

## PRODUCT INFORMATION

### VOTRIENT<sup>®</sup> TABLETS

**Severe and fatal hepatotoxicity has been observed in clinical studies. Monitor hepatic function and interrupt, reduce, or discontinue dosing as recommended. [See PRECAUTIONS.]**

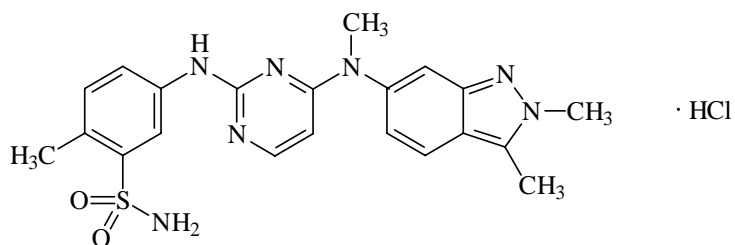
#### NAME OF THE MEDICINE

VOTRIENT<sup>®</sup> (Pazopanib hydrochloride)

#### DESCRIPTION

Pazopanib is a member of the tyrosine kinase inhibitor family. It is supplied as the hydrochloride salt, with chemical name 5-[[4-[(2,3-dimethyl-2H-indazol-6-yl)methylamino]-2-pyrimidinyl]amino]-2-methylbenzenesulfonamide monohydrochloride.

The structural formula is:



Two basic ionisation constants (pKa) of pazopanib free base were determined to be 6.4 and 2.1, and one weakly acidic pKa was determined to be 10.2. The partition coefficient of the free base between octanol and water is 4470 (cLogP = 3.65). The pH of a 0.04% w/v solution of pazopanib hydrochloride in water is about 2.2. Pazopanib hydrochloride is a white to slightly yellow solid. It is very slightly soluble at pH 1 and practically insoluble above pH 4 in aqueous media.

Molecular formula: C<sub>21</sub>H<sub>23</sub>N<sub>7</sub>O<sub>2</sub>S·HCl

Molecular weight: 473.99 g/mol.

CAS number: 635702-64-6

BCS Classification: Class II (High Permeability, Low Solubility)

Each film-coated tablet contains pazopanib hydrochloride equivalent to either 200 mg or 400 mg of pazopanib free base.

Each film-coated tablet also contains magnesium stearate, cellulose - microcrystalline, povidone, sodium starch glycolate, hypromellose, macrogol 400, titanium dioxide, polysorbate 80, and iron oxide red C177491 (200 mg tablet only).

## PHARMACOLOGY

### Mechanism of Action

Pazopanib is an orally administered, potent multi-target tyrosine kinase inhibitor (TKI) of Vascular Endothelial Growth Factor Receptors (VEGFR)-1, -2, and -3, platelet-derived growth factor (PDGFR)- $\alpha$  and  $-\beta$ , and stem cell factor receptor (c-KIT), with  $IC_{50}$  values of 10, 30, 47, 71, 84 and 74 nM, respectively. Pazopanib also inhibited ligand-induced auto-phosphorylation of VEGFR-2, c-Kit and PDGFR- $\beta$  receptors in cells *in vitro*. *In vivo*, pazopanib inhibited VEGF-induced VEGFR-2 phosphorylation in mouse lungs, angiogenesis in mouse models, and the growth of some human tumour xenografts in mice.

### Pharmacokinetics

The pharmacokinetics of pazopanib have been evaluated in 408 subjects. The reported pharmacokinetic parameters such as absolute bioavailability and clearance were obtained from only three subjects.

### Absorption

Pazopanib is absorbed orally with an absolute oral bioavailability of 13.5 – 38.9 % and median time to achieve peak concentrations of 2.0 to 4.0 hours after the dose. Daily dosing results in 1.23- to 4-fold increase in AUC. There was no consistent increase in AUC and  $C_{max}$  when the pazopanib dose increased above 800 mg.

Systemic exposure to pazopanib is increased when administered with food. Administration of pazopanib with a high-fat or low-fat meal results in an approximately 2-fold increase in AUC and  $C_{max}$ . Therefore, pazopanib should be administered at least 1 hour before or 2 hours after a meal (see *Dosage and Administration*).

Administration of a single pazopanib 400 mg crushed tablet increased  $AUC_{(0-72)}$  by 46% and  $C_{max}$  by approximately 2 fold and decreased  $t_{max}$  by approximately 1.5 hours compared to administration of the whole tablet. These results indicate that the bioavailability and the rate of pazopanib oral absorption are increased after administration of the crushed tablet relative to administration of the whole tablet. Therefore, due to this potential for increased exposure, tablets should not be crushed (see *Dosage and Administration*).

