# CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER: 75-237

# **APPROVED DRAFT LABELING**

SUN

# SOTALOL HCI TABLETS 80 mg, 120 mg, 160 mg, 240 mg

Sotaiol hydrochloride is an antiarrhythmic drug with Class II (beta-adrenoreceptor blocking) and Class III (cardiac action potential duration prolongation) properties. Sotaiol hydrochloride is a white, crystalline solid with a molecular weight of 306.8. It is hydrophic, sotable in water, propylene glycol and ethanol, but is only slightly soluble in chloroform. Chemically, sotalol hydrochloride is d,1-N-[4-[1-hydroxy-2-(1]-nethylethyl]amino[ethyl]phenyl]methane-sultonamide monohydrochloride. The molecular formula is CizhtoNx20;3SHCl and is represented by the following structural formula:



Sotalol Hydrochloride Tablets contain either 80 mg, 120 mg, 160 mg, or 240 mg of sotalol hydrochloride. In addition they also contain the following inactive ingredients: colloidal silicon dioxide, lactose monohydrate, magnesium stearate, microcrystalline cellulose, pregelatinized starch, and stearic acid. CLINICAL PHARMACOLOGY

## Mechanis<sub>in</sub> of Action

Mechanis-n of Action Sotalol has both beta-adrenoreceptor blocking (Vaughan Williams Class II) and cardiac action potential duration prolongation (Vaughan Williams Class III) antiarmythmic properties. Sotalol hydrochloride is a racemic mixture of d- and E-sotalol. Both isomers have similar Class III antiarmythmic effects, while the I-isomer is systomsible for virtually all of the beta-blocking activity. The beta-blocking effect of sotalol is non-cardicesi, tive, half maximal at about 80 mg/day and maximal at doses between 320 and 640 mg/day. Sotalol doses not have partial agonist or membrane stabilizing activity. Athough significant beta-blocked occurs at oral doses as low as 25 mg, Class III effects are seen only at daily doses of 160 mg and above.

Electrophysiology Sotalol prolongs the plateau phase of the cardiac action potential in the isolated myocyte, as well as in isolated tissue preparations of ventricular or atrial muscle (Class III activity). In intact animals it slows heart rate, decreases AV nodal conduction and increases the refractory periods of atrial and ventricular muscle and conduction tiesue.

In man, the Class II (beta-blockade) electrophysiological effects of sotaiol are manifested by increased sinus cycle length (slowed heart rate), decreased AV nodal conduction and increased AV nodal refractoriness. The Class III electrophysiological effects in man include prolongation of the atrial and ventricular monophasic action potentials, and effective refractory period prolongation of atrial muscle, ventricular muscle, and atrio-ventricular accessory pathways (where present) in both the anterograde and retrograde directions. With oral doses of 160 to 640 mg/day, the surface ECG shows dose-related mean increases of 40 to 100 msec in QT and 10 to 40 msec in QT<sub>C</sub>. (See WARNINGS for description of relationship between QT<sub>C</sub> and torsade de pointes type arrhythmias.) No significant alteration in QRS interval is observed.

In a small study (n=25) of patients with implanted defibrillators treated concurrently with sotalol, the average defibrillatory threshold was 6 joules (range 2 to 15 joules) compared to a mean of 16 joules for a non-randomized comparative group primarily receiving amiodarone.

### Hemodynamics

Hemodynamics In a study of systemic hemodynamic function measured invasively in 12 patients with a mean LV ejection fraction of 37% and ventricular tachycardia (9 sustained and 3 non-sustained), a median dose of 160 mg twice daily of sotalol hydrochloride produced a 28% reduction in heart rate and a 24% decrease in cardiac index at 2 hours post dosing at steady-stale. Concurrently, systemic vascular resistance and stroke volume showed non-significant increases of 25% and 8%, respectively. Pulmonary capillary wedge pressure increased significantly from 6.4 mmHg to 11.8 mmHg in the 11 patients who completed the study. One patient was discontinued because of worsening congestive heart failure. Mean artery pressure and stroke work index did not significantly change. Exercise and isoproferenol-induced tachycardia are antagonized by sotalol, and total peripheral resistance increases by a small amount. amount

In hypertensive patients, sotalol produces significant reductions in both systolic and diastolic blood pressures. Although sotalol is usually well-tolerated hemodynamically, caution should be exercised in patients with marginal cardiac compensation as deterioration in cardiac performance may occur. (See WARNINGS - Congestive Heart Failure.)

Clinical Actions Sotalol has been studied in life-threatening and less severe arrhythmias. In patients with frequent premature ventricular complexes (VPC), sotalol was significantly superior to placebo in reducing VPCs, paired VPCs and non-sustained ventricular tachycardia (NSVT); the response was dose-related through 640 mg/day with 80 to 85% of patients having at least a 75% reduction of VPCs. Sotalol was also superior, at the dose evaluated, to proprarolol (40 to 80 mg TID) and similar to quindine (200 to 400 mg CID) in reducing VPCs. In patients with life-threatening arrhythmias (sustained ventricular tachycardia/fibrillation (VT/VF), sotalol was situided acutely (by suppression of programmed electrical stimulation (PES) induced VT and by suppression of Hotter monitor evidence of sustained VT] and, in acute responders, chronically.

In a double-blind, randomized comparison of sotalol and procainamide given intravenously (total of 2 mg/kg sotalol hydrochloride vs. 19 mg/kg of procainamide over 90 minutes), sotalol suppressed PES induction in 30% of patients vs. 20% to procainamide (p=0.2).

30% of patients vs. 20% for proceinantide (p=0.2). In a randomized clinical trial [Electrophysiologic Study Versus Electrocardiographic Monitoring (ESVEM) Trial] comparing choice of antiarrhythmic therapy by PES suppression vs. Hofter monitor selection (in each case tollowed by treadmill exercise treating) in patients with a history of sustained VT/VF who were also inducible by PES, the effectiveness acutely and chronically of sotable was compared with 6 other drugs (procainande, quindler, mexilotine, propalenone, impramine and pirmenol). Overall response rate for first drug randomized drug, was 39% for sotabl and 30% for the pooled other drugs. A mean of 13% for the other drugs. Using the Hofter monitoring endpoint (complete suppression of VSV, ROS, sotable) yielded 41% response vs. 45% for the other drugs combined. Among responders placed on long-term therapy identified acutely as effective (by either PES or Hofter), sotable. Meno compared to the pool of other drugs, had the lowest two-year mortality (13% vs. 22%), the lowest two-year VT recurrence rate (30% vs. 60%), and the lowest withdrawal rate (33% vs. about 75 to 80%). The most commonly used doese of sotable in the trial were 320 to 480 mg/day (66% of patients), with 16% receiving 240 mg/day or less and 18% receiving 640 mg or more.

It cannot be determined, however, in the absence of a controlled comparison of sotalol vs. no pharmacologic treatment (e.g., in patients with implanted delibrillators) whether sotalol response causes improved survival or identifies a population with a good prognosis.

improved survival or identines a population with a good prognosis. In a large double-blind, placebo controlled secondary prevention (post-infarction) trial (n=1.456), sotalol hydrochioride was given as a non-itrated initial dose of 320 mg once daily. Sotalol did not produce a significant increase in survival (7.3% mortality on sotalol vs. 8.3% on placebo, p=0.3), but overall did not suggest an adverse effect on survival. There was, however, a suggestion of an early (i.e. first 10 days) excess mortality (3% on sotalol vs. 2% on placebo). In a second small trial (n=17 randomized to sotalol) where sotalol was administered at high doses (e.g., 320 mg twice daily) to high-risk post-infarction patients (ejection fraction <40% and either >10 VPC/hr or VT on Holter), there were 4 fatalities and 3 serious hemodynamic/electrical adverse events within two weeks of initiating sotalol.

