PRESCRIBING INFORMATION

2 PAXIL CR®

3 (paroxetine hydrochloride)

4 **Controlled-Release Tablets**

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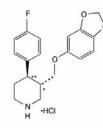
6 Suicidality and Antidepressant Drugs

7 Antidepressants increased the risk compared to placebo of suicidal thinking and behavior 8 (suicidality) in children, adolescents and young adults in short-term studies of major 9 depressive disorder (MDD) and other psychiatric disorders. Anyone considering the use of 10 PAXIL CR or any other antidepressant in a child, adolescent or young adult must balance 11 this risk with the clinical need. Short-term studies did not show an increase in the risk of 12 suicidality with antidepressants compared to placebo in adults beyond age 24; there was a 13 reduction in risk with antidepressants compared to placebo in adults aged 65 and older. 14 Depression and certain other psychiatric disorders are themselves associated with increases 15 in the risk of suicide. Patients of all ages who are started on antidepressant therapy should 16 be monitored appropriately and observed closely for clinical worsening, suicidality, or 17 unusual changes in behavior. Families and caregivers should be advised of the need for 18 close observation and communication with the prescriber. PAXIL CR is not approved for 19 use in pediatric patients. (See WARNINGS: Clinical Worsening and Suicide Risk, 20 PRECAUTIONS: Information for Patients, and PRECAUTIONS: Pediatric Use.)

21 **DESCRIPTION**

22 PAXIL CR (paroxetine hydrochloride) is an orally administered psychotropic drug with a

- 23 chemical structure unrelated to other selective serotonin reuptake inhibitors or to tricyclic,
- 24 tetracyclic, or other available antidepressant or antipanic agents. It is the hydrochloride salt of a
- 25 phenylpiperidine compound identified chemically as (-)-trans-4R-(4'-fluorophenyl)-3S-[(3',4'-
- 26 methylenedioxyphenoxy) methyl] piperidine hydrochloride hemihydrate and has the empirical
- 27 formula of $C_{19}H_{20}FNO_3 \bullet HCl \bullet 1/2H_2O$. The molecular weight is 374.8 (329.4 as free base). The
- 28 structural formula of paroxetine hydrochloride is:



- 30 Paroxetine hydrochloride is an odorless, off-white powder, having a melting point range of
- 31 120° to 138°C and a solubility of 5.4 mg/mL in water.
- 32 Each enteric, film-coated, controlled-release tablet contains paroxetine hydrochloride
- 33 equivalent to paroxetine as follows: 12.5 mg-yellow, 25 mg-pink, 37.5 mg-blue. One layer of



- 34 the tablet consists of a degradable barrier layer and the other contains the active material in a 35 hydrophilic matrix.
- 36 Inactive ingredients consist of hypromellose, polyvinylpyrrolidone, lactose monohydrate,
- 37 magnesium stearate, colloidal silicon dioxide, glyceryl behenate, methacrylic acid copolymer
- 38 type C, sodium lauryl sulfate, polysorbate 80, talc, triethyl citrate, and 1 or more of the following
- 39 colorants: Yellow ferric oxide, red ferric oxide, D&C Red No. 30, D&C Yellow No. 6, D&C
- 40 Yellow No. 10, FD&C Blue No. 2.

41 CLINICAL PHARMACOLOGY

- 42 **Pharmacodynamics:** The efficacy of paroxetine in the treatment of major depressive
- 43 disorder, panic disorder, social anxiety disorder, and premenstrual dysphoric disorder (PMDD) is
- 44 presumed to be linked to potentiation of serotonergic activity in the central nervous system
- 45 resulting from inhibition of neuronal reuptake of serotonin (5-hydroxy-tryptamine, 5-HT).
- 46 Studies at clinically relevant doses in humans have demonstrated that paroxetine blocks the
- 47 uptake of serotonin into human platelets. In vitro studies in animals also suggest that paroxetine
- 48 is a potent and highly selective inhibitor of neuronal serotonin reuptake and has only very weak
- 49 effects on norepinephrine and dopamine neuronal reuptake. In vitro radioligand binding studies
- 50 indicate that paroxetine has little affinity for muscarinic, alpha₁-, alpha₂-, beta-adrenergic-,
- 51 dopamine (D₂)-, 5-HT₁-, 5-HT₂-, and histamine (H₁)-receptors; antagonism of muscarinic,
- 52 histaminergic, and alpha₁-adrenergic receptors has been associated with various anticholinergic,
- 53 sedative, and cardiovascular effects for other psychotropic drugs.
- 54 Because the relative potencies of paroxetine's major metabolites are at most 1/50 of the parent 55 compound, they are essentially inactive.
- 56 **Pharmacokinetics:** Paroxetine hydrochloride is completely absorbed after oral dosing of a
- 57 solution of the hydrochloride salt. The elimination half-life is approximately 15 to 20 hours after
- a single dose of PAXIL CR. Paroxetine is extensively metabolized and the metabolites are
- 59 considered to be inactive. Nonlinearity in pharmacokinetics is observed with increasing doses.
- 60 Paroxetine metabolism is mediated in part by CYP2D6, and the metabolites are primarily
- 61 excreted in the urine and to some extent in the feces. Pharmacokinetic behavior of paroxetine has
- 62 not been evaluated in subjects who are deficient in CYP2D6 (poor metabolizers).

Absorption and Distribution: Tablets of PAXIL CR contain a degradable polymeric
 matrix (GEOMATRIXTM) designed to control the dissolution rate of paroxetine over a period of
 approximately 4 to 5 hours. In addition to controlling the rate of drug release in vivo, an enteric
 coat delays the start of drug release until tablets of PAXIL CR have left the stomach.

- 67 Paroxetine hydrochloride is completely absorbed after oral dosing of a solution of the
- hydrochloride salt. In a study in which normal male and female subjects (n = 23) received single
- 69 oral doses of PAXIL CR at 4 dosage strengths (12.5 mg, 25 mg, 37.5 mg, and 50 mg), paroxetine
- C_{max} and AUC_{0-inf} increased disproportionately with dose (as seen also with immediate-release
- formulations). Mean C_{max} and AUC_{0-inf} values at these doses were 2.0, 5.5, 9.0, and 12.5 ng/mL,
- and 121, 261, 338, and 540 ng•hr./mL, respectively. T_{max} was observed typically between 6 and
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- 10 hours post-dose, reflecting a reduction in absorption rate compared with immediate-release
- 74 formulations. The bioavailability of 25 mg PAXIL CR is not affected by food.
- Paroxetine distributes throughout the body, including the CNS, with only 1% remaining in theplasma.
- Approximately 95% and 93% of paroxetine is bound to plasma protein at 100 ng/mL and
- 400 ng/mL, respectively. Under clinical conditions, paroxetine concentrations would normally be
- less than 400 ng/mL. Paroxetine does not alter the in vitro protein binding of phenytoin orwarfarin.

81 *Metabolism and Excretion:* The mean elimination half-life of paroxetine was 15 to

- 82 20 hours throughout a range of single doses of PAXIL CR (12.5 mg, 25 mg, 37.5 mg, and
- 83 50 mg). During repeated administration of PAXIL CR (25 mg once daily), steady state was
- 84 reached within 2 weeks (i.e., comparable to immediate-release formulations). In a repeat-dose
- study in which normal male and female subjects (n = 23) received PAXIL CR (25 mg daily),
- mean steady state C_{max}, C_{min}, and AUC₀₋₂₄ values were 30 ng/mL, 20 ng/mL, and 550 ng•hr./mL,
 respectively.
- 88 Based on studies using immediate-release formulations, steady-state drug exposure based on
- $AUC_{0.24}$ was several-fold greater than would have been predicted from single-dose data. The
- 90 excess accumulation is a consequence of the fact that 1 of the enzymes that metabolizes
- 91 paroxetine is readily saturable.
- 92 In steady-state dose proportionality studies involving elderly and nonelderly patients, at doses
- 93 of the immediate-release formulation of 20 mg to 40 mg daily for the elderly and 20 mg to 50 mg
- 94 daily for the nonelderly, some nonlinearity was observed in both populations, again reflecting a
- 95 $\,$ saturable metabolic pathway. In comparison to C_{min} values after 20 mg daily, values after 40 mg $\,$
- 96 daily were only about 2 to 3 times greater than doubled.
- 97 Paroxetine is extensively metabolized after oral administration. The principal metabolites are
- 98 polar and conjugated products of oxidation and methylation, which are readily cleared.
- 99 Conjugates with glucuronic acid and sulfate predominate, and major metabolites have been
- 100 isolated and identified. Data indicate that the metabolites have no more than 1/50 the potency of
- 101 the parent compound at inhibiting serotonin uptake. The metabolism of paroxetine is
- 102 accomplished in part by CYP2D6. Saturation of this enzyme at clinical doses appears to account
- 103 for the nonlinearity of paroxetine kinetics with increasing dose and increasing duration of
- treatment. The role of this enzyme in paroxetine metabolism also suggests potential drug-druginteractions (see PRECAUTIONS).
- 106 Approximately 64% of a 30-mg oral solution dose of paroxetine was excreted in the urine
- 107 with 2% as the parent compound and 62% as metabolites over a 10-day post-dosing period.
- 108 About 36% was excreted in the feces (probably via the bile), mostly as metabolites and less than
- 109 1% as the parent compound over the 10-day post-dosing period.
- 110 Other Clinical Pharmacology Information: Specific Populations: Renal and Liver
- 111 **Disease:** Increased plasma concentrations of paroxetine occur in subjects with renal and hepatic
- 112 impairment. The mean plasma concentrations in patients with creatinine clearance below
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113 30 mL/min. were approximately 4 times greater than seen in normal volunteers. Patients with 114 creatinine clearance of 30 to 60 mL/min. and patients with hepatic functional impairment had 115 about a 2-fold increase in plasma concentrations (AUC, C_{max}). 116 The initial dosage should therefore be reduced in patients with severe renal or hepatic 117 impairment, and upward titration, if necessary, should be at increased intervals (see DOSAGE 118 AND ADMINISTRATION). 119 Elderly Patients: In a multiple-dose study in the elderly at daily doses of 20, 30, and 120 40 mg of the immediate-release formulation, C_{min} concentrations were about 70% to 80% greater 121 than the respective C_{min} concentrations in nonelderly subjects. Therefore the initial dosage in the 122 elderly should be reduced (see DOSAGE AND ADMINISTRATION). 123 **Drug-Drug Interactions:** In vitro drug interaction studies reveal that paroxetine inhibits 124 CYP2D6. Clinical drug interaction studies have been performed with substrates of CYP2D6 and 125 show that paroxetine can inhibit the metabolism of drugs metabolized by CYP2D6 including 126 desipramine, risperidone, and atomoxetine (see PRECAUTIONS-Drug Interactions). **Clinical Trials** 127 128 Major Depressive Disorder: The efficacy of PAXIL CR controlled-release tablets as a 129 treatment for major depressive disorder has been established in two 12-week. flexible-dose. 130 placebo-controlled studies of patients with DSM-IV Major Depressive Disorder. One study 131 included patients in the age range 18 to 65 years, and a second study included elderly patients, 132 ranging in age from 60 to 88. In both studies, PAXIL CR was shown to be significantly more 133 effective than placebo in treating major depressive disorder as measured by the following: 134 Hamilton Depression Rating Scale (HDRS), the Hamilton depressed mood item, and the Clinical 135 Global Impression (CGI)-Severity of Illness score. 136 A study of outpatients with major depressive disorder who had responded to 137 immediate-release paroxetine tablets (HDRS total score <8) during an initial 8-week 138 open-treatment phase and were then randomized to continuation on immediate-release paroxetine 139 tablets or placebo for 1 year demonstrated a significantly lower relapse rate for patients taking 140 immediate-release paroxetine tablets (15%) compared to those on placebo (39%). Effectiveness 141 was similar for male and female patients. 142 Panic Disorder: The effectiveness of PAXIL CR in the treatment of panic disorder was 143 evaluated in three 10-week, multicenter, flexible-dose studies (Studies 1, 2, and 3) comparing 144 paroxetine controlled-release (12.5 to 75 mg daily) to placebo in adult outpatients who had panic 145 disorder (DSM-IV), with or without agoraphobia. These trials were assessed on the basis of their 146 outcomes on 3 variables: (1) the proportions of patients free of full panic attacks at endpoint; (2) 147 change from baseline to endpoint in the median number of full panic attacks; and (3) change 148 from baseline to endpoint in the median Clinical Global Impression Severity score. For Studies 1 149 and 2, PAXIL CR was consistently superior to placebo on 2 of these 3 variables. Study 3 failed 150 to consistently demonstrate a significant difference between PAXIL CR and placebo on any of 151 these variables. 152 For all 3 studies, the mean dose of PAXIL CR for completers at endpoint was approximately

153 50 mg/day. Subgroup analyses did not indicate that there were any differences in treatment 154 outcomes as a function of age or gender. 155 Long-term maintenance effects of the immediate-release formulation of paroxetine in panic 156 disorder were demonstrated in an extension study. Patients who were responders during a 157 10-week double-blind phase with immediate-release paroxetine and during a 3-month 158 double-blind extension phase were randomized to either immediate-release paroxetine or placebo 159 in a 3-month double-blind relapse prevention phase. Patients randomized to paroxetine were 160 significantly less likely to relapse than comparably treated patients who were randomized to 161 placebo. 162 **Social Anxiety Disorder:** The efficacy of PAXIL CR as a treatment for social anxiety 163 disorder has been established, in part, on the basis of extrapolation from the established 164 effectiveness of the immediate-release formulation of paroxetine. In addition, the effectiveness 165 of PAXIL CR in the treatment of social anxiety disorder was demonstrated in a 12-week, multicenter, double-blind, flexible-dose, placebo-controlled study of adult outpatients with a 166 primary diagnosis of social anxiety disorder (DSM-IV). In the study, the effectiveness of 167 168 PAXIL CR (12.5 to 37.5 mg daily) compared to placebo was evaluated on the basis of (1) 169 change from baseline in the Liebowitz Social Anxiety Scale (LSAS) total score and (2) the 170 proportion of responders who scored 1 or 2 (very much improved or much improved) on the 171 Clinical Global Impression (CGI) Global Improvement score. 172 PAXIL CR demonstrated statistically significant superiority over placebo on both the LSAS 173 total score and the CGI Improvement responder criterion. For patients who completed the trial, 174 64% of patients treated with PAXIL CR compared to 34.7% of patients treated with placebo 175 were CGI Improvement responders. 176 Subgroup analyses did not indicate that there were any differences in treatment outcomes as a 177 function of gender. Subgroup analyses of studies utilizing the immediate-release formulation of paroxetine generally did not indicate differences in treatment outcomes as a function of age, race, 178 179 or gender. 180 Premenstrual Dysphoric Disorder: The effectiveness of PAXIL CR for the treatment of 181 PMDD utilizing a continuous dosing regimen has been established in 2 placebo-controlled trials. 182 Patients in these trials met DSM-IV criteria for PMDD. In a pool of 1,030 patients, treated with 183 daily doses of PAXIL CR 12.5 or 25 mg/day, or placebo the mean duration of the PMDD 184 symptoms was approximately 11 ± 7 years. Patients on systemic hormonal contraceptives were 185 excluded from these trials. Therefore, the efficacy of PAXIL CR in combination with systemic 186 (including oral) hormonal contraceptives for the continuous daily treatment of PMDD is 187 unknown. In both positive studies, patients (N = 672) were treated with 12.5 mg/day or 188 25 mg/day of PAXIL CR or placebo continuously throughout the menstrual cycle for a period of 189 3 menstrual cycles. The VAS-Total score is a patient-rated instrument that mirrors the diagnostic 190 criteria of PMDD as identified in the DSM-IV, and includes assessments for mood, physical 191 symptoms, and other symptoms. 12.5 mg/day and 25 mg/day of PAXIL CR were significantly 192 more effective than placebo as measured by change from baseline to the endpoint on the luteal

193 phase VAS-Total score.