### ***Distribution***

Binding of pazopanib to human plasma protein *in vivo* was greater than 99 % with no concentration dependence over the range of 10-100 µg/ml. After 5 mg IV administration, pazopanib displayed a volume of distribution of 9.2 – 13.1 L (< 40 % of total body water). *In vitro* studies suggest that pazopanib is a substrate for P-glycoprotein (Pgp) and breast cancer resistant protein (BCRP).

### ***Metabolism***

Results from *in vitro* studies demonstrated that the metabolism of pazopanib is mediated primarily by CYP3A4, with minor contributions from CYP1A2 and CYP2C8.

### ***Elimination***

Pazopanib is eliminated slowly with mean half-life of 30.9 hours after administration of the recommended dose of 800 mg. Elimination is primarily via faeces with renal elimination accounting for < 4 % of the administered dose. Pazopanib plasma clearance after a 5 mg IV dose ranged from 0.206 to 0.347 L/h (approximately 0.5% of liver blood flow and 5% of glomerular filtration rate).

## **CLINICAL TRIALS**

The safety and efficacy of VOTRIENT in renal cell carcinoma (RCC) were evaluated in a randomized, double-blind, placebo-controlled multi-centre study. Patients (N= 435) with locally advanced and/or metastatic RCC were randomized to receive VOTRIENT 800 mg monotherapy once daily or placebo. The primary objective of the study was to evaluate and compare the two treatment arms for progression-free survival (PFS) and the principle secondary endpoint is overall survival (OS). The other objectives were to evaluate the overall response rate and duration of response.

From the total of 435 patients in this study, 233 patients were treatment naïve and 202 were second line patients who received one prior IL-2 or INF $\alpha$ -based therapy. The performance status (ECOG) was similar between the VOTRIENT and placebo groups (ECOG 0: 42 % vs. 41 %, ECOG 1: 58 % vs. 59 %). All patients had clear cell histology or predominantly clear cell histology. Approximately half of all patients had 3 or more organs involved in their disease and most patients had the lung (74 %), and/or lymph nodes (54 %) as a metastatic location for disease at baseline.

A similar proportion of patients in each arm were treatment-naïve and cytokine-pre-treated (53 % and 47 % in VOTRIENT arm, 54 % and 46 % in placebo arm). In the cytokine-pre-treated subgroup, the majority (75 %) had received interferon based treatment.

Similar proportions of patients in each arm had prior nephrectomy (89 % and 88 % in the VOTRIENT and placebo arms, respectively) and/or prior radiotherapy (22 % and 15 % in the VOTRIENT and placebo arms, respectively).

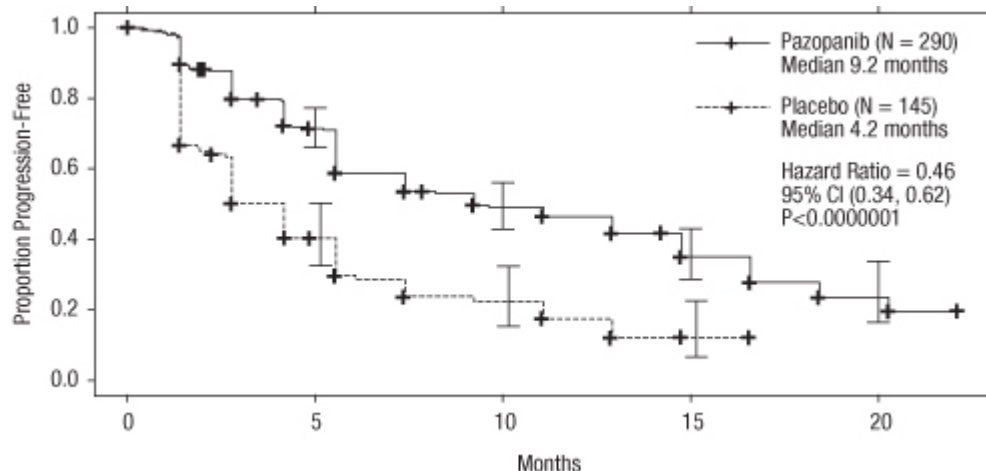
The primary analysis of the primary endpoint PFS is based on disease assessment by independent radiological review in the entire study population (first line and second line).

