DESCRIPTION

stereotyped behavior.

and plasma level is maintained in chronic use.

zyme (see PRECAUTIONS: Drug Interactions)

metabolites in the 2 natient groups were minimal

the systemic circulation intact.

Suicidality in Children and Adolesce

<u>.s</u>

WELLBUTRIN® (bupropion hydrochloride) Tablets and caregivers. Prescriptions for WELLBUTRIN should be written for the smallest quantity of tablets consistent with good patient

similarly advised. **ening Patients for Bipolar Disorder:** A major depressive episode may be the initial presentation of bipolar disorder. It is general believed (though not established in controlled trials) that treating such an episode with an antidepressant alone may increase the likelihood of precipitation of a mixed/manic episode in patients at risk for bipolar disorder. Whether any of the symptoms described above represent such a conversion is unknown. However, prior to initiating treatment with an antidepressant, patients with depressive symptoms should be adequately screened to determine if they are at risk for bipolar disorder; such screening should include a detailed psy chiatric history, including a family history of suicide, bipolar disorder, and depression. It should be noted that WELLBUTRIN is not approved for use in treating bipolar depression

management, in order to reduce the risk of overdose. Families and caregivers of adults being treated for depression should be

Patients should be made aware that WELLBUTRIN contains the same active ingredient found in ZYBAN, used as an aid to smoking cessation treatment, and that WELLBUTRIN should not be used in combination with ZYBAN, or any other medications that contain bupropion.

Seizures: Bupropion is associated with seizures in approximately 0.4% (4/1,000) of patients treated at doses up to 450 mg/day. This incidence of seizures may exceed that of other marketed antidepressants by as much as 4-fold. This relative risk is only an approximate estimate because no direct comparative studies have been conducted. The estimated seizure incidence for WELLBUTRIN increases almost tenfold between 450 and 600 mg/day, which is twice the usually required daily dose (300 mg) and one and one-third the maximum recommended daily dose (450 mg). Given the wide variability among individuals and thei capacity to metabolize and eliminate drugs this dispropórtionate increase in seizure incidence with dose incrementation calls for

During the initial development, 25 among approximately 2,400 patients treated with WELLBUTRIN experienced seizures. At the time of seizure, 7 patients were receiving daily doses of 450 mg or below for an incidence of 0.33% (3/1,000) within the recommended dose range. Twelve patients experienced seizures at 600 mg/day (2.3% incidence); 6 additional patients had seizures at daily doses between 600 and 900 mg (2.8% incidence).

A separate, prospective study was conducted to determine the incidence of seizure during an 8-week treatment exposure in approximately 3,200 additional patients who received daily doses of up to 450 mg. Patients were permitted to continue treatment beyond 8 weeks if clinically indicated. Eight seizures occurred during the initial 8-week treatment period and 5 seizures were reported in patients continuing treatment beyond 8 weeks, resulting in a total seizure incidence of 0.4%.

The risk of seizure appears to be strongly associated with dose. Sudden and large increments in dose may contribute to

increased risk. While many seizures occurred early in the course of treatment, some seizures did occur after several weeks at fixed dose. WELLBUTRIN should be discontinued and not restarted in patients who experience a seizure while on treatment. The risk of seizure is also related to patient factors, clinical situations, and concomitant medications, which must be consid-

ered in selection of patients for therapy with WELLBUTRIN. Patient factors: Predisposing factors that may increase the risk of seizure with bupropion use include history of head trauma o prior seizure, CNS tumor, the presence of severe hepatic cirrhosis, and concomitant medications that lower seizure threshold. Clinical situations: Circumstances associated with an increased seizure risk include, among others, excessive use of alcohol

or sedatives (including benzodiazepines); addiction to opiates, cocaine, or stimulants; use of over-the-counter stimulants and anorectics; and diabetes treated with oral hypoglycemics or insulin. concomitant medications: Many medications (e.g., antipsychotics, antidepressants, theophylline, systemic steroids) are

known to lower seizure threshold. mendations for Reducing the Risk of Seizure: Retrospective analysis of clinical experience gained during the developmen

of WELLBUTRIN suggests that the risk of seizure may be minimized if • the total daily dose of WELLBUTRIN does *not* exceed 450 mg,

 the daily dose is administered 3 times daily, with each single dose not to exceed 150 mg to avoid high peak concentrations of bupropion and/or its metabolites, and the rate of incrementation of dose is very gradual

Extreme caution should be used when WELLBUTRIN is administered to patients with a history of seizure, cranial trauma, or other predisposition(s) toward seizure, or prescribed with other agents (e.g., antipsychotics, other antidepressants, theophylline systemic steroids, etc.) that lower seizure threshold.

Hepatic Impairment: WELLBUTRIN should be used with extreme caution in patients with severe hepatic cirrhosis. In these patients a reduced dose and/or frequency is required, as peak bupropion, as well as AUC, levels are substantially increased and accumulation is likely to occur in such patients to a greater extent than usual. The dose should not exceed 75 mg once a day in these patients (see CLINICAL PHARMACOLOGY, PRECAUTIONS, and DOSAGE AND ADMINISTRATION).

Potential for Hepatotoxicity: In rats receiving large doses of bupropion chronically, there was an increase in incidence of hepatic hyperplastic nodules and hepatocellular hypertrophy. In dogs receiving large doses of bupropion chronically, various histologic changes were seen in the liver, and laboratory tests suggesting mild hepatocellular injury were noted

General: Agitation and Insomnia: A substantial proportion of patients treated with WELLBUTRIN experience some degree of increased restlessness, agitation, anxiety, and insomnia, especially shortly after initiation of treatment. In clinical studies, these symptoms were sometimes of sufficient magnitude to require treatment with sedative/hypnotic drugs. In approximately 2% of patients, symptoms were sufficiently severe to require discontinuation of treatment with WELLBUTRIN.

*Psychosis, Confusion, and Other Neuropsychiatric Phenomena:* Patients treated with WELLBUTRIN have been reported to show a ariety of neuropsychiatric signs and symptoms including delusions, hallucinations, psychotic episodes, confusion, and paranoia, Because of the uncontrolled nature of many studies, it is impossible to provide a precise estimate of the extent of risk imposed by treatment with WELLBUTRIN. In several cases, neuropsychiatric phenomena abated upon dose reduction and/or withdrawal of treatment Activation of Psychosis and/or Mania: Antidepressants can precipitate manic episodes in Bipolar Manic Depressive patients durin the depressed phase of their illness and may activate latent psychosis in other susceptible patients. WELLBUTRIN is expected to pose

Altered Appetite and Weight: A weight loss of greater than 5 lbs occurred in 28% of patients receiving WELLBUTRIN. This incidence is approximately double that seen in comparable patients treated with tricyclics or placebo. Furthermore, while 34.5% of patients receiving tricyclic antidepressants gained weight, only 9.4% of patients treated with WELLBUTRIN did. Consequently, if weight loss is a major

presenting sign of a patient's depressive illness, the anorectic and/or weight reducing potential of WELLBUTRIN should be considered. **Allergic Reactions:** Anaphylactoid/anaphylactic reactions characterized by symptoms such as pruritus, urticaria, angioedema, and dyspnea requiring medical treatment have been reported in clinical trials with bupropion. In addition, there have been rare spontaneous postmarketing reports of erythema multiforme, Stevens-Johnson syndrome, and anaphylactic shock associated with bupropion. A atient should stop taking WELLBUTRIN and consult a doctor if experiencing allergic or anaphylactoid/anaphylactic reactions (e.g., skin rash, pruritus, hives, chest pain, edema, and shortness of breath) during treatment.

