.

Prevention of stroke and systemic embolism: nonvalvular atrial fibrillation (NVAF)

INNOKLOD is also indicated to reduce the risk of stroke, systemic embolism, and death in patients with nonvalvular atrial fibrillation with one or more risk factors.

Treatment of VTE

INNOKLOD is indicated for the treatment of deep vein thrombosis (DVT) and pulmonary embolism (PE) and prevention of recurrent DVT and PE.

4.2 Posology and method of administration

If a dose is missed, the patient should take **INNOKLOD** immediately and then continue with twice daily administration as before.

Posology

Recommended dosage.

Prevention of VTE: elective hip or knee replacement surgery

The recommended dose of **INNOKLOD** is 2,5 mg taken orally twice daily. The initial dose should be taken 12 to 24 hours after surgery.

In patients undergoing hip replacement surgery, the recommended duration of treatment is 32 to 38 days.

In patients undergoing knee replacement surgery, the recommended duration of treatment is 10 to 14 days.

Prevention of stroke and systemic embolism: NVAF

The recommended dose of **INNOKLOD** is 5 mg taken orally twice daily.

Age, body weight, serum creatinine

In patients with at least 2 of the following characteristics, age ≥ 80 years, body weight ≤ 60 kg, or serum creatinine ≥ 1,5 mg/dL (133 micromole/L), the recommended dose of **INNOKLOD** is 2,5 mg twice daily.

Treatment of DVT and PE

The recommended dose of **INNOKLOD** is 10 mg taken orally twice daily for 7 days, followed by 5 mg taken orally twice daily.

Prevention of recurrent DVT and PE

The recommended dose of **INNOKLOD** is 2,5 mg taken orally twice daily after at least 6 months of treatment for DVT or PE.

Converting from or to parenteral anticoagulants

In general, switching treatment from parenteral anticoagulants to **INNOKLOD** (and vice versa) can be done at the next scheduled dose.

Converting from or to warfarin or other vitamin K antagonists (VKA)

When converting patients from warfarin or other VKA therapy to **INNOKLOD**, discontinue warfarin or other VKA therapy and start **INNOKLOD** when the international normalised ratio (INR) is below 2,0.

When converting from **INNOKLOD** to warfarin or other VKA therapy, continue **INNOKLOD** for 48 hours after the first dose of warfarin or other VKA therapy.

Patients undergoing cardioversion

INNOKLOD can be initiated or continued in NVAF patients who may require cardioversion.

For patients not previously treated with anticoagulants, at least 5 doses of **INNOKLOD** 5 mg twice daily (2,5 mg twice daily in patients who qualify for a dose reduction) should be given before cardioversion to ensure adequate anticoagulation.

If cardioversion is required before 5 doses of **INNOKLOD** can be administered, a 10 mg loading dose should be given, followed by 5 mg twice daily. The dosing regimen should be reduced to a 5 mg loading dose followed by 2,5 mg twice daily if the patient meets the criteria for dose reduction. The administration of the loading dose should be given at least 2 hours before cardioversion.

Confirmation should be sought prior to cardioversion that the patient has taken **INNOKLOD** as prescribed. Decisions on initiation and duration of treatment should take established guideline recommendations for anticoagulant treatment in patients undergoing cardioversion into account.

Special populations

Body weight

Prevention of VTE: elective hip or knee replacement surgery

No dose adjustment required (see section 5.2).

Prevention of stroke and systemic embolism: NVAF

See section 4.2, Prevention of stroke and systemic embolism: NVAF, Recommended dosage, Age, body weight, serum creatinine.

Treatment of VTE

No dose adjustment required (see section 5.2).

Renal impairment:

Prevention of VTE: elective hip or knee replacement surgery

In surgical patients no dose adjustment is necessary in patients with mild, moderate or severe (creatinine clearance 15 - 29 mL/min) renal impairment (see section 5.2). Because there is limited clinical experience in patients with creatinine clearance < 15 mL/min and there are no data in patients undergoing dialysis, **INNOKLOD** is not recommended in these patients (see section 4.4, Renal impairment, Prevention of VTE: elective hip or knee replacement surgery and section 5.2).

Prevention of stroke and systemic embolism: NVAF

In patients with AF no dose adjustment is recommended in patients with creatinine clearance 15 - 29 mL/min, except as described under section 4.2, Prevention of stroke and systemic embolism: NVAF. Because there is no clinical experience in patients with creatinine clearance < 15 mL/min, a dosing recommendation cannot be provided.

There are no data in patients undergoing dialysis, therefore, **INNOKLOD** is not recommended in these patients (see section 5.2).