**Table 1. Overall Efficacy Results by Independent Review Committee (IRC)**

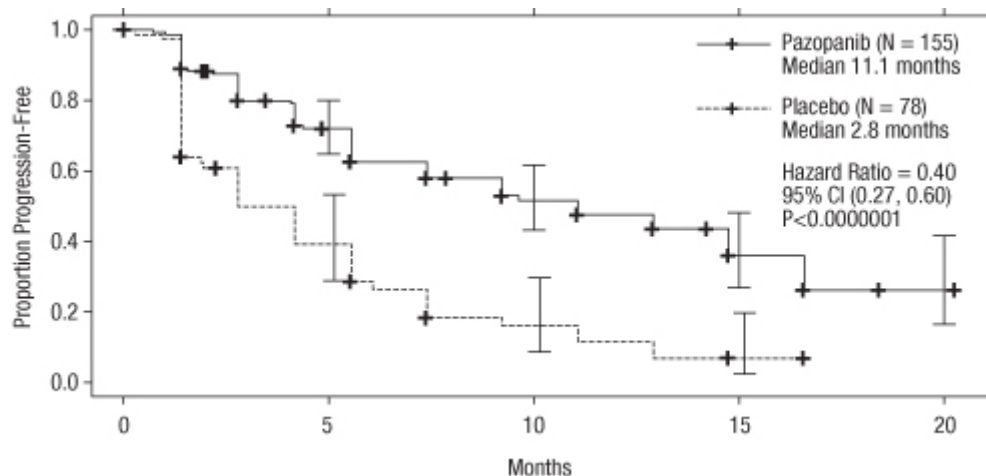
Endpoints/ Study population	VOTRIENT	Placebo	HR (95% CI)	P value (one-sided)
<b>PFS</b>	<b>Median (months)</b>			
Overall ITT	N=290 9.2	N=145 4.2	0.46 (0.34, 0.62)	<0.0000001
Treatment-naïve	N=155 11.1	N=78 2.8		
Cytokine pre-treated	N=135 7.4	N=67 4.2	0.54 (0.35, 0.84)	<0.001
<b>Response rate</b>	<b>% (95% CI)</b>			
Overall	N=290 30 (25.1 ,35.6)	N=145 3 (0.5, 6.4)	-	<0.001

CI: confidence interval; HR: hazard ratio; ITT: Intent-to-treat; PFS: progression free survival.

**Figure 1 Kaplan-Meier Curve for Progression-Free Survival by Independent Assessment for the Overall Population (Treatment-Naïve and Cytokine Pre-Treated Populations)**

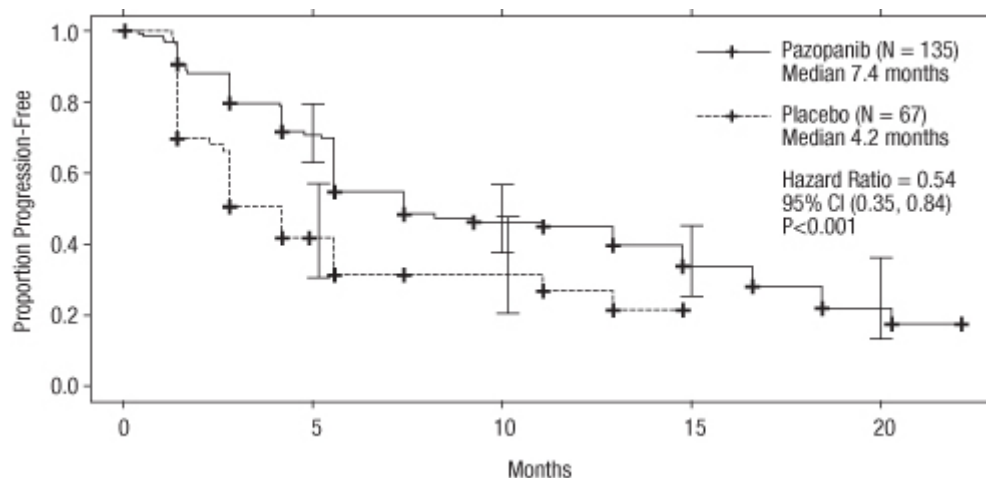


**Figure 2 Kaplan-Meier Curve for Progression-Free Survival by Independent Assessment for the Treatment-Naïve Population**



**Figure 3 Kaplan-Meier Curve for Progression-Free Survival by Independent**

**Assessment for the Cytokine Pre-Treated Population**



For patients who responded to treatment, the median time to response was 11.9 weeks and the median duration of response was 58.7 weeks as per independent review.

In the pivotal study, the QoL assessments were based on blinded self-reported global scores from two protocol-specified questionnaires, EORTC QLQ-C30 and EuroQoL EQ-5D. Analysis was based on patients who continued on therapy in both arms, prior to progression. The assessments showed no difference between treatment with VOTRIENT or placebo ( $p > 0.05$ ), indicating no negative impact of VOTRIENT on global quality of life.

In a Phase 2 study of 225 patients with locally recurrent or metastatic clear cell renal cell carcinoma, objective response rate was 35 % and median duration of response was 68 weeks, as per independent review. Median PFS was 11.9 months.