Arthralgia, myalgia, and fever with rash and other symptoms suggestive of delayed hypersensitivity have been reported in association with bupropion. These symptoms may resemble serum sickness.

Cardiovascular Effects: In clinical practice, hypertension, in some cases severe, requiring acute treatment, has been reported in patients receiving bupropion alone and in combination with nicotine replacement therapy. These events have been observed in both natients with and without evidence of preexisting hypertension

Data from a comparative study of the sustained-release formulation of bupropion (ZYBAN® Sustained-Release Tablets), nicotine transdermal system (NTS), the combination of sustained-release bupropion plus NTS, and placebo as an aid to smoking cessation suggest a higher incidence of treatment-emergent hypertension in patients treated with the combination of sustained-release bupropion and NTS. In this study, 6.1% of patients treated with the combination of sustained-release bupropion and NTS had treatment-emergent pertension compared to 2.5%, 1.6%, and 3.1% of patients treated with sustained-release bupropion, NTS, and placebo, respectively. The majority of these patients had evidence of preexisting hypertension. Three patients (1.2%) treated with the combination of ZYBAN and NTS and one patient (0.4%) treated with NTS had study medication discontinued due to hypertension compared to none of the patients treated with ZYBAN or placebo. Monitoring of blood pressure is recommended in patients who receive the combination of oupropion and nicotine replacement.

There is no clinical experience establishing the safety of WELLRUTRIN in patients with a recent history of myocardial infarction or unstable heart disease. Therefore, care should be exercised if it is used in these groups. Bupropion was well tolerated in depressed patients who had previously developed orthostatic hypotension while receiving tricyclic antidepressants and was also generally well

# WELLBUTRIN® (bupropion hydrochloride) Tablets

tolerated in a group of 36 depressed inpatients with stable congestive heart failure (CHF). However, bupropion was associated with a rise in supine blood pressure in the study of patients with CHF, resulting in discontinuation of treatment in 2 patients for exacerbation of baseline hypertension

Hepatic Impairment: WELLBUTRIN should be used with extreme caution in patients with severe hepatic cirrhosis. In these patients, a reduced dose and frequency is required. WELLBUTRIN should be used with caution in patients with hepatic impairment (including mild to moderate hepatic cirrhosis) and a reduced frequency and/or dose should be considered in patients with mild to moderate

All patients with hepatic impairment should be closely monitored for possible adverse effects that could indicate high drug and metabolite levels (see CLINICAL PHARMACOLOGY, WARNINGS, and DOSAGE AND ADMINISTRATION).

**Renal Impairment:** No studies have been conducted in patients with renal impairment. Bupropion is extensively metabolized in the liver to active metabolites, which are further metabolized and subsequently excreted by the kidneys. WELLBUTRIN should be used with caution in patients with renal impairment and a reduced frequency and/or dose should be considered as bupropion and its metabolites ay accumulate in such patients to a greater extent than usual. The patient should be closely monitored for possible adverse effects that could indicate high drug or metabolite levels.

Information for Patients: Prescribers or other health professionals should inform patients, their families, and their caregivers about the benefits and risks associated with treatment with WELLBUTRIN and should counsel them in its appropriate use. A patient Medication Guide About Using Antidepressants in Children and Teenagers is available for WELLBUTRIN. The prescriber or health professional should instruct patients, their families, and their caregivers to read the Medication Guide and should assist them in understanding its contents. Patients should be given the opportunity to discuss the contents of the Medication Guide and to obtain answers to any questions they may have. The complete text of the Medication Guide is reprinted at the end of this document. Additional important information conerning WELLBUTRIN is provided in a tear-off leaflet entitled "Patient Information" at the end of this labeling.

nts should be advised of the following issues and asked to alert their prescriber if these occur while taking WELLBUTRIN.

Clinical Worsening and Suicide Risk: Patients, their families, and their caregivers should be encouraged to be alert to the emergence of anxiety, agitation, panic attacks, insomnia, irritability, hostility, aggressiveness, impulsivity, akathisia (psychomotor restl typomania, mania, other unusual changes in behavior, worsening of depression, and suicidal ideation, especially early during antide essant treatment and when the dose is adjusted up or down. Families and caregivers of patients should be advised to observe for the emergence of such symptoms on a day-to-day basis, since changes may be abrupt. Such symptoms should be reported to the patient's prescriber or health professional, especially if they are severe, abrupt in onset, or were not part of the patient's presenting symptoms. Symptoms such as these may be associated with an increased risk for suicidal thinking and behavior and indicate a need

or very close monitoring and possibly changes in the medication.

Patients should be made aware that WELLBUTRIN contains the same active ingredient found in ZYBAN, used as an aid to smoking cessation, and that WELLBUTRIN should not be used in combination with ZYBAN or any other medications that contain bupro-

Patients should be instructed to take WELLRUTRIN in equally divided doses 3 or 4 times a day to minimize the risk of seizure

Patients should be told that WELLBUTRIN should be discontinued and not restarted if they experience a seizure while on treatment. Patients should be told that any CNS-active drug like WELLBUTRIN may impair their ability to perform tasks requiring judgment or motor and cognitive skills. Consequently, until they are reasonably certain that WELLBUTRIN does not adversely affect their performance, they should refrain from driving an automobile or operating complex, hazardous machinery.

Patients should be told that the excessive use or abrupt discontinuation of alcohol or sedatives (including benzodiazepines) may alter the seizure threshold. Some patients have reported lower alcohol tolerance during treatment with WELLBUTRIN. Patients should be

advised that the consumption of alcohol should be minimized or avoided.

Patients should be advised to inform their physicians if they are taking or plan to take any prescription or over-the-counter drugs.

Concern is warranted because WELLBUTRIN and other drugs may affect each other's metabolism.

Patients should be advised to notify their physicians if they become pregnant or intend to become pregnant during therapy.

Laboratory Tests: There are no specific laboratory tests recommended.

Drug Interactions: Few systemic data have been collected on the metabolism of WELLBUTRIN following concomitant administration

with other drugs or, alternatively, the effect of concomitant administration of WELLBUTRIN on the metabolism of other drugs.

Because bupropion is extensively metabolized, the coadministration of other drugs may affect its clinical activity. In vitro studies indicate that bupropion is primarily metabolized to hydroxybupropion by the CYP2B6 isoenzyme. Therefore, the potential exists for a drug interaction between WELLBUTRIN and drugs that affect the CYP2B6 isoenzyme (e.g., orphenadrine and cyclophosphamide). The threohydrobupropion metabolite of bupropion does not appear to be produced by the cytochrome P450 isoenzymes. The effects of concomitant administration of cimetidine on the pharmacokinetics of bupropion and its active metabolites were studied in 24 healthy young male volunteers. Following oral administration of two 150-mg sustained-release tablets with and without 800 mg of cimetidine, pharmacokinetics of bupropion and hydroxybupropion were unaffected. However, there were 16% and 32% increases in the AUC and C<sub>max</sub>, respectively, of the combined moieties of threohydrobupropion and erythrohydrobupropion.

While not systematically studied, certain drugs may induce the metabolism of bupropion (e.g., carbamazepine, phenobarbital, phenytoin).

