

**SCHEDULING STATUS:** **S4**

### **1. NAME OF THE MEDICINE**

**ELIQUIS® 2,5 mg Film-coated tablets**

**ELIQUIS® 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 ELIQUIS 2,5 mg tablet contains 50,25 mg anhydrous lactose and the film coat (in Opadry II) contains 31,00 % w/w lactose monohydrate.

Each ELIQUIS 5 mg tablet contains 100,50 mg anhydrous lactose and the film coat (in Opadry II) contains 31,00 % w/w lactose monohydrate.

For the full list of excipients, see section 6.1.

### **3. PHARMACEUTICAL FORM**

Film-coated tablets

ELIQUIS 2,5 mg: Yellow, round, biconvex film-coated tablets with “893” debossed on one side and “2½” on the other side.

Tablet dimension: round tablet with a diameter of 5,95 mm (15/64”), approximate thickness: 2,7 mm.

ELIQUIS 5 mg: Pink, oval shaped, biconvex film-coated tablets with “894” debossed on one side and “5” on the other side.

Tablet dimension: oval tablet with 9,73 x 5,16 mm (0,383” x 0,203”), approximate thickness: 3,8 mm.

## **4. CLINICAL PARTICULARS**

### **4.1. Therapeutic indications**

*Prevention of VTE: elective hip or knee replacement surgery*

ELIQUIS 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)*

ELIQUIS 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*

ELIQUIS 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**

ELIQUIS can be taken with or without food.

If a dose is missed, the patient should take ELIQUIS 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 ELIQUIS 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 ELIQUIS is 5 mg taken orally twice daily.

*Age, body weight, serum creatinine*

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

*Treatment of DVT and PE*

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

*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).

*Converting from or to parenteral anticoagulants*

In general, switching treatment from parenteral anticoagulants to ELIQUIS (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 ELIQUIS, discontinue warfarin or other VKA therapy and start ELIQUIS when the international normalised ratio (INR) is below 2,0.

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

*Patients undergoing cardioversion*

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

For patients not previously treated with anticoagulants, at least 5 doses of ELIQUIS 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 ELIQUIS 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 ELIQUIS 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**

#### *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, ELIQUIS 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, ELIQUIS 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, ELIQUIS is not recommended in these patients (see section 5.2).

#### *Hepatic impairment*

ELIQUIS 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, Hepatic impairment and section 5.2, Hepatic impairment).

ELIQUIS is not recommended in patients with severe hepatic impairment (see section 4.4, Hepatic impairment 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 ELIQUIS in children below age 18 have not been established. No data are available.

### **Method of administration**

For oral use.

For patients who are unable to swallow whole tablets, ELIQUIS 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, ELIQUIS 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 ELIQUIS 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 ELIQUIS (listed in section 6.1)
- Clinically significant active bleeding
- ELIQUIS is not recommended in patients with severe renal disease (CrCl < 15 mL/min)
- ELIQUIS is not recommended in patients with hepatic disease associated with coagulopathy and clinically relevant bleeding risk
- ELIQUIS 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)

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

##### *Haemorrhage risk*

Patients taking ELIQUIS are to be carefully observed for signs of bleeding. ELIQUIS 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. ELIQUIS 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 ELIQUIS 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 ELIQUIS. Currently there is no experience with the use of recombinant factor VIIa in individuals receiving ELIQUIS. Standard anticoagulation tests cannot be used to monitor ELIQUIS (see section 4.5).

##### *Interaction with other medicines affecting haemostasis*

The concomitant use of ELIQUIS 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 ELIQUIS following surgery (see section 4.5).**

In patients with atrial fibrillation and a condition that warrants chronic use of aspirin, ELIQUIS 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 ELIQUIS 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.

#### *Patients with prosthetic heart valves*

Safety and efficacy of ELIQUIS have not been studied in patients with prosthetic heart valves, with or without atrial fibrillation. Therefore, the use of ELIQUIS 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 ELIQUIS in patients with APS, is inconclusive/incomplete. There is some evidence that treatment with ELIQUIS 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*

ELIQUIS 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 ELIQUIS*

Discontinue ELIQUIS, in the presence of active bleeding, elective surgery, or invasive procedures that place patients at an increased risk of haemorrhage. Restart ELIQUIS 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 ELIQUIS, 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, ELIQUIS should be stopped 48 hours beforehand. Indwelling epidural or intrathecal catheters must be removed at least 6 hours prior to the first dose of ELIQUIS. 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 ELIQUIS 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.

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

ELIQUIS 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 ELIQUIS exposure by 2-fold (see section 4.5).