## INDICATIONS

VOTRIENT is indicated for the treatment of advanced and/or metastatic renal cell carcinoma (RCC).

## CONTRAINDICATIONS

VOTRIENT is contraindicated in patients with hypersensitivity to the active substance pazopanib hydrochloride or to any of the excipients (see *DESCRIPTION*).

## PRECAUTIONS

**Hepatic Effects:** Cases of hepatic failure (including fatalities) have been reported during use of VOTRIENT. In clinical trials with VOTRIENT, increase in serum transaminases (ALT, AST) and bilirubin were observed (see *Adverse Events*). In the majority of the cases, isolated increases in ALT and AST have been reported, without concomitant elevations of alkaline phosphatase or bilirubin. The vast majority (92.5%) of all transaminase elevations of any grade occurred in the first 18 weeks. Grades are based on the National Cancer Institute Common Terminology Criteria for Adverse Events, Version 3 (NCI CTCAE).

Monitor serum liver tests before initiation of treatment with VOTRIENT and at least once every 4 weeks for at least the first 4 months of treatment, and as clinically indicated. Periodic monitoring should then continue after this time period.

The following guidelines are provided for patients with baseline values of total bilirubin  $\leq 1.5$  x ULN and AST and ALT  $\leq 2$  x ULN.

- Patients with isolated ALT elevations between 3 x ULN and 8 X ULN may be continued on VOTRIENT with weekly monitoring of liver function until ALT returns to Grade 1 (NCI CTCAE) or baseline.
- Patients with ALT of  $> 8$  X ULN should have VOTRIENT interrupted until they return to Grade 1 (NCI CTCAE) or baseline. If the potential benefit for reinitiating VOTRIENT treatment is considered to outweigh the risk for hepatotoxicity, then reintroduce VOTRIENT at a reduced dose (400 mg daily) and measure serum liver tests weekly for 8 weeks (see *Dosage and Administration*). Following reintroduction of VOTRIENT, if transaminase elevations  $> 3$  X ULN recur, then VOTRIENT should be permanently discontinued.

- If ALT elevations > 3 X ULN occur concurrently with bilirubin elevations > 2 X ULN, VOTRIENT should be permanently discontinued. Patients should be monitored until return to Grade 1 (NCI CTCAE) or baseline. VOTRIENT is a UGT1A1 inhibitor. Mild, indirect (unconjugated) hyperbilirubinaemia may occur in patients with Gilbert's syndrome. Patients with only a mild indirect hyperbilirubinaemia, known or suspected Gilbert's syndrome, and elevation in ALT > 3 x ULN should be managed as per the recommendations outlined for isolated ALT elevations.

For patients with pre-existing moderate hepatic impairment, VOTRIENT dose modification guidelines (beyond reducing the initial starting dose to 200 mg per day) have not been established (See Dosage and Administration – Populations).

**Hypertension:** Blood pressure should be well controlled prior to initiating VOTRIENT. Patients should be monitored for hypertension and treated as needed with standard anti-hypertensive therapy (see *Adverse Events*). Hypertension occurs early in the course of treatment (88 % occurring in first 18 weeks). In the case of persistent hypertension despite anti-hypertensive therapy, the VOTRIENT dose may be reduced (see *Dosage and Administration*). VOTRIENT should be discontinued if hypertension is severe and persists despite anti-hypertensive therapy and VOTRIENT dose reduction.

**QT Prolongation and Torsade de Pointes:** In clinical studies with VOTRIENT, events of QT prolongation or Torsade de Pointes have occurred (see *Adverse Events*). VOTRIENT should be used with caution in patients with a history of QT interval prolongation, patients taking antiarrhythmics or other medications that may potentially prolong QT interval, or those with relevant pre-existing cardiac disease. When using VOTRIENT, baseline and periodic monitoring of electrocardiograms and maintenance of electrolytes (calcium, magnesium, potassium) within normal range is recommended.

**Arterial Thrombotic Events:** In clinical studies with VOTRIENT, myocardial infarctions, angina, ischemic stroke and transient ischemic attack were observed (see *Adverse Events*). Fatal events have been observed. VOTRIENT should be used with caution in patients who are at increased risk of thrombotic events or who have had a history of thrombotic events. VOTRIENT has not been studied in patients who have had an event within the previous 6 months. A treatment decision should be made based upon the assessment of individual patient's benefit/risk.

**Haemorrhagic Events:** In clinical studies with VOTRIENT haemorrhagic events have been reported (see *Adverse Events*). Fatal haemorrhagic events have occurred. VOTRIENT has not been studied in patients who had a history of haemoptysis, cerebral, or clinically significant gastrointestinal haemorrhage in the past 6 months. VOTRIENT should be used with caution in patients with significant risk of haemorrhage.