Animal data indicated that bupropion may be an inducer of drug-metabolizing enzymes in humans. In one study, following chronic administration of bupropion, 100 mg 3 times daily to 8 healthy male volunteers for 14 days, there was no evidence of induction of its own metabolism. Nevertheless, there may be the potential for clinically important alterations of blood levels of coadministered drugs.

Drugs Metabolized by Cytochrome P450IID6 (CYP2D6): Many drugs, including most antidepressants (SSRIs, many tricyclics), betablockers, antiarrhythmics, and antipsychotics are metabolized by the CYP2D6 isoenzyme. Although bupropion is not metabolized by this isoenzyme, bupropion and hydroxybupropion are inhibitors of the CYP2D6 isoenzyme in vitro. In a study of 15 male subjects (ages 19 to 35 years) who were extensive metabolizers of the CYP2D6 isoenzyme, daily doses of bupropion given as 150 mg twice followed by a single dose of 50 mg desipramine increased the  $C_{max}$ , AUC, and  $t_{1/2}$  of desipramine by an average of approximation  $t_{1/2}$  of  $t_{1/2}$  2-, 5- and 2-fold, respectively. The effect was present for at least 7 days after the last dose of bupropion. Concomitant use of bupro

ion with other drugs metabolized by CYP2D6 has not been formally studied. Therefore, co-administration of bupropion with drugs that are metabolized by CYP2D6 isoenzyme including certain antideores sants (e.g., nortriptyline, imipramine, desipramine, paroxetine, fluoxetine, sertraline), antipsychotics (e.g., haloperidol, risperidone, thioridazine), beta-blockers (e.g., metoprolol), and Type 1C antiarrhythmics (e.g., propafenone, flecainide), should be approached with caution and should be initiated at the lower end of the dose range of the concomitant medication. If bupropion is added to the treatment regimen of a patient already receiving a drug metabolized by CYP2D6, the need to decrease the dose of the original medication should considered, particularly for those concomitant medications with a parrow therapeutic index

MAO Inhibitors: Studies in animals demonstrate that the acute toxicity of bupropion is enhanced by the MAO inhibitor phenelzine (see CONTRAINDICATIONS).

Levodopa and Amantadine: Limited clinical data suggest a higher incidence of adverse experiences in patients receiving bupropion concurrently with either levodopa or amantadine. Administration of WELLBUTRIN Tablets to patients receiving either levodopa or concurrently should be undertaken with caution, using small initial doses and small gradual dose increases.

**Drugs that Lower Seizure Threshold:** Concurrent administration of WELLBUTRIN and agents (e.g., antipsychotics, other antidepres s, theophylline, systemic steroids, etc.) that lower seizure threshold should be undertaken only with extreme caution (see WARN-INGS). Low initial dosing and small gradual dose increases should be employed.

Alcohol: In post-marketing experience, there have been rare reports of adverse neuropsychiatric events or reduced alcohol toler-

Carcinogenesis, Mutagenesis, Impairment of Fertility: Lifetime carcinogenicity studies were performed in rats and mice at doses up to 300 and 150 mg/kg/day, respectively. In the rat study there was an increase in nodular proliferative lesions of the liver at doses of

100 to 300 mg/kg/day; lower doses were not tested. The question of whether or not such lesions may be precursors of neoplasms of the liver is currently unresolved. Similar liver lesions were not seen in the mouse study, and no increase in malignant tumors of the liver and other organs was seen in either study.

mg/kg) produced a low incidence of chromosomal aberrations in rats. The relevance of these results in estimating the risk of human exposure to the apeutic doses is unknown. A fertility study was performed in rats; no evidence of impairment of fertility was encountered at

oral doses up to 300 mg/kg/day.

WELLBUTRIN® (bupropion hydrochloride) Tablets

Antidepressants increased the risk of suicidal thinking and behavior (suicidality) in short-term studies in children and

WELLBUTRIN or any other antidepressant in a child or adolescent must balance this risk with the clinical need. Patients

who are started on therapy should be observed closely for clinical worsening, suicidality, or unusual changes in behavior

Pooled analyses of short-term (4 to 16 weeks) placebo-controlled trials of 9 antidepressant drugs (SSRIs and others) in

children and adolescents with major depressive disorder (MDD), obsessive compulsive disorder (OCD), or other psychi

atric disorders (a total of 24 trials involving over 4,400 patients) have revealed a greater risk of adverse events representing

suicidal thinking or behavior (suicidality) during the first few months of treatment in those receiving antidepressants. Th

average risk of such events in patients receiving antidepressants was 4%, twice the placebo risk of 2%. No suicides occurred

WELLBUTRIN (hupropion hydrochloride) an antidepressant of the aminoketone class, is chemically unrelated to tricyclic tetracyclic

elective serotonin re-uptake inhibitor, or other known antidepressant agents. Its structure closely resembles that of diethylpropion; i

is related to phenylethylamines. It is designated as (±)-1-(3-chlorophenyl)-2-[(1,1-dimethylethyl)amino]-1-propanone hydrochloride. The

soluble in water. It has a bitter taste and produces the sensation of local anesthesia on the oral mucosa. The structural formula is

ÇОСНСН<sub>3</sub>

WELLBUTRIN is supplied for oral administration as 75-mg (vellow-gold) and 100-mg (red) film-coated tablets. Each tablet contains

the labeled amount of bupropion hydrochloride and the inactive ingredients: 75-mg tablet – D&C Yellow No. 10 Lake, FD&C Yellow

No. 6 Lake, hydroxypropyl cellulose, hydroxypropyl methylcellulose, microcrystalline cellulose, polyethylene glycol, talc, and titanium

dioxide; 100-mg tablet FD&C Red No. 40 Lake, FD&C Yellow No. 6 Lake, hydroxypropyl cellulose, hydroxypropyl methylcellulose,

Pharmacodynamics: The neurochemical mechanism of the antidepressant effect of bupropion is not known. Bupropion is a relatively

Bupropion produces dose-related central nervous system (CNS) stimulant effects in animals, as evidenced by increased locomotor

activity, increased rates of responding in various schedule-controlled operant behavior tasks, and, at high doses, induction of mild

Bupropion causes convulsions in rodents and dogs at doses approximately tenfold the dose recommended as the human antide-

Pharmacokinetics: Bupropion is a racemic mixture. The pharmacological activity and pharmacokinetics of the individual enantiomers

have not been studied. In humans, following oral administration of WELLBUTRIN, peak plasma bupropion concentrations are usuall

achieved within 2 hours, followed by a biphasic decline. The terminal phase has a mean half-life of 14 hours, with a range of 8 to

24 hours. The distribution phase has a mean half-life of 3 to 4 hours. The mean elimination half-life (±SD) of bupropion after chronic

trations are dose-proportional following single doses of 100 to 250 mg; however, it is not known if the proportionality between dose

Absorption: The absolute bioavailability of WELLBUTRIN Tablets in humans has not been determined because an intravenous for

mulation for human use is not available. However, it appears likely that only a small proportion of any orally administered dose reaches

Distribution: In vitro tests show that bupropion is 84% bound to human plasma protein at concentrations up to 200 mcg/mL. The

extent of protein binding of the hydroxybupropion metabolite is similar to that for bupropion, whereas the extent of protein binding of

**Metabolism:** Bupropion is extensively metabolized in humans. Three metabolites have been shown to be active: hydroxybupropion,

erythrohydrobupropion, which are formed via reduction of the carbonyl group. In vitro findings suggest that cytochrome P450IIB6