- In a third study employing intermittent dosing, patients (N = 366) were treated for the 2 weeks prior to the onset of menses (luteal phase dosing, also known as intermittent dosing) with
- 196 12.5 mg/day or 25 mg/day of PAXIL CR or placebo for a period of 3 months. 12.5 mg/day and
- 197 12.5 mg/day of 25 mg/day of 17 mm ere of placeso for a period of 5 months. 12.5 mg/day and 197 25 mg/day of PAXIL CR, as luteal phase dosing, was significantly more effective than placebo
- 198 as measured by change from baseline luteal phase VAS total score.
- 199 There is insufficient information to determine the effect of race or age on outcome in
- 200 these studies.

201 INDICATIONS AND USAGE

Major Depressive Disorder: PAXIL CR is indicated for the treatment of major depressive
 disorder.

- 204The efficacy of PAXIL CR in the treatment of a major depressive episode was established in205two 12-week controlled trials of outpatients whose diagnoses corresponded to the DSM-IV
- 206 category of major depressive disorder (see CLINICAL PHARMACOLOGY—Clinical Trials).
- 207 A major depressive episode (DSM-IV) implies a prominent and relatively persistent (nearly
- 208 every day for at least 2 weeks) depressed mood or loss of interest or pleasure in nearly all
- 209 activities, representing a change from previous functioning, and includes the presence of at least
- 210 5 of the following 9 symptoms during the same 2-week period: Depressed mood, markedly
- 211 diminished interest or pleasure in usual activities, significant change in weight and/or appetite,
- 212 insomnia or hypersomnia, psychomotor agitation or retardation, increased fatigue, feelings of
- guilt or worthlessness, slowed thinking or impaired concentration, a suicide attempt, or suicidalideation.
- The antidepressant action of paroxetine in hospitalized depressed patients has not been adequately studied.
- 217 PAXIL CR has not been systematically evaluated beyond 12 weeks in controlled clinical
- 218 trials; however, the effectiveness of immediate-release paroxetine hydrochloride in maintaining a
- 219 response in major depressive disorder for up to 1 year has been demonstrated in a
- 220 placebo-controlled trial (see CLINICAL PHARMACOLOGY-Clinical Trials). The physician
- who elects to use PAXIL CR for extended periods should periodically re-evaluate the long-term
- 222 usefulness of the drug for the individual patient.
- 223 **Panic Disorder:** PAXIL CR is indicated for the treatment of panic disorder, with or without
- agoraphobia, as defined in DSM-IV. Panic disorder is characterized by the occurrence of
- 225 unexpected panic attacks and associated concern about having additional attacks, worry about
- the implications or consequences of the attacks, and/or a significant change in behavior related tothe attacks.
- The efficacy of PAXIL CR controlled-release tablets was established in two 10-week trials in panic disorder patients whose diagnoses corresponded to the DSM-IV category of panic disorder
- 230 (see CLINICAL PHARMACOLOGY—Clinical Trials).
- 231 Panic disorder (DSM-IV) is characterized by recurrent unexpected panic attacks, i.e., a
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232 discrete period of intense fear or discomfort in which 4 (or more) of the following symptoms

233 develop abruptly and reach a peak within 10 minutes: (1) palpitations, pounding heart, or

accelerated heart rate; (2) sweating; (3) trembling or shaking; (4) sensations of shortness of

breath or smothering; (5) feeling of choking; (6) chest pain or discomfort; (7) nausea or

abdominal distress; (8) feeling dizzy, unsteady, lightheaded, or faint; (9) derealization (feelings

- of unreality) or depersonalization (being detached from oneself); (10) fear of losing control; (11)
- fear of dying; (12) paresthesias (numbress or tingling sensations); (13) chills or hot flushes.

239 Long-term maintenance of efficacy with the immediate-release formulation of paroxetine was

240 demonstrated in a 3-month relapse prevention trial. In this trial, patients with panic disorder

assigned to immediate-release paroxetine demonstrated a lower relapse rate compared to patients

242 on placebo (see CLINICAL PHARMACOLOGY—Clinical Trials). Nevertheless, the physician

243 who prescribes PAXIL CR for extended periods should periodically re-evaluate the long-term

244 usefulness of the drug for the individual patient.

245 **Social Anxiety Disorder:** PAXIL CR is indicated for the treatment of social anxiety disorder,

also known as social phobia, as defined in DSM-IV (300.23). Social anxiety disorder is

247 characterized by a marked and persistent fear of 1 or more social or performance situations in

which the person is exposed to unfamiliar people or to possible scrutiny by others. Exposure to

the feared situation almost invariably provokes anxiety, which may approach the intensity of a

250 panic attack. The feared situations are avoided or endured with intense anxiety or distress. The

avoidance, anxious anticipation, or distress in the feared situation(s) interferes significantly with

the person's normal routine, occupational or academic functioning, or social activities or

253 relationships, or there is marked distress about having the phobias. Lesser degrees of

performance anxiety or shyness generally do not require psychopharmacological treatment.
 The efficacy of PAXIL CR as a treatment for social anxiety disorder has been established, in
 part, on the basis of extrapolation from the established effectiveness of the immediate-release

257 formulation of paroxetine. In addition, the efficacy of PAXIL CR was established in a 12-week

257 Formulation of paroxetine. In addition, the effected of FFMME CR was established in a F2 week 258 trial, in adult outpatients with social anxiety disorder (DSM-IV). PAXIL CR has not been studied

in children or adolescents with social phobia (see CLINICAL PHARMACOLOGY—Clinical

260 Trials).

261 The effectiveness of PAXIL CR in long-term treatment of social anxiety disorder, i.e., for

262 more than 12 weeks, has not been systematically evaluated in adequate and well-controlled trials.

263 Therefore, the physician who elects to prescribe PAXIL CR for extended periods should

264 periodically re-evaluate the long-term usefulness of the drug for the individual patient (see

265 DOSAGE AND ADMINISTRATION).

266 **Premenstrual Dysphoric Disorder:** PAXIL CR is indicated for the treatment of PMDD.

267 The efficacy of PAXIL CR in the treatment of PMDD has been established in 3

268 placebo-controlled trials (see CLINICAL PHARMACOLOGY—Clinical Trials).

269 The essential features of PMDD, according to DSM-IV, include markedly depressed mood,

anxiety or tension, affective lability, and persistent anger or irritability. Other features include

271 decreased interest in usual activities, difficulty concentrating, lack of energy, change in appetite



- 272 or sleep, and feeling out of control. Physical symptoms associated with PMDD include breast
- tenderness, headache, joint and muscle pain, bloating, and weight gain. These symptoms occur
- 274 regularly during the luteal phase and remit within a few days following the onset of menses; the
- 275 disturbance markedly interferes with work or school or with usual social activities and
- relationships with others. In making the diagnosis, care should be taken to rule out other cyclical
- 277 mood disorders that may be exacerbated by treatment with an antidepressant.
- The effectiveness of PAXIL CR in long-term use, that is, for more than 3 menstrual cycles,
- has not been systematically evaluated in controlled trials. Therefore, the physician who elects to
- 280 use PAXIL CR for extended periods should periodically re-evaluate the long-term usefulness of
- 281 the drug for the individual patient.

282 CONTRAINDICATIONS

- 283 Concomitant use in patients taking either monoamine oxidase inhibitors (MAOIs) or
- 284 thioridazine is contraindicated (see WARNINGS and PRECAUTIONS).
- 285 Concomitant use in patients taking pimozide is contraindicated (see PRECAUTIONS).
- 286 PAXIL CR is contraindicated in patients with a hypersensitivity to paroxetine or to any of the
- 287 inactive ingredients in PAXIL CR.

288 WARNINGS

- 289 Clinical Worsening and Suicide Risk: Patients with major depressive disorder (MDD),
- 290 both adult and pediatric, may experience worsening 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
- 293 occurs. Suicide is a known risk of depression and certain other psychiatric disorders, and these
- disorders themselves are the strongest predictors of suicide. There has been a long-standing
- 295 concern, however, that antidepressants may have a role in inducing worsening of depression and
- the emergence of suicidality in certain patients during the early phases of treatment. Pooled
- analyses of short-term placebo-controlled trials of antidepressant drugs (SSRIs and others)
- showed that these drugs increase the risk of suicidal thinking and behavior (suicidality) in
- children, adolescents, and young adults (ages 18-24) with major depressive disorder (MDD) and
- 300 other psychiatric disorders. Short-term studies did not show an increase in the risk of suicidality
- 301 with antidepressants compared to placebo in adults beyond age 24; there was a reduction with 302 antidepressants compared to placebo in adults aged 65 and older.
- 303 The pooled analyses of placebo-controlled trials in children and adolescents with MDD,
- 304 obsessive compulsive disorder (OCD), or other psychiatric disorders included a total of 24 short-
- 305 term trials of 9 antidepressant drugs in over 4,400 patients. The pooled analyses of placebo-
- 306 controlled trials in adults with MDD or other psychiatric disorders included a total of 295 short-
- 307 term trials (median duration of 2 months) of 11 antidepressant drugs in over 77,000 patients.
- 308 There was considerable variation in risk of suicidality among drugs, but a tendency toward an
- 309 increase in the younger patients for almost all drugs studied. There were differences in absolute
- 310 risk of suicidality across the different indications, with the highest incidence in MDD. The risk
 - 8

- 311 differences (drug vs placebo), however, were relatively stable within age strata and across
- 312 indications. These risk differences (drug-placebo difference in the number of cases of suicidality
- 313 per 1,000 patients treated) are provided in Table 1.
- 314 **Table 1**

	Drug-Placebo Difference in Number of Cases	
Age Range	of Suicidality per 1,000 Patients Treated	
Increases Comp	npared to Placebo	
<18	14 additional cases	
18-24	5 additional cases	
Decreases Compared to Placebo		
25-64	1 fewer case	
≥65	6 fewer cases	

315

No suicides occurred in any of the pediatric trials. There were suicides in the adult trials, but
the number was not sufficient to reach any conclusion about drug effect on suicide.
It is unknown whether the suicidality risk extends to longer-term use, i.e., beyond several
months. However, there is substantial evidence from placebo-controlled maintenance trials in
adults with depression that the use of antidepressants can delay the recurrence of depression.
All patients being treated with antidepressants for any indication should be monitored

appropriately and 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

324 of dose changes, either increases or decreases.

The following symptoms, anxiety, agitation, panic attacks, insomnia, irritability, hostility,
 aggressiveness, impulsivity, akathisia (psychomotor restlessness), hypomania, and mania, have

- 327 been reported in adult and pediatric patients being treated with antidepressants for major
- 328 depressive disorder as well as for other indications, both psychiatric and nonpsychiatric.
- 329 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 established, there is concernthat such symptoms may represent precursors to emerging suicidality.
- 332 Consideration should be given to changing the therapeutic regimen, including possibly
- discontinuing the medication, in patients whose depression 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.
- 337 If the decision has been made to discontinue treatment, medication should be tapered, as
- rapidly as is feasible, but with recognition that abrupt discontinuation can be associated with
- 339 certain symptoms (see PRECAUTIONS and DOSAGE AND ADMINISTRATION—
- Discontinuation of Treatment With PAXIL CR, for a description of the risks of discontinuationof PAXIL CR).
- 342 Families and caregivers of patients being treated with antidepressants for major
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- 343 depressive disorder or other indications, both psychiatric and nonpsychiatric, should be
- 344 alerted about the need to monitor patients for the emergence of agitation, irritability,
- 345 unusual changes in behavior, and the other symptoms described above, as well as the
- 346 emergence of suicidality, and to report such symptoms immediately to healthcare
- 347 providers. Such monitoring should include daily observation by families and caregivers.
- 348 Prescriptions for PAXIL CR should be written for the smallest quantity of tablets consistent with
- 349 good patient management, in order to reduce the risk of overdose.
- 350 Screening Patients for Bipolar Disorder: A major depressive episode may be the initial
- 351 presentation of bipolar disorder. It is generally believed (though not established in controlled
- trials) that treating such an episode with an antidepressant alone may increase the likelihood of
- 353 precipitation of a mixed/manic episode in patients at risk for bipolar disorder. Whether any of the
- 354 symptoms described above represent such a conversion is unknown. However, prior to initiating
- 355 treatment with an antidepressant, patients with depressive symptoms should be adequately
- 356 screened to determine if they are at risk for bipolar disorder; such screening should include a
- detailed psychiatric history, including a family history of suicide, bipolar disorder, and
- depression. It should be noted that PAXIL CR is not approved for use in treating bipolar
- 359 depression.
- 360 **Potential for Interaction With Monoamine Oxidase Inhibitors: In patients receiving**
- 361 another serotonin reuptake inhibitor drug in combination with an MAOI, there have been
- 362 reports of serious, sometimes fatal, reactions including hyperthermia, rigidity, myoclonus,
- 363 autonomic instability with possible rapid fluctuations of vital signs, and mental status
- 364 changes that include extreme agitation progressing to delirium and coma. These reactions
- 365 have also been reported in patients who have recently discontinued that drug and have
- 366 **been started on an MAOI. Some cases presented with features resembling neuroleptic**
- 367 malignant syndrome. While there are no human data showing such an interaction with
- 368 paroxetine hydrochloride, limited animal data on the effects of combined use of paroxetine
- 369 and MAOIs suggest that these drugs may act synergistically to elevate blood pressure and
- 370 evoke behavioral excitation. Therefore, it is recommended that PAXIL CR not be used in
- 371 combination with an MAOI, or within 14 days of discontinuing treatment with an MAOI.
- 372 At least 2 weeks should be allowed after stopping PAXIL CR before starting an MAOI.
- 373 Serotonin Syndrome: The development of a potentially life-threatening serotonin
- 374 syndrome may occur with SNRIs and SSRIs, including PAXIL CR, particularly with
- 375 concomitant use of serotonergic drugs (including triptans) and with drugs which impair
- 376 metabolism of serotonin (including MAOIs). Serotonin syndrome symptoms may include
- 377 mental status changes (e.g., agitation, hallucinations, coma), autonomic instability (e.g.,
- 378 tachycardia, labile blood pressure, hyperthermia), neuromuscular aberrations (e.g.,
- 379 hyperreflexia, incoordination) and/or gastrointestinal symptoms (e.g., nausea, vomiting,
- 380 diarrhea).
- 381 The concomitant use of PAXIL CR with MAOIs intended to treat depression is
- 382 contraindicated (see CONTRAINDICATIONS and WARNINGS—Potential for
 - 10