Pharmacokinetics In healthy subjects, the oral bioavailability of sotalol is 90 to 100%. After oral administration, peak plasma concentrations are reached in 2.5 to 4 hours, and steady-state plasma concentrations are attained within 2 to 3 days (i.e., after 5 to 6 doses when administered twice daily). Over the dosage range 160 to 640 mg/day sotalol hydrochloride displays dose proportionality with respect to plasma concentrations. Distribution occurs to a central (plasma) and to a peripheral compartment, with a mean elimination half-life of 12 hours. Dosing every 12 hours results in trough plasma concentrations which are approximately one-half of those at peak.

Solalol does not bind to plasma proteins and is not metabolized. Solalol shows very little intersubject variability in plasma levels. The pharmacokinetics of the d and I enantiomers of solalol are essentially identical. Solalol crosses the blood-brain barrier poorty. Excretion is predominantly via the kidney in the unchanged form, and therefore lower does are necessary in conditions of renal impairment (see DOSAGE AND ADMINISTRATION). Age per se does not significantly alter the pharmacokinetics of solalol, but impaired renal function in genatic patients can increase the terminal elimination half-life, resulting in increased drug accumulation. The absorption of solalol was reduced by approximately 20% compared to fasting when it was administered with a standard meal. Since solalol is not subject to first-pass metabolism, patients with hepatic impairment show no alteration in clearance of solalol.

## INDICATIONS AND USAGE

Mortality The National Heart, Lung and Blood Institute's Cardiac Arrhythmia Suppression Trial I (CAST I) was a long-term, multi-center, double-blind study in patients with asymptomatic, non-life-threatening ventricular arrhythmias, 1 to 103 weeks after acute myocardial infarction.

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Patients in CAST I were randomized to receive placebo or individually optimized dose encainide, flecainide, or moricizine. The Cardiac Arrhythmia Suppression Trial II (CAST II) similar, except that the recruited patients had had their index infarction 4 to 90 days be randomization, patients with left ventricular ejection fractions greater than 40% were not admi and the randomizad regimens were limited to placebo and moricizine. don

CAST I was discontinued after an average time-on-treatment of 10 months, and CAST II will discontinued after an average time-on-treatment of 18 months. As compared to placebo treatment all three active therapies were associated with increases in short-term (14-day) mortality, an encainide and flecainide were associated with increases in short-term (14-day) mortality as we The longer-term mortality rate associated with morticizine treatment could not be statistical distinguished from that associated with placebo. ity, and

The applicability of these results to other populations (e.g., those without recent myocardial infarction) and to other Class I antiarthythmic agents is uncertain. Sotaloi is devoid of Class I effects, and in a large (n=1.456) controlled trial in patients with a recent myocardial infarction, who did not necessarily have ventricular arrhythmias, sotaloi hydrochloride did not produce increased mortality at doses up to 320 mg/day (see Clinical Actione). On the other hand, in the large post-infarction study using a non-titrated initial dose of 320 mg once daily and in a second small randomized trial in high-risk post-infarction patients treated with high doses (320 mg BID), there have been suggestions of an excess of early sudden deaths.

## Proemhythmia

WARNINGS

Proamhythmia Like other antianhythmic agents, sotalol can provoke new or worsened ventricular anhythmias in some patients, including sustained ventricular tachycardia or ventricular fibrillation, with potentially fatal consequences. Because of its effect on cardiac repolarization (OTc interval protongation), torsade de pointes, a polymorphic ventricular tachycardia with prolongation of the OT interval and a shifting electrical axis is the most common form of proaritythmia associated with sotalol, occurring in about 4% of high risk (history of sustained VT/VF) patients. The risk of torsade de pointes progressively increases with protongation of the OT interval, and is worsened also by reduction in heart rate and reduction in serum potassium. (See Electrolyte Disturbances.)

Potassianin. Gee Electronyle Distubilities;) Because of the variable temporal recurrence of arrhythmias, it is not always possible to distinguish between a new or aggravated arrhythmic event and the patient's underlying rhythm disorder. (Note, however, that torsade de pointes is usually a drug-induced arrhythmia in people with an initially normal QTc.) Thus, the incidence of drug-related events cannot be precisely determined, so that the occurrence rates provided must be considered approximations. Note also that drug-induced arrhythmias may often not be identified, particularly if they occur long after staring the drug, due to less frequent monitoring. It is clear from the NIH-sponsored CAST (see WARNINGS - Mortelity) that some antiarrhythmic drugs can cause increased sudden death mortality, presumably due to new arrhythmias or asystole, that do not appear early in treatment but that represent a sustained increased risk.

Description to this represent a sostantic increased that. Overall in clinical trials with solatel 4.3% of 3257 patients experienced a new or worsened ventricular arrhythmia. Of this 4.3%, there was new or worsened sustained ventricular tachycardia in approximately 1% of patients and torsade de pointes in 2.4%. Additionally, in approximately 1% of patients, deaths were considered possibly drug-related; such cases, although difficult to evaluate, may have been associated with proarhythmic events. In patients with a history of austained ventricular tachycardia, the incidence of torsade de pointes was 4% and worsened VT in about 1%; in patients with other, less serious, ventricular arrhythmias and supraventricular arrhythmias, the incidence of torsade de pointes was 1% and 1.4%, respectively.

Torsade de pointes arrhythmias were dose related, as is the prolongation of QT(QT<sub>C</sub>) interval, as shown in the table below.

## Percent incidence of Torsade de Pointes and Mean OT<sub>C</sub> interval by Dose

Daily Dose (mg)	Incidence of Torsade de pointes	Mean QTc* (msec)		
80	0(69)	463 (17)		
160	0.5(832)	467 (181)		
320	1.6(835)	473 (344)		
480	4,4(459)	483 (234)		
640	3.7(324)	490 (185)		
>640	5.8(103)	512 (62)		

() Number of patients assessed

\*highest on-therapy value

In addition to dose and presence of sustained VT, other risk factors for torsade de pointes were gender (emales had a higher incidence), excessive protongation of the QT<sub>C</sub> interval (see table below) and history of congestive heart failure. Patients with sustained ventricular tachycardia and a history of congestive heart failure appear to have the highest risk for serious proartrythmia (7%). Of the patients experiencing torsade de pointes, approximately two-thirds spontaneously reverted to their baseline mythm. The others were either converted electrically (D/C cardioversion or overfrive pacing) or treated with other drugs (see OVERDOSAGE). It is not possible to determine whether some sudden deaths represented episodes of torsade de pointes, but in some instances sudden death did follow a documented episode of torsade de pointes. Although sotalol therapy was discontinued in most patients expresencing torsade de pointes for death death did follow a documented episode of torsade de pointes. Although sotalol therapy was discontinued in most patients expresencing torsade de pointes, 17% were continued on a lower dose. Nonetheless, sotalol should be used with paticular caution if the OT<sub>C</sub> is greater than 500 mace on-therapy and serious consideration should be given to reducing the doce or discontinuing therapy when the OT<sub>C</sub> exceeds 550 mscc. Due to the multiple risk-factors associated with torsade de pointes, however, caution should be exercised regardless of the OT<sub>C</sub> interval. The table below relates the incidence of torsade de pointes to on-therapy OT<sub>C</sub> and change in OT<sub>C</sub> time baseline. It should be noted, however, that the highest on-therapy OT<sub>C</sub> was in many cases the one obtained at the time of the torsade de pointes between **OT<sub>C</sub>**. Interval Protonation and Torsade de pointes a

onship Between QT<sub>C</sub> Interval Prolongation and Torsade de Poln

On-Therapy QT <sub>C</sub> Interval (msec)	Incidence of Torsade de pointes	Change in QT <sub>C</sub> Interval From Baseline (msec)	Incidence of Torsade de pointes	
less than 500	1.3% (1787)	less than 65	1.6% (1516)	1
500 to 525	3.4% (236)	65 to 80	3.2% (158)	
525 to 550	5.6% (125)	80 to 100	4.1% (146)	
>550	10.8% (157)	100 to 130	5.2% (115)	
		>130	7 1% (99)	