(CYP2B6) is the principal isoenzyme involved in the formation of hydroxybupropion, while cytochrome P450 isoenzymes are not involved

in the formation of threehydrobupropion. Oxidation of the bupropion side chain results in the formation of a glycine conjugate of meta-

chlorobenzoic acid, which is then excreted as the major urinary metabolite. The potency and toxicity of the metabolites relative to

bupropion have not been fully characterized. However, it has been demonstrated in an antidepressant screening test in mice that hydroxy-

bupropion is one half as potent as bupropion, while threohydrobupropion and erythrohydrobupropion are 5-fold less potent than

Because bupropion is extensively metabolized, there is the potential for drug-drug interactions, particularly with those agents that

are metabolized by the cytochrome P450IIB6 (CYP2B6) isoenzyme. Although bupropion is not metabolized by cytochrome P450IID6

(CYP2D6), there is the potential for drug-drug interactions when bupropion is co-administered with drugs metabolized by this isoen-

Following a single dose in humans, peak plasma concentrations of hydroxybupropion occur approximately 3 hours after administra-

tion of WELLBUTRIN Tablets. Peak plasma concentrations of hydroxybupropion are approximately 10 times the peak level of the parent drug at steady state. The elimination half-life of hydroxybupropion is approximately 20 (±5) hours, and its AUC at steady state is about

similar to that of the hydroxybupropion metabolite. However, their elimination half-lives are longer, 33 (±10) and 37 (±13) hours, respec-

*Elimination:* Following oral administration of 200 mg of <sup>14</sup>C-bupropion in humans, 87% and 10% of the radioactive dose were

Populations Subgroups: Factors or conditions altering metabolic capacity (e.g., liver disease, congestive heart failure [CHF], age, concomitant medications, etc.) or elimination may be expected to influence the degree and extent of accumulation of the active metabolites

of bupropion. The elimination of the major metabolites of bupropion may be affected by reduced renal or hepatic function because they

Hepatic: The effect of hepatic impairment on the pharmacokinetics of bupropion was characterized in 2 single-dose studies, one

in patients with alcoholic liver disease and one in patients with mild to severe cirrhosis. The first study showed that the half-life of

21±5 hours, respectively). Although not statistically significant, the AUCs for bupropion and hydroxybupropion were more variable and

The second study showed that there were no statistically significant differences in the pharmacokinetics of bupropion and its active

ended to be greater (by 53% to 57%) in volunteers with alcoholic liver disease. The differences in half-life for bupropion and the other

metabolites in 9 patients with mild to moderate hepatic cirrhosis compared to 8 healthy volunteers. However, more variability was

observed in some of the pharmacokinetic parameters for bupropion (AUC,  $C_{max}$ , and  $T_{max}$ ) and its active metabolites ( $t_{1/2}$ ) in patients

with mild to moderate hepatic cirrhosis. In addition, in patients with severe hepatic cirrhosis, the bupropion C<sub>max</sub> and AUC were substantially increased (mean difference: by approximately 70% and 3-fold, respectively) and more variable when compared to values in

bupropion was significantly longer in 8 patients with alcoholic liver disease than in 8 healthy volunteers (32±14 hours versus

are moderately polar compounds and are likely to undergo further metabolism or conjugation in the liver prior to urinary excretion.

recovered in the urine and feces, respectively. However, the fraction of the oral dose of WELLBUTRIN excreted unchanged was only

17 times that of bupropion. The times to peak concentrations for the erythrohydrobupropion and three

Rupropion and its metabolites exhibit linear kinetics following chronic administration of 300 to 450 mg/day

ively, and steady-state AUCs are 1.5 and 7 times that of bupropion, respectively.

0.5%, a finding consistent with the extensive metabolism of bupropion.

bupropion. This may be of clinical importance because their plasma concentrations are as high or higher than those of bupropion.

which is formed via hydroxylation of the tert-butyl group of bupropion, and the amino-alcohol isomers threohydrobupropion and

dosing is 21 (±9) hours, and steady-state plasma concentrations of bupropion are reached within 8 days. Plasma bupropion concen-

weak inhibitor of the neuronal uptake of norepinephrine, serotonin, and dopamine, and does not inhibit monoamine oxidase.

microcrystalline cellulose, polyethylene glycol, talc, and titanium dioxide

the threohydrobupropion metabolite is about half that seen with bupropion.

molecular weight is 276.2. The empirical formula is C<sub>13</sub>H<sub>18</sub>CINO•HCl. Bupropion hydrochloride powder is white, crystalline, and highly

NHC(CH<sub>3</sub>)<sub>3</sub>

HCI

Families and caregivers should be advised of the need for close observation and communication with the prescriber.

WELLBUTRIN is not approved for use in pediatric patients. (See WARNINGS and PRECAUTIONS: Pediatric Use.)

adolescents with Major Depressive Disorder (MDD) and other psychiatric disorders. Anyone considering the use of

fulness of the drug for the individual patient.

ncidence of seizures noted in such patients treated with WELLBUTRIN.

o

Nicotine Transdermal System: (see PRECAUTIONS: Cardiovascular Effects) ance in patients who were drinking alcohol during treatment with WELLBUTRIN. The consumption of alcohol during treatment with WELLBUTRIN should be minimized or avoided (also see CONTRAINDICATIONS).

Bupropion produced a borderline positive response (2 to 3 times control mutation rate) in som strains in the Ames bacterial mutagenicity test, and a high oral dose (300 mg/kg, but not 100 or 200

PHARMACIST—DETACH HERE AND GIVE LEAFLET TO PATIENT. ALSO PROVIDE AN APPROVED MEDICATION GUIDE ABOUT USING ANTIDEPRESSANTS IN CHILDREN AND TEENAGERS.

## WELLBUTRIN® (bupropion hydrochloride) Tablets nealthy volunteers; the mean bupropion half-life was also longer (29 hours in patients with severe hepatic cirrhosis vs. 19 hours in healthy subjects). For the metabolite hydroxybupropion, the mean $C_{\max}$ was approximately 69% lower. For the combined amino-alcohol isomers threohydrobupropion and erythrohydrobupropion, the mean $C_{\max}$ was approximately 31% lower. The mean AUC increased by bout 1½-fold for hydroxybupropion and about 2½-fold for threo/erythrohydrobupropion. The median T<sub>max</sub> was observed 19 hour later for hydroxybupropion and 31 hours later for threo/erythrohydrobupropion. The mean half-lives for hydroxybupropion and threo/

rythrohydrobupropion were increased 5- and 2-fold, respectively, in patients with severe hepatic cirrhosis compared to healthy volunteers (see WARNINGS, PRECAUTIONS, and DOSAGE AND ADMINISTRATION). Renal: The effect of renal disease on the pharmacokinetics of bupropion has not been studied. The elimination of the major metabolites of bupropion may be affected by reduced renal function.