- 383 Interaction With Monoamine Oxidase Inhibitors).
- If concomitant treatment with PAXIL CR with a 5-hydroxytryptamine receptor agonist
 (triptan) is clinically warranted, careful observation of the patient is advised, particularly
- 386 during treatment initiation and dose increases (see PRECAUTIONS—Drug Interactions).
- The concomitant use of PAXIL CR with serotonin precursors (such as tryptophan) is
 not recommended (see PRECAUTIONS—Drug Interactions).
- 389 **Potential Interaction With Thioridazine: Thioridazine administration alone produces**
- 390 prolongation of the QTc interval, which is associated with serious ventricular arrhythmias,
- 391 such as torsade de pointes-type arrhythmias, and sudden death. This effect appears to be
- **392 dose related.**
- An in vivo study suggests that drugs which inhibit CYP2D6, such as paroxetine, will elevate plasma levels of thioridazine. Therefore, it is recommended that paroxetine not be
- 395 used in combination with thioridazine (see CONTRAINDICATIONS and
- 396 **PRECAUTIONS**).
- 397 Usage in Pregnancy: *Teratogenic Effects:* Epidemiological studies have shown that
- infants born to women who had first trimester paroxetine exposure had an increased risk of
- 399 cardiovascular malformations, primarily ventricular and atrial septal defects (VSDs and ASDs).
- 400 In general, septal defects range from those that are symptomatic and may require surgery to those
- 401 that are asymptomatic and may resolve spontaneously. If a patient becomes pregnant while
- 402 taking paroxetine, she should be advised of the potential harm to the fetus. Unless the benefits of
- 403 paroxetine to the mother justify continuing treatment, consideration should be given to either
- 404 discontinuing paroxetine therapy or switching to another antidepressant (see PRECAUTIONS—
- 405 Discontinuation of Treatment with PAXIL CR). For women who intend to become pregnant or
- 406 are in their first trimester of pregnancy, paroxetine should only be initiated after consideration of407 the other available treatment options.
- 408 A study based on Swedish national registry data evaluated infants of 6,896 women exposed to 409 antidepressants in early pregnancy (5,123 women exposed to SSRIs; including 815 for
- 410 paroxetine). Infants exposed to paroxetine in early pregnancy had an increased risk of
- 411 cardiovascular malformations (primarily VSDs and ASDs) compared to the entire registry
- 412 population (OR 1.8; 95% confidence interval 1.1-2.8). The rate of cardiovascular malformations
- following early pregnancy paroxetine exposure was 2% vs. 1% in the entire registry population.
- 414 Among the same paroxetine exposed infants, an examination of the data showed no increase in
- 415 the overall risk for congenital malformations.
- 416 A separate retrospective cohort study using US United Healthcare data evaluated 5,956 infants
- 417 of mothers dispensed paroxetine or other antidepressants during the first trimester (n = 815 for
- 418 paroxetine). This study showed a trend towards an increased risk for cardiovascular
- 419 malformations for paroxetine compared to other antidepressants (OR 1.5; 95% confidence
- 420 interval 0.8-2.9). The prevalence of cardiovascular malformations following first trimester
- 421 dispensing was 1.5% for paroxetine vs. 1% for other antidepressants. Nine out of 12 infants with
- 422 cardiovascular malformations whose mothers were dispensed paroxetine in the first trimester had
 - 11

423 VSDs. This study also suggested an increased risk of overall major congenital malformations

424 (inclusive of the cardiovascular defects) for paroxetine compared to other antidepressants (OR

425 1.8; 95% confidence interval 1.2-2.8). The prevalence of all congenital malformations following

426 first trimester exposure was 4% for paroxetine vs. 2% for other antidepressants.

427 **Animal Findings:** Reproduction studies were performed at doses up to 50 mg/kg/day in rats 428 and 6 mg/kg/day in rabbits administered during organogenesis. These doses are approximately 429 8 (rat) and 2 (rabbit) times the MRHD on an mg/m^2 basis. These studies have revealed no 430 evidence of teratogenic effects. However, in rats, there was an increase in pup deaths during the 431 first 4 days of lactation when dosing occurred during the last trimester of gestation and continued 432 throughout lactation. This effect occurred at a dose of 1 mg/kg/day or approximately one-sixth of the MRHD on an mg/m^2 basis. The no-effect dose for rat pup mortality was not determined. The 433 434 cause of these deaths is not known. 435 Nonteratogenic Effects: Neonates exposed to PAXIL CR and other SSRIs or serotonin 436 and norepinephrine reuptake inhibitors (SNRIs), late in the third trimester have developed

437 complications requiring prolonged hospitalization, respiratory support, and tube feeding. Such 438 complications can arise immediately upon delivery. Reported clinical findings have included 439 respiratory distress, cyanosis, apnea, seizures, temperature instability, feeding difficulty, 440 vomiting, hypoglycemia, hypotonia, hypertonia, hyperreflexia, tremor, jitteriness, irritability, and 441 constant crying. These features are consistent with either a direct toxic effect of SSRIs and

442

SNRIs or, possibly, a drug discontinuation syndrome. It should be noted that, in some cases, the 443 clinical picture is consistent with serotonin syndrome (see WARNINGS-Potential for

444 Interaction With Monoamine Oxidase Inhibitors).

445 Infants exposed to SSRIs in late pregnancy may have an increased risk for persistent 446 pulmonary hypertension of the newborn (PPHN). PPHN occurs in 1-2 per 1,000 live births in 447 the general population and is associated with substantial neonatal morbidity and mortality. In a 448 retrospective case-control study of 377 women whose infants were born with PPHN and 836 449 women whose infants were born healthy, the risk for developing PPHN was approximately sixfold higher for infants exposed to SSRIs after the 20th week of gestation compared to infants who 450 451 had not been exposed to antidepressants during pregnancy. There is currently no corroborative 452 evidence regarding the risk for PPHN following exposure to SSRIs in pregnancy; this is the first 453 study that has investigated the potential risk. The study did not include enough cases with 454 exposure to individual SSRIs to determine if all SSRIs posed similar levels of PPHN risk. 455 There have also been postmarketing reports of premature births in pregnant women exposed 456 to paroxetine or other SSRIs. 457 When treating a pregnant woman with paroxetine during the third trimester, the physician 458 should carefully consider both the potential risks and benefits of treatment (see DOSAGE AND

459 ADMINISTRATION). Physicians should note that in a prospective longitudinal study of 201

460 women with a history of major depression who were euthymic at the beginning of pregnancy,

461 women who discontinued antidepressant medication during pregnancy were more likely to

462 experience a relapse of major depression than women who continued antidepressant medication.

463 **PRECAUTIONS**

464 **General:** *Activation of Mania/Hypomania:* During premarketing testing of

- 465 immediate-release paroxetine hydrochloride, hypomania or mania occurred in approximately
- 466 1.0% of paroxetine-treated unipolar patients compared to 1.1% of active-control and 0.3% of
- 467 placebo-treated unipolar patients. In a subset of patients classified as bipolar, the rate of manic
- 468 episodes was 2.2% for immediate-release paroxetine and 11.6% for the combined active-control
- 469 groups. Among 1,627 patients with major depressive disorder, panic disorder, social anxiety
- 470 disorder, or PMDD treated with PAXIL CR in controlled clinical studies, there were no reports
- 471 of mania or hypomania. As with all drugs effective in the treatment of major depressive disorder,
- 472 PAXIL CR should be used cautiously in patients with a history of mania.
- 473 Seizures: During premarketing testing of immediate-release paroxetine hydrochloride, 474 seizures occurred in 0.1% of paroxetine-treated patients, a rate similar to that associated with 475 other drugs effective in the treatment of major depressive disorder. Among 1,627 patients who 476 received PAXIL CR in controlled clinical trials in major depressive disorder, panic disorder, 477 social anxiety disorder, or PMDD, 1 patient (0.1%) experienced a seizure. PAXIL CR should be 478 used cautiously in patients with a history of seizures. It should be discontinued in any patient
- who develops seizures. *Discontinuation of Treatment With PAXIL CR:* Adverse events while discontinuing
- therapy with PAXIL CR were not systematically evaluated in most clinical trials; however, in recent placebo-controlled clinical trials utilizing daily doses of PAXIL CR up to 37.5 mg/day,
- 483 spontaneously reported adverse events while discontinuing therapy with PAXIL CR were
- 484 evaluated. Patients receiving 37.5 mg/day underwent an incremental decrease in the daily dose
- 485 by 12.5 mg/day to a dose of 25 mg/day for 1 week before treatment was stopped. For patients
- 486 receiving 25 mg/day or 12.5 mg/day, treatment was stopped without an incremental decrease in
- 487 dose. With this regimen in those studies, the following adverse events were reported for
- 488 PAXIL CR, at an incidence of 2% or greater for PAXIL CR and were at least twice that reported
- 489 for placebo: Dizziness, nausea, nervousness, and additional symptoms described by the
- 490 investigator as associated with tapering or discontinuing PAXIL CR (e.g., emotional lability,
- 491 headache, agitation, electric shock sensations, fatigue, and sleep disturbances). These events
- 492 were reported as serious in 0.3% of patients who discontinued therapy with PAXIL CR.
- 493 During marketing of PAXIL CR and other SSRIs and SNRIs, there have been spontaneous
- 494 reports of adverse events occurring upon discontinuation of these drugs, (particularly when
- 495 abrupt), including the following: Dysphoric mood, irritability, agitation, dizziness, sensory
- 496 disturbances (e.g., paresthesias such as electric shock sensations and tinnitus), anxiety,
- 497 confusion, headache, lethargy, emotional lability, insomnia, and hypomania. While these events
- 498 are generally self-limiting, there have been reports of serious discontinuation symptoms.
- 499 Patients should be monitored for these symptoms when discontinuing treatment with
- 500 PAXIL CR. A gradual reduction in the dose rather than abrupt cessation is recommended
- 501 whenever possible. If intolerable symptoms occur following a decrease in the dose or upon
- 502 discontinuation of treatment, then resuming the previously prescribed dose may be considered.
 - 13

- 503 Subsequently, the physician may continue decreasing the dose but at a more gradual rate (see 504 DOSAGE AND ADMINISTRATION).
- 505 See also PRECAUTIONS—Pediatric Use, for adverse events reported upon discontinuation 506 of treatment with paroxetine in pediatric patients.

507 Akathisia: The use of paroxetine or other SSRIs has been associated with the development 508 of akathisia, which is characterized by an inner sense of restlessness and psychomotor agitation 509 such as an inability to sit or stand still usually associated with subjective distress. This is most

510 likely to occur within the first few weeks of treatment.

511 Hyponatremia: Several cases of hyponatremia have been reported with immediate-release

512 paroxetine hydrochloride. The hyponatremia appeared to be reversible when paroxetine was

513 discontinued. The majority of these occurrences have been in elderly individuals, some in

514 patients taking diuretics or who were otherwise volume depleted.

515 Abnormal Bleeding: Published case reports have documented the occurrence of bleeding 516 episodes in patients treated with psychotropic drugs that interfere with serotonin reuptake.

517 Subsequent epidemiological studies, both of the case-control and cohort design, have

518 demonstrated an association between use of psychotropic drugs that interfere with serotonin

519 reuptake and the occurrence of upper gastrointestinal bleeding. In 2 studies, concurrent use of a

520 nonsteroidal anti-inflammatory drug (NSAID) or aspirin potentiated the risk of bleeding (see

521 Drug Interactions). Although these studies focused on upper gastrointestinal bleeding, there is

522 reason to believe that bleeding at other sites may be similarly potentiated. Patients should be

523 cautioned regarding the risk of bleeding associated with the concomitant use of paroxetine with

524 NSAIDs, aspirin, or other drugs that affect coagulation.

525 Use in Patients With Concomitant Illness: Clinical experience with immediate-release 526 paroxetine hydrochloride in patients with certain concomitant systemic illness is limited. Caution 527 is advisable in using PAXIL CR in patients with diseases or conditions that could affect 528 metabolism or hemodynamic responses.

529 As with other SSRIs, mydriasis has been infrequently reported in premarketing studies with 530 paroxetine hydrochloride. A few cases of acute angle closure glaucoma associated with therapy 531 with immediate-release paroxetine have been reported in the literature. As mydriasis can cause 532 acute angle closure in patients with narrow angle glaucoma, caution should be used when 533 PAXIL CR is prescribed for patients with narrow angle glaucoma.

534

PAXIL CR or the immediate-release formulation has not been evaluated or used to any 535

appreciable extent in patients with a recent history of myocardial infarction or unstable heart

536 disease. Patients with these diagnoses were excluded from clinical studies during premarket

537 testing. Evaluation of electrocardiograms of 682 patients who received immediate-release

538 paroxetine hydrochloride in double-blind, placebo-controlled trials, however, did not indicate

539 that paroxetine is associated with the development of significant ECG abnormalities. Similarly,

540 paroxetine hydrochloride does not cause any clinically important changes in heart rate or blood 541 pressure.