() Number of patients assessed

Proerrhythmic events must be anticipated not only on initiating therapy, but with every upward dose adjustment. Proarrhythmic events most often occur within 7 days of initiating therapy or of an increase in dose; 75% of serious proarrhythmias (torsade de pointes and worsened VT) occurred within 7 days of initiating sotaloi therapy, while 60% of such events occurred within 3 days of initiation or a dosage change. Initiating therapy at 80 mg BID with gradual upward dose titration and appropriate evaluations for efficacy (e.g., PES or Hotler) and safety (e.g., O T interval, heart rate and electrolytes) prior to dose escalation, should reduce the risk of proerrhythmia.

Avoiding excessive accumulation of sotalol in patients with diminished renal function, by appropriate dose reduction, should also reduce the risk of proarrhythmia (see DOSAGE AND ADMINISTRATION).

## **Congestive Heart Failure**

Congestive Heart Failure Sympathetic simulation is necessary in supporting circulatory function in congestive heart failure, and beta-blockade carries the potential hazard of further depressing myocardial contractility and precipitating more severe failure. In patients who have congestive heart failure controlled by digitalis and/or diuretics, sotatiol about be administered cautiously. Both digitalis and sotatol slow AV conduction. As with all beta-blockers, caution is advised when initiating therapy in patients with any evidence of left ventricular dysfunction. In premarketing studies, new or worsened congestive heart failure (CHF) occurred in 3.3% (n=3257) of patients and led to discontinuation in approximately 1% of patients receiving sotalol. The incidence was higher in patients presenting with sustained ventricular tachycardia/foirillation (4.6%, n=1363), or a pror worsened CHF was 3% in patients without a prior history and 10% in patients with a prior history of CHF. NYHA Classification was also closely associated to the incidence on ew or worsened heart failure (2000) and 1000 (2000) (2000

Triall comparing choice of aniarinythmic therapy by PES suppression vs. Holter monitor selection (in each case tollowed by treadmill exercise testing) in patients with a history of sustained VT/VF who were also inducible by PES, the effectiveness acutely and chronically of softalo was compared with 6 other drugs (procainamide, quincline, mexitetine, propaterione, impramina and pirmenol). Overall response rate for first drug randomized drug, was 39% for softalo and 30% for the pooled other drugs. Acute response rate for first drug randomized using suppression of PES induction was 36% for softalol vs. a mean of 13% for the other drugs. Using the Holter monitoring endpoint (complete suppression of sustained VT. 90% suppression of NSVI. B0% suppression of VPES pairs, and at least 70% suppression of sustained VT. 90% suppression of NSVI. B0% suppression of VPES or Holter). Sotalol, when compared to the pool of other drugs, had the lowest two-year mortality (13% vs. 22%), the lowest two-year VT recurrece rate (30% vs. 60%), and the lowest windrawal rate (33%, vs. about 75 to 80%). The most commonly used doess of 18% receiving 640 mg or more.

It cannot be determined, however, in the absence of a controlled comparison of sotalol vs. no pharmacologic treatment (e.g., in patients with implanted defibrillators) whether sotalol response causes improved survival or identifies a population with a good prognosis.

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Pharmacokinetics in a series events where two weeks or intrating sotatol. Pharmacokinetics in healthy subjects, the oral bioavailability of sotalol is 90 to 100%. After oral administration, peak plasma concentrations are reached in 2.5 to 4 hours, and steady-state plasma concentrations are attained within 2 to 3 days (ie., after 5 to 6 does when administered twice daily). Over the dosage range 160 to 640 mg/day sotalol hydrochloride displays dose proportionality with respect to plasma concentrations. Distribution occurs to a certral (plasma) and to a peripheral compartment, with a mean elimination hall-life of 12 hours. Dosing every 12 hours results in trough plasma concentrations which are approximately one-half of those at peak.

Sotalol does not bind to plasma proteins and is not metabolized. Sotalol shows very little intersubject variability in plasma levels. The pharmacokinetics of the d and I enantiomers of sotalol are essentially identical. Sotalol crosses the blood-brain barrier poorly. Excretion is predominantly via the kidney in the unchanged form, and therefore lower doses are necessary in conditions of renal impairment (see DOSAGE AND ADMINISTRATION). Age per se does not significantly alter the pharmacokinetics of sotalol, but impaired renal function in geritatic patients can increase the terminal elimination half-life, resulting in increased drug accumulation. The absorption of sotalol was reduced by approximately 20% compared to fasting when it was administered with a standard meal. Since sotalol is not subject to first-pass metabolism, patients with hepatic impairment show no alteration in clearance of sotalol.

## INDICATIONS AND USAGE

Sotaiol Hyrrochloride Tablets are indicated for the treatment of documented ventricular arrhythmias, such as sustain d ventricular arrhythmias, that in the judgement of the physician are life-threatening. Because of the prc.arrhythmic effects of sotaiol (See WARINIGS), including a 1.5 to 2% rate of torsade de pointes or new VT/VF in patients with either NSVT or supraventricular arrhythmias, its use in patients with less severe arrhythmicas, even if the patients are symptomatic, is generally not recommended. Treatment of patients with asymptomatic ventricular premature contraindications should be avoided.

Initiation of sotalol treatment or increasing doses, as with other antiarrhythmic agents used to treat life-threatening arrhythmias, should be carried out in the hospital. The response to treatment should then be evaluated by a suitable method (e.g., PES or Hotter monitoring) prior to continuing the patient on chronic therapy. Various approaches have been used to determine the response to antiarrhythmic therapy, including sotalol.

In the ESVEM Trial, response by Holter monitoring was tentatively defined as 100% suppression of ventricular tachycardia, 90% suppression of non-sustained VT, 80% suppression of paired VPCs, and 75% suppression of total VPCs in patients who had at least 10 VPCs/hour at baseline; this tentative response was confirmed if VT lasting 5 or more beats was not observed during treadmit exercise testing using a standard Bruce protocol. The PES protocol utilized a maximum of three extra stimuli at three pacing cycle lengths and two right ventricular pacing sites. Response by PES was defined as prevention of induction of the following: 1) monomorphic VT lasting over 15 seconds; 2) non-sustained polymorphic VT containing more than 15 beats of monomorphic VT. 3) polymorphic VT or VF greater than 15 beats in patients with vF or a history of aborted sudden death without monomorphic VT. and 4) two episodes of polymorphic VT or VF of greater than 15 beats in a patient presenting with monomorphic VT. Sustained VT or NSVT producing potension during the final treadmit test was considered a drug failure.

a multicenter open-label long-term study of sotatol in patients with life-threatening ventricular arrhythmias which had proven refractory to other aniarrhythmic medications, response by Holter monitoring was defined as in ESVEM. Response by PES was defined as non-inducibility of sustained VT by at least double extrastimuli delivered at a pacing cycle length of 400 msec. Overall survival and arrhythmia recurrence rates in this study were similar to those seen in ESVEM, although there was no comparative group to allow a definitive as assessment of outcome.