**Gastrointestinal Perforations and Fistula:** In clinical studies with VOTRIENT, events of gastrointestinal (GI) perforation or fistula have occurred (*see Adverse Events*). Fatal perforation events have occurred. VOTRIENT should be used with caution in patients at risk for GI perforation or fistula.

**Wound Healing:** No formal studies on the effect of VOTRIENT on wound healing have been conducted. Since Vascular Endothelial Growth Factor (VEGF) inhibitors may impair wound healing, treatment with VOTRIENT should be stopped at least 7 days prior to scheduled surgery. The decision to resume VOTRIENT after surgery should be based on clinical judgement of adequate wound healing. VOTRIENT should be discontinued in patients with wound dehiscence.

**Hypothyroidism:** In clinical studies with VOTRIENT, events of hypothyroidism have occurred (*see Adverse Events*). Proactive monitoring of thyroid function tests is recommended.

**Proteinuria:** In clinical studies with VOTRIENT, proteinuria has been reported (*see Adverse Events*). Baseline and periodic urinalyses during treatment are recommended and patients should be monitored for worsening proteinuria. VOTRIENT should be discontinued if the patient develops nephrotic syndrome.

### **Effects on fertility**

Pazopanib may impair fertility in human males and females. In a female reproductive toxicity study in rats, reduced fertility has been observed. Decreased corpora lutea and increased incidence of ovarian cysts and atrophy have also been noted in rodents. Decreased corpora lutea was also noted in cynomolgus monkeys given 500 mg/kg/day pazopanib (equivalent to the human clinical exposure based on AUC) for up to 34 weeks.

Pazopanib did not affect mating or fertility in male rats. However, there were reductions in sperm production rates, sperm motility, and epididymal and testicular sperm concentrations at doses  $\geq 100$  mg/kg/day (approximately 0.3 times the human clinical exposure based on AUC) following 15 weeks of dosing. Following 15 and 26 weeks of dosing, there were decreased testicular and epididymal weights at  $\geq 30$  mg/kg/day (approximately 0.4 times the human clinical exposure based on AUC). Atrophy and degeneration of the testes with aspermia, hypospermia and cribriform change in the epididymis was also observed in male rats given  $\geq 30$  mg/kg/day in the 26-week toxicity study.

### **Use in Pregnancy (Category D)**

There are no adequate data from the use of pazopanib in pregnant women.

VOTRIENT can cause fetal harm when administered to a pregnant woman. Pazopanib has been shown to be embryotoxic and teratogenic when administered to rats and rabbits at exposures below clinical exposure. Effects included cardiovascular malformations, incomplete or absent ossification, increased pre- and post-implantation loss, early resorptions, embryo lethality, and decreased foetal body weight.

VOTRIENT should not be used during pregnancy unless, in the opinion of the physician, the potential benefits of treatment to the mother outweigh any possible risks to the developing foetus.

If VOTRIENT is used during pregnancy, or if the patient becomes pregnant while receiving VOTRIENT, the potential hazard to the foetus should be explained to the patient. Women of childbearing potential should be advised to avoid becoming pregnant while receiving treatment with VOTRIENT. Ensure contraceptive cover in women of childbearing potential during use and for four weeks after therapy.

### **Use in Lactation**

The safe use of VOTRIENT during lactation has not been established. It is not known whether pazopanib is excreted in human milk. Many drugs are excreted into human milk. VOTRIENT should not be used by breastfeeding women.

### **Ability to perform tasks that require judgement, motor or cognitive skills**

There have been no studies to investigate the effect of VOTRIENT on driving performance or the ability to operate machinery. A detrimental effect on such activities cannot be predicted from the pharmacology of VOTRIENT. The clinical status of the patient and the adverse event profile of VOTRIENT should be borne in mind when considering the patient's ability to perform task that require judgment, motor and cognitive skills.

### **Genotoxicity**

Pazopanib was negative for genotoxicity in genotoxicity assays (Ames assay, human peripheral lymphocyte chromosome aberration assay and rat micronucleus assay). A synthetic intermediate in the manufacture of pazopanib, which is also present in the final drug substance, was not mutagenic in the Ames assay but was genotoxic in the mouse lymphoma L5178Y TK +/- and micronucleus assays and is controlled to below a daily intake of 0.1 mg.

### **Carcinogenicity**

Carcinogenicity studies with pazopanib have not been performed.

## Interactions with other medicines

### ***Drugs that Inhibit or Induce Cytochrome P450 3A4 Enzymes***

*In vitro* studies suggested that the oxidative metabolism of pazopanib in human liver microsomes is mediated primarily by CYP3A4, with minor contributions from CYP1A2 and CYP2C8. Therefore, inhibitors and inducers of CYP3A4 may alter the metabolism of VOTRIENT.