542 Increased plasma concentrations of paroxetine occur in patients with severe renal impairment

- 543 (creatinine clearance <30 mL/min.) or severe hepatic impairment. A lower starting dose should
- 544 be used in such patients (see DOSAGE AND ADMINISTRATION).
- 545 Information for Patients: PAXIL CR should not be chewed or crushed, and should be546 swallowed whole.
- 547 Patients should be cautioned about the risk of serotonin syndrome with the concomitant use of 548 PAXIL CR and triptans, tramadol, or other serotonergic agents.
- 549 Prescribers or other health professionals should inform patients, their families, and their
- 550 caregivers about the benefits and risks associated with treatment with PAXIL CR and should
- 551 counsel them in its appropriate use. A patient Medication Guide about "Antidepressant
- 552 Medicines, Depression and Other Serious Mental Illnesses, and Suicidal Thoughts or Actions" is
- solution available for PAXIL CR. The prescriber or health professional should instruct patients, their
- 554 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
- 556 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.
- 558 Patients should be advised of the following issues and asked to alert their prescriber if these559 occur while taking PAXIL CR.
- 560 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 restlessness),
- 563 hypomania, mania, other unusual changes in behavior, worsening of depression, and suicidal
- ideation, especially early during antidepressant treatment and when the dose is adjusted up or
- down. Families and caregivers of patients should be advised to look 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 for very
- 570 close monitoring and possibly changes in the medication.
- 571 **Drugs That Interfere With Hemostasis (NSAIDs, Aspirin, Warfarin, etc.):** Patients 572 should be cautioned about the concomitant use of paroxetine and NSAIDs, aspirin, or other drugs 573 that affect coagulation since the combined use of psychotropic drugs that interfere with serotonin 574 reuptake and these agents has been associated with an increased risk of bleeding.
- *Interference With Cognitive and Motor Performance:* Any psychoactive drug may
 impair judgment, thinking, or motor skills. Although in controlled studies immediate-release
 paroxetine hydrochloride has not been shown to impair psychomotor performance, patients
 should be cautioned about operating hazardous machinery, including automobiles, until they are
- should be cautioned about operating hazardous machinery, including automobiles, until they are
 reasonably certain that therapy with PAXIL CR does not affect their ability to engage in such
- 580 activities.
- 581 Completing Course of Therapy: While patients may notice improvement with use of
 582 PAXIL CR in 1 to 4 weeks, they should be advised to continue therapy as directed.
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- 583 Concomitant Medications: Patients should be advised to inform their physician if they are 584 taking, or plan to take, any prescription or over-the-counter drugs, since there is a potential for 585 interactions.
- Alcohol: Although immediate-release paroxetine hydrochloride has not been shown to
 increase the impairment of mental and motor skills caused by alcohol, patients should be advised
 to avoid alcohol while taking PAXIL CR.
- 589 *Pregnancy:* Patients should be advised to notify their physician if they become pregnant or
 590 intend to become pregnant during therapy (see WARNINGS—Usage in Pregnancy: *Teratogenic* 591 *and Nonteratogenic Effects*).
- 592 *Nursing:* Patients should be advised to notify their physician if they are breast-feeding an
 593 infant (see PRECAUTIONS—Nursing Mothers).
- 594 **Laboratory Tests:** There are no specific laboratory tests recommended.
- 595 **Drug Interactions:** *Tryptophan:* As with other serotonin reuptake inhibitors, an interaction
- between paroxetine and tryptophan may occur when they are coadministered. Adverse
- 597 experiences, consisting primarily of headache, nausea, sweating, and dizziness, have been
- 598 reported when tryptophan was administered to patients taking immediate-release paroxetine.
- 599 Consequently, concomitant use of PAXIL CR with tryptophan is not recommended (see
- 600 WARNINGS—Serotonin Syndrome).
- 601 *Monoamine Oxidase Inhibitors:* See CONTRAINDICATIONS and WARNINGS.
- 602 *Pimozide:* In a controlled study of healthy volunteers, after immediate-release paroxetine
- 603 hydrochloride was titrated to 60 mg daily, co-administration of a single dose of 2 mg pimozide
- was associated with mean increases in pimozide AUC of 151% and C_{max} of 62%, compared to
- 605 pimozide administered alone. Due to the narrow therapeutic index of pimozide and its known
- ability to prolong the QT interval, concomitant use of pimozide and PAXIL CR is
- 607 contraindicated (see CONTRAINDICATIONS).
- Serotonergic Drugs: Based on the mechanism of action of SNRIs and SSRIs, including
 paroxetine hydrochloride, and the potential for serotonin syndrome, caution is advised when
 PAXIL CR is coadministered with other drugs that may affect the serotonergic neurotransmitter
 systems, such as triptans, linezolid (an antibiotic which is a reversible non-selective MAOI),
- 612 lithium, tramadol, or St. John's Wort (see WARNINGS—Serotonin Syndrome). The concomitant
- 613 use of PAXIL CR with other SSRIs, SNRIs or tryptophan is not recommended (see
- 614 PRECAUTIONS—Drug Interactions, *Tryptophan*).
- 615 **Thioridazine:** See CONTRAINDICATIONS and WARNINGS.
- 616 *Warfarin:* Preliminary data suggest that there may be a pharmacodynamic interaction (that
- 617 causes an increased bleeding diathesis in the face of unaltered prothrombin time) between
- 618 paroxetine and warfarin. Since there is little clinical experience, the concomitant administration
- 619 of PAXIL CR and warfarin should be undertaken with caution (see Drugs That Interfere With
- 620 Hemostasis).
- 621 *Triptans:* There have been rare postmarketing reports of serotonin syndrome with the use of 622 an SSRI and a triptan. If concomitant use of PAXIL CR with a triptan is clinically warranted,
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623 careful observation of the patient is advised, particularly during treatment initiation and dose 624 increases (see WARNINGS-Serotonin Syndrome) 625 **Drugs Affecting Hepatic Metabolism:** The metabolism and pharmacokinetics of 626 paroxetine may be affected by the induction or inhibition of drug-metabolizing enzymes. 627 **Cimetidine:** Cimetidine inhibits many cytochrome P_{450} (oxidative) enzymes. In a study where immediate-release paroxetine (30 mg once daily) was dosed orally for 4 weeks, 628 629 steady-state plasma concentrations of paroxetine were increased by approximately 50% during 630 coadministration with oral cimetidine (300 mg three times daily) for the final week. Therefore, 631 when these drugs are administered concurrently, dosage adjustment of PAXIL CR after the 632 starting dose should be guided by clinical effect. The effect of paroxetine on cimetidine's pharmacokinetics was not studied. 633 634 **Phenobarbital:** Phenobarbital induces many cytochrome P_{450} (oxidative) enzymes. When a single oral 30-mg dose of immediate-release paroxetine was administered at phenobarbital 635 636 steady state (100 mg once daily for 14 days), paroxetine AUC and T_{1/2} were reduced (by an 637 average of 25% and 38%, respectively) compared to paroxetine administered alone. The effect of 638 paroxetine on phenobarbital pharmacokinetics was not studied. Since paroxetine exhibits 639 nonlinear pharmacokinetics, the results of this study may not address the case where the 2 drugs 640 are both being chronically dosed. No initial dosage adjustment with PAXIL CR is considered 641 necessary when coadministered with phenobarbital; any subsequent adjustment should be guided 642 by clinical effect. 643 **Phenytoin:** When a single oral 30-mg dose of immediate-release paroxetine was 644 administered at phenytoin steady state (300 mg once daily for 14 days), paroxetine AUC and $T_{1/2}$ were reduced (by an average of 50% and 35%, respectively) compared to immediate-release 645 646 paroxetine administered alone. In a separate study, when a single oral 300-mg dose of phenytoin 647 was administered at paroxetine steady state (30 mg once daily for 14 days), phenytoin AUC was 648 slightly reduced (12% on average) compared to phenytoin administered alone. Since both drugs 649 exhibit nonlinear pharmacokinetics, the above studies may not address the case where the 650 2 drugs are both being chronically dosed. No initial dosage adjustments are considered necessary 651 when PAXIL CR is coadministered with phenytoin; any subsequent adjustments should be 652 guided by clinical effect (see ADVERSE REACTIONS-Postmarketing Reports). 653 Drugs Metabolized by CYP2D6: Many drugs, including most drugs effective in the 654 treatment of major depressive disorder (paroxetine, other SSRIs, and many tricyclics), are 655 metabolized by the cytochrome P_{450} isozyme CYP2D6. Like other agents that are metabolized by 656 CYP2D6, paroxetine may significantly inhibit the activity of this isozyme. In most patients (>90%), this CYP2D6 isozyme is saturated early during paroxetine dosing. In 1 study, daily 657 658 dosing of immediate-release paroxetine (20 mg once daily) under steady-state conditions 659 increased single-dose desipramine (100 mg) Cmax, AUC, and T1/2 by an average of approximately 660 2-, 5-, and 3-fold, respectively. Concomitant use of paroxetine with risperidone, a CYP2D6 661 substrate has also been evaluated. In 1 study, daily dosing of paroxetine 20 mg in patients 662 stabilized on risperidone (4 to 8 mg/day) increased mean plasma concentrations of risperidone

663 approximately 4-fold, decreased 9-hydroxyrisperidone concentrations approximately 10%, and 664 increased concentrations of the active moiety (the sum of risperidone plus 9-hydroxyrisperidone) approximately 1.4-fold. The effect of paroxetine on the pharmacokinetics of atomoxetine has 665 666 been evaluated when both drugs were at steady state. In healthy volunteers who were extensive 667 metabolizers of CYP2D6, paroxetine 20 mg daily was given in combination with 20 mg atomoxetine every 12 hours. This resulted in increases in steady state atomoxetine AUC values 668 669 that were 6- to 8-fold greater and in atomoxetine C_{max} values that were 3- to 4-fold greater than when atomoxetine was given alone. Dosage adjustment of atomoxetine may be necessary and it 670 671 is recommended that atomoxetine be initiated at a reduced dose when given with paroxetine. 672 Concomitant use of PAXIL CR with other drugs metabolized by cytochrome CYP2D6 has not 673 been formally studied but may require lower doses than usually prescribed for either PAXIL CR 674 or the other drug. 675 Therefore, coadministration of PAXIL CR with other drugs that are metabolized by this 676 isozyme, including certain drugs effective in the treatment of major depressive disorder (e.g., 677 nortriptyline, amitriptyline, imipramine, desipramine, and fluoxetine), phenothiazines, 678 risperidone, and Type 1C antiarrhythmics (e.g., propafenone, flecainide, and encainide), or that 679 inhibit this enzyme (e.g., quinidine), should be approached with caution. 680 However, due to the risk of serious ventricular arrhythmias and sudden death potentially 681 associated with elevated plasma levels of thioridazine, paroxetine and thioridazine should not be 682 coadministered (see CONTRAINDICATIONS and WARNINGS). 683 At steady state, when the CYP2D6 pathway is essentially saturated, paroxetine clearance is governed by alternative P450 isozymes that, unlike CYP2D6, show no evidence of saturation (see 684 685 PRECAUTIONS—Tricyclic Antidepressants). Drugs Metabolized by Cytochrome CYP3A4: An in vivo interaction study involving 686 687 the coadministration under steady-state conditions of paroxetine and terfenadine, a substrate for 688 CYP3A4, revealed no effect of paroxetine on terfenadine pharmacokinetics. In addition, in vitro 689 studies have shown ketoconazole, a potent inhibitor of CYP3A4 activity, to be at least 100 times 690 more potent than paroxetine as an inhibitor of the metabolism of several substrates for this 691 enzyme, including terfenadine, astemizole, cisapride, triazolam, and cyclosporine. Based on the 692 assumption that the relationship between paroxetine's in vitro K_i and its lack of effect on 693 terfenadine's in vivo clearance predicts its effect on other CYP3A4 substrates, paroxetine's 694 extent of inhibition of CYP3A4 activity is not likely to be of clinical significance. 695 Tricyclic Antidepressants (TCAs): Caution is indicated in the coadministration of TCAs 696 with PAXIL CR, because paroxetine may inhibit TCA metabolism. Plasma TCA concentrations 697 may need to be monitored, and the dose of TCA may need to be reduced, if a TCA is 698 coadministered with PAXIL CR (see PRECAUTIONS-Drugs Metabolized by Cytochrome 699 CYP2D6). 700 Drugs Highly Bound to Plasma Protein: Because paroxetine is highly bound to plasma 701 protein, administration of PAXIL CR to a patient taking another drug that is highly protein 702 bound may cause increased free concentrations of the other drug, potentially resulting in adverse

703	events. Conversely, adverse effects could result from displacement of paroxetine by other highly
704	bound drugs.
705	Drugs That Interfere With Hemostasis (NSAIDs, Aspirin, Warfarin, etc.):
706	Serotonin release by platelets plays an important role in hemostasis. Epidemiological studies of
707	the case-control and cohort design that have demonstrated an association between use of
708	psychotropic drugs that interfere with serotonin reuptake and the occurrence of upper
709	gastrointestinal bleeding have also shown that concurrent use of an NSAID or aspirin potentiated
710	the risk of bleeding. Thus, patients should be cautioned about the use of such drugs concurrently
711	with paroxetine.
712	Alcohol: Although paroxetine does not increase the impairment of mental and motor skills
713	caused by alcohol, patients should be advised to avoid alcohol while taking PAXIL CR.
714	Lithium: A multiple-dose study with immediate-release paroxetine hydrochloride has shown
715	that there is no pharmacokinetic interaction between paroxetine and lithium carbonate. However,
716	due to the potential for serotonin syndrome, caution is advised when immediate-release
717	paroxetine hydrochloride is coadministered with lithium.
718	Digoxin: The steady-state pharmacokinetics of paroxetine was not altered when administered
719	with digoxin at steady state. Mean digoxin AUC at steady state decreased by 15% in the
720	presence of paroxetine. Since there is little clinical experience, the concurrent administration of
721	PAXIL CR and digoxin should be undertaken with caution.
722	Diazepam: Under steady-state conditions, diazepam does not appear to affect paroxetine
723	kinetics. The effects of paroxetine on diazepam were not evaluated.
724	Procyclidine: Daily oral dosing of immediate-release paroxetine (30 mg once daily)
725	increased steady-state AUC $_{0-24}$, C _{max} , and C _{min} values of procyclidine (5 mg oral once daily) by
726	35%, 37%, and 67%, respectively, compared to procyclidine alone at steady state. If
727	anticholinergic effects are seen, the dose of procyclidine should be reduced.
728	Beta-Blockers: In a study where propranolol (80 mg twice daily) was dosed orally for
729	18 days, the established steady-state plasma concentrations of propranolol were unaltered during
730	coadministration with immediate-release paroxetine (30 mg once daily) for the final 10 days. The
731	effects of propranolol on paroxetine have not been evaluated (see ADVERSE REACTIONS-
732	Postmarketing Reports).
733	Theophylline: Reports of elevated theophylline levels associated with immediate-release
734	paroxetine treatment have been reported. While this interaction has not been formally studied, it
735	is recommended that theophylline levels be monitored when these drugs are concurrently
736	administered.
737	Fosamprenavir/Ritonavir: Co-administration of fosamprenavir/ritonavir with paroxetine
738	significantly decreased plasma levels of paroxetine. Any dose adjustment should be guided by
739	clinical effect (tolerability and efficacy).
740	Electroconvulsive Therapy (ECT): There are no clinical studies of the combined use of
741	ECT and PAXIL CR.
742	Carcinogenesis, Mutagenesis, Impairment of Fertility: Carcinogenesis: Two-year