Treatment of VTE

No dose adjustment is necessary in patients with mild, moderate or severe (creatinine clearance 15 – 29 mL/min) renal impairment. Because there is limited clinical experience in patients with creatinine clearance < 15 mL/min and no data in patients undergoing dialysis, **INNOKLOD** is not recommended in these patients (see section 5.2).

Hepatic impairment

INNOKLOD may be used with caution in patients with mild or moderate hepatic impairment (Child Pugh A or B). No dose adjustment is required in patients with mild or moderate hepatic impairment (see section 4.4, and section 5.2, Hepatic impairment).

INNOKLOD is not recommended in patients with severe hepatic impairment (see section 4.4, and section 5.2, Hepatic impairment).

Elderly

Prevention of VTE: elective hip or knee replacement surgery

No dose adjustment required (see section 5.2).

Prevention of stroke and systemic embolism: NVAF

See section 4.2, Prevention of stroke and systemic embolism: NVAF, Recommended dosage, Age, body weight, serum creatinine.

Treatment of VTE

No dose adjustment required (see section 5.2).

Paediatric population

The efficacy and safety of **INNOKLOD** in children below age 18 have not been established. No data are available.

Method of administration

For oral use.

INNOKLOD can be taken with or without food.

For patients who are unable to swallow whole tablets, **INNOKLOD** tablets may be crushed and suspended in water, 5 % dextrose in water (D5W), or apple juice, or mixed with applesauce and promptly administered orally (see section 5.2). Alternatively, **INNOKLOD** tablets may be crushed and suspended in 60 mL of water or D5W and promptly delivered through a nasogastric tube (see section 5.2).

Crushed **INNOKLOD** tablets are stable in water, D5W, apple juice, and applesauce for up to 4 hours.

4.3 Contraindications

- Hypersensitivity to the active substance (apixaban) or to any of the excipients of **INNOKLOD** (listed in section 6.1)
- Clinically significant active bleeding
- **INNOKLOD** is not recommended in patients with severe renal disease (CrCl < 15 mL/min)
- **INNOKLOD** is not recommended in patients with hepatic disease associated with coagulopathy and clinically relevant bleeding risk
- **INNOKLOD** should not be administered with antiplatelet medicines other than aspirin (see section 4.4)

- Patients with antiphospholipid syndrome (APS) with persistent positivity for all three antiphospholipid antibodies (patients with triple positive APS)
- Lesion or condition if considered a significant risk factor for major bleeding. This may include current or recent gastrointestinal ulceration, presence of malignant neoplasms at high risk of bleeding, recent brain or spinal injury, recent brain, spinal or ophthalmic surgery, recent intracranial haemorrhage, known or suspected oesophageal varices, arteriovenous malformations, vascular aneurysms or major intraspinal or intracerebral vascular abnormalities.

4.4 Special warnings and precautions for use

Haemorrhage risk

Patients taking **INNOKLOD** are to be carefully observed for signs of bleeding. **INNOKLOD** is recommended to be used with caution in conditions with increased risk of haemorrhage, such as: congenital or acquired bleeding disorders; active ulcerative gastrointestinal disease; bacterial endocarditis; thrombocytopenia; platelet disorders; history of haemorrhagic stroke; severe uncontrolled hypertension; and recent brain, spinal, or ophthalmological surgery. **INNOKLOD** administration should be discontinued if severe haemorrhage occurs (see section 4.9).

In the event of haemorrhagic complications, treatment must be discontinued, and the source of bleeding investigated. The initiation of appropriate treatment, e.g.,

surgical haemostasis or the transfusion of fresh frozen plasma, should be considered. If life-threatening bleeding cannot be controlled by the above measures, administration of prothrombin complex concentrates (PCCs) or recombinant factor VIIa may be considered. Reversal of **INNOKLOD** pharmacodynamic effects, as demonstrated by changes in the thrombin generation assay, has been demonstrated after administration of 4-factor PCCs in healthy subjects. However, there is no clinical experience with the use of 4-factor PCC medicines to reverse bleeding in individuals who have received **INNOKLOD**. Currently there is no experience with the use of recombinant factor VIIa in individuals receiving **INNOKLOD**. Standard anticoagulation tests cannot be used to monitor **INNOKLOD** (see section 4.5).

Interaction with other medicines affecting haemostasis

The concomitant use of **INNOKLOD** with antiplatelet medicines increases the risk of bleeding. Care is to be taken if patients are treated concomitantly with non-steroidal anti-inflammatory drugs (NSAIDs), including aspirin.