Antiarrhythmic drugs have not been shown to enhance survival in patients with ventricular arrhythmias. CONTRAINDICATIONS

Sotalol Hydrochloride is contraindicated in patients with bronchial asthma, sinus bradycardia, second and third degree AV block, unless a functioning pacemaker is present, congenital or acquired long QT syndromes, cardiogenic shock, uncontrolled congestive heart failure, and previous evidence of hypersensitivity to sotalol.

episodes of torsade de pointes, but in some instances sudden death did follow a documenteo episode c: torsade de pointes. Although sotalol therapy was discontinued in most patients experiencing torsade de pointes, 17% were continued on a lower dose. Nonetheless, sotalol should be used with paticular caution if the QT<sub>C</sub> is greater than 500 msec on-therapy and serious consideration should be given to reducing the dose or discontinuing therapy when the QT<sub>c</sub> exceeds 550 msec. Due to the multiple risk-factors associated with torsade de pointes, however, caution should be exercised regardless of the OT<sub>c</sub> interval. The table below relates the incidence of torsade de pointes to on-therapy QT<sub>c</sub> and change in QT<sub>c</sub> from baseline. It should be noted, however, that the highest on-therapy QT<sub>c</sub> and is many cases the one obtained at the time of the torsade de pointes event, so that the table overstates the predictive value of a high QT<sub>c</sub>.

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## Relationship Between QTc Interval Prolongation and Torsade de Pol

On-Therapy QT <sub>C</sub> incidence of Torsade Interval (msec) de pointes		Change in QT <sub>C</sub> interval From. Baseline (msec)	Incidence of Torsade de pointes
less than 500 500 to 525 525 to 550 >550	1.3% (1787) 3.4% (236) 5.6% (125) 10.8% (157)	less than 65 65 to 80 80 to 100 100 to 130 >130	1.6% (1516) 3.2% (158) 4.1% (146) 5.2% (115) 7.1% (99)

() Number of patients assessed

Prosrrhythmic events must be anticipated not only on initiating therapy, but with every upward dose adjustment. Proarrhythmic events most often occur within 7 days of initiating therapy or of an increase in dose; 75% of serious proarrhythmias (torsade de pointes and worsened VT) occurred within 7 days of initiating sotalot therapy, while 60% of such events occurred within 3 days of initiation or a dosage change. Initiating therapy at 80 mg BID with gradual upward dose titration and appropriate evaluations for efficacy (e.g., PES or Hoter) and safety (e.g., OT interval, heart rate and electrolytes) prior to dose escalation, should reduce the risk of proarrhythmia.

Avoiding excessive accumulation of sotaiol in patients with diminished renal function, by appropriate dose reduction, should also reduce the risk of proarity/thmia (see DOSAGE AND ADMINISTRATION).

reduction, should also reduce the risk of proarrhythmia (see DOSAGE AND ADMINISTRATION). Congestive Heart Failure Sympathetic stimulation is necessary in supporting circulatory function in congestive heart failure, and beta-blockade carries the potential hazard of further depressing myocardial contractility and precipitating more severe failure. In patients who have congestive heart failure controlled by digitalis and/or diuretics, sotaloi should be administered cautiously. Both digitalis and sotaloi slow AV conduction. As with all beta-blockers, caution is advised when initiating therapy in patients with any evidence of left ventricular dystunction. In premarketing studies, new or worsened congestive heart failure (CHF) occurred in 3.3% (n=3257) of patients and led to discontinuation in approximately 1% of patients receiving sotalol. The incidence was higher in patients presenting with sustained ventricular tachycardiafibriliation (4.5%, n=1363), or a prior history of heart failure (7.3%, n=596). Based on a life-table analysis, the one-year incidence of new or worsened CHF was 3% in patients without a prior history and 10% in patients with a prior history of CHF. NYHA Classification was also closely associated to the incidence of new or worsened theart failure while receiving sotalol (1.8% in 1395 Class I patients, 4.9% in 1254 Class II patients and 6.1% in 278 Class III or IV patients).

Electrolyte Disturbances Sotalol should not be used in patients with hypokalemia or hypomagnesemia prior to correction of imbalance, as these conditions can exaggerate the degree of QT protongation, and increase the potential for torsade de pointes. Special attention should be given to electrolyte and acid-base balance in patients experiencing severe or prolonged diarrhea or patients receiving concomitant diuretic drugs.

Conduction Disturbances Excessive prolongation of the QT interval (>550 msec) can promote serious arrhythmias and should be avoided (see Proerrhythmias above). Sinus bradycardia (heart rate less than 50 bpm) occurred in 13% of patients receiving solution in clinical trials, and led to discontinuation in about 3% of patients. Bradycardia itself increases the risk of torsade de pointes. Sinus pause, sinus arrest and sinus node dystunction occur in less than 1% of patients. The incidence of 2nd- or 3rd-degree AV block is approximately 1%.

Recent Acute MI Solalol can be used safely and effectively in the long-term treatment of life-threatening ventricular arrhythmias following a myocardial infarction. However, experience in the use of solatol to treat cardiac arrhythmias in the early phase of recovery from acute MI is limited and at least at high initial doese is not reassuring. (See WARNINGS - Mortality.) In the first 2 weeks post-MI caution is advised and careful dose titration is especially important, particularly in patients with markedly impaired ventricular function.

The following warnings are related to the beta-blocking activity of sotalol.

## Abrupt Withdrawal

Hypersensitivity to catecholamines has been observed in patients withdrawn from beta-blocker therapy. Occasional cases of exacerbation of angina peectoris, arthythmias and, in some cases, myocardial infarction have been reported after abrupt discontinuation of beta-blocker therapy.

Therefore, it is prudent when discontinuing chronically administered solalol, particularly in patients with ischemic heart disease, to carefully monitor the patient and conside: the temporary use of an alternate beta-blocker if appropriate. If possible, the dosage of solalol hydrochloride should be gradually reduced over a period of one to two weeks. If angina or acute coronary insufficiency develops, appropriate therapy should be instituted promptly. Patients should be warned against interruption or discontinuation of therapy without the physician's advice. Because coronary artery disease is common and may be unrecognized in patients receiving solated, abrupt discontinuation in patients with arrhythmias may unmask latent coronary insufficiency.

Non-Allergic Bronchospesm (e.g., chronic bronchitis and emphysema) PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA-BLOCKERS. It is prudent, il solatio is to be administered, to use the smallest effective dose, so that inhibition of bronchodilation produced by endogenous or exogenous catecholamine stimulation of betag-receptors may be minimized.

hyjaxis taking beta-blockers, patients with a history of anaphylactic reaction to a variety of allergens may a more severe reaction on repeated challenge, either accidental, diagnostic or therapeutic. Such nts may be unresponsive to the usual doses of epinephrine used to treat the allergic reaction.