- rd3 carcinogenicity studies were conducted in rodents given paroxetine in the diet at 1, 5, and
- 744 25 mg/kg/day (mice) and 1, 5, and 20 mg/kg/day (rats). These doses are up to approximately 2
- (mouse) and 3 (rat) times the maximum recommended human dose (MRHD) on a mg/m^2 basis.
- There was a significantly greater number of male rats in the high-dose group with reticulum cell
- sarcomas (1/100, 0/50, 0/50, and 4/50 for control, low-, middle-, and high-dose groups,
- respectively) and a significantly increased linear trend across dose groups for the occurrence of
- 749 lymphoreticular tumors in male rats. Female rats were not affected. Although there was a
- dose-related increase in the number of tumors in mice, there was no drug-related increase in the
- number of mice with tumors. The relevance of these findings to humans is unknown.
- 752 Mutagenesis: Paroxetine produced no genotoxic effects in a battery of 5 in vitro and 2 in 753 vivo assays that included the following: Bacterial mutation assay, mouse lymphoma mutation 754 assay, unscheduled DNA synthesis assay, and tests for cytogenetic aberrations in vivo in mouse
- bone marrow and in vitro in human lymphocytes and in a dominant lethal test in rats.
- 756 *Impairment of Fertility:* A reduced pregnancy rate was found in reproduction studies in
- rats at a dose of paroxetine of 15 mg/kg/day, which is approximately twice the MRHD on a
- mg/m^2 basis. Irreversible lesions occurred in the reproductive tract of male rats after dosing in
- toxicity studies for 2 to 52 weeks. These lesions consisted of vacuolation of epididymal tubular
- epithelium at 50 mg/kg/day and atrophic changes in the seminiferous tubules of the testes with arrested spermatogenesis at 25 mg/kg/day (approximately 8 and 4 times the MRHD on a mg/m²
- 762 basis)
- Pregnancy: Pregnancy Category D. See WARNINGS—Usage in Pregnancy: *Teratogenic and Nonteratogenic Effects*.
- 765 **Labor and Delivery:** The effect of paroxetine on labor and delivery in humans is unknown.
- Nursing Mothers: Like many other drugs, paroxetine is secreted in human milk, and caution
 should be exercised when PAXIL CR is administered to a nursing woman.
- 768 **Pediatric Use:** Safety and effectiveness in the pediatric population have not been established
- 769 (see BOX WARNING and WARNINGS—Clinical Worsening and Suicide Risk). Three
- placebo-controlled trials in 752 pediatric patients with MDD have been conducted with PAXIL,
- and the data were not sufficient to support a claim for use in pediatric patients. Anyone
- considering the use of PAXIL CR in a child or adolescent must balance the potential risks withthe clinical need.
- 774 In placebo-controlled clinical trials conducted with pediatric patients, the following adverse
- events were reported in at least 2% of pediatric patients treated with immediate-release
- paroxetine hydrochloride and occurred at a rate at least twice that for pediatric patients receiving
- 777 placebo: emotional lability (including self-harm, suicidal thoughts, attempted suicide, crying, and
- mood fluctuations), hostility, decreased appetite, tremor, sweating, hyperkinesia, and agitation.
- Events reported upon discontinuation of treatment with immediate-release paroxetine
- 780 hydrochloride in the pediatric clinical trials that included a taper phase regimen, which occurred
- in at least 2% of patients who received immediate-release paroxetine hydrochloride and which
- 782 occurred at a rate at least twice that of placebo, were: emotional lability (including suicidal
 - 20

- 783 ideation, suicide attempt, mood changes, and tearfulness), nervousness, dizziness, nausea, and
- abdominal pain (see Discontinuation of Treatment With PAXIL CR).
- 785 Geriatric Use: In worldwide premarketing clinical trials with immediate-release paroxetine
- hydrochloride, 17% of paroxetine-treated patients (approximately 700) were 65 years or older.
- 787 Pharmacokinetic studies revealed a decreased clearance in the elderly, and a lower starting dose
- is recommended; there were, however, no overall differences in the adverse event profile
- 789 between elderly and younger patients, and effectiveness was similar in younger and older
- 790 patients (see CLINICAL PHARMACOLOGY and DOSAGE AND ADMINISTRATION).
- 791 In a controlled study focusing specifically on elderly patients with major depressive disorder,
- 792 PAXIL CR was demonstrated to be safe and effective in the treatment of elderly patients (>60
- 793 years) with major depressive disorder. (See CLINICAL PHARMACOLOGY—Clinical Trials
- and ADVERSE REACTIONS—Table 2.)

795 ADVERSE REACTIONS

- The information included under the "Adverse Findings Observed in Short-Term,
- 797 Placebo-Controlled Trials With PAXIL CR" subsection of ADVERSE REACTIONS is based on
- data from 11 placebo-controlled clinical trials. Three of these studies were conducted in patients
- with major depressive disorder, 3 studies were done in patients with panic disorder, 1 study was
- 800 conducted in patients with social anxiety disorder, and 4 studies were done in female patients
- 801 with PMDD. Two of the studies in major depressive disorder, which enrolled patients in the age
- 802 range 18 to 65 years, are pooled. Information from a third study of major depressive disorder,
- which focused on elderly patients (60 to 88 years), is presented separately as is the information
- 804 from the panic disorder studies and the information from the PMDD studies. Information on
- 805 additional adverse events associated with PAXIL CR and the immediate-release formulation of
- 806 paroxetine hydrochloride is included in a separate subsection (see Other Events).
- Adverse Findings Observed in Short-Term, Placebo-Controlled Trials With PAXIL
 CR:
- 809 Adverse Events Associated With Discontinuation of Treatment: Major Depressive
- 810 **Disorder:** Ten percent (21/212) of patients treated with PAXIL CR discontinued treatment due
- to an adverse event in a pool of 2 studies of patients with major depressive disorder. The most
- 812 common events $(\geq 1\%)$ associated with discontinuation and considered to be drug related (i.e.,
- 813 those events associated with dropout at a rate approximately twice or greater for PAXIL CR
- 814 compared to placebo) included the following:

	PAXIL CR	Placebo
	(n = 212)	(n = 211)
Nausea	3.7%	0.5%
Asthenia	1.9%	0.5%
Dizziness	1.4%	0.0%
Somnolence	1.4%	0.0%

815

- 816 In a placebo-controlled study of elderly patients with major depressive disorder, 13% (13/104)
- 817 of patients treated with PAXIL CR discontinued due to an adverse event. Events meeting the

818 above criteria included the following:

	PAXIL CR	Placebo
	(n = 104)	(n = 109)
Nausea	2.9%	0.0%
Headache	1.9%	0.9%
Depression	1.9%	0.0%
LFT's abnormal	1.9%	0.0%

819

820 **Panic Disorder:** Eleven percent (50/444) of patients treated with PAXIL CR in panic

821 disorder studies discontinued treatment due to an adverse event. Events meeting the above

822 criteria included the following:

	PAXIL CR	Placebo
	(n = 444)	(n = 445)
Nausea	2.9%	0.4%
Insomnia	1.8%	0.0%
Headache	1.4%	0.2%
Asthenia	1.1%	0.0%

823

824 Social Anxiety Disorder: Three percent (5/186) of patients treated with PAXIL CR in the

social anxiety disorder study discontinued treatment due to an adverse event. Events meeting the
above criteria included the following:

	PAXIL CR	Placebo
	(n = 186)	(n = 184)
Nausea	2.2%	0.5%
Headache	1.6%	0.5%
Diarrhea	1.1%	0.5%

827

828 **Premenstrual Dysphoric Disorder:** Spontaneously reported adverse events were

829 monitored in studies of both continuous and intermittent dosing of PAXIL CR in the treatment of

830 PMDD. Generally, there were few differences in the adverse event profiles of the 2 dosing

regimens. Thirteen percent (88/681) of patients treated with PAXIL CR in PMDD studies of

832 continuous dosing discontinued treatment due to an adverse event.

833 The most common events $(\geq 1\%)$ associated with discontinuation in either group treated with

- 834 PAXIL CR with an incidence rate that is at least twice that of placebo in PMDD trials that
- employed a continuous dosing regimen are shown in the following table. This table also shows
- those events that were dose dependent (indicated with an asterisk) as defined as events having an
- 837 incidence rate with 25 mg of PAXIL CR that was at least twice that with 12.5 mg of PAXIL CR
- 838 (as well as the placebo group).

	PAXIL CR 25 mg (n = 348)	PAXIL CR 12.5 mg (n = 333)	Placebo (n = 349)
TOTAL	15%	9.9%	6.3%
Nausea [*]	6.0%	2.4%	0.9%
Asthenia	4.9%	3.0%	1.4%
Somnolence [*]	4.3%	1.8%	0.3%
Insomnia	2.3%	1.5%	0.0%
Concentration Impaired*	2.0%	0.6%	0.3%
Dry mouth [*]	2.0%	0.6%	0.3%
Dizziness*	1.7%	0.6%	0.6%
Decreased Appetite*	1.4%	0.6%	0.0%
Sweating*	1.4%	0.0%	0.3%
Tremor*	1.4%	0.3%	0.0%
Yawn*	1.1%	0.0%	0.0%
Diarrhea	0.9%	1.2%	0.0%

839 * Events considered to be dose dependent are defined as events having an incidence rate with

840 25 mg of PAXIL CR that was at least twice that with 12.5 mg of PAXIL CR (as well as the841 placebo group).

842

843 Commonly Observed Adverse Events: *Major Depressive Disorder:*

- 844 The most commonly observed adverse events associated with the use of
- 845 PAXIL CR in a pool of 2 trials (incidence of 5.0% or greater and incidence for
- 846 PAXIL CR at least twice that for placebo, derived from Table 2) were: Abnormal
- 847 ejaculation, abnormal vision, constipation, decreased libido, diarrhea, dizziness,
- 848 female genital disorders, nausea, somnolence, sweating, trauma, tremor, and
- 849 yawning.

Using the same criteria, the adverse events associated with the use of PAXIL CR in a study of elderly patients with major depressive disorder were: Abnormal ejaculation, constipation,

852 decreased appetite, dry mouth, impotence, infection, libido decreased, sweating, and tremor.

853 **Panic Disorder:** In the pool of panic disorder studies, the adverse events meeting these

854 criteria were: Abnormal ejaculation, somnolence, impotence, libido decreased, tremor, sweating,

and female genital disorders (generally anorgasmia or difficulty achieving orgasm).

856 **Social Anxiety Disorder:** In the social anxiety disorder study, the adverse events meeting

these criteria were: Nausea, asthenia, abnormal ejaculation, sweating, somnolence, impotence,

858 insomnia, and libido decreased.

859 **Premenstrual Dysphoric Disorder:** The most commonly observed adverse events 860 associated with the use of PAXIL CR either during continuous dosing or luteal phase dosing (incidence of 5% or greater and incidence for PAXIL CR at least twice that for placebo, derived 861 862 from Table 6) were: Nausea, asthenia, libido decreased, somnolence, insomnia, female genital 863 disorders, sweating, dizziness, diarrhea, and constipation. 864 In the luteal phase dosing PMDD trial, which employed dosing of 12.5 mg/day or 25 mg/day 865 of PAXIL CR limited to the 2 weeks prior to the onset of menses over 3 consecutive menstrual 866 cycles, adverse events were evaluated during the first 14 days of each off-drug phase. When the 867 3 off-drug phases were combined, the following adverse events were reported at an incidence of 868 2% or greater for PAXIL CR and were at least twice the rate of that reported for placebo: 869 Infection (5.3% versus 2.5%), depression (2.8% versus 0.8%), insomnia (2.4% versus 0.8%), 870 sinusitis (2.4% versus 0%), and asthenia (2.0% versus 0.8%). 871 Incidence in Controlled Clinical Trials: Table 2 enumerates adverse events that occurred at 872 an incidence of 1% or more among patients treated with PAXIL CR, aged 18 to 65, who 873 participated in 2 short-term (12-week) placebo-controlled trials in major depressive disorder in 874 which patients were dosed in a range of 25 mg to 62.5 mg/day. Table 3 enumerates adverse 875 events reported at an incidence of 5% or greater among elderly patients (ages 60 to 88) treated 876 with PAXIL CR who participated in a short-term (12-week) placebo-controlled trial in major 877 depressive disorder in which patients were dosed in a range of 12.5 mg to 50 mg/day. Table 4 878 enumerates adverse events reported at an incidence of 1% or greater among patients (19 to 72 879 years) treated with PAXIL CR who participated in short-term (10-week) placebo-controlled trials 880 in panic disorder in which patients were dosed in a range of 12.5 mg to 75 mg/day. Table 5 881 enumerates adverse events reported at an incidence of 1% or greater among adult patients treated 882 with PAXIL CR who participated in a short-term (12-week), double-blind, placebo-controlled 883 trial in social anxiety disorder in which patients were dosed in a range of 12.5 to 37.5 mg/day. 884 Table 6 enumerates adverse events that occurred at an incidence of 1% or more among patients 885 treated with PAXIL CR who participated in three, 12-week, placebo-controlled trials in PMDD 886 in which patients were dosed at 12.5 mg/day or 25 mg/day and in one 12-week 887 placebo-controlled trial in which patients were dosed for 2 weeks prior to the onset of menses 888 (luteal phase dosing) at 12.5 mg/day or 25 mg/day. Reported adverse events were classified 889 using a standard COSTART-based Dictionary terminology. 890 The prescriber should be aware that these figures cannot be used to predict the incidence of 891 side effects in the course of usual medical practice where patient characteristics and other factors 892 differ from those that prevailed in the clinical trials. Similarly, the cited frequencies cannot be 893 compared with figures obtained from other clinical investigations involving different treatments, 894 uses, and investigators. The cited figures, however, do provide the prescribing physician with

some basis for estimating the relative contribution of drug and nondrug factors to the side effectincidence rate in the population studied.