Left Ventricular Dysfunction: During a chronic dosing study in 14 depressed patients with left ventricular dysfunction (history of CHF or an enlarged heart on x-ray), no apparent effect on the pharmacokinetics of bupropion or its metabolites was revealed, compared to Age: The effects of age on the pharmacokinetics of bupropion and its metabolites have not been fully characterized, but an exploration of steady-state bupropion concentrations from several depression efficacy studies involving patients dosed in a range of 300 to 750 mg/day, on a 3 times daily schedule, revealed no relationship between age (18 to 83 years) and plasma concentration of bupropion A single-dose pharmacokinetic study demonstrated that the disposition of bupropion and its metabolites in elderly subjects was similar o that of younger subjects. These data suggest there is no prominent effect of age on bupropion concentration; however, another phar-

macokinetic study, single and multiple dose, has suggested that the elderly are at increased risk for accumulation of bupropion and its Gender: A single-dose study involving 12 healthy male and 12 healthy female volunteers revealed no sex-related differences in the

Smokers: The effects of cigarette smoking on the pharmacokinetics of bupropion were studied in 34 healthy male and female volunteers; 17 were chronic cigarette smokers and 17 were nonsmokers. Following oral administration of a single 150-mg dose of bupropion, there were no statistically significant differences in C<sub>max</sub>, half-life, T<sub>max</sub>, AUC or clearance of bupropion or its active metabolites between smokers and nonsmokers. INDICATIONS AND USAGE

WELLBUTRIN is indicated for the treatment of depression. A physician considering WELLBUTRIN for the management of a patient's

first episode of depression should be aware that the drug may cause generalized seizures in a dose-dependent manner with an approx imate incidence of 0.4% (4/1,000). This incidence of seizures may exceed that of other marketed antidepressants by as much as 4-fold. This relative risk is only an approximate estimate because no direct comparative studies have been conducted (see WARNINGS). The efficacy of WELLBUTRIN has been established in 3 placebo-controlled trials, including 2 of approximately 3 weeks' duration in depressed inpatients and one of approximately 6 weeks' duration in depressed outpatients. The depressive disorder of the patients studied corresponds most closely to the Major Depression category of the APA Diagnostic and Statistical Manual III.

Major Depression implies a prominent and relatively persistent depressed or dysphoric mood that usually interferes with daily functioning (nearly every day for at least 2 weeks); it should include at least 4 of the following 8 symptoms; change in appetite, change in sleep, psychomotor agitation or retardation, loss of interest in usual activities or decrease in sexual drive, increased fatigability, feelings of guilt or worthlessness, slowed thinking or impaired concentration, and suicidal ideation or attempts. Effectiveness of WELLBUTRIN in long-term use, that is, for more than 6 weeks, has not been systematically evaluated in controlled

trials. Therefore, the physician who elects to use WELLBUTRIN for extended periods should periodically reevaluate the long-term use-

CONTRAINDICATIONS WELLBUTRIN is contraindicated in patients with a seizure disorder. WELLBUTRIN is contraindicated in patients treated with ZYBAN® (bupropion hydrochloride) Sustained-Release Tablets, or any other medications that contain bupropion because the incidence of seizure is dose dependent.

WELLBUTRIN is contraindicated in patients undergoing abrupt discontinuation of alcohol or sedatives (including benzodiazepine The concurrent administration of WELLBUTRIN and a monoamine oxidase (MAO) inhibitor is contraindicated. At least 14 days should elapse between discontinuation of an MAO inhibitor and initiation of treatment with WELLBUTRIN. WELLBUTRIN is contraindicated in patients who have shown an allergic response to bupropion or the other ingredients that make up

WELLBUTRIN is also contraindicated in patients with a current or prior diagnosis of bulimia or anorexia nervosa because of a higher

ing and Suicide Risk: Patients with major depressive disorder (MDD), both adult and pediatric, may experience wor sening of their depression and/or the emergence of suicidal ideation and behavior (suicidality) or unusual changes in behavior, whether or not they are taking antidepressant medications, and this risk may persist until significant remission occurs. There has been a longstanding concern that antidepressants may have a role in inducing worsening of depression and the emergence of suicidality in certain patients. Antidepressants increased the risk of suicidal thinking and behavior (suicidality) in short-term studies in children and adolescents with Major Depressive Disorder (MDD) and other psychiatric disorders. Pooled analyses of short-term placebo-controlled trials of 9 antidepressant drugs (SSRIs and others) in children and adolescents with MDD, OCD, or other psychiatric disorders (a total of 24 trials involving over 4,400 patients) have revealed a greater risk of adverse events representing suicidal behavior or thinking (suicidality) during the first few months of treatment in those receiving antidepressants.

The average risk of such events in patients receiving antidepressants was 4%, twice the placebo risk of 2%. There was considerable

variation in risk among drugs, but a tendency toward an increase for almost all drugs studied. The risk of suicidality was most consisently observed in the MDD trials, but there were signals of risk arising from some trials in other psychiatric indications (obs compulsive disorder and social anxiety disorder) as well. **No suicides occurred in any of these trials.** It is unknown whether the suicidality risk in pediatric patients extends to longer-term use, i.e., beyond several months. It is also unknown whether the suicidality risk extends to adults All pediatric patients being treated with antidepressants for any indication should be observed closely for clinical worsening suicidality, and unusual changes in behavior, especially during the initial few months of a course of drug therapy, or at times of dose changes, either increases or decreases. Such observation would generally include at least weekly face-to-face contact

with patients or their family members or caregivers during the first 4 weeks of treatment, then every other week visits for the

next 4 weeks, then at 12 weeks, and as clinically indicated beyond 12 weeks. Additional contact by telephone may be appropri-

Adults with MDD or co-morbid depression in the setting of other psychiatric illness being treated with antidepressants should erved similarly for clinical worsening and suicidality, especially during the initial few months of a course of drug therapy, or at times of dose changes, either increases or decreases. In addition, patients with a history of suicidal behavior or thoughts, those patients exhibiting a significant degree of suicidal ideation prior to commencement of treatment, and young adults, are at an increased risk of suicidal thoughts or suicide attempts, The following symptoms, anxiety agitation, panic attacks, insomnia, irritability, hostility, aggressiveness, impulsivity, akathisia (psy

chomotor restlessness), hypomania, and mania, have been reported in adult and pediatric patients being treated with antidepressants

for major depressive disorder as well as for other indications, both psychiatric and nonpsychiatric. Although a causal link between the

emergence of such symptoms and either the worsening of depression and/or the emergence of suicidal impulses has not been estab-

to report such symptoms immediately to health care providers. Such monitoring should include daily observation by families

lished, there is concern that such symptoms may represent precursors to emerging suicidality. Consideration should be given to changing the therapeutic regimen, including possibly discontinuing the medication, in patients whose epression is persistently worse, or who are experiencing emergent suicidality or symptoms that might be precursors to worsening depression or suicidality, especially if these symptoms are severe, abrupt in onset, or were not part of the patient's presenting symptoms. Families and caregivers of pediatric patients being treated with antidepressants for major depressive disorder or other indica tions, both psychiatric and nonpsychiatric, should be alerted about the need to monitor patients for the emergence of agitation, irritability, unusual changes in behavior, and the other symptoms described above, as well as the emergence of suicidality, and

WELLBUTRIN® 10000000015294

**WELLBUTRIN®** (bupropion hydrochloride Tablets

hese are not all the sit wELLBUTRIN. For a st, ask your doctor or ell your doctor or ell your doctor right and you side effects that but not change your do not change your doctor fill with your doctor fill eneral Information a fell BUTRIN.

# PHARMACIST—DETACH HERE AND GIVE LEAFLET TO PATIENT. ALSO PROVIDE AN APPROVED MEDICATION GUIDE ABOUT USING ANTIDEPRESSANTS IN CHILDREN AND TEENAGERS.