Anesthesia The management of patients undergoing major surgery who are being treated with beta-blockers is controversial. Protracted severe hypotension and difficulty in restoring and maintaining normal cardiac rhythm after anesthesia have been reported in patients receiving beta-blockers.

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In patients with diabetes (especially labile diabetes) or with a history of episodes of spontaneous hypoglycemia, sotalol should be given with caution since beta-blockade may mask some important premonitory signs of acute hypoglycemia; e.g., tachycardia.

Sick Sinus Syndrome Sotalol should be used only with extreme caution in patients with sick sinus syndrome associated with symptomatic arthythmias, because it may cause sinus bradycardia, sinus pauses or sinus arrest.

Thyrotoxicosis Beta-blockade may mask certain clinical signs (e.g., tachycardia) of hyperthyroidism. Patients suspected of developing thyrotoxicosis should be managed carefully to avoid abrupt withdrawal of beta-blockade which might be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm.

Renal Impairment Sotaloi is mainly eliminated via the kidneys through glomerular filtration and to a small degree by tubular secretion. There is a direct relationship between renal function, as measured by serum creatinine or creatinine clearance, and the elimination rate of sotaloi. Guidance for dosing in conditions of renal impairment can be found under "DOSACE AND ADMINISTRATION".

Drug interactions ANTIARRHYTHMICS Class la antiarrhythmic drugs, such as disopyramide, quinidine and procainamide and other Class III drugs (e.g., amiodarone) are not recommended as concomitant therapy with sotatol, because of their potential to prolong refractoriness (see WARNINGS). There is only limited experience with the concomitant use of Class lib or to antiarrhythmics. Additive Class II effects would also be anticipated with the use of other beta-blocking agents concomitantly with sotatol.

DIGOXIN Single and multiple doses of sotalol do not substantially affect serum digoxin levels. Proarrhythmic events were more common in sotalol treated patients also receiving digoxin; it is not clear whether this represents an interaction or is related to the presence of CHF, a known risk factor for proarrhythmia, in the patients receiving digoxin.

CALCIUM BLOCKING DRUGS Sotalol should be administered with caution in conjunction with calcium blocking drugs because of possible additive effects on atrioventricular conduction or ventricular function. Additionally, concomitant use of these drugs may have additive effects on blood pressure, possibly leading to hypotension.

CATECHOLAMINE-DEPLETING AGENTS Concomitant use of catecholamine-depleting drugs, such as reserpine and guanethidine, with a beta-blocker may produce an excessive reduction of resting sympathetic nervous tone. Patients treated with sotaic) plus a catecholamine depletor should therefore be closely monitored for evidence of hypotension and or marked bradycardia which may produce syncope.

INSULIN AND ORAL ANTIDIABETICS Hyperglycernia may occur, and the dosage of insulin or antidiabetic drugs may require adjustment. Symptoms of hypoglycernia may be masked.

BETA-2-RECEPTOR STIMULANTS Beta-agonists such as salbutamol, terbutaline and isoprenaline may have to be administered in increased dosages when used concomitantly with sotalol.

## CLONIDINE.

Beta-blocking drugs may potentiate the rebound hypertension sometimes observed after discontinuation of clonidine; therefore, caution is advised when discontinuing clonidine in patients receiving sotalol.

OTHER No pharmacokinetic interactions were observed with hydrochlorothiazide

ANTACIDS Administration of sotalol within 2 hours of antacids containing aluminum oxide and magnesium hydroxide should be avoided because it may result in a reduction in C<sub>max</sub> and AUC of 26% and 20%, respectively and consequently in a 25% reduction in the bradycardic effect at rest. Administration of the antacid two hours after sotalol has no effect on the pharmacokinetics or pharmacodynamics of sotalol.

DRUGS PROLONGING THE QT INTERVAL Sotalol should be administered with caution in conjunction with other drugs known to prolong the QT interval such as Class I antiarhythmic agents, phenothiazines, tricyclic antidepressants, terfenadine and astemizole (see WARNINGS).

## DRUG/Laboratory Test Interactions

Chock Laboratory 1est interactions The presence of sotalol in the urine may result in falsely elevated levels of urinary metanephrine when measured by fluorimetric or photometric methods. In screening patients suspected of having a pheochromocytoma and being treated with sotalol, a specific method, such as a high performance liquid chromatographic assay with solid phase extraction (e.g., J. Chromatogr. 385:241, 1987) should be employed in determining levels of catecholamines.

Carcinogenesis, Mutagenesis, Impairment of Fertility No evidence of carcinogenic potential was observed in rats during a 24-month study at 137 to 275 mg/kg/day (approximately 30 times the maximum recommended human oral dose (MRHD) as mg/kg or 5 times the MRHD as mg/m<sup>2</sup> or in mice, during a 24-month study at 4141 to 7122 mg/kg/day (approximately 450 to 750 times the MRHD as mg/kg or 36 to 63 times the MRHD as mg/m<sup>2</sup>).

## Sotatol has not been evaluated in any specific assay of mutagenicity or clastogenicity.

No significant reduction in fertility occurred in rats at oral doses of 1000 mg/kg/day (approximately 100 times the MRHD as mg/m²) prior to mating, except for a small reduction in the number of offspring per litter.

## Pregnancy: Teratogenic Effects PREGNANCY CATEGORY B

PREGNANCY CATEGORY B Reproduction studies in rats and rabbits during organogenesis at 100 and 22 times the MRHD as mg/kg (9 and 7 times the MRHD as mg/m<sup>2</sup>), respectively, did not reveal any teratogenic potential associated with sotalot. In rabbits, a high dose of sotalot (160 mg/kg/day) at 16 times the MRHD as mg/kg (6 times the MRHD as mg/m<sup>2</sup>) produced a slight increase in fetal death likely due to maternal toxicity. Eight times the maximum dose (80 mg/kg/day or 3 times the MRHD as mg/m<sup>2</sup>) did not result in an increased incidence of letal deaths. In rats, 1000 mg/kg/day sotalot, 100 times the MRHD (8 times the MRHD as mg/m<sup>2</sup>), increased the number of early resorptions, while at 14 times the maximum dose (2.5 times the MRHD as mg/m<sup>2</sup>), no increases in early resorptions was noted. However, animal reproduction studies are not always predictive of human response.

Although there are no adequate and well-controlled studies in pregnant women, sotalol has been shown to cross the placenta, and is found in amnitic fluid. There has been a report of subnormal birth weight with sotalot. Therefore, sotaloi should be used during pregnancy only if the potential benefit outweighs the potential risk.

Nursing Mothers Solalol is excreted in the milk of laboratory animals and has been reported to be present in human milk. Because of the potential for adverse reactions in nursing infants from sotalol, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to

Pediatric Use The safety and effectiveness of sotalol in pediatric patients have not been established.

## ADVERSE REACTIONS

During premarketing trials, 3186 patients with cardiac arrhythmias (1363 with sustained ventricular tachycardial received oral sociald, of whom 2451 received the drug for at least two weeks. The most important adverse effects are torsade de pointes and other serious new ventricular arrhythmias (see WARNINGS), occurring at reles of almost 4% and 1%, respectively, in the VT/VF population. Overall, discontinuation because of unacceptable side-effects was necessary in 17% of all patients in clinical trials, and in 13% of patients treated for at least two weeks. The most common adverse reactions leading to discontinuation of social are as follows: fatigue 4%, bradycardia (less than 50 bpm) 3%, dyspnea 3%, proarrhythmia 3%, asthenia 2%, and dizziness 2%.