CYP3A4 Inhibitors: Concurrent administration of a single dose pazopanib eye drops with the strong CYP3A4 inhibitor, ketoconazole, in healthy volunteers resulted in 220 % and 150 % increases in mean AUC<sub>(0-t)</sub> and C<sub>max</sub> values, respectively.

Co-administration of pazopanib with strong inhibitors of the CYP3A4 family (e.g., ketoconazole, itraconazole, clarithromycin, atazanavir, indinavir, nefazodone, nelfinavir, ritonavir, saquinavir, telithromycin, voriconazole) may increase pazopanib concentrations. Grapefruit juice may also increase plasma concentrations of pazopanib.

Administration of 1500 mg lapatinib, a substrate and weak inhibitor of CYP3A4, Pgp and BCRP with 800 mg pazopanib resulted in an approximately 50 % to 60 % increase in mean pazopanib AUC<sub>(0-24)</sub> and C<sub>max</sub> compared to administration of 800 mg pazopanib alone. Co-administration of pazopanib with a CYP3A4, Pgp, and BCRP inhibitor, such as lapatinib, will result in an increase in plasma pazopanib concentrations.

Combination with strong CYP3A4 inhibitors should therefore be avoided, or selection of an alternate concomitant medication with no or minimal potential to inhibit CYP3A4 is recommended. A dose reduction of pazopanib should be considered when it must be co-administered with strong CYP3A4 inhibitors (*see Dosage and Administration*).

CYP3A4 Inducers: CYP3A4 inducers such as rifampin may decrease plasma pazopanib concentrations. Selection of an alternate concomitant medication with no or minimal enzyme induction potential is recommended.

### ***Effects of Pazopanib on CYP Substrates***

*In vitro* studies with human liver microsomes showed that pazopanib inhibited CYP enzymes 1A2, 3A4, 2B6, 2C8, 2C9, 2C19, and 2E1. Potential induction of human CYP3A4 was demonstrated in an *in vitro* human PXR assay. Clinical pharmacology studies, using pazopanib 800 mg once daily, have demonstrated that pazopanib does not have a clinically relevant effect on the pharmacokinetics of caffeine (CYP1A2 probe substrate), warfarin (CYP2C9 probe substrate), or omeprazole (CYP2C19 probe substrate) in cancer patients. VOTRIENT resulted in an increase of approximately 30 % in the mean AUC and C<sub>max</sub> of midazolam (CYP3A4 probe substrate) and increases of 33% to 64% in the ratio of dextrometorphan to dextrophan concentrations in the urine after oral administration of dextromethorphan (CYP2D6 probe

substrate). Co-administration of pazopanib 800 mg once daily and paclitaxel 80 mg/m<sup>2</sup> (CYP3A4 and CYP2C8 substrate) once weekly resulted in a mean increase of 26 % and 31 % in paclitaxel AUC and C<sub>max</sub>, respectively. Concomitant use of pazopanib with agents with narrow therapeutic windows that are metabolised by CYP3A4, CYP2D6, or CYP2C8 is not recommended. Co-administration may result in inhibition of the metabolism of these products and create the potential for serious adverse events.

### ***Effects of Pazopanib on Transporters***

*In vitro* studies also showed that pazopanib is a potent inhibitor of UGT1A1 and OATP1B1 with IC<sub>50</sub> of 1.2 and 0.79 µM, respectively. Pazopanib may increase concentrations of drugs primarily eliminated through UGT1A1 (e.g. irinotecan) and OATP1B1 (e.g. rosuvastatin).

### ***Effect of Food on Pazopanib***

Administration of pazopanib with a high-fat or low-fat meal results in an approximately 2-fold increase in AUC and C<sub>max</sub>. Therefore, pazopanib should be administered at least 1 hour before or 2 hours after a meal (see *Dosage and Administration*).

## **ADVERSE EVENTS**

### **Clinical Trial Data**

The safety and efficacy of VOTRIENT in renal cell carcinoma (RCC) were evaluated in a randomized, double-blind, placebo-controlled multi-centre study. Patients with locally advanced and/or metastatic RCC were randomized to receive VOTRIENT 800 mg once daily (N=290) or placebo (N=145). The median duration of treatment was 7.4 months for the VOTRIENT arm and 3.8 months for the placebo arm.

Adverse reactions are listed below by MedDRA body system organ class.

The following convention has been utilised for the classification of frequency:

Very common	≥ 1 in 10
Common	≥ 1 in 100 and < 1 in 10
Uncommon	≥ 1 in 1,000 and < 1 in 100

Categories have been assigned based on absolute frequencies in the clinical trial data.