#### WELLBUTRIN® (bupropion hydrochloride) Tablets

Pregnancy: Teratogenic Effects: Pregnancy Category B. Reproduction studies have been performed in rabbits and rats at doses up to 15 to 45 times the human daily dose and have revealed no definitive evidence of impaired fertility or harm to the fetus due to bupropion. (In rabbits, a slightly increased incidence of fetal abnormalities was seen in 2 studies, but there was no increase in any specific abnormality.) There are no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

To monitor fetal outcomes of pregnant women exposed to WELLBUTRIN, GlaxoSmithKline maintains a Bupropion Pregnancy Registry. Health care providers are encouraged to register patients by calling (800) 336-2176.

Labor and Delivery: The effect of WELLBUTRIN on labor and delivery in humans is unknown. Nursing Mothers: Like many other drugs, bupropion and its metabolites are secreted in human milk. Because of the potential for serious adverse reactions in nursing infants from WELLBUTRIN, a decision should be made whether to discontinue nursing or to discon tinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use: Safety and effectiveness in the pediatric population have not been established (see BOX WARNING and WARNINGS: Clinical Worsening and Suicide Risk). Anyone considering the use of WELLBUTRIN in a child or adolescent must balance the potential

Geriatric Use: Of the approximately 6,000 patients who participated in clinical trials with bupropion sustained-release tablets (depres sion and smoking cessation studies), 275 were 65 and over and 47 were 75 and over. In addition, several hundred patients 65 and over participated in clinical trials using the immediate-release formulation of bupropion (depression studies). No overall differences in safety or effectiveness were observed between these subjects and younger subjects, and other reported clinical experience has not identified differences in responses between the elderly and younger patients, but greater sensitivity of some older individuals cannot

A single-dose pharmacokinetic study demonstrated that the disposition of bupropion and its metabolites in elderly subjects was similar to that of younger subjects; however, another pharmacokinetic study, single and multiple dose, has suggested that the elderly are at increased risk for accumulation of bupropion and its metabolites (see CLINICAL PHARMACOLOGY)

Bupropion is extensively metabolized in the liver to active metabolites, which are further metabolized and excreted by the kidneys. The risk of toxic reaction to this drug may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function (see PRECAU-TIONS: Renal Impairment and DOSAGE AND ADMINISTRATION).

### ADVERSE REACTIONS (see also WARNINGS and PRECAUTIONS)

Adverse events commonly encountered in patients treated with WELLBUTRIN are agitation, dry mouth, insomnia, headache/migraine, nausea/vomiting, constipation, and tremor.

Adverse events were sufficiently troublesome to cause discontinuation of treatment with WELLBUTRIN in approximately 10% of the 2,400 patients and volunteers who participated in clinical trials during the product's initial development. The more common events causing discontinuation include neuropsychiatric disturbances (3.0%), primarily agitation and abnormalities in mental status; gastrointestinal disturbances (2.1%), primarily nausea and vomiting; neurological disturbances (1.7%), primarily seizures, headaches, and sleep disturbances; and dermatologic problems (1.4%), primarily rashes. It is important to note, however, that many of these events occurred at doses that exceed the recommended daily dose.

Accurate estimates of the incidence of adverse events associated with the use of any drug are difficult to obtain. Estimates are influenced by drug dose, detection technique, setting, physician judgments, etc. Consequently, the table below is presented solely to indicate the relative frequency of adverse events reported in representative controlled clinical studies conducted to evaluate the safety and efficacy of WELLBUTRIN under relatively similar conditions of daily dosage (300 to 600 mg), setting, and duration (3 to 4 weeks). The figures cited cannot be used to predict precisely the incidence of untoward events in the course of usual medical practice where patient characteristics and other factors must differ from those which prevailed in the clinical trials. These incidence figures also cannot be compared with those obtained from other clinical studies involving related drug products as each group of drug trials is con-

ducted under a different set of conditions. Finally, it is important to emphasize that the tabulation does not reflect the relative severity and/or clinical importance of the events. A better perspective on the serious adverse events associated with the use of WELLBUTRIN is provided in WARNINGS and PRECAUTIONS.

Table 1. Treatment-Emergent Adverse Experience Incidence in Placebo-Controlled Clinical Trials\* (Percent of Patients Reporting)

	WELLBUTRIN Patients	Placebo Patients
Adverse Experience	(n = 323)	(n = 185)
Cardiovascular		
Cardiac arrhythmias	5.3	4.3
Dizziness	22.3	16.2
Hypertension	4.3	1.6
Hypotension	2.5	2.2
Palpitations	3.7	2.2
Syncope	1.2	0.5
Tachycardia	10.8	8.6
Dermatologic		
Pruritus	2.2	0.0
Rash	8.0	6.5
Gastrointestinal		
Anorexia	18.3	18.4
Appetite increase	3.7	2.2
Constipation	26.0	17.3
Diarrhea	6.8	8.6
Dyspepsia	3.1	2.2
Nausea/vomiting	22.9	18.9
Weight gain	13.6	22.7
Weight loss	23.2	23.2
Genitourinary		
Impotence	3.4	3.1
Menstrual complaints	4.7	1.1
Urinary frequency	2.5	2.2
Urinary retention	1.9	2.2
Musculoskeletal Arthritis	3.1	2.7
	3.1	2.1
Neurological Akathisia	1.5	1.1
Akinesia/bradykinesia	8.0	8.6
Cutaneous temperature disturbance	1.9	1.6
Dry mouth	27.6	18.4
Excessive sweating	22.3	14.6
Headache/migraine	25.7	22.2
Impaired sleep quality	4.0	1.6
Increased salivary flow	3.4	3.8
Insomnia	18.6	15.7
Muscle spasms	1.9	3.2
Pseudoparkinsonism	1.5	1.6
Sedation	19.8	19.5

## WELLBUTRIN® (bupropion hydrochloride) Tablets

Adverse Experience	WELLBUTRIN Patients (n = 323)	Placebo Patients (n = 185)
Sensory disturbance Tremor	4.0 21.1	3.2 7.6
Neuropsychiatric Agitation Anxiety Confusion Decreased libido Delusions Disturbed concentration Euphoria Hostility	31.9 3.1 8.4 3.1 1.2 3.1 1.2 5.6	22.2 1.1 4.9 1.6 1.1 3.8 0.5 3.8
Nonspecific Fatigue Fever/chills	5.0 1.2	8.6 0.5
Respiratory Upper respiratory complaints	5.0	11.4
Special Senses Auditory disturbance Blurred vision Gustatory disturbance	5.3 14.6 3.1	3.2 10.3 1.1

\*Events reported by at least 1% of patients receiving WELLBUTRIN are included.

Other Events Observed During the Development of WELLBUTRIN: The conditions and duration of exposure to WELLBUTRIN varied greatly, and a substantial proportion of the experience was gained in open and uncontrolled clinical settings. During this experience, numerous adverse events were reported; however, without appropriate controls, it is impossible to determine with certainty which events were or were not caused by WELLBUTRIN. The following enumeration is organized by organ system and describes events in terms of their relative frequency of reporting in the data base. Events of major clinical importance are also described in WARNINGS and PRECAUTIONS.