Occasional reports of elevated serum liver enzymes have occurred with sotalol therapy but no cause and effect relationship has been established. One case of peripheral neuropathy which resolved on discontinuation of sotalol and recurred when the patient was rechallenged with the drug was reported in an early dose tolerance study. Elevated blood glucose levels and increased insulin requirements can occur in diabetic patients.

The following table lists as a function of dosage the most common (incidence of 2% or greater) adverse events repardless of relationship to therapy and the percent of patients discontinued due to the event, as

Digestive								
nausea/vomiting	5 2	4	4	6	6	10	1	
diamhea	2	3	3	3	5	7	<1	
dyspepsia	2	3	3	3	3	6	<1	
abdominal pain	<1	<1	2	2	2	3	<1	
colon problem	2	1	1	<1	2	3	<1	
flatulence	ī	<1	1	1	2	2	<1	
Respiratory			•	· .				
pulmonary problem	3	3	5	3	4	8	<1	
upper respiratory tract		-	-					
problem	1	1	3	4	3	5	<1	
asthma	i	<1	ī	1	1	5 2	<1	
Urogenital	•							
genitourinary disorder	1	0	1	1	2	3	<1	
sexual dysfunction	<1	ĩ	i	i	3	3	<1	
Metabolic	~		•	•	•	-		
abnormal lab value		•	2	2	1	A	<1	
apportantial tab value	4	1	1	<1	2	2		
weight change Musculoskeistal	•		•	~.	•	•	~.	
	~			5	3	7	<1	
extremity pain back pain	-	<1	2	5	ž	3		•
		<.	٤	-	•	J	~,	
Skin and Appendages rash	· .	3	2	з	4	5	<1	
Hematologic	~	3	4	5	-		~.	
Hending		<1	4	<1	2	2	<1	
bleeding	*	<1	•	~ 1	e		~ 1	
Special Senses		•	2	4	5	5	<1	
visual problem			~		3	9	~ • •	

\*Because patients are counted at each dose level tested, the Any Dose column cannot be determined by adding across the doses.

## **Potential Adverse Effects**

Potential Adverse Effects Foreign marketing experience with sotalol shows an adverse experience profile similar to that described above from clinical trials. Voluntary reports since introduction include rare reports (less than one report per 10,000 patients) of emotional lability, slightly clouded sensorium, incoordination, vertigc, paralysis, thrombocytopenia, eosinophilia, leukopenia, photosensitivity reaction, fever, pulmonary edema, hyperlipidemia, myalgia, pruritus, alopecia.

The oculomucocutaneous syndrome associated with the beta-blocker practolol has not been associated with sotalol during investigational use and foreign marketing experience.

## OVERDOSAGE

Intentional or accidental overdosage with sotalol hydrochloride has rarely resulted in death

Symptoms and Treatment of Overdoasge invertige that hydrochick the theory recence the center of overdoasge. The most common signs to be expected are bradycardia, congestive heart failure, hypotension, bronchospasm and hypodycemia. In cases of massive intertional overdoasge (2 to 16 grams) of sotalol hydrochicked the following clinical findings were seen: hypotension, bradycardia, cardiac asystole, protongation of OT interval, torsade de pointes, ventricular tachycardia, and premature ventricular complexes. If overdoasge occurs, therapy with sotalol should be discontinued and the patient observed closely. Because of the lack of protein binding, hemodialysis is useful for reducing sotalol plasma concentrations. Patients should be carefully observed until QT intervals are normalized and the heart rate returns to levels >50 bpm. In addition, if required, the following therapeutic measures are suggested:

Bradycardia or Cardiac Asystole: Atropine, another anticholinergic drug, a beta-adrenergic agonist or transvenous cardiac pacing.

Heart Block: (second and third degree) transvenous cardiac pacemake

Hypotension: (depending on associated factors) epinephrine rather than isoproterenol or norepinephrine may be useful.

Bronchospasm: Aminophylline or aerosol beta-2-receptor stimulant.

Torsade de pointes; DC cardioversion, transvenous cardiac pacing, epinephrine, magnesium sulfate DOSAGE AND ADMINISTRATION

As with other antiamythmic agents, sotalol hydrochloride should be initiated and doses increased in a hospital with facilities for cardiac mythm monitoring and assessment (see INDICATIONS AND USAGE). Sotalol should be administered only after appropriate clinical assessment (see INDICATIONS AND USAGE). USAGE), and the dosage of sotalol must be individualized for each patient on the basis of therapeutic response and tolerance. Proarhythmic events can occur not only at initiation of therapy, but also with each unward dosage adjustment. upward dosage adjustment.

Dosage of sotalol hydrochloride should be adjusted gradually, allowing 2 to 3 days between dosing increments in order to attain steady-state plasma concentrations, and to allow monitoring of OT inten via. Graded dose adjustment will help prevent the usage of doses which are higher than necessary to control the arrhythmia. The recommended initial dose is 80 mg twice daily. This dose may be increased. If necessary, after appropriate evaluation to 240 or 320 mg/day (120 to 160 mg twice daily). In most patients, a therapeutic response is obtained at a total daily dose of 160 to 320 mg/day, given in two or three divided doses. Some patients with life-threatening refractory venticular arrhythmias may require doses as high as 480 to 640 mg/day; however, these doses should only be prescribed when the potential benefit outwey. the increased risk of adverse events, in particular proarrhythmia. Because of the long terminal elimination hall-life of sotalol, dosing on more than a BID regimen is usually not necessary.

Decage in Renal Impairment Because sotalol is excreted predominantly in urine and its terminal elimination half-life is prolonged in conditions of renal impairment, the dosing interval (time between divided doses) of sotalol should be modified (when creatinine clearance is lower than 60 mL/min) according to the following table.

Creatinine Clearance (mL/min)	Dosing* Interval (hours)
>60	12
30 to 59	24
10 to 29	36 to 48
<10	Dose should be individualized.

\*The initial dose of 80 mg and subsequent doses should be administered at these intervals. See following paragraph for dosage escalations.

Since the terminal elimination half-life of sotalol is increased in patients with renal impairment, a longer duration of dosing is required to reach steady-state. Dose escalations in renal impairment should be done after administration of at least 5 to 6 doses at appropriate intervals (see table above).

Extreme caution should be exercised in the use of sotalol in patients with renal failure undergoing hemodialysis. The half-life of sotalol is prolonged (up to 69 hours) in anuric patients. Sotalol, however, can be parity removed by dialysis with subsequent partial rebound in concentrations when dialysis is completed. Both salety (heart rate, QT interval) and efficacy (arrhythmia control) must be closely monitored.

Transfer to Sotalol Before starting sotalol, previous antiarrhythmic therapy should generally be withdrawn under careful monitoring lor a minimum of 2 to 3 plasma hall-lives if the patient's clinical condition permits (see DRUG INTERACTIONS). Treatment has been initiated in some patients receiving I.V. lidocaine without ill effect. After discontinuation of amiodarone, sotalol should not be initiated until the OT interval is normalized (see WARNINGS).