Other platelet aggregation inhibitors or other antithrombotic medicines are not recommended concomitantly with INNOKLOD following surgery (see section 4.5).

In patients with atrial fibrillation and a condition that warrants chronic use of aspirin, **INNOKLOD** may be used with due regard to increased risk of major bleeding. In a clinical trial of patients with atrial fibrillation, concomitant use of aspirin increased the major bleeding risk on **INNOKLOD** from 1,8 % per year to 3,4 % per year and increased the bleeding risk on warfarin from 2,7 % per year to 4,6 % per year.

Use of thrombolytic agents for the treatment of acute ischemic stroke

There is very limited experience with the use of thrombolytic agents for the treatment of acute ischemic stroke in patients administered apixaban (see section 4.5).

Patients with prosthetic heart valves

Safety and efficacy of **INNOKLOD** have not been studied in patients with prosthetic heart valves, with or without atrial fibrillation. Therefore, the use of **INNOKLOD** is not recommended in this setting.

Patients with antiphospholipid syndrome

Treatment of patients with established APS is not recommended as evidence regarding safety and efficacy, including the benefit/harm balance of **INNOKLOD** in patients with APS, is inconclusive/incomplete. There is some evidence that treatment with **INNOKLOD** may be associated with an increased risk of recurrent

arterial thrombotic events in patients with APS compared to treatment of these patients with warfarin, a vitamin K antagonist.

Surgery and invasive procedures

INNOKLOD should be discontinued 2 to 3 days prior to elective surgery or invasive procedures such as neuraxial regional anaesthesia. If surgery or invasive procedures cannot be delayed, exercise appropriate caution taking into consideration an increased risk of bleeding. This risk of bleeding should be weighed against the urgency of intervention.

*Temporary discontinuation of **INNOKLOD***

Discontinue **INNOKLOD**, in the presence of active bleeding, elective surgery, or invasive procedures that place patients at an increased risk of haemorrhage. Restart **INNOKLOD** therapy 12 - 24 hours after the danger of haemorrhage has ceased.

Spinal/epidural anaesthesia or puncture

When neuraxial anaesthesia (spinal/epidural anaesthesia) or spinal/epidural puncture is employed, patients treated with antithrombotic medicines, such as **INNOKLOD**, for prevention of thromboembolic complications are at risk of developing an epidural or spinal haematoma which can result in long-term or permanent paralysis. The risk of these events may be increased by the post-

operative use of indwelling epidural catheters or the concomitant use of medicines affecting haemostasis. When an indwelling epidural or intrathecal catheter procedure is planned, **INNOKLOD** should be stopped 48 hours beforehand. Indwelling epidural or intrathecal catheters must be removed at least 6 hours prior to the first dose of **INNOKLOD**. The risk may also be increased by traumatic or repeated epidural or spinal puncture. Patients are to be frequently monitored for signs and symptoms of neurological impairment (e.g., numbness or weakness of the legs, bowel or bladder dysfunction). If neurological compromise is noted, urgent diagnosis and treatment is necessary. Prior to neuraxial intervention, the medical practitioner should consider the potential benefit versus the risk in anticoagulated patients or in patients to be anticoagulated for thromboprophylaxis.

Acute PE in haemodynamically unstable patients or patients who require thrombolysis or pulmonary embolectomy

Treatment of VTE

Initiation of **INNOKLOD** is not recommended as an alternative to unfractionated heparin for the initial treatment of patients with PE who present with haemodynamic instability or who may receive thrombolysis or pulmonary embolectomy.

Patients with active cancer

Patients with active cancer can be at high risk of both venous thromboembolism and bleeding events. When apixaban is considered for DVT or PE treatment in cancer patients, a careful assessment of the benefits against the risks should be made

Interaction with strong inhibitors of both Cytochrome P450 3A4 (CYP3A4) and P-glycoprotein (P-gp)

INNOKLOD can be administered with caution in patients receiving concomitant systemic treatment with strong inhibitors of both Cytochrome P450 3A4 (CYP3A4) and P-glycoprotein (P-gp), such as azole-antimycotics (e.g., ketoconazole, itraconazole, voriconazole and posaconazole), HIV protease inhibitors (e.g., ritonavir). These medicines may increase **INNOKLOD** exposure by 2-fold (see section 4.5).

Interaction with strong inducers of both CYP3A4 and P-gp

The concomitant use of **INNOKLOD** with strong CYP3A4 and P-gp inducers (e.g., rifampicin, phenytoin, carbamazepine, phenobarbital (phenobarbitone) or St. John's Wort) may lead to a ~50 % reduction in **INNOKLOD** exposure. Use caution when co-administering **INNOKLOD** with strong inducers of both CYP3A4 and P-gp (see section 4.5).