The following definitions of frequency are used: Frequent adverse events are defined as those occurring in at least 1/100 patients. Infrequent adverse events are those occurring in 1/100 to 1/1,000 patients, while rare events are those occurring in less than

Cardiovascular: Frequent was edema; infrequent were chest pain, electrocardiogram (ECG) abnormalities (premature beats and specific ST-T changes), and shortness of breath/dyspnea; rare were flushing, pallor, phlebitis, and myocardial infarction **Dermatologic:** Frequent were nonspecific rashes; infrequent were alopecia and dry skin; rare were change in hair color, hirsutism,

**Endocrine:** Infrequent was gynecomastia; rare were glycosuria and hormone level change.

Gastrointestinal: Infrequent were dysphagia, thirst disturbance, and liver damage/jaundice; rare were rectal complaints, colitis, gastrointestinal bleeding, intestinal perforation, and stomach ulcer. Genitourinary: Frequent was nocturia; infrequent were vaginal irritation, testicular swelling, urinary tract infection, painful erection,

and retarded ejaculation; rare were dysuria, enuresis, urinary incontinence, menopause, ovarian disorder, pelvic infection, cystitis, dys-

Hematologic/Oncologic: Rare were lymphadenopathy, anemia, and pancytopenia uloskeletal: Rare was musculoskeletal chest pain.

Neurological: (see WARNINGS) Frequent were ataxia/incoordination, seizure, myoclonus, dyskinesia, and dystonia; infrequent were mydriasis, vertigo, and dysarthria; rare were electroencephalogram (EEG) abnormality, abnormal neurological exam, impaired attention, Neuropsychiatric: (see PRECAUTIONS) Frequent were mania/hypomania, increased libido, hallucinations, decrease in sexual function,

and depression; infrequent were memory impairment, depersonalization, psychosis, dysphoria, mood instability, paranoia, formal thought disorder, and frigidity; rare was suicidal ideation. Oral Complaints: Frequent was stomatitis: infrequent were toothache, bruxism, gum irritation, and oral edema; rare was glossitis.

Respiratory: Infrequent were bronchitis and shortness of breath/dyspnea; rare were epistaxis, rate or rhythm disorder, pneumonia, Special Senses: Infrequent was visual disturbance; rare was diplopia.

Nonspecific: Frequent were flu-like symptoms; infrequent was nonspecific pain; rare were body odor, surgically related pain, infection, medication reaction, and overdose. Postintroduction Reports: Voluntary reports of adverse events temporally associated with bupropion that have been received since

market introduction and which may have no causal relationship with the drug include the following: Body (General): arthralgia, myalgia, and fever with rash and other symptoms suggestive of delayed hypersensitivity. These symptoms may resemble serum sickness (see PRECAUTIONS). *Cardiovascular:* hypertension (in some cases severe, see PRECAUTIONS), orthostatic hypotension, third degree heart block

Endocrine: syndrome of inappropriate antidiuretic hormone secretion, hyperglycemia, hypoglycemia Gastrointestinal: esophagitis, hepatitis, liver damage Hemic and Lymphatic: ecchymosis, leukocytosis, leukopenia, thrombocytopenia. Altered PT and/or INR, infrequently associated

with hemorrhagic or thrombotic complications, were observed when bupropion was coadministered with warfarin. Musculoskeletal: arthralgia, myalgia, muscle rigidity/fever/rhabdomyolysis, muscle weakness

Nervous: coma, delirium, dream abnormalities, paresthesia, unmasking of tardive dyskinesia

Skin and Appendages: Stevens-Johnson syndrome, angioedema, exfoliative dermatitis, urticaria

# DRUG ABUSE AND DEPENDENCE

Humans: Controlled clinical studies conducted in normal volunteers, in subjects with a history of multiple drug abuse, and in depressed patients showed some increase in motor activity and agitation/excitement.

In a population of individuals experienced with drugs of abuse, a single dose of 400 mg of WELLBUTRIN produced mild amphetamine like activity as compared to placebo on the Morphine-Benzedrine Subscale of the Addiction Research Center Inventories (ARCI) and a score intermediate between placebo and amphetamine on the Liking Scale of the ARCI. These scales measure general feelings of euphoria and drug desirability.

Findings in clinical trials, however, are not known to predict the abuse potential of drugs reliably. Nonetheless, evidence from singlee studies does suggest that the r especially reinforcing to amphetamine or stimulant abusers. However, higher doses, which could not be tested because of the risk of seizure, might be modestly attractive to those who abuse stimulant drugs. Animals: Studies in rodents have shown that bupropion exhibits some pharmacologic actions common to psychostimulants, including

increases in locomotor activity and the production of a mild stereotyped behavior and increases in rates of responding in several schedule-controlled behavior paradigms. Drug discrimination studies in rats showed stimulus generalization between bupropion and amphetamine and other psychostimulants. Rhesus monkeys have been shown to self-administer hypropion intravenously

# OVERDOSAGE

Human Overdose Experience: There has been extensive clinical experience with overdosage of WELLBUTRIN Tablets. Thirteen overdoses occurred during clinical trials. Twelve patients ingested 850 to 4,200 mg and recovered without significant sequelae. Another patient who ingested 9,000 mg of WELLBUTRIN and 300 mg of tranylcypromine experienced a grand mal seizure and recovered with-

#### WELLBUTRIN® (bupropion hydrochloride) Tablets

Since introduction, overdoses of WELLBUTRIN Tablets up to 17,500 mg have been reported. Seizure was reported in approximately one third of all cases. Other serious reactions reported with overdoses of WELLBUTRIN Tablets alone included hallucinations, loss of consciousness, and sinus tachycardia. Fever, muscle rigidity, rhabdomyolysis, hypotension, stupor, coma, and respiratory failure have been reported when WELLBUTRIN Tablets was part of multiple drug overdoses.

Although most patients recovered without sequelae, deaths associated with overdoses of WELLBUTRIN Tablets alone have been reported rarely in patients ingesting massive doses of WELLBUTRIN Tablets. Multiple uncontrolled seizures, bradycardia, cardiac failure, and cardiac arrest prior to death were reported in these patients.

Overdosage Management: Ensure an adequate airway, oxygenation, and ventilation. Monitor cardiac rhythm and vital signs. EEG monitoring is also recommended for the first 48 hours post-ingestion. General supportive and symptomatic measures are also recommended. Induction of emesis is not recommended. Gastric lavage with a large-bore orogastric tube with appropriate airway protection, if needed, may be indicated if performed soon after ingestion or in symptomatic patients.

Activated charcoal should be administered. There is no experience with the use of forced diuresis, dialysis, hemoperfusion, or exchange transfusion in the management of bupropion overdoses. No specific antidotes for bupropion are known.

Due to the dose-related risk of seizures with WELLBUTRIN, hospitalization following suspected overdose should be considered. Based on studies in animals, it is recommended that seizures be treated with intravenous benzodiazenine administration and other supportive

In managing overdosage, consider the possibility of multiple drug involvement. The physician should consider contacting a poison ntrol center for additional information on the treatment of any overdose. Telephone numbers for certified poison control centers are listed in the Physicians' Desk Reference (PDR).

#### DOSAGE AND ADMINISTRATION

General Dosing Considerations: It is particularly important to administer WELLBUTRIN in a manner most likely to minimize the risk of seizure (see WARNINGS). Increases in dose should not exceed 100 mg/day in a 3-day period. Gradual escalation in dosage is also important if agitation, motor restlessness, and insomnia, often seen during the initial days of treatment, are to be minimized. If necessary, these effects may be managed by temporary reduction of dose or the short-term administration of an intermediate to long-acting sedative hypnotic. A sedative hypnotic usually is not required beyond the first week of treatment. Insomnia may also be minimized by avoiding bedtime doses. If distressing, untoward effects supervene, dose escalation should be stopped.