## HOW SUPPLIED

120

160

Sotalol Hydrochloride Tablets are available as follows:

80 mg (white, capsule shaped tablet debossed with "G" on one side and "S" score line "80" on the other)

	bottles of 100	NDC 55567-057-18
	bottles of 1000	NDC 55567-057-35.
:0 mg	(white, capsule shaped tablet d	ebossed with "G" on one side and "S" score line "120" on the other)
	bottles of 100	NDC 55567-076-18
	bottles of 1000	NDC 55567-076-35
	blisters of 10 in cartons of 100	NDC 55567-076-06.
i0 mg	(white, capsule shaped tablet d	ebossed with "G" on one side and "S" score line "160" on the other)
	bottles of 100	NDC 55567-058-18

### bottles of 1000 NDC 55567-058-35

240 mg (white, capsule shaped tablet debossed with "G" on one side and "S" score line "240" on the oth

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During premarketing trials, 3186 patients with cardiac arrhythmias (1363 with sustained ventricular tachycardia) received oral sotalol, of whom 2451 received the drug for at least two weeks. The most important adverse effects are torsade de pointes and other serious new ventricular arrhythmias (see WARNINGS), occurring at rates of almost 4% and 1%, respectively, in the VT/VF population. Overall, discontinuation because of unacceptable side-effects was necessary in 17% of all patients in clinical trials, and in 13% of patients treated for at least two weeks. The most common adverse reactions leading to discontinuation of sotalol are as follows: tatigue 4%, bradycardia (less than 50 bpm) 3%, dyspnea 3%, proerrhythmia 3%, asthenia 2%, and dizziness 2%.

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The following table lists as a function of dosage the most common (incidence of 2% or greater) adverse events, regardless of relationship to therapy and the percent of patients discontinued due to the event, as collected from clinical trials involving 1292 patients with sustained VT/VF.

Incidence (%) of Adverse Events and Discontinuations DAILY DOSE

			DAILY D	USE			
	160 mg (n=832)	240 mg (n=263)	320 mg (n=835)	480 mg (n=459)	640 mg (n=324)	Any Dose' (n=1292)	% Patients Discontinues (n=1292)
Body as a whole							
infection	1	2	2 3	2	3	- 4	<1
fever	1	2	3	2	22	- 4	<1
localized pain	1	1	2	2	2	3	<1
Cardiovascular							
dyspnea	5	8	11	15	15	21	2
bradycardia	8	8	9	7	5	16	2
chest pain	- 4	3 3 2 4	10	10	14	16	<1
palpitation	3 2 4	3	в	9	12	14	<1
edema	2	2	5		5	8	1
ECG abnormal	4	2	5	2	2	ž	1
hypotension	з	4	ġ.	3 2 2 4 2 2	5 2 3 5 5 2 3	6	2
proarrhythmia	<1	<1	2	4	Š	š	2 3 1
syncope	1	1	3	2	5	5 5 5	ĩ
heart failure	2	3	ž	2	ž	5	i
presyncope	1	2	3 2 3 2 2	Ā	3	Ă	<1
peripheral vascular		-	-		-		
disorder	1	2	1	1	2	3	<1
cardiovascular	•	~		•	-		~,
disorder	1	<1	2	2	2	3	<1
vasodilation	i	<1	1	5	ī	ž	<1
AICD Discharge	<1	2	2	2 2 2 2	5	3	<1
hypertension	<1	ĩ	1	1	2	3332	<1
Nervous	~.	•		,	4	٤	×1
fatigue	5	8	12	12	13	20	2
dizziness	7	ő	11	11	14	20	4
asthenia	Á	ę.	'7	8	10	13	
light-headed	Ā	3	6	ő	9	12	-
headache	3	2	Å	4	4	18	<1
sieep problem	1	-		5		š	<1
perspiration		5		4	ě	ő	<1
altered consciousnes	s ź	2	4 5 3		3	4	<1
depression	1	3		5	2	4	<1
paresthesia		53212321	2 2 2	2233333	6 5 3 3 2 2 2 3	4	<1
anxiety	ź	2	5	3	5	4	<1
mood change	<1	<1	1	3	5	3	<1
appetite disorder	1	2	2	1		3	
stroke	<1	4	1	1	3 <1	3	<1 <1

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\*The initial dose of 80 mg and subsequent doses should be administered at these intervals. See following paragraph for dosage escalations.

Since the terminal elimination half-life of sotalol is increased in patients with renal impairment, a longer duration of dosing is required to reach steady-state. Dose escalations in renal impairment should be (+one after administration of all teast 5 to 6 doses at appropriate intervals (see table above).

Extreme caution should be exercised in the use of sotaiol in patients with renal failure undergoing hemodialysis. The half-life of sotaiol is protonged (up to 69 hours) in anunc patients. Sotaiol, however, can be partly removed by dialysis with subsequent partial rebound in concentrations when dialysis is completed. Both safety (heart rate, QT interval) and efficacy (arrhythmia control) must be closely monitored.

Transfer to Sotalol Before starting sotalol, previous antiarrhythmic therapy should generally be withdrawn under careful monitoring hor a minimum of 2 to 3 plasma half-lives if the patient's clinical condition permits (see DRUG INTERACTIONS). Treatment has been initiated in some patients receiving I.V. lidocaine without ill effect. After discontinuation of a miodarone, sotalol should not be initiated until the OT interval is normalized (see WARNINGS).

## HOW SUPPLIED

Sotalol Hydrochloride Tablets are available as follows:

<10

80 mg	(white, capsule shaped tablet d	ebossed with "G" on one side and "S" score line "80" on the other)
	bottles of 100	NDC 55567-057-18
	bottles of 1000	NDC 55567-057-35.
120 mg	(white, capsule shaped tablet d	ebossed with "G" on one side and "S" score line "120" on the other)
	botties of 100	NDC 55567-076-18
	bottles of 1000	NDC 55567-076-35
	blisters of 10 in cartons of 100	NDC 55567-076-06.
160 mg	(white, capsule shaped tablet d	ebossed with "G" on one side and "S" score line "160" on the other)
	bottles of 100	NDC 55567-058-18
	bottles of 1000	NDC 55567-058-35.

240 mg (white, capsule shaped tablet debossed with "G" on one side and "S" score line "240" on the other) bottles of 100 NDC 55567-059-18

bottles of 1000	NDC 55567-059-35
blisters of 10 in cartons of 100	NDC 55567-059-06.

ed room temperature, between 15" to 30°C (59° to 86°F). Dispense in a wyht, tight-Store at contro resistant conta

# Ronly



Toronto, Ontario Canada M8Z 2S6

Printed in Canada

004-674 Rev.# 02

Issued September 1999



NDC 55567-059-06

100 tablets Unit Dose





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Manufactured by: **GENPHARM INC.** Toronto, Canada M8Z 2S6 1-800-661-7134

10 Blister Strips of 10 Tablets

Each Tablet contains Sotalol HCI 240 mg.

**USUAL DOSAGE:** See package insert for complete product information.

# This unit dose package is not child-resistant.

Store at controlled room temperature, 15°C to 30°C (59°F to 86°F).



Each Tablet contains Sotalol HCI 120 mg.

**USUAL DOSAGE:** See package insert for complete product information.

This unit dose package is not child-resistant.

Store at controlled room temperature, 15°C to 30°C (59°F to 86°F).