For the treatment of DVT or PE, **INNOKLOD** is not recommended in patients receiving concomitant systemic treatment with strong inducers of both CYP3A4 and P-gp (see section 4.5). For prevention of recurrent DVT and PE, use caution when co-administering **INNOKLOD** with strong inducers of both CYP3A4 and P-gp (see section 4.5).

Hip fracture surgery

INNOKLOD has not been studied in clinical trials in patients undergoing hip fracture surgery to evaluate efficacy and safety in these patients. Therefore, **INNOKLOD** is not recommended in these patients.

Laboratory parameters

Clotting tests (e.g., Prothrombin time (PT), INR and activated partial thromboplastin time (aPTT) are affected as expected by the mechanism of action of INNOKLOD (see section 5.1). Changes observed in these clotting tests at the expected therapeutic dose are small and subject to a high degree of variability (see section 5.1). These parameters should not be used to monitor **INNOKLOD** therapy.

Special populations

Renal impairment

Prevention of VTE: elective hip or knee replacement surgery

Because there is limited clinical experience in patients with creatinine clearance < 15 mL/min and there are no data in patients undergoing dialysis, **INNOKLOD** is not recommended in these patients (see section 4.2, Renal impairment, section 5.2, Renal impairment and section 4.3).

Prevention of stroke and systemic embolism: NVAF

INNOKLOD has not been studied in patients undergoing dialysis and is not recommended in these patients (see section 5.2).

Treatment of VTE

Because there is limited clinical experience in patients with creatinine clearance < 15 mL/min and no data in patients undergoing dialysis, **INNOKLOD** is not recommended in these patients (see sections 5.2 and 4.3).

Hepatic impairment

INNOKLOD is not recommended in patients with severe hepatic impairment (see section 5.2, Hepatic impairment and section 4.3).

INNOKLOD may be used with caution in patients with mild or moderate hepatic impairment (Child Pugh A or B) (see section 4.2, and section 5.2, Hepatic impairment).

Lactose intolerance

INNOKLOD contains lactose. Patients with the rare hereditary conditions of galactose intolerance total lactase deficiency or glucose-galactose malabsorption should not take this medicine.

Contains sodium.

This medicine contains less than 1 mmol sodium (23 mg) per dosage unit, that is to say essentially ‘sodium-free’.

4.5 Interaction with other medicines and other forms of interaction

*Effect of other medicines on **INNOKLOD***

Inhibitors of CYP3A4 and P-gp

Co-administration of **INNOKLOD** with ketoconazole (400 mg once a day), a strong inhibitor of both CYP3A4 and P-gp, led to a 2-fold increase in mean **INNOKLOD** AUC and a 1,6-fold increase in mean **INNOKLOD** C_{max} (see section 4.4, Interaction with inhibitors of both Cytochrome P450 3A4 (CYP3A4) and P-glycoprotein (P-gp)).

The dose of **INNOKLOD** must not exceed 2,5 mg twice daily when used with these medicines.

Active substances which are not considered strong inhibitors of both CYP3A4 and P-gp (e.g., diltiazem, naproxen, clarithromycin, amiodarone, verapamil, quinidine) are expected to increase **INNOKLOD** plasma concentration to a lesser extent. No dose adjustment for **INNOKLOD** is required when co-administered with medicines that are not strong inhibitors of both CYP3A4 and P-gp. Diltiazem (360 mg once a day), considered a moderate CYP3A4 and a weak P-gp inhibitor, led to a 1,4-fold increase in mean **INNOKLOD** AUC and a 1,3-fold increase in C_{max}. Naproxen (500 mg, single dose), an inhibitor of P-gp but not an inhibitor of CYP3A4, led to a 1,5-fold and 1,6-fold increase in mean **INNOKLOD** AUC and C_{max}, respectively. Clarithromycin (500 mg, twice a day), an inhibitor of P-gp and a strong inhibitor of CYP3A4, led to a 1,6-fold and 1,3-fold increase in mean **INNOKLOD** AUC and C_{max} respectively.

Inducers of CYP3A4 and P-gp

Co-administration of **INNOKLOD** with rifampicin, a strong inducer of both CYP3A4 and P-gp, led to an approximate 54 % and 42 % decrease in mean **INNOKLOD** AUC and C_{max}, respectively. The concomitant use of **INNOKLOD** with other strong CYP3A4 and P-gp inducers (e.g., phenytoin, carbamazepine, phenobarbital (phenobarbitone) or St. John’s Wort) may also lead to reduced **INNOKLOD**

plasma concentrations. No dose adjustment for **INNOKLOD** is required during concomitant therapy with such medicines, however strong inducers of both CYP3A4 and P-gp should be co-administered with caution (see section 4.4, Interaction with strong inducers of both CYP3A4 and P-gp).