*Interaction with strong inducers of both CYP3A4 and P-gp*

The concomitant use of ELIQUIS 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 ELIQUIS exposure. Use caution when co-administering ELIQUIS with strong inducers of both CYP3A4 and P-gp (see section 4.5).

For the treatment of DVT or PE, ELIQUIS 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 ELIQUIS with strong inducers of both CYP3A4 and P-gp (see section 4.5).

*Hip fracture surgery*

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

ELIQUIS 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, ELIQUIS is not recommended in these patients (see sections 5.2 and 4.3).

*Hepatic impairment*

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

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

*Lactose intolerance*

ELIQUIS contains lactose. Patients with the rare hereditary conditions of galactose intolerance e.g. galactosaemia, Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

**4.5 Interaction with other medicines and other forms of interaction**

*Effect of other medicines on ELIQUIS*

*Inhibitors of CYP3A4 and P-gp*

Co-administration of ELIQUIS with ketoconazole (400 mg once a day), a strong inhibitor of both CYP3A4 and P-gp, led to a 2-fold increase in mean ELIQUIS AUC and a 1,6-fold increase in mean ELIQUIS C<sub>max</sub> (see section 4.4, Interaction with inhibitors of both Cytochrome P450 3A4 (CYP3A4) and P-glycoprotein (P-gp)).

The dose of ELIQUIS 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 ELIQUIS plasma concentration to a lesser extent. No dose adjustment for ELIQUIS 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 ELIQUIS 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 ELIQUIS 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 ELIQUIS AUC and  $C_{max}$  respectively.

#### *Inducers of CYP3A4 and P-gp*

Co-administration of ELIQUIS with rifampicin, a strong inducer of both CYP3A4 and P-gp, led to an approximate 54 % and 42 % decrease in mean ELIQUIS AUC and  $C_{max}$ , respectively. The concomitant use of ELIQUIS with other strong CYP3A4 and P-gp inducers (e.g., phenytoin, carbamazepine, phenobarbital (phenobarbitone) or St. John's Wort) may also lead to reduced ELIQUIS plasma concentrations. No dose adjustment for ELIQUIS 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 ELIQUIS (5 mg single dose), an additive effect on anti-FXa activity was observed.

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

ELIQUIS 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 ELIQUIS. Increases in clotting tests (PT, INR, and aPTT) were consistent with the effects of ELIQUIS alone. However, the co-administration of ELIQUIS 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 ELIQUIS AUC and  $C_{max}$ , in healthy subjects, respectively. Corresponding increases in clotting tests were observed for ELIQUIS. No clinically relevant prolongation of bleeding time was observed after concomitant administration of ELIQUIS and naproxen.

ELIQUIS 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 ELIQUIS, 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 ELIQUIS was co-administered with atenolol or famotidine. Co-administration of ELIQUIS 10 mg with atenolol 100 mg did not have a clinically relevant effect on the pharmacokinetics of ELIQUIS. Following administration of the two medicines together, mean ELIQUIS AUC and  $C_{max}$  were 15 % and 18 % lower than when administered alone. The administration of ELIQUIS 10 mg with famotidine 40 mg had no effect on ELIQUIS AUC or  $C_{max}$ .

#### *Effect of ELIQUIS on other medicines*

*In vitro* ELIQUIS studies showed no inhibitory effect on the activity of CYP1A2, CYP2A6, CYP2B6, CYP2C8, CYP2C9, CYP2D6 or CYP3A4 ( $IC_{50} > 45 \mu M$ ) and weak inhibitory effect on the activity of CYP2C19 ( $IC_{50} > 20 \mu M$ ) at concentrations that are significantly greater than peak plasma concentrations observed in patients. ELIQUIS did not induce CYP1A2, CYP2B6, CYP3A4/5 at a concentration up to 20  $\mu M$ . Therefore, ELIQUIS is not expected to alter the metabolic clearance of co-administered medicines that are metabolised by these enzymes. ELIQUIS is not a significant inhibitor of P-gp.

In studies conducted in healthy subjects, as described below, ELIQUIS did not meaningfully alter the pharmacokinetics of digoxin, naproxen, or atenolol.

#### *Digoxin*

Co-administration of ELIQUIS (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, ELIQUIS does not inhibit P-gp mediated substrate transport.

#### *Naproxen*

Co-administration of single doses of ELIQUIS (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 ELIQUIS (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**

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

#### **Breastfeeding**

It is unknown whether ELIQUIS 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 ELIQUIS should not breastfeed their infants.