No single dose of WELLBUTRIN should exceed 150 mg. WELLBUTRIN should be administered 3 times daily, preferably with at least

6 hours between successive doses Usual Dosage for Adults: The usual adult dose is 300 mg/day, given 3 times daily. Dosing should begin at 200 mg/day, given as 100 mg

twice daily. Based on clinical response, this dose may be increased to 300 mg/day, given as 100 mg 3 times daily, no sooner than 3 days after beginning therapy (see table below).

### Table 2. Dosing Regimen

			Number of Tablets		
Treatment Day	Total Daily Dose	Tablet Strength	Morning	Midday	Evening
1	200 mg	100 mg	1	0	1
4	300 mg	100 mg	1	1	1

Increasing the Dosage Above 300 mg/Day: As with other antidepressants, the full antidepressant effect of WELLBUTRIN may not be evident until 4 weeks of treatment or longer. An increase in dosage, up to a maximum of 450 mg/day, given in divided doses of not more than 150 mg each, may be considered for patients in whom no clinical improvement is noted after several weeks of treatment at 300 mg/day. Dosing above 300 mg/day may be accomplished using the 75- or 100-mg tablets. The 100-mg tablet must be administered 4 times daily with at least 4 hours between successive doses, in order not to exceed the limit of 150 mg in a single dose. WELLBUTRIN should be discontinued in patients who do not demonstrate an adequate response after an appropriate period of treat-

Maintenance: The lowest dose that maintains remission is recommended. Although it is not known how long the patient should remain on WELLBUTRIN, it is generally recognized that acute episodes of depression require several months or longer of antidepressant drug treatment.

Dosage Adjustment for Patients with Impaired Hepatic Function: WELLBUTRIN should be used with extreme caution in patients with severe hepatic cirrhosis. The dose should not exceed 75 mg once a day in these patients. WELLBUTRIN should be used with caution in patients with hepatic impairment (including mild to moderate hepatic cirrhosis) and a reduced frequency and/or dose should be considered in patients with mild to moderate hepatic cirrhosis (see CLINICAL PHARMACOLOGY and PRECAUTIONS). Dosage Adjustment for Patients with Impaired Renal Function: WELLBUTRIN should be used with caution in patients with renal

# HOW SUPPLIED

WELLBUTRIN Tablets, 75 mg of bupropion hydrochloride, are yellow-gold, round, biconvex tablets printed with "WELLBUTRIN 75" in bottles of 100 (NDC 0173-0177-55) WELLBUTRIN Tablets, 100 mg of bupropion hydrochloride, are red, round, biconvex tablets printed with "WELLBUTRIN 100" in

impairment and a reduced frequency and/or dose should be considered (see CLINICAL PHARMACOLOGY and PRECAUTIONS).

hottles of 100 (NDC 0173-0178-55 Store at 15° to 25°C (59° to 77°F). Protect from light and moisture

> WELLBUTRIN® (WELL byu-trin) About Using Antidepressants in Children and Teenage

# What is the most important information I should know if my child is being prescribed an antidepressant?

Parents or guardians need to think about 4 important things when their child is prescribed an antidepressant:

There is a risk of suicidal thoughts or actions
 How to try to prevent suicidal thoughts or actions in your child

3. You should watch for certain signs if your child is taking an antidepressant 4. There are benefits and risks when using antidepressants

1. There is a Risk of Suicidal Thoughts or Actions

Children and teenagers sometimes think about suicide, and many report trying to kill themselves.

Antidepressants increase suicidal thoughts and actions in some children and teenagers. But suicidal thoughts and actions can also be caused by depression, a serious medical condition that is commonly treated with antidepressants. Thinking about killing yourself or trying to kill yourself is called *suicidality* or *being suicidal*.

A large study combined the results of 24 different studies of children and teenagers with depression or other illnesses. In these studies, patients took either a placebo (sugar pill) or an antidepressant for 1 to 4 months. No one committed suicide in these studies, but some patients became suicidal. On sugar pills, 2 out of every 100 became suicidal. On the antidepressants, 4 out of every 100 patients became suicidal.

For some children and teenagers, the risks of suicidal actions may be especially high. These include patients with

 Bipolar illness (sometimes called manic-depressive illness) A family history of hinglar illness

A personal or family history of attempting suicide

If any of these are present, make sure you tell your healthcare provider before your child takes an antidepressant.

2. How to Try to Prevent Suicidal Thoughts and Actions

# WELLBUTRIN® (bupropion hydrochloride) Tablets

To try to prevent suicidal thoughts and actions in your child, pay close attention to changes in her or his moods or actions, especially if the changes occur suddenly. Other important people in your child's life can help by paying attention as well (e.g., your child, brothers and sisters, teachers, and other important people). The changes to look out for are listed in Section 3, on what to watch for.

Whenever an antidepressant is started or its dose is changed, pay close attention to your child

After starting an antidepressant, your child should generally see his or her healthcare provider:

Once a week for the first 4 weeks

· Every 2 weeks for the next 4 weeks After taking the antidepressant for 12 weeks

After 12 weeks, follow your healthcare provider's advice about how often to come back

More often if problems or questions arise (see Section 3)

## You should call your child's healthcare provider between visits if needed. 3. You Should Watch For Certain Signs if Your Child is Taking an Antidepressant

Contact your child's healthcare provider right away if your child exhibits any of the following signs for the first time, or they seem

worse, or worry you, your child, or your child's teacher:

. Thoughts about suicide or dying Attempts to commit suicide

· New or worse depression

 New or worse anxiety Feeling very agitated or restless

 Panic attacks · Difficulty sleeping (insomnia)

New or worse irritability

· Acting aggressive, being angry, or violent · Acting on dangerous impulse:

 An extreme increase in activity and talking Other unusual changes in behavior or moo

Never let your child stop taking an antidepressant without first talking to his or her healthcare provider. Stopping an antidepressant suddenly can cause other symptoms

# 4. There are Benefits and Risks When Using Antidepressants

Antidepressants are used to treat depression and other illnesses. Depression and other illnesses can lead to suicide. In some children and teenagers, treatment with an antidepressant increases suicidal thinking or actions. It is important to discuss all the risks of treating epression and also the risks of not treating it. You and your child should discuss all treatment choices with your healthcare provice not just the use of antidepressants

Other side effects can occur with antidepressants (see section below)

Of all antidepressants, only fluoxetine (Prozac®)\* has been FDA approved to treat pediatric depression.

For obsessive compulsive disorder in children and teenagers, FDA has approved only fluoxetine (Prozac®)\*, sertraline (Zoloft®)\*,

Your healthcare provider may suggest other antidepressants based on the past experience of your child or other family members.

# Is this all I need to know if my child is being prescribed an antidepressant?

No. This is a warning about the risk of suicidality. Other side effects can occur with antidepressants. Be sure to ask your healthcare provider to explain all the side effects of the particular drug he or she is prescribing. Also ask about drugs to avoid when taking an antidepressant. Ask your healthcare provider or pharmacist where to find more informatio

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This Medication Guide has been approved by the U.S. Food and Drug Administration for all antidepressants.

MG-WT:1

gsk GlaxoSmithKline

Manufactured by DSM Pharmaceuticals, In Greenville, NC 27834 for Research Triangle Park, NC 27709

August 2005

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