For the treatment of DVT and PE, concomitant therapy with strong inducers of both CYP3A4 and P-gp is not recommended (see section 4.4). For the prevention of recurrent DVT and PE, strong inducers of both CYP3A4 and P-gp should be co-administered with caution (see section 4.4).

Anticoagulants, platelet aggregation inhibitors, and NSAIDs

After combined administration of enoxaparin (40 mg single dose) with **INNOKLOD** (5 mg single dose), an additive effect on anti-FXa activity was observed.

Pharmacokinetic or pharmacodynamic interactions were not evident in healthy subjects when **INNOKLOD** was co-administered with aspirin 325 mg once a day.

INNOKLOD co-administered with clopidogrel (75 mg once daily) or with the combination of clopidogrel 75 mg and aspirin 162 mg once daily or with prasugrel (60 mg followed by 10 mg once daily) in Phase 1 studies did not show a relevant increase in bleeding time or further inhibition of platelet aggregation compared to administration of the antiplatelet medicines without **INNOKLOD**. Increases in

clotting tests (PT, INR, and aPTT) were consistent with the effects of **INNOKLOD** alone. However, the co-administration of **INNOKLOD** with clopidogrel, ticagrelor or other antiplatelet medicines, except aspirin, are not recommended due to the resulting associated increased risk of major bleeds (see section 4.3).

Naproxen (500 mg), an inhibitor of P-gp, led to a 1,5-fold and 1,6-fold increase in mean **INNOKLOD** AUC and C_{max}, in healthy subjects, respectively. Corresponding increases in clotting tests were observed for **INNOKLOD**. No clinically relevant prolongation of bleeding time was observed after concomitant administration of **INNOKLOD** and naproxen.

INNOKLOD should be used with caution when co-administered with NSAIDs (including aspirin) because these medicines typically increase the bleeding risk.

Medicines associated with serious bleeding are not recommended concomitantly with **INNOKLOD**, such as: unfractionated heparins and heparin derivatives (including low molecular weight heparins (LMWH)), FXa inhibiting oligosaccharides (e.g. fondaparinux), direct thrombin II inhibitors (e.g., desirudin), thrombolytic medicines, GPIIb/IIIa receptor antagonists, dipyridamole, dextran, sulfinpyrazone, vitamin K antagonists, and other oral anticoagulants.

It should be noted that unfractionated heparin can be administered at doses necessary to maintain a patent central venous or arterial catheter (see section 4.4, Interaction with other medicines affecting haemostasis).

Other concomitant therapies

No clinically significant pharmacokinetic or pharmacodynamic interactions were observed when **INNOKLOD** was co-administered with atenolol or famotidine. The administration of **INNOKLOD** 10 mg with famotidine 40 mg had no effect on **INNOKLOD** AUC or Cmax.

*Effect of **INNOKLOD** on other medicines*

In vitro **INNOKLOD** studies showed no inhibitory effect on the activity of CYP1A2, CYP2A6, CYP2B6, CYP2C8, CYP2C9, CYP2D6 or CYP3A4 (IC50 > 45 μM) and weak inhibitory effect on the activity of CYP2C19 (IC50 > 20 μM) at concentrations that are significantly greater than peak plasma concentrations observed in patients. **INNOKLOD** did not induce CYP1A2, CYP2B6, CYP3A4/5 at a concentration up to 20 μM. Therefore, **INNOKLOD** is not expected to alter the metabolic clearance of co-administered medicines that are metabolised by these enzymes. **INNOKLOD** is not a significant inhibitor of P-gp.

INNOKLOD did not meaningfully alter the pharmacokinetics of digoxin, naproxen, or atenolol.

Digoxin

Co-administration of **INNOKLOD** (20 mg once a day) and digoxin (0,25 mg once a day), a P-gp substrate, did not affect digoxin AUC or C_{max}. Therefore, **INNOKLOD** does not inhibit P-gp mediated substrate transport.

Naproxen

Co-administration of single doses of **INNOKLOD** (10 mg) and naproxen (500 mg) did not have any effect on the naproxen AUC or C_{max}.

Atenolol

Co-administration of a single dose of **INNOKLOD** (10 mg) and atenolol

(100 mg) did not alter the pharmacokinetics of atenolol.

Paediatric population

Interaction studies have only been performed in adults.