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

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

#### **4.8 Undesirable effects**

##### *Summary of the safety profile*

The safety of ELIQUIS has been investigated in 7 Phase III clinical studies including more than 21,000 patients: more than 5,000 patients in VTEp studies, more than 11,000 patients in NVAf studies and more than 4,000 patients in the VTE treatment (VTEt) studies, for an average total exposure of 20 days, 1,7 years and 221 days respectively.

Common adverse reactions were haemorrhage, contusion, epistaxis, and haematoma (see Table 1 for adverse reaction profile and frequencies by indication).

In the VTEp studies, in total, 11 % of the patients treated with ELIQUIS 2,5 mg twice daily experienced adverse reactions. The overall incidence of adverse reactions related to bleeding with ELIQUIS was 10 % in the ELIQUIS vs enoxaparin studies.

In the NVAf studies, the overall incidence of adverse reactions related to bleeding with ELIQUIS was 24,3 % in the ELIQUIS vs warfarin study and 9,6 % in the ELIQUIS vs acetylsalicylic acid study. In the ELIQUIS vs warfarin study the incidence of ISTH major gastrointestinal bleeds (including upper GI, lower GI, and rectal bleeding) with ELIQUIS was 0,76 %/year. The incidence of ISTH major intraocular bleeding with ELIQUIS was 0,18 %/year.

In the VTEt studies, the overall incidence of adverse reactions related to bleeding with ELIQUIS was 15,6 % in the ELIQUIS vs enoxaparin/warfarin study and 13,3 % in the ELIQUIS vs placebo study.

Tabulated list of adverse reactions

Table 1 shows the adverse reactions ranked under headings of system organ class and frequency using 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 ( $< 1/10\ 000$ ); not known (cannot be estimated from the available data) for VTEp, NVAf, and VTEt respectively.

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)
<i>Blood and lymphatic system disorders</i>			
Anaemia	Common	Common	Common
Thrombocytopenia	Uncommon	Uncommon	Common
<i>Immune system disorders</i>			
Hypersensitivity, allergic oedema and anaphylaxis	Rare	Uncommon	Uncommon
Pruritus	Uncommon	Uncommon	Uncommon*

Angioedema	Not known	Not known	Not known
<i>Nervous system disorders</i>			
Brain haemorrhage <sup>†</sup>	Not known	Uncommon	Rare
<i>Eye disorders</i>			
Eye haemorrhage (including conjunctival haemorrhage)	Rare	Common	Uncommon
<i>Vascular disorders</i>			
Haemorrhage, haematoma	Common	Common	Common
Hypotension (including procedural hypotension)	Uncommon	Common	Uncommon
Intra-abdominal haemorrhage	Not known	Uncommon	Not known
<i>Respiratory, thoracic and mediastinal disorders</i>			
Epistaxis	Uncommon	Common	Common
Haemoptysis	Rare	Uncommon	Uncommon
Respiratory tract haemorrhage	Not known	Rare	Rare
<i>Gastrointestinal disorders</i>			
Nausea	Common	Common	Common
Gastrointestinal haemorrhage	Uncommon	Common	Common

Haemorrhoidal haemorrhage	Not known	Uncommon	Uncommon
Mouth haemorrhage	Not known	Uncommon	Common
Haematochezia	Uncommon	Uncommon	Uncommon
Rectal haemorrhage, gingival bleeding	Rare	Common	Common
Retroperitoneal haemorrhage	Not known	Rare	Not known
<i>Hepatobiliary disorders</i>			
Liver function test abnormal, increased aspartate aminotransferase, increased blood alkaline phosphatase, increased blood bilirubin	Uncommon	Uncommon	Uncommon
Increased gamma-glutamyltransferase	Uncommon	Common	Common
Increased alanine aminotransferase	Uncommon	Uncommon	Common
<i>Skin and subcutaneous tissue disorders</i>			
Skin rash	Not known	Uncommon	Common
Alopecia	Rare	Uncommon	Uncommon

<i>Musculoskeletal and connective tissue disorders</i>			
Muscle haemorrhage	Rare	Rare	Uncommon
<i>Renal and urinary disorders</i>			
Haematuria	Uncommon	Common	Common
<i>Reproductive system and breast disorders</i>			
Abnormal vaginal haemorrhage, urogenital haemorrhage	Uncommon	Uncommon	Common
<i>General disorders and administration site conditions</i>			
Application site bleeding	Not known	Uncommon	Uncommon
<i>Investigations</i>			
Positive occult blood	Not known	Uncommon	Uncommon
<i>Injury, poisoning and procedural complications</i>			
Contusion	Common	Common	Common
Post procedural haemorrhage (including post procedural haematoma, wound haemorrhage, vessel puncture site haematoma)	Uncommon	Uncommon	Uncommon

and catheter site haemorrhage), wound secretion, incision site haemorrhage (including incision site haematoma), operative haemorrhage			
Traumatic haemorrhage	Not known	Uncommon	Uncommon

\* There were no occurrences of generalised pruritus in CV185057 (long term prevention of VTE)

† 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 the 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 ELIQUIS. Overdose of ELIQUIS may result in a higher risk of bleeding.