897

898 Table 2. Treatment-Emergent Adverse Events Occurring in ≥1% of Patients

Treated With PAXIL CR in a Pool of 2 Studies in Major Depressive Disorder^{1,2}

	% Reporting Event	
Body System/Adverse Event	PAXIL CR (n = 212)	Placebo (n = 211)
Body as a Whole	(II - 2I2)	(11 – 211)
Headache	27%	20%
Asthenia	14%	9%
nfection ³	8%	5%
Abdominal Pain	7%	4%
Back Pain	5%	3%
Frauma ⁴	5%	1%
Pain ⁵	3%	1%
Allergic Reaction ⁶	2%	1%
Cardiovascular System	270	170
Tachycardia	1%	0%
Vasodilatation ⁷	2%	0%
Digestive System	270	070
Vausea	22%	10%
Diarrhea	18%	7%
Dry Mouth	15%	8%
Constipation	10%	4%
Iatulence	6%	4%
Decreased Appetite	4%	470 2%
Vomiting	4% 2%	2.70 1%
Vervous System	2.70	1 70
omnolence	22%	8%
nsomnia	17%	870 9%
Dizziness	14%	970 4%
Libido Decreased	14% 7%	4% 3%
Fremor	7% 7%	5% 1%
Typertonia	3%	1%
Paresthesia	3%	1%
Agitation	2%	1%
Confusion	2 % 1%	0%
Respiratory System	1 /0	070
awn	5%	0%
Rhinitis	3% 4%	0% 1%
	4% 2%	
Cough Increased Bronchitis	2% 1%	1% 0%
	1 70	0%
Skin and Appendages	60/	20/
Sweating	6% 20/	2%
Photosensitivity	2%	0%
Special Senses Abnormal Vision ⁸	50/	10/
AUTIOLITIAL VISION	5%	1%

Taste Perversion	2%	0%
Urogenital System		
Abnormal Ejaculation ^{9,10}	26%	1%
Female Genital Disorder ^{9,11}	10%	<1%
Impotence ⁹	5%	3%
Urinary Tract Infection	3%	1%
Menstrual Disorder ⁹	2%	<1%
Vaginitis ⁹	2%	0%

901 1. Adverse events for which the PAXIL CR reporting incidence was less than or

- 902 equal to the placebo incidence are not included. These events are: Abnormal
- dreams, anxiety, arthralgia, depersonalization, dysmenorrhea, dyspepsia,
 hyperkinesia, increased appetite, myalgia, nervousness, pharyngitis, purpu
- hyperkinesia, increased appetite, myalgia, nervousness, pharyngitis, purpura,
 rash, respiratory disorder, sinusitis, urinary frequency, and weight gain.
- 906 2. <1% means greater than zero and less than 1%.
- 907 3. Mostly flu.
- 908 4. A wide variety of injuries with no obvious pattern.
- 909 5. Pain in a variety of locations with no obvious pattern.
- 910 6. Most frequently seasonal allergic symptoms.
- 911 7. Usually flushing.
- 912 8. Mostly blurred vision.
- 913 9. Based on the number of males or females.
- 914 10. Mostly anorgasmia or delayed ejaculation.
- 915 11. Mostly anorgasmia or delayed orgasm.
- 916

917 Table 3. Treatment-Emergent Adverse Events Occurring in ≥5% of

918 Patients Treated With PAXIL CR in a Study of Elderly Patients With Major

919 **Depressive Disorder**^{1,2}

	% Reporting Event	
	PAXIL CR	Placebo
Body System/Adverse Event	(n = 104)	(n = 109)
Body as a Whole		
Headache	17%	13%
Asthenia	15%	14%
Trauma	8%	5%
Infection	6%	2%
Digestive System		
Dry Mouth	18%	7%
Diarrhea	15%	9%
Constipation	13%	5%
Dyspepsia	13%	10%
Decreased Appetite	12%	5%
Flatulence	8%	7%
Nervous System		

Somnolence	21%	12%
Insomnia	10%	8%
Dizziness	9%	5%
Libido Decreased	8%	<1%
Tremor	7%	0%
Skin and Appendages		
Sweating	10%	<1%
Urogenital System		
Abnormal Ejaculation ^{3,4}	17%	3%
Impotence ³	9%	3%

920 1. Adverse events for which the PAXIL CR reporting incidence was less than or

921 equal to the placebo incidence are not included. These events are nausea and922 respiratory disorder.

923 2. <1% means greater than zero and less than 1%.

924 3. Based on the number of males.

925 4. Mostly anorgasmia or delayed ejaculation.

926

927 Table 4. Treatment-Emergent Adverse Events Occurring in ≥1% of Patients

928 **Treated With PAXIL CR in a Pool of 3 Panic Disorder Studies**^{1,2}

	% Reporting Event	
-	PAXIL CR	Placebo
Body System/Adverse Event	(n = 444)	(n = 445)
Body as a Whole		
Asthenia	15%	10%
Abdominal Pain	6%	4%
Trauma ³	5%	4%
Cardiovascular System		
Vasodilation ⁴	3%	2%
Digestive System		
Nausea	23%	17%
Dry Mouth	13%	9%
Diarrhea	12%	9%
Constipation	9%	6%
Decreased Appetite	8%	6%
Metabolic/Nutritional		
Disorders		
Weight Loss	1%	0%
Musculoskeletal System		
Myalgia	5%	3%
Nervous System		
Insomnia	20%	11%
Somnolence	20%	9%
Libido Decreased	9%	4%
Nervousness	8%	7%
Tremor	8%	2%

Anxiety	5%	4%
Agitation	3%	2%
Hypertonia ⁵	2%	<1%
Myoclonus	2%	<1%
Respiratory System		
Sinusitis	8%	5%
Yawn	3%	0%
Skin and Appendages		
Sweating	7%	2%
Special Senses		
Abnormal Vision ⁶	3%	<1%
Urogenital System		
Abnormal Ejaculation ^{7,8}	27%	3%
Impotence ⁷	10%	1%
Female Genital Disorders ^{9,10}	7%	1%
Urinary Frequency	2%	<1%
Urination Impaired	2%	<1%
Vaginitis ⁹	1%	<1%

929 1. Adverse events for which the reporting rate for PAXIL CR was less than or equal930 to the placebo rate are not included. These events are: Abnormal dreams, allergic

931 reaction, back pain, bronchitis, chest pain, concentration impaired, confusion,

932 cough increased, depression, dizziness, dysmenorrhea, dyspepsia, fever,

933 flatulence, headache, increased appetite, infection, menstrual disorder, migraine,

pain, paresthesia, pharyngitis, respiratory disorder, rhinitis, tachycardia, taste

935 perversion, thinking abnormal, urinary tract infection, and vomiting.

936 2. <1% means greater than zero and less than 1%.

937 3. Various physical injuries.

938 4. Mostly flushing.

939 5. Mostly muscle tightness or stiffness.

- 940 6. Mostly blurred vision.
- 941 7. Based on the number of male patients.
- 942 8. Mostly anorgasmia or delayed ejaculation.
- 943 9. Based on the number of female patients.
- 944 10. Mostly anorgasmia or difficulty achieving orgasm.

945

Table 5. Treatment-Emergent Adverse Effects Occurring in ≥1% of Patients Treated With PAXIL CR in a Social Anxiety Disorder Study^{1,2}

	% Reporting Event				
	PAXIL CR	Placebo			
Body System/Adverse Event	(n = 186)	(n = 184)			
Body as a Whole					
Headache	23%	17%			
Asthenia	18%	7%			
Abdominal Pain	5%	4%			
Back Pain	4%	1%			
Trauma ³	3%	<1%			
Allergic Reaction ⁴	2%	<1%			
Chest Pain	1%	<1%			
Cardiovascular System					
Hypertension	2%	0%			
Migraine	2%	1%			
Tachycardia	2%	1%			
Digestive System					
Nausea	22%	6%			
Diarrhea	9%	8%			
Constipation	5%	2%			
Dry Mouth	3%	2%			
Dyspepsia	2%	<1%			
Decreased Appetite	1%	<1%			
Tooth Disorder	1%	0%			
Metabolic/Nutritional					
Disorders					
Weight Gain	3%	1%			
Weight Loss	1%	0%			
Nervous System					
Insomnia	9%	4%			
Somnolence	9%	4%			
Libido Decreased	8%	1%			
Dizziness	7%	4%			
Tremor	4%	2%			
Anxiety	2%	1%			
Concentration Impaired	2%	0%			
Depression	2%	1%			
Myoclonus	1%	<1%			
Paresthesia	1%	<1%			

Respiratory System		
Yawn	2%	0%
Skin and Appendages		
Sweating	14%	3%
Eczema	1%	0%
Special Senses		
Abnormal Vision ⁵	2%	0%
Abnormality of	2%	0%
Accommodation		
Urogenital System		
Abnormal Ejaculation ^{6,7}	15%	1%
Impotence ⁶	9%	0%
Female Genital Disorders ^{8,9}	3%	0%

948 1. Adverse events for which the reporting rate for PAXIL CR was less than or equal

949

to the placebo rate are not included. These events are: Dysmenorrhea, flatulence, 950 gastroenteritis, hypertonia, infection, pain, pharyngitis, rash, respiratory disorder, 951 rhinitis, and vomiting.

2. <1% means greater than zero and less than 1%. 952

- 953 3. Various physical injuries.
- 954 4. Most frequently seasonal allergic symptoms.
- 955 5. Mostly blurred vision.
- 956 6. Based on the number of male patients.
- 957 7. Mostly anorgasmia or delayed ejaculation.
- 958 8. Based on the number of female patients.
- 959 9. Mostly anorgasmia or difficulty achieving orgasm.

960

- 961 **Table 6. Treatment-Emergent Adverse Events Occurring in ≥1% of Patients Treated**
- 962 With PAXIL CR in a Pool of 3 Premenstrual Dysphoric Disorder Studies with
- 963 Continuous Dosing or in 1 Premenstrual Dysphoric Disorder Study with Luteal Phase
- 964 **Dosing**^{1,2,3}

Dosing	% Reporting Event					
ĺ	Continuou	is Dosing	Luteal Phase Dosing			
Body System/Adverse	PAXIL CR	Placebo	PAXIL CR	Placebo		
Event	(n = 681)	(n = 349)	(n = 246)	(n = 120)		
Body as a Whole						
Asthenia	17%	6%	15%	4%		
Headache	15%	12%	-	-		
Infection	6%	4%	-	-		
Abdominal pain	-	-	3%	0%		
Cardiovascular System						
Migraine	1%	<1%	-	-		
Digestive System						
Nausea	17%	7%	18%	2%		
Diarrhea	6%	2%	6%	0%		
Constipation	5%	1%	2%	<1%		
Dry Mouth	4%	2%	2%	<1%		
Increased Appetite	3%	<1%	-	-		
Decreased Appetite	2%	<1%	2%	0%		
Dyspepsia	2%	1%	2%	2%		
Gingivitis	-	-	1%	0%		
Metabolic and						
Nutritional Disorders						
Generalized Edema	-	-	1%	<1%		
Weight Gain	-	-	1%	<1%		
Musculoskeletal						
System						
Arthralgia	2%	1%	-	-		
Nervous System						
Libido Decreased	12%	5%	9%	6%		
Somnolence	9%	2%	3%	<1%		
Insomnia	8%	2%	7%	3%		
Dizziness	7%	3%	6%	3%		
Tremor	4%	<1%	5%	0%		
Concentration Impaired	3%	<1%	1%	0%		
Nervousness	2%	<1%	3%	2%		
Anxiety	2%	1%	-	-		

2%	<1%	-	-
-	-	2%	<1%
-	-	2%	<1%
1%	<1%	-	-
-	-	1%	0%
-	-	4%	2%
2%	<1%	-	-
-	-	2%	0%
1%	<1%	-	-
7%	<1%	6%	<1%
-	-	1%	0%
8%	1%	2%	0%
1%	<1%	-	-
1%	<1%	-	-
-	-	1%	0%
	- - 1% - 2% - 1% 7% - 8% 1%		- - 2% - - 2% 1% <1%

965 1. Adverse events for which the reporting rate of PAXIL CR was less than or equal to the
966 placebo rate are not included. These events for continuous dosing are: Abdominal pain, back
967 pain, pain, trauma, weight gain, myalgia, pharyngitis, respiratory disorder, rhinitis, sinusitis,
968 pruritis, dysmenorrhea, menstrual disorder, urinary tract infection, and vomiting. The events
969 for luteal phase dosing are: Allergic reaction, back pain, headache, infection, pain, trauma,
970 myalgia, anxiety, pharyngitis, respiratory disorder, cystitis, and dysmenorrhea.

971 2. <1% means greater than zero and less than 1%.

3. The luteal phase and continuous dosing PMDD trials were not designed for making direct
comparisons between the 2 dosing regimens. Therefore, a comparison between the 2 dosing

regimens of the PMDD trials of incidence rates shown in Table 5 should be avoided.

975 4. Mostly anorgasmia or difficulty achieving orgasm.

976 977

Dose Dependency of Adverse Events: The following table shows results in PMDD

978 trials of common adverse events, defined as events with an incidence of $\geq 1\%$ with 25 mg of

979 PAXIL CR that was at least twice that with 12.5 mg of PAXIL CR and with placebo.

980

	PAXIL CR 25 mg (n = 348)	PAXIL CR 12.5 mg (n = 333)	Placebo (n = 349)
Common Adverse Event			
Sweating	8.9%	4.2%	0.9%
Tremor	6.0%	1.5%	0.3%
Concentration Impaired	4.3%	1.5%	0.6%
Yawn	3.2%	0.9%	0.3%
Paresthesia	1.4%	0.3%	0.3%
Hyperkinesia	1.1%	0.3%	0.0%
Vaginitis	1.1%	0.3%	0.3%

Incidence of Common Adverse Events in Placebo, 12.5 mg and 25 mg of PAXIL CR in a Pool of 3 Fixed-Dose PMDD Trials

981

982 A comparison of adverse event rates in a fixed-dose study comparing immediate-release

983 paroxetine with placebo in the treatment of major depressive disorder revealed a clear dose

dependency for some of the more common adverse events associated with the use of

985 immediate-release paroxetine.