### **Blood and lymphatic system disorders**

<i>Common</i>	Thrombocytopenia Neutropenia
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## **Endocrine disorders**

*Common* Hypothyroidism\*

## **Metabolism and nutrition disorders**

*Very common* Anorexia

*Common* Weight decreased

## **Nervous system disorders**

*Very common* Headache

*Common* Transient ischaemic attack\*  
Dysgeusia

*Uncommon* Ischaemic stroke\*

## **Cardiac disorders**

*Common* Myocardial ischaemia\*  
QT prolongation\*

*Uncommon* Torsade de Pointes\*  
Cardiac Dysfunction (such as reduced ejection fraction and congestive heart failure)

Myocardial infarction\*

## **Vascular disorders**

*Very common* Hypertension\*

## **Haemorrhages\***

*Common* Epistaxis  
Haematuria

*Uncommon* Pulmonary haemorrhage  
Gastrointestinal haemorrhage  
Cerebral haemorrhage

## **Gastrointestinal disorders**

*Very common* Diarrhoea  
Nausea  
Vomiting  
Abdominal pain

*Common* Dyspepsia

*Uncommon* Gastrointestinal perforation\*  
Gastrointestinal fistula\*

### **Hepatobiliary disorders\***

*Very common* Alanine aminotransferase increased  
Aspartate aminotransferase increased

*Common* Hepatic function abnormal  
Hyperbilirubinaemia  
Lipase elevations

### **Skin and subcutaneous tissue disorders**

*Very common* Hair depigmentation

*Common* Rash  
Alopecia  
Skin depigmentation  
Palmar-plantar erythrodysesthesia syndrome

### **Renal and urinary disorders**

*Common* Proteinuria\*

### **General disorders and administration site conditions**

*Very common* Fatigue  
Asthenia

*Common:* Chest pain\*

\*See *Precautions* for additional information

Table 2 presents the incidence of very common (>10%) treatment-related adverse events for patients receiving VOTRIENT versus those on placebo.

**Table 2. Treatment-related Adverse Events Reported for at least 10% of subjects who received VOTRIENT or Placebo**

Adverse Event, n (%)	Number (% of subjects)					
	VOTRIENT (n = 290)			Placebo (n = 145)		
	Any Grade	Grade 3	Grade 4	Any Grade	Grade 3	Grade 4
<b>Any</b>	257 (89)	74 (26)	11 (4)	56 (39)	5 (3)	1(1)
Diarrhoea	128 (44)	9 (3)	2 (<1)	9 (6)	1 (1)	0
Hair colour changes	107 (37)	1 (<1)	0	5 (3)	0	0
Hypertension	106 (37)	12 (4)	0	13 (9)	1 (1)	0
Nausea	63 (22)	2 (<1)	0	8 (6)	0	0
Anorexia	49 (17)	4 (1)	0	6 (4)	0	0
Vomiting	48 (17)	6 (2)	1 (<1)	5 (3)	1 (1)	0
Fatigue	46 (16)	5 (2)	0	2 (1)	0	0
ALT increased	43 (15)	15 (5)	2 (<1)	3 (2)	0	0
AST increase	38 (13)	9 (3)	1 (<1)	4 (3)	0	0

Table 3 presents laboratory abnormalities occurring in  $\geq 15\%$  of patients who received VOTRIENT. Grades are based on the NCI CTCAE.

**Table 3. Selected Laboratory Abnormalities in  $\geq 15\%$  of Patients who Received VOTRIENT and More Commonly than Placebo Arm**

Parameters	VOTRIENT (N = 290)			Placebo (N = 145)		
	All Grades %	Grade 3 %	Grade 4 %	All Grades %	Grade 3 %	Grade 4 %
<b>Haematologic</b>						
Leukopenia	37	0	0	6	0	0
Neutropenia	34	1	<1	6	0	0
Thrombocytopenia	32	<1	<1	5	0	<1
Lymphocytopenia	31	4	<1	24	1	0
<b>Chemistry</b>						
ALT increased	53	10	2	22	1	0
AST increased	53	7	<1	19	<1	0
Glucose increased	41	<1	0	33	1	0
Total Bilirubin increased	36	3	<1	10	1	<1
Phosphorus decreased	34	4	0	11	0	0
Calcium decreased	33	1	1	26	1	<1
Sodium decreased	31	4	1	24	4	1
Potassium increased	27	4	<1	23	5	0
Creatinine increased	26	0	<1	25	<1	0
Magnesium decreased	26	<1	1	14	0	0
Glucose decreased	17	0	<1	3	0	0

**Lipase Elevations:** In a single-arm clinical study, increases in lipase values were observed for 48/181 patients (27%). Elevations in lipase as an adverse reaction were reported for 10 patients (4%) and were Grade 3 for 6 patients and Grade 4 for 1 patient. In clinical RCC studies of VOTRIENT, clinical pancreatitis was observed in 4/586 patients (<1%).