Administration of activated charcoal 2 and 6 hours after ingestion of a 20-mg dose of ELIQUIS reduced mean ELIQUIS AUC by 50 % and 27 %, respectively, and had no impact on C<sub>max</sub>. Mean half-life of

ELIQUIS decreased from 13,4 hours when ELIQUIS was administered alone to 5,3 hours and 4,9 hours, respectively, when activated charcoal was administered 2 and 6 hours after ELIQUIS. Thus, administration of activated charcoal may be useful in the management of ELIQUIS overdose or accidental ingestion.

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

Treatment should be symptomatic and supportive.

## **5. PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Category and class: A 8.2 Anticoagulants

#### *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.

## **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 ( $C_{max}$ ) appearing 3 to 4 hours after tablet intake. Intake with food does not affect apixaban AUC or  $C_{max}$  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  $\geq 25$  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  $C_{max}$  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 ( $V_{ss}$ ) 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)).

In subjects with end-stage renal disease (ESRD), the AUC of apixaban was increased by 36 % when a single dose of apixaban 5 mg was administered immediately after haemodialysis, compared to that seen in subjects with normal renal function. Haemodialysis, started two hours after administration of a single dose of apixaban 5 mg, decreased apixaban AUC by 14 % in these ESRD subjects, corresponding to an apixaban dialysis clearance of 18 mL/min.

### *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).

In a study comparing subjects with mild and moderate hepatic impairment (classified as Child Pugh A and B, respectively) to healthy control subjects, the single-dose pharmacokinetics and pharmacodynamics of apixaban

5 mg were not altered in subjects with mild or moderate hepatic impairment. Changes in anti-FXa activity and INR were comparable between subjects with mild to moderate hepatic impairment and healthy subjects. No dose adjustment is required in patients with mild or moderate hepatic impairment. However, given the limited number of subjects studied, caution is advised when using ELIQUIS 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*

hypromellose

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.

Do not remove blister from carton until required for use.

**6.5 Nature and contents of container**

ELIQUIS 2,5 mg: Cartons containing clear PVC/PVDC/silver aluminium blisters of 10 film-coated tablets (1 blister of 10 film-coated tablets each), 20 film-coated tablets (2 blisters of 10 film-coated tablets each) or 60 film-coated tablets (6 blisters of 10 film-coated tablets each).

ELIQUIS 5 mg: Cartons containing clear PVC/PVDC/silver aluminium blisters of 20 film-coated tablets (2 blisters of 10 film-coated tablets each), 60 film-coated tablets (6 blisters of 10 film-coated tablets each) or 14 film-coated tablets (1 blister of 14 film-coated tablets each) or 56 film-coated tablets (4 blisters of 14 film-coated tablets each).

Not all pack sizes may be marketed.

#### **6.6 Special precautions for disposal**

No special requirements

#### **7. HOLDER OF CERTIFICATE OF REGISTRATION**

Pfizer Laboratories (Pty) Ltd

85 Bute Lane

Sandton 2196

South Africa

Tel: +27(0)11 320 6000 / 0860 734 937 (Toll-free South Africa)

#### **8. REGISTRATION NUMBERS**

ELIQUIS 2,5 mg: 47/8.2/0463

ELIQUIS 5 mg: 47/8.2/0464

#### **9. DATE OF FIRST AUTHORISATION**

20 March 2018

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

11 July 2022

Rotachrom® is a registered trademark of Diagnostica Stago.

ELIQUIS® is a registered trademark of Bristol-Myers Squibb.

**Manufacturer:** Bristol-Myers Squibb Manufacturing Company, Humacao, Puerto Rico

**BOTSWANA: S2**

ELIQUIS 2,5 mg Reg. No.: BOT 1402582C (60's)

ELIQUIS 5 mg Reg. No.: BOT1402583D (60's)

**NAMIBIA: S2**

ELIQUIS 2,5 mg Reg. No.: 13/8.2/0212

ELIQUIS 5 mg Reg. No.: 13/8.2/0213

**ZIMBABWE: PP10**

ELIQUIS 2,5 mg Reg. No.: 2014/10.2/4896

ELIQUIS 5 mg Reg. No.: 2014/10.2/4897