4.6 Fertility, pregnancy, and lactation

Safety has not been established.

Pregnancy

INNOKLOD is not recommended during pregnancy. Treatment may increase the risk of haemorrhage during pregnancy and delivery.

Breastfeeding.

It is unknown whether **INNOKLOD** or its metabolites are excreted in human milk. In rat milk, a high milk to maternal plasma ratio (C_{max} about 8, AUC about 30) was found, possibly due to active transport into the milk. A risk to newborns and infants cannot be excluded.

Women taking **INNOKLOD** should not breastfeed their infants.

4.7 Effects on the ability to drive and use machines

INNOKLOD has no or negligible influence on the ability to drive and use machines.

4.8 Undesirable effects

Summary of the safety profile

The most frequent side effects with **INNOKLOD** are haemorrhage, contusion, epistaxis, and haematoma.

Tabulated summary of adverse reactions

Table 1: Tabulated adverse reactions.

System organ class	**Prevention of VTE in adult patients who have undergone elective hip or knee replacement surgery (VTEp)**	**Prevention of stroke and systemic embolism in adult patients with NVAF, with one or more risk factors (NVAF)**	**Treatment of DVT and PE, and prevention of recurrent DVT and PE (VTEt)**
Blood and lymphatic system disorders			
Anaemia	*Frequent*	*Frequent*	*Frequent*
Thrombocytopenia	*Less frequent*	*Less frequent*	*Frequent*
Immune system disorders			
Hypersensitivity, allergic oedema and anaphylaxis	*Less frequent*	*Less frequent*	*Less frequent*
Pruritus	*Less frequent*	*Less frequent*	*Less frequent*
Angioedema	*Frequency unknown*	*Frequency unknown*	*Frequency unknown*
Nervous System disorders			

Brain haemorrhage †	*Frequency unknown*	*Less frequent*	*Less frequent*
Eye Disorders			
Eye Haemorrhage (including conjunctival haemorrhage)	*Less frequent*	*Frequent*	*Frequency unknown*
Vascular disorders			
Haemorrhage, haematoma	*Frequent*	*Frequent*	*Frequent*
Hypotension (including procedural hypotension)	*Less frequent*	*Frequent*	*Less frequent*
Intra-abdominal haemorrhage	*Frequency unknown*	*Less frequent*	*Frequency unknown*
Respiratory, thoracic and mediastinal disorders			
Epistaxis	*Less Frequent*	*Frequent*	*Frequent*
Haemoptysis	*Less frequent*	*Less frequent*	*Less frequent*
Respiratory tract haemorrhage	*Frequency unknown*	*Less frequent*	*Less frequent*
Gastrointestinal disorders			
Nausea	*Frequent*	*Frequent*	*Frequent*

Gastrointestinal haemorrhage	*Less frequent*	*Frequent*	*Frequent*
Haemorrhoidal haemorrhage	*Frequency unknown*	*Less frequent*	*Less frequent*
Mouth haemorrhage	*Frequency unknown*	*Less frequent*	*Frequent*
Haematochezia	*Less frequent*	*Less frequent*	*Less frequent*
Rectal haemorrhage, gingival bleeding	*Less frequent*	*Frequent*	*Frequent*
Retroperitoneal haemorrhage	*Frequency unknown*	*Less frequent*	*Frequency unknown*
Hepatobiliary disorders			
Liver function test abnormal, increased asparate aminotransferase, increased blood alkaline phosphatase, increased blood bilirubin	*Less frequent*	*Less frequent*	*Less frequent*
Increased gamma-glutamyltransferase	*Less frequent*	*Frequent*	*Frequent*

Increased alanine aminotransferase	*Less frequent*	*Less frequent*	*Frequent*
Skin and subcutaneous tissue disorders			
Skin rash	*Frequency unknown*	*Less frequent*	*Frequent*
Alopecia	*Less frequent*	*Less frequent*	*Less frequent*
Musculoskeletal and connective tissue disorders			
Muscle haemorrhage	*Less frequent*	*Less frequent*	*Less frequent*
Renal and urinary disorders			
Haematuria	*Less frequent*	*Frequent*	*Frequent*
Reproductive system and breast disorders			
Abnormal vaginal haemorrhage, urogenital haemorrhage	*Less frequent*	*Less frequent*	*Frequent*
General disorders and administration site conditions			
Application site bleeding	*Frequency unknown*	*Less frequent*	*Less frequent*
Investigations			
Positive occult blood	*Frequency unknown*	*Less frequent*	*Less frequent*
Injury, poisoning and procedural complications			
Contusion	*Frequent*	*Frequent*	*Frequent*

Post procedural haemorrhage (including post procedural haematoma, wound haemorrhage, vessel puncture site haematoma and catheter site haemorrhage), wound secretion, incision site haemorrhage (including incision site haematoma), operative haemorrhage	*Less frequent*	*Less frequent*	*Less frequent*
Traumatic haemorrhage	*Frequent unknown*	*Less frequent*	*Less frequent*

† The term “Brain haemorrhage” encompasses all intracranial or intraspinal haemorrhages (i.e., haemorrhagic stroke or putamen, cerebellar, intraventricular, or subdural haemorrhages).