NDC 55567-076-06

100 tablets Unit Dose

APPROVED



# **GENPHARM INC.**

10 Blister Strips of 10 Tablets



SOTALOL HCI TABLET 240 mg LOT.:XXXXXX Exp.:XXX XXXX Mrg. By: Genpharm Inc. Toronic, Canada M8Z 256

SOTALOL HCI TABLET 240 mg LOT XXXXXX Exp. XXX XXXX Mig. By: Genpharm Inc. Toronto, Canada M82 256

SOTALOL HCI TABLET 240 mg LOT.:XXXXXX Exp.:XXX XXXX Mfg. By: Genpharm Inc. Toronto, Canada MBZ 256

SOTALOL HCI TABLET 240 mg LOT:XXXXXX Exp.:XXX XXXX Mtg. By: Genofiarm Inc. Toronio, Canada M6Z 2\$8

SOTALOL HCI TABLET 240 mg LOT. XXXXXX Exp. XXX XXXX Mig. By: Genoniarm Inc. Toronto, Canada M82 255

SOTALOL HCI TABLET 240 mg LOT.:XXXXXXX Exp.:XXX XXXX Mfg. By: Genpham krc. Toronic Canada M92 256

SOTALOL HCI TABLET 240 mg LOT.:XXXXXX Exp.:XXX XXXX Mg. By: Genoham Inc. Toronto, Canada MBZ 2S6

SOTALOL HCI TABLET 240 mg LOT.XXXXXXX Exp.XXXX XXXX Mig. By: Genpharm Inc. Tororito, Canada M82 256

SOTALOL HCI TABLET 240 mg LOT.:XXXXXXX Exp.:XXX XXXX Mig. By: Genohami Inc. Toronto, Canada MBZ 256

SOTALOL HCI TABLET 240 mg LOT.:XXXXXXX Exp.:XXX XXXX Mig. By: Mig. By: mpharm inc. TO Car

## MAY APPROVED

SOTALOL HCI LOT:XXXXXX Exp::XXX XXXX Mig. By: Genpharm Inc. Toronto, Canada MBZ 255

SOTALOL HCI TABLET 240 mg LOT.XXXXXXX Exp.:XXX XXXX Mig. By: enpharm inc. MAZ 256

TABLET

240 mg

# SOTALOL HCI TABLET 240 mg LOT.:XXXXXX Exp.:XXX XXXX Mig. By: Genorianni Inc. Toronio. Canada M82 255

SOTALOL HCI TABLET 240 mg LOT:XXXXXXX Exp.:XXX XXXX Nic. By: Genofiami Inc. Toronto, Cenada NBZ 255

SOTALOL HCI TABLET 240 mg LOT, XXXXXX Exp.:XXX XXXX Mrc. By: Genoriam Inc. Toronio, Canada MBZ 255

# TABLET 240 mg LOT XXXXXX Mig. By: Genpherm Inc. Toronto, Canada M82 256 SOTALOL HCI

SOTALOL HCI

200

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Ψ.

TABLET 240 mg LOT.XXXXXXX Exp.XXX XXXX Mig. By: Genpliam inc. Toronto, Canada M8Z 256

SOTALOL HCI TABLET 240 mg

LOT.:XXXXXX EXD.:XXX XXXX Mig. By: Genpherm Inc. Toromic, Canada MBZ 256

## SOTALOL HCI TABLET 240 mg LOT.XXXXXX Exp.:XXX XXXX

Mig. By: Genotiant Inc. Toromo, Canada M62.256

SOTALOL HCI TABLET 240 mg LOT. XXXXXX Exp.:XXX XXXX Mid. By: Genorialmi inc. Toromo, Canada M92, 255

# MAY 1 2000 APPROVED

SOTALOL HCI TABLET 120 mg LOT.:XXXXXX FXN::XXXXXX

LOT.:XXXXXX Exp.:XXX XXXX MJ\_By: Genptiam inc. Toronto, Canada M82 255

SOTALOL HCI TABLET 120 mg LOT.:XXXXXXXX EXD.:XXX XXXX

Mig. By: Genphaminc, Foronto, Canada M82 256

SOTALOL HCI TABLET 120 mg LOT.:XXXXXXX Exp.:XXX XXXXX Mig.Br; Genpharm Inc. Tororto, Canada M32 256

SOTALOL HCI TABLET 120 mg LOT.XXXXXX EXD.XXX XXXX Mig. By: Genonem inc. Genonem inc. Genonem inc. Genonem inc.

SOTALOL HCI TABLET 120 mg LOT.XXXXXXX Exp.:XXX XXXX

Mig. By: Genpharm Inc. Toronto, Canada M8Z 256 SOTALOL HCI TABLET 120 mg LOT.:XXXXXXX Mg. By: Genpham Inc. Toorto, Canada M82 256

SOTALOL HCI TABLET 120 mg LOT:XXXXXX Exp.:XXX XXXX Gentieming Torrito, Canada

SOTALOL HCI TABLET 120 mg LOT:XXXXXX Exp:XXXXXXXX Mig.Br: Genham Inc. Tomo Canada Mig.Ze6

SOTALOL HCI TABLET 120 mg LOT:XXXXX Exp.XXX XXXX Geopheminc Toronio, Canada Mic. By: Toronio, Canada

## TABLET 120 mg LOT.: XOXX XXXX Exp.: XXXX XXXXX Mig. By: Genphaminc. Toronia...Canada M82 256

SOTALOL HCI

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SOTALOL HCI TABLET 120 mg LOT.:XXXXXX Exp.:XXX XXXX

Mfg. By: Genpham Inc. Toronto, Canada M82 256

SOTALOL HCI TABLET 120 mg LOT::XXXXX EXD::XXXXXXX Mm: By: Genphaminc Torotic, Canada MG2286

SOTALOL HCI TABLET 120 mg LOT.XXXXXX Exp.XXX XXXX Mig. By: Genpriam inc. Towfro, Canada Market 2556

SOTALOL HCI TABLET 120 mg LOT:XXXXXX EID:XXX XXXX

LOT.:XXXXX ID.:XXX XXXX Mic. BV: Genotismininc. Toromo. Canada Maz 255 SOTALOL HCi TABLET 120 mg LOT.:XXXXXXX Exp.:XXX XXXXX Mill By: Centration Constant Torritor Constant Mill By: Centration Constant

SOTALOL HCI TABLET 120 mg

LOT.:XXXXXX Exp.:XXX XXXX Mig. By: Genoham Inc. Toromic Canada M6Z 256

SOTALOL HCI TABLET 120 mg LOT.:XXXXXX Exp.:XXX XXXX Genphaminc. Tompic, Canada

SOTALOL HCI TABLET 120 mg

120 mg LOT.XXXXXX Exp.XXXXXXX Mmg. Br: Benpherminc. Temping. Caneda MB2 256



# Each tablet contains: sotalol hydrochloride . . . . . 160 mg

**USUAL DOSAGE:** See package insert for complete product information.

Store at controlled room temperature, 15° to 30°C (59° to 86°F). Dispense in a tight, light-resistant container.

002-903 REV# 00



# Each tablet contains:

sotalol hydrochloride . . . . . 160 mg

**USUAL DOSAGE:** See package insert for complete product information.

Store at controlled room temperature, 15° to 30°C (59° to 86°F). Dispense in a tight, light-resistant container.

002-903 REV# 00













100 Tablets

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Store at controlled room temperature, 15° to 30°C (59° to 86°F). Dispense in a tight, light-resistant container.

002-904 REV# 00

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240 mg

R<sub>c</sub>only

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NDC 55567-057-18 100 Tablets Each tablet contains: sotalol hydrochloride 0 ..... 80 mg 8 USUAL DOSAGE: See package insert SOTALOL HCI -0571 for complete product information. Tablets Store at controlled room temperature, 15° to 30°C (59° to 86°F). Dispense in a tight, light-resistant container. 5567 80 mg 002-898 REV# 00 R only MAY 1

R<sub>k</sub>only

002-898 REV# 00

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