**Post marketing data**

No post-marketing data are currently available.

## **DOSAGE AND ADMINISTRATION**

The recommended dose of VOTRIENT is 800 mg orally once daily.

VOTRIENT should be taken without food (at least one hour before or two hours after a meal) (see *Pharmacokinetics*).

VOTRIENT should be taken whole with water and must not be broken or crushed.

If a dose is missed, it should not be taken if it is less than 12 hours until the next dose.

### Dose Modifications

Initial dose reduction should be from 800 mg to 400 mg daily. Subsequent dose modification, either an increase or decrease in dose, should be in 200 mg increments in a stepwise fashion based on individual tolerability in order to manage adverse reactions. The dose of VOTRIENT should not exceed 800 mg.

*CYP3A4 inhibitor.* The concomitant use of strong CYP3A4 inhibitors may increase VOTRIENT concentrations and should be avoided (e.g., ketoconazole, itraconazole, clarithromycin, atazanavir, indinavir, nefazodone, nelfinavir, ritonavir, saquinavir, telithromycin, voriconazole). If co-administration of a strong CYP3A4 inhibitor is warranted, a dose reduction to 400 mg of VOTRIENT is recommended based on pharmacokinetic studies. This dose is predicted to adjust the pazopanib AUC to the range observed without inhibitors (see *Interactions with other Medicines*). However, there are no clinical data with this dose adjustment in patients receiving strong CYP3A4 inhibitors.

## **Populations**

### Children

The safety and efficacy of VOTRIENT in children have not been established.

### Elderly

No alteration of dosage, dosing frequency or route of administration is required in patients over 65 years.

### Renal Impairment

There is no experience of VOTRIENT in patients with severe renal impairment or in patients undergoing peritoneal dialysis or haemodialysis. Renal impairment is unlikely to have a

clinically relevant effect on VOTRIENT pharmacokinetics given the low renal excretion of pazopanib and metabolites (see *Elimination*).

### Hepatic Impairment

The safety and pharmacokinetics of VOTRIENT in patients with pre-existing hepatic impairment have not been fully established (see *Precautions*). Pharmacokinetic data from patients with normal hepatic function (n = 12) and moderate (n = 7) hepatic impairment indicate that pazopanib clearance was decreased by approximately 50% in those with moderate hepatic impairment [total bilirubin > 1.5 to 3 x Upper Limit of Normal (ULN)]. The dose of VOTRIENT should be reduced to 200 mg per day in patients with moderate hepatic impairment). There are no data in patients with severe hepatic impairment (total bilirubin > 3 x ULN regardless of any level of ALT); therefore, use of VOTRIENT is not recommended in these patients. There are no data to support dosing recommendations in patients with mild hepatic impairment.

## **OVERDOSAGE**

VOTRIENT doses up to 2,000 mg have been evaluated in clinical trials. Grade 3 fatigue (dose limiting toxicity) and Grade 3 hypertension were each observed in 1 of 3 patients dosed at 2,000 mg and 1,000 mg daily, respectively.

### **Symptoms and Signs**

There is currently limited experience with overdosage in VOTRIENT.

### **Treatment**

Further management should be as clinically indicated or as recommended by the national poisons centre, where available. Haemodialysis is not expected to enhance the elimination of VOTRIENT because pazopanib is not significantly renally excreted and is highly bound to plasma proteins.

## **PRESENTATION AND STORAGE CONDITIONS**

The 200 mg tablets are modified capsule-shaped, pink, film-coated with 'GS JT' debossed on one side.

The 400 mg tablets are modified capsule-shaped, white, film-coated with 'GS UHL' debossed on one side.

### ***Shelf-Life***

24 months.

### ***Storage***

Store below 30°C.

### ***Nature and Contents of Container***

VOTRIENT 200 mg film-coated tablets are supplied in high-density polyethylene (HDPE) bottles with child resistant polypropylene closures containing 30 or 90 tablets\*.

VOTRIENT 400 mg film-coated tablets are supplied in high-density polyethylene (HDPE) bottles with child resistant polypropylene closures containing 30 or 60 tablets\*.

\* not all pack sizes may be marketed

## **NAME AND ADDRESS OF THE SPONSOR:**

GlaxoSmithKline Australia Pty Ltd  
1061 Mountain Highway  
Boronia Victoria 3155

## **POISON SCHEDULE OF THE MEDICINE - S4**

This document was approved by the Therapeutic Goods Administration on: 22 June 2010

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