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of benefit/risk balance of the medicine. Health care providers are asked to report any suspected adverse reactions to SAHPRA via the **"6.04 Adverse Drug Reactions Reporting Form",** found online under SAHPRA's publications: https://www.sahpra.org.za/Publications/Index/8

4.9 Overdose

There is no antidote to **INNOKLOD**. Overdose of **INNOKLOD** may result in a higher risk of bleeding.

Administration of activated charcoal may be useful in the management of **INNOKLOD** overdose or accidental ingestion.

Haemodialysis is unlikely to be an effective means of managing **INNOKLOD** overdose.

Treatment should be symptomatic and supportive. .

5. Pharmacological properties

5.1 Pharmacodynamic properties

Category and class: A 8.2 Anticoagulants

Pharmacotherapeutic group: Antithrombotic agents, direct factor Xa inhibitors.

ATC code: B01AF02

Mechanism of action

Apixaban is an inhibitor of coagulation factor Xa (FXa). Apixaban inhibits free and clot bound FXa, and prothrombinase activity. Apixaban has no direct effects on platelet aggregation, but indirectly inhibits platelet aggregation induced by thrombin. By inhibiting FXa, apixaban prevents thrombin and thrombus development.

The pharmacodynamic effects of apixaban are reflective of the mechanism of action. As a result of FXa inhibition, apixaban prolongs clotting tests such as PT, INR and aPTT. However, changes observed in these clotting tests are not suitable for assessing the effects of apixaban. In the thrombin generation assay, apixaban reduced endogenous thrombin potential, a measure of thrombin generation in human plasma.

Apixaban also demonstrates anti-FXa activity as evident by reduction in FXa enzyme activity in the Rotachrom® Heparin chromogenic assay. The relationship between apixaban plasma concentration and anti-FXa activity is linear over a wide dose range of apixaban, and precision of the Rotachrom® assay is within acceptable limits for use in a clinical laboratory. The dose- and concentration-related changes observed following apixaban administration are more pronounced, and less variable, with anti-FXa activity compared with clotting tests.

Although treatment with apixaban does not require routine monitoring of exposure, the Rotachrom® anti-FXa assay may be useful in situations where knowledge of apixaban exposure may help to inform clinical decisions.

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5.2 Pharmacokinetic properties

Absorption

The absolute bioavailability of apixaban is approximately 50 % for doses up to 10 mg. Apixaban is absorbed with maximum concentrations (Cmax) appearing 3 to 4 hours after tablet intake. Intake with food does not affect apixaban AUC or Cmax at the 10 mg dose. Apixaban can be taken with or without food.

Apixaban demonstrates linear pharmacokinetics with dose proportional increases in exposure for oral doses up to 10 mg. At doses ≥ 25 mg, apixaban displays dissolution limited absorption with decreased bioavailability. Apixaban exposure parameters exhibit low to moderate variability reflected by a within-subject and inter-subject variability of ~20 % CV and ~30 % CV, respectively.

Following oral administration of 10 mg of apixaban as 2 crushed 5 mg tablets suspended in 30 mL of water, exposure was comparable to exposure after oral administration of 2 whole 5 mg tablets. Following oral administration of 10 mg of apixaban as 2 crushed 5 mg tablets with 30 g of applesauce the Cmax and AUC were 21 % and 16 % lower, respectively, when compared to administration of 2 whole 5 mg tablets.

Following administration of a crushed 5 mg apixaban tablet suspended in 60 mL of D5W and delivered via a nasogastric tube, exposure was similar to exposure seen in other clinical trials involving healthy subjects receiving a single oral 5 mg apixaban tablet dose.

Distribution

Plasma protein binding in humans is approximately 87 %. The volume of distribution (Vss) is approximately 21 Litres.

Biotransformation and elimination

Apixaban has multiple routes of elimination. Of the administered apixaban dose in humans, approximately 25 % was recovered as metabolites, with the majority recovered in faeces. Renal excretion of apixaban accounts for approximately 27 % of total clearance. Additional contributions from biliary and direct intestinal excretion were observed in clinical and nonclinical studies, respectively.