Male and Female Sexual Dysfunction With SSRIs: Although changes in sexual desire,
 sexual performance, and sexual satisfaction often occur as manifestations of a psychiatric
 disorder, they may also be a consequence of pharmacologic treatment. In particular, some

989 evidence suggests that SSRIs can cause such untoward sexual experiences.

Reliable estimates of the incidence and severity of untoward experiences involving sexual
desire, performance, and satisfaction are difficult to obtain; however, in part because patients and
physicians may be reluctant to discuss them. Accordingly, estimates of the incidence of
untoward sexual experience and performance cited in product labeling, are likely to
underestimate their actual incidence.
The percentage of patients reporting symptoms of sexual dysfunction in the pool of 2
placebo-controlled trials in nonelderly patients with major depressive disorder, in the pool of 3

997 placebo-controlled trials in patients with panic disorder, in the placebo-controlled trial in patients

998 with social anxiety disorder, and in the intermittent dosing and the pool of 3 placebo-controlled

999 continuous dosing trials in female patients with PMDD are as follows:

1000

	Major Do Diso	•	Panic Disorder		Social Anxiety Disorder		PMDD Continuous Dosing		PMDD Luteal Phase Dosing	
	PAXIL CR	Placebo	PAXIL CR	Placebo	PAXIL CR	Placebo	PAXIL CR	Placebo	PAXIL CR	Placebo
n (males)	78	78	162	194	88	97	n/a	n/a	n/a	n/a
Decreased Libido	10%	5%	9%	6%	13%	1%	n/a	n/a	n/a	n/a
Ejaculatory Disturbance	26%	1%	27%	3%	15%	1%	n/a	n/a	n/a	n/a
Impotence	5%	3%	10%	1%	9%	0%	n/a	n/a	n/a	n/a
n (females)	134	133	282	251	98	87	681	349	246	120
Decreased Libido	4%	2%	8%	2%	4%	1%	12%	5%	9%	6%
Orgasmic Disturbance	10%	<1%	7%	1%	3%	0%	8%	1%	2%	0%

1001

1002	There are no adequate, controlled studies examining sexual dysfunction with paroxetine
1003	treatment.

Paroxetine treatment has been associated with several cases of priapism. In those cases with aknown outcome, patients recovered without sequelae.

1006 While it is difficult to know the precise risk of sexual dysfunction associated with the use of1007 SSRIs, physicians should routinely inquire about such possible side effects.

1008 Weight and Vital Sign Changes: Significant weight loss may be an undesirable result of

1009 treatment with paroxetine for some patients but, on average, patients in controlled trials with

1010 PAXIL CR or the immediate-release formulation, had minimal weight loss (about 1 pound). No

1011 significant changes in vital signs (systolic and diastolic blood pressure, pulse, and temperature)

1012 were observed in patients treated with PAXIL CR, or immediate-release paroxetine

1013 hydrochloride, in controlled clinical trials.

1014 **ECG Changes:** In an analysis of ECGs obtained in 682 patients treated with

1015 immediate-release paroxetine and 415 patients treated with placebo in controlled clinical trials,1016 no clinically significant changes were seen in the ECGs of either group.

1017 *Liver Function Tests:* In a pool of 2 placebo-controlled clinical trials, patients treated with 1018 PAXIL CR or placebo exhibited abnormal values on liver function tests at comparable rates. In

1019 particular, the controlled-release paroxetine-versus-placebo comparisons for alkaline

phosphatase, SGOT, SGPT, and bilirubin revealed no differences in the percentage of patientswith marked abnormalities.

1022 In a study of elderly patients with major depressive disorder, 3 of 104 patients treated with

1023 PAXIL CR and none of 109 placebo patients experienced liver transaminase elevations of

1024 potential clinical concern.

1025 Two of the patients treated with PAXIL CR dropped out of the study due to abnormal liver 1026 function tests; the third patient experienced normalization of transaminase levels with continued 1027 treatment. Also, in the pool of 3 studies of patients with panic disorder, 4 of 444 patients treated 1028 with PAXIL CR and none of 445 placebo patients experienced liver transaminase elevations of 1029 potential clinical concern. Elevations in all 4 patients decreased substantially after 1030 discontinuation of PAXIL CR. The clinical significance of these findings is unknown. In placebo-controlled clinical trials with the immediate-release formulation of paroxetine, 1031 1032 patients exhibited abnormal values on liver function tests at no greater rate than that seen in 1033 placebo-treated patients. 1034 Hallucinations: In pooled clinical trials of immediate-release paroxetine hydrochloride, 1035 hallucinations were observed in 22 of 9,089 patients receiving drug and in 4 of 3,187 patients 1036 receiving placebo. 1037 Other Events Observed During the Clinical Development of Paroxetine: The 1038 following adverse events were reported during the clinical development of PAXIL CR and/or the 1039 clinical development of the immediate-release formulation of paroxetine. 1040 Adverse events for which frequencies are provided below occurred in clinical trials with the 1041 controlled-release formulation of paroxetine. During its premarketing assessment in major 1042 depressive disorder, panic disorder, social anxiety disorder, and PMDD, multiple doses of 1043 PAXIL CR were administered to 1,627 patients in phase 3 double-blind, controlled, outpatient 1044 studies. Untoward events associated with this exposure were recorded by clinical investigators 1045 using terminology of their own choosing. Consequently, it is not possible to provide a 1046 meaningful estimate of the proportion of individuals experiencing adverse events without first 1047 grouping similar types of untoward events into a smaller number of standardized event 1048 categories. 1049 In the tabulations that follow, reported adverse events were classified using a 1050 COSTART-based dictionary. The frequencies presented, therefore, represent the proportion of 1051 the 1,627 patients exposed to PAXIL CR who experienced an event of the type cited on at least 1 1052 occasion while receiving PAXIL CR. All reported events are included except those already listed 1053 in Tables 2 through 6 and those events where a drug cause was remote. If the COSTART term 1054 for an event was so general as to be uninformative, it was deleted or, when possible, replaced 1055 with a more informative term. It is important to emphasize that although the events reported 1056 occurred during treatment with paroxetine, they were not necessarily caused by it. 1057 Events are further categorized by body system and listed in order of decreasing frequency 1058 according to the following definitions: Frequent adverse events are those occurring on 1 or more 1059 occasions in at least 1/100 patients (only those not already listed in the tabulated results from 1060 placebo-controlled trials appear in this listing); infrequent adverse events are those occurring in 1061 1/100 to 1/1,000 patients; rare events are those occurring in fewer than 1/1,000 patients. 1062 Adverse events for which frequencies are not provided occurred during the premarketing 1063 assessment of immediate-release paroxetine in phase 2 and 3 studies of major depressive 1064 disorder, obsessive compulsive disorder, panic disorder, social anxiety disorder, generalized

anxiety disorder, and posttraumatic stress disorder. The conditions and duration of exposure to

1066 immediate-release paroxetine varied greatly and included (in overlapping categories) open and

1067 double-blind studies, uncontrolled and controlled studies, inpatient and outpatient studies, and

1068 fixed-dose and titration studies. Only those events not previously listed for controlled-release

1069 paroxetine are included. The extent to which these events may be associated with PAXIL CR is 1070 unknown.

Events are listed alphabetically within the respective body system. Events of major clinicalimportance are also described in the PRECAUTIONS section.

1073 Body as a Whole: Infrequent were chills, face edema, fever, flu syndrome, malaise; rare
1074 were abscess, anaphylactoid reaction, anticholinergic syndrome, hypothermia; also observed
1075 were adrenergic syndrome, neck rigidity, sepsis.

1076 *Cardiovascular System:* Infrequent were angina pectoris, bradycardia, hematoma,
 1077 hypertension, hypotension, palpitation, postural hypotension, supraventricular tachycardia,
 1078 syncope; rare were bundle branch block; also observed were arrhythmia nodal, atrial fibrillation,
 1079 cerebrovascular accident, congestive heart failure, low cardiac output, myocardial infarct,
 1080 myocardial ischemia, pallor, phlebitis, pulmonary embolus, supraventricular extrasystoles,
 1081 thrombophlebitis, thrombosis, vascular headache, ventricular extrasystoles.

1082 Digestive System: Infrequent were bruxism, dysphagia, eructation, gastritis, 1083 gastroenteritis, gastroesophageal reflux, gingivitis, hemorrhoids, liver function test abnormal, 1084 melena, pancreatitis, rectal hemorrhage, toothache, ulcerative stomatitis; rare were colitis, 1085 glossitis, gum hyperplasia, hepatosplenomegaly, increased salivation, intestinal obstruction, 1086 peptic ulcer, stomach ulcer, throat tightness; also observed were aphthous stomatitis, bloody 1087 diarrhea, bulimia, cardiospasm, cholelithiasis, duodenitis, enteritis, esophagitis, fecal impactions, 1088 fecal incontinence, gum hemorrhage, hematemesis, hepatitis, ileitis, ileus, jaundice, mouth 1089 ulceration, salivary gland enlargement, sialadenitis, stomatitis, tongue discoloration, tongue 1090 edema. 1091 **Endocrine System:** Infrequent were ovarian cyst, testes pain; rare were diabetes mellitus, 1092 hyperthyroidism; also observed were goiter, hypothyroidism, thyroiditis.

Hemic and Lymphatic System: Infrequent were anemia, eosinophilia, hypochromic
 anemia, leukocytosis, leukopenia, lymphadenopathy, purpura; rare were thrombocytopenia; also
 observed were anisocytosis, basophilia, bleeding time increased, lymphedema, lymphocytosis,
 lymphopenia, microcytic anemia, monocytosis, normocytic anemia, thrombocythemia.
 Metabolic and Nutritional Disorders: Infrequent were generalized edema,

hyperglycemia, hypokalemia, peripheral edema, SGOT increased, SGPT increased, thirst; rare
were bilirubinemia, dehydration, hyperkalemia, obesity; also observed were alkaline phosphatase
increased, BUN increased, creatinine phosphokinase increased, gamma globulins increased,
gout, hypercalcemia, hypercholesteremia, hyperphosphatemia, hypocalcemia, hypoglycemia,
hyponatremia, ketosis, lactic dehydrogenase increased, non-protein nitrogen (NPN) increased.

1103 *Musculoskeletal System:* Infrequent were arthritis, bursitis, tendonitis; rare were

1104 myasthenia, myopathy, myositis; also observed were generalized spasm, osteoporosis,

1105 tenosynovitis, tetany.

1106 Nervous System: Frequent were depression; infrequent were amnesia, convulsion,
1107 depersonalization, dystonia, emotional lability, hallucinations, hyperkinesia, hypesthesia,

1108 hypokinesia, incoordination, libido increased, neuralgia, neuropathy, nystagmus, paralysis,

1109 vertigo; rare were ataxia, coma, diplopia, dyskinesia, hostility, paranoid reaction, torticollis,

1110 withdrawal syndrome; also observed were abnormal gait, akathisia, akinesia, aphasia,

1111 choreoathetosis, circumoral paresthesia, delirium, delusions, dysarthria, euphoria, extrapyramidal

1112 syndrome, fasciculations, grand mal convulsion, hyperalgesia, irritability, manic reaction,

1113 manic-depressive reaction, meningitis, myelitis, peripheral neuritis, psychosis, psychotic

1114 depression, reflexes decreased, reflexes increased, stupor, trismus.

1115 *Respiratory System:* Frequent were pharyngitis; infrequent were asthma, dyspnea,
1116 epistaxis, laryngitis, pneumonia; rare were stridor; also observed were dysphonia, emphysema,
1117 hemoptysis, hiccups, hyperventilation, lung fibrosis, pulmonary edema, respiratory flu, sputum
1118 increased.

Skin and Appendages: Frequent were rash; infrequent were acne, alopecia, dry skin,
eczema, pruritus, urticaria; rare were exfoliative dermatitis, furunculosis, pustular rash,
seborrhea; also observed were angioedema, ecchymosis, erythema multiforme, erythema
nodosum, hirsutism, maculopapular rash, skin discoloration, skin hypertrophy, skin ulcer,

1123 sweating decreased, vesiculobullous rash.

Special Senses: Infrequent were conjunctivitis, earache, keratoconjunctivitis, mydriasis,
photophobia, retinal hemorrhage, tinnitus; rare were blepharitis, visual field defect; also observed
were amblyopia, anisocoria, blurred vision, cataract, conjunctival edema, corneal ulcer, deafness,
exophthalmos, glaucoma, hyperacusis, night blindness, parosmia, ptosis, taste loss.

1128 Urogenital System: Frequent were dysmenorrhea^{*}; infrequent were albuminuria,
1129 amenorrhea^{*}, breast pain^{*}, cystitis, dysuria, prostatitis^{*}, urinary retention; rare were breast
1130 enlargement^{*}, breast neoplasm^{*}, female lactation, hematuria, kidney calculus, metrorrhagia^{*},

1131 nephritis, nocturia, pregnancy and puerperal disorders^{*}, salpingitis, urinary incontinence, uterine

1132 fibroids enlarged^{*}; also observed were breast atrophy, ejaculatory disturbance, endometrial

1133 disorder, epididymitis, fibrocystic breast, leukorrhea, mastitis, oliguria, polyuria, pyuria,

1134 urethritis, urinary casts, urinary urgency, urolith, uterine spasm, vaginal hemorrhage.

^{*}Based on the number of men and women as appropriate.

1136 **Postmarketing Reports:** Voluntary reports of adverse events in patients taking

1137 immediate-release paroxetine hydrochloride that have been received since market introduction

and not listed above that may have no causal relationship with the drug include acute

1139 pancreatitis, elevated liver function tests (the most severe cases were deaths due to liver necrosis,

- 1140 and grossly elevated transaminases associated with severe liver dysfunction), Guillain-Barré
- 1141 syndrome, toxic epidermal necrolysis, priapism, syndrome of inappropriate ADH secretion,

1142 symptoms suggestive of prolactinemia and galactorrhea, neuroleptic malignant syndrome-like

1143 events, serotonin syndrome; extrapyramidal symptoms which have included akathisia,

1144 bradykinesia, cogwheel rigidity, dystonia, hypertonia, oculogyric crisis which has been

- associated with concomitant use of pimozide; tremor and trismus; status epilepticus, acute renal
- 1146 failure, pulmonary hypertension, allergic alveolitis, anaphylaxis, eclampsia, laryngismus, optic
- 1147 neuritis, porphyria, ventricular fibrillation, ventricular tachycardia (including torsade de pointes),
- 1148 thrombocytopenia, hemolytic anemia, events related to impaired hematopoiesis (including
- aplastic anemia, pancytopenia, bone marrow aplasia, and agranulocytosis), and vasculitic
- 1150 syndromes (such as Henoch-Schönlein purpura). There has been a case report of an elevated
- 1151 phenytoin level after 4 weeks of immediate-release paroxetine and phenytoin coadministration.
- 1152 There has been a case report of severe hypotension when immediate-release paroxetine was
- added to chronic metoprolol treatment.