Apixaban has a total clearance of about 3,3 L/h and a half-life of approximately 12 hours.

O-demethylation and hydroxylation at the 3-oxopiperidinyl moiety are the major sites of biotransformation. Apixaban is metabolised mainly via CYP3A4/5 with minor contributions from CYP1A2, 2C8, 2C9, 2C19, and 2J2. Unchanged apixaban is the major medicine-related component in human plasma with no active circulating metabolites present. Apixaban is a substrate of transport proteins, P-gp and breast cancer resistance protein (BCRP).

Body weight

Compared to apixaban exposure in subjects with body weight of 65 to 85 kg, body weight > 120 kg was associated with approximately 30 % lower exposure and body weight < 50 kg was associated with approximately 30 % higher exposure. (See section 4.2, Prevention of stroke and systemic embolism: NVAF).

Pharmacokinetic/pharmacodynamic relationship

The pharmacokinetic/pharmacodynamic (PK/PD) relationship between apixaban plasma concentration and several PD endpoints (anti-FXa activity, INR, PT, aPTT) has been evaluated after administration of a wide range of doses (0,5 - 50 mg). The relationship between apixaban plasma concentration and anti-FXa activity was best described by a linear model. The PK/PD relationship observed in patients who received apixaban in Phase 2 or Phase 3 clinical trials was consistent with that established in healthy subjects.

Special populations

Renal impairment

There was no impact of impaired renal function on peak concentration of apixaban after a single dose.

There was an increase in apixaban exposure correlated to decrease in renal function, as assessed via measured creatinine clearance. In individuals with mild (creatinine clearance 51 - 80 mL/min), moderate (creatinine clearance 30 - 50 mL/min) and severe (creatinine clearance 15 - 29 mL/min) renal impairment, apixaban plasma concentrations (AUC) were increased 16, 29, and 44 %, respectively, compared to individuals with normal creatinine clearance. Renal impairment had no evident effect on the relationship between apixaban plasma concentration and anti-FXa activity. (See section 4.2, Prevention of stroke and systemic embolism: nonvalvular atrial fibrillation (NVAF)).

Hepatic impairment

Apixaban has not been studied in patients with severe hepatic impairment or active hepatobiliary disease. Apixaban is not recommended in patients with severe hepatic impairment (see section 4.4, Hepatic impairment). Caution is advised when using **INNOKLOD** in this population (see section 4.2, Hepatic impairment and section 4.4, Hepatic impairment).

Elderly

Elderly patients (above 65 years) exhibited higher plasma concentrations than younger patients, with mean AUC values being approximately 32 % higher. (See section 4.2, Prevention of stroke and systemic embolism: NVAF).

6. Pharmaceutical particulars

6.1 List of excipients

Tablet core

anhydrous lactose

croscarmellose sodium

magnesium stearate

microcrystalline cellulose

sodium lauryl sulphate

Film coating

hydromellose

lactose monohydrate

titanium dioxide

triacetin

yellow iron oxide (2,5 mg tablets)

red iron oxide (5 mg tablets)

6.2 Incompatibilities

Not applicable

6.3 Shelf life

36 months

6.4 Special precautions for storage

Store at or below 30 ˚C

Protect from moisture and sunlight.

KEEP OUT OF REACH OF CHILDREN.

6.5 Nature and contents of container

Primary Packaging components (2,5 mg Tablets)

Bottles

40 cc HDPE bottle 33 mm neck

33 mm CR closures

Flip-Off Seal, 20 mm

Blister

Triplex film 162 mm (PVC/PE/PVDC)

Plain Aluminium foil 158 x 0.025 mm

Primary Packaging components (5 mg tablets)

Bottles

40 cc HDPE bottle 33 mm neck

33 mm CR closures

Flip-Off Seal, 20 mm

Blister

Triplex film 212 mm (PVC/PE/PVDC)

Plain Aluminium foil 208 x 0.025 mm

Pack sizes: blisters of 10's tablets (10's x 3) & Bottles pack of 60's tablets.

6.6 Special precautions for disposal and other handling

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

7. Holder of certificate of registration

Innovata Pharmaceuticals (Pty) LTD

Crownwood Office Park

100 Northern Parkway

Ormonde

Johannesburg

2091

South Africa

8. Registration numbers

INNOKLOD 2,5: A 58/8.2/0046

INNOKLOD 5: A 58/8.2/0047

9. Date of first authorization/Renewal of the authorization

26 March 2024

10. Date of revision of the text

New