1154 DRUG ABUSE AND DEPENDENCE

- 1155 **Controlled Substance Class:** PAXIL CR is not a controlled substance.
- 1156 Physical and Psychologic Dependence: PAXIL CR has not been systematically studied
- in animals or humans for its potential for abuse, tolerance or physical dependence. While the
- 1158 clinical trials did not reveal any tendency for any drug-seeking behavior, these observations were
- 1159 not systematic and it is not possible to predict on the basis of this limited experience the extent to
- 1160 which a CNS-active drug will be misused, diverted, and/or abused once marketed. Consequently,
- patients should be evaluated carefully for history of drug abuse, and such patients should be
- 1162 observed closely for signs of misuse or abuse of PAXIL CR (e.g., development of tolerance,
- 1163 incrementations of dose, drug-seeking behavior).

1164 **OVERDOSAGE**

- **Human Experience:** Since the introduction of immediate-release paroxetine hydrochloride in
- the United States, 342 spontaneous cases of deliberate or accidental overdosage during
- 1167 paroxetine treatment have been reported worldwide (circa 1999). These include overdoses with
- 1168 paroxetine alone and in combination with other substances. Of these, 48 cases were fatal and of
- 1169 the fatalities, 17 appeared to involve paroxetine alone. Eight fatal cases that documented the
- amount of paroxetine ingested were generally confounded by the ingestion of other drugs or
- alcohol or the presence of significant comorbid conditions. Of 145 non-fatal cases with known
- 1172 outcome, most recovered without sequelae. The largest known ingestion involved 2,000 mg of
- 1173 paroxetine (33 times the maximum recommended daily dose) in a patient who recovered.
- 1174 Commonly reported adverse events associated with paroxetine overdosage include
- 1175 somnolence, coma, nausea, tremor, tachycardia, confusion, vomiting, and dizziness. Other
- 1176 notable signs and symptoms observed with overdoses involving paroxetine (alone or with other
- 1177 substances) include mydriasis, convulsions (including status epilepticus), ventricular
- 1178 dysrhythmias (including torsade de pointes), hypertension, aggressive reactions, syncope,
- 1179 hypotension, stupor, bradycardia, dystonia, rhabdomyolysis, symptoms of hepatic dysfunction
- 1180 (including hepatic failure, hepatic necrosis, jaundice, hepatitis, and hepatic steatosis), serotonin
- 1181 syndrome, manic reactions, myoclonus, acute renal failure, and urinary retention.
- 1182 **Overdosage Management:** Treatment should consist of those general measures employed in
- 1183 the management of overdosage with any drugs effective in the treatment of major depressive
 - 38

- 1184 disorder.
- 1185 Ensure an adequate airway, oxygenation, and ventilation. Monitor cardiac rhythm and vital

1186 signs. General supportive and symptomatic measures are also recommended. Induction of emesis

- 1187 is not recommended. Gastric lavage with a large-bore orogastric tube with appropriate airway
- 1188 protection, if needed, may be indicated if performed soon after ingestion, or in symptomatic 1189 patients.
- 1190 Activated charcoal should be administered. Due to the large volume of distribution of this
- drug, forced diuresis, dialysis, hemoperfusion, and exchange transfusion are unlikely to be ofbenefit. No specific antidotes for paroxetine are known.
- 1193 A specific caution involves patients taking or recently having taken paroxetine who might
- 1194 ingest excessive quantities of a tricyclic antidepressant. In such a case, accumulation of the
- 1195 parent tricyclic and an active metabolite may increase the possibility of clinically significant
- 1196 sequelae and extend the time needed for close medical observation (see PRECAUTIONS—
- 1197 Drugs Metabolized by Cytochrome CYP2D6).
- 1198 In managing overdosage, consider the possibility of multiple-drug involvement. The physician
- should consider contacting a poison control center for additional information on the treatment of
- 1200 any overdose. Telephone numbers for certified poison control centers are listed in the *Physicians'*
- 1201 Desk Reference (PDR).

1202 DOSAGE AND ADMINISTRATION

- Major Depressive Disorder: Usual Initial Dosage: PAXIL CR should be administered as
 a single daily dose, usually in the morning, with or without food. The recommended initial dose
 is 25 mg/day. Patients were dosed in a range of 25 mg to 62.5 mg/day in the clinical trials
- 1206 demonstrating the effectiveness of PAXIL CR in the treatment of major depressive disorder. As
- 1207 with all drugs effective in the treatment of major depressive disorder, the full effect may be
- 1208 delayed. Some patients not responding to a 25-mg dose may benefit from dose increases, in
- 1209 12.5-mg/day increments, up to a maximum of 62.5 mg/day. Dose changes should occur at
- 1210 intervals of at least 1 week.
- Patients should be cautioned that PAXIL CR should not be chewed or crushed, and should beswallowed whole.
- 1213 *Maintenance Therapy:* There is no body of evidence available to answer the question of
- 1214 how long the patient treated with PAXIL CR should remain on it. It is generally agreed that acute
- 1215 episodes of major depressive disorder require several months or longer of sustained
- 1216 pharmacologic therapy. Whether the dose of an antidepressant needed to induce remission is
- 1217 identical to the dose needed to maintain and/or sustain euthymia is unknown.
- 1218 Systematic evaluation of the efficacy of immediate-release paroxetine hydrochloride has
- 1219 shown that efficacy is maintained for periods of up to 1 year with doses that averaged about
- 1220 30 mg, which corresponds to a 37.5-mg dose of PAXIL CR, based on relative bioavailability
- 1221 considerations (see CLINICAL PHARMACOLOGY—Pharmacokinetics).
- 1222 Panic Disorder: Usual Initial Dosage: PAXIL CR should be administered as a single daily
 - 39

- 1223 dose, usually in the morning. Patients should be started on 12.5 mg/day. Dose changes should
- 1224 occur in 12.5-mg/day increments and at intervals of at least 1 week. Patients were dosed in a
- 1225 range of 12.5 to 75 mg/day in the clinical trials demonstrating the effectiveness of PAXIL CR.
- 1226 The maximum dosage should not exceed 75 mg/day.
- 1227 Patients should be cautioned that PAXIL CR should not be chewed or crushed, and should be 1228 swallowed whole.
- 1229 **Maintenance Therapy:** Long-term maintenance of efficacy with the immediate-release 1230 formulation of paroxetine was demonstrated in a 3-month relapse prevention trial. In this trial, 1231 patients with panic disorder assigned to immediate-release paroxetine demonstrated a lower
- 1232 relapse rate compared to patients on placebo. Panic disorder is a chronic condition, and it is
- 1233 reasonable to consider continuation for a responding patient. Dosage adjustments should be
- 1234 made to maintain the patient on the lowest effective dosage, and patients should be periodically 1235 reassessed to determine the need for continued treatment.
- 1236 Social Anxiety Disorder: Usual Initial Dosage: PAXIL CR should be administered as a
- 1237 single daily dose, usually in the morning, with or without food. The recommended initial dose is 1238 12.5 mg/day. Patients were dosed in a range of 12.5 mg to 37.5 mg/day in the clinical trial
- 1239
- demonstrating the effectiveness of PAXIL CR in the treatment of social anxiety disorder. If the
- 1240 dose is increased, this should occur at intervals of at least 1 week, in increments of 12.5 mg/day, 1241 up to a maximum of 37.5 mg/day.
- 1242 Patients should be cautioned that PAXIL CR should not be chewed or crushed, and should be 1243 swallowed whole.
- 1244 **Maintenance Therapy:** There is no body of evidence available to answer the question of
- 1245 how long the patient treated with PAXIL CR should remain on it. Although the efficacy of
- 1246 PAXIL CR beyond 12 weeks of dosing has not been demonstrated in controlled clinical trials,
- 1247 social anxiety disorder is recognized as a chronic condition, and it is reasonable to consider
- 1248 continuation of treatment for a responding patient. Dosage adjustments should be made to
- 1249 maintain the patient on the lowest effective dosage, and patients should be periodically 1250 reassessed to determine the need for continued treatment.
- 1251 Premenstrual Dysphoric Disorder: Usual Initial Dosage: PAXIL CR should be
- 1252 administered as a single daily dose, usually in the morning, with or without food. PAXIL CR
- 1253 may be administered either daily throughout the menstrual cycle or limited to the luteal phase of
- 1254 the menstrual cycle, depending on physician assessment. The recommended initial dose is
- 1255 12.5 mg/day. In clinical trials, both 12.5 mg/day and 25 mg/day were shown to be effective.
- 1256 Dose changes should occur at intervals of at least 1 week.
- 1257 Patients should be cautioned that PAXIL CR should not be chewed or crushed, and should be 1258 swallowed whole.
- 1259 Maintenance/Continuation Therapy: The effectiveness of PAXIL CR for a period 1260 exceeding 3 menstrual cycles has not been systematically evaluated in controlled trials.
- 1261 However, women commonly report that symptoms worsen with age until relieved by the onset of
- 1262 menopause. Therefore, it is reasonable to consider continuation of a responding patient. Patients
 - 40

- 1263 should be periodically reassessed to determine the need for continued treatment.
- 1264 Special Populations: Treatment of Pregnant Women During the Third Trimester:
- 1265 Neonates exposed to PAXIL CR and other SSRIs or SNRIs, late in the third trimester have
- 1266 developed complications requiring prolonged hospitalization, respiratory support, and tube
- 1267 feeding (see WARNINGS). When treating pregnant women with paroxetine during the third
- 1268 trimester, the physician should carefully consider the potential risks and benefits of treatment.
- 1269 The physician may consider tapering paroxetine in the third trimester.
- 1270 Dosage for Elderly or Debilitated Patients, and Patients With Severe Renal or
- 1271 Hepatic Impairment: The recommended initial dose of PAXIL CR is 12.5 mg/day for elderly
- 1272 patients, debilitated patients, and/or patients with severe renal or hepatic impairment. Increases
- 1273 may be made if indicated. Dosage should not exceed 50 mg/day.
- 1274 Switching Patients to or From a Monoamine Oxidase Inhibitor: At least 14 days
- 1275 should elapse between discontinuation of an MAOI and initiation of therapy with PAXIL CR.
- 1276 Similarly, at least 14 days should be allowed after stopping PAXIL CR before starting an MAOI.
- 1277 Discontinuation of Treatment With PAXIL CR: Symptoms associated with discontinuation
- 1278 of immediate-release paroxetine hydrochloride or PAXIL CR have been reported (see
- 1279 PRECAUTIONS). Patients should be monitored for these symptoms when discontinuing
- 1280 treatment, regardless of the indication for which PAXIL CR is being prescribed. A gradual
- 1281 reduction in the dose rather than abrupt cessation is recommended whenever possible. If
- 1282 intolerable symptoms occur following a decrease in the dose or upon discontinuation of
- 1283 treatment, then resuming the previously prescribed dose may be considered. Subsequently, the
- 1284 physician may continue decreasing the dose but at a more gradual rate.
- 1285 HOW SUPPLIED
- PAXIL CR is supplied as an enteric film-coated, controlled-release, round tablet, as follows:
 1287 12.5-mg yellow tablets, engraved with PAXIL CR and 12.5
- 1288 NDC 0029-3206-13 Bottles of 30
- 1289 25-mg pink tablets, engraved with PAXIL CR and 25
- 1290 NDC 0029-3207-13 Bottles of 30
- 1291 37.5 mg blue tablets, engraved with PAXIL CR and 37.5
- 1292 NDC 0029-3208-13 Bottles of 30
- 1293 Store at or below 25°C (77°F) [see USP].
- 1294
- 1295 PAXIL CR is a registered trademark of GlaxoSmithKline.
- 1296 GEOMATRIX is a trademark of Jago Pharma, Muttenz, Switzerland.
- 1297 1298

Medication Guide

- 1299
 Antidepressant Medicines, Depression and Other Serious Mental Illnesses, and Suicidal

 1300
 Thoughts or Actions
- 1301 PAXIL CR[®] (PAX-il) (paroxetine hydrochloride) Controlled-Release Tablets
 - 41

1302	
1303	
1304	Read the Medication Guide that comes with your or your family member's antidepressant
1305	medicine. This Medication Guide is only about the risk of suicidal thoughts and actions with
1306	antidepressant medicines. Talk to your, or your family member's, healthcare provider
1307	about:
1308	All risks and benefits of treatment with antidepressant medicines
1309	 All treatment choices for depression or other serious mental illness
1310	• The dealliest enoices for depression of other serious mental miless
1310	What is the most important information I should know about antidepressant medicines,
1311	depression and other serious mental illnesses, and suicidal thoughts or action?
	depression and other serious mental innesses, and suicidal thoughts of action?
1313	
1314	1. Antidepressant medicines may increase suicidal thoughts or actions in some children,
1315	teenagers, and young adults within the first few months of treatment.
1316 1317	2. Depression and other serious mental illnesses are the most important causes of suicidal
1317	thoughts and actions. Some people may have a particularly high risk of having suicidal
1319	thoughts or actions. These include people who have (or have a family history of) bipolar illness
1320	(also called manic-depressive illness) or suicidal thoughts or actions.
1321	
1322	3. How can I watch for and try to prevent suicidal thoughts and actions in myself or a
1323	family member?
1324	
1325	• Pay close attention to any changes, especially sudden changes, in mood, behaviors,
1326	thoughts, or feelings. This is very important when an antidepressant medicine is started or
1327	when the dose is changed.
1328	• Call the healthcare provider right away to report new or sudden changes in mood,
1329	behavior, thoughts, or feelings.
1330	• Keep all follow-up visits with the healthcare provider as scheduled. Call the healthcare
1331	provider between visits as needed, especially if you have concerns about symptoms.
1332	
1333	Call a healthcare provider right away if you or your family member has any of the
1334	following symptoms, especially if they are new, worse, or worry you:
1335	
1336	• Thoughts about suicide or dying
1337	 Attempts to commit suicide
1338	 New or worse depression
1339	 New or worse anxiety
1339	 Feeling very agitated or restless
1340 1341	
1342	Trouble sleeping (insomnia)

1343	New or worse irritability
1344	• Acting aggressive, being angry, or violent
1345	Acting on dangerous impulses
1346	• An extreme increase in activity and talking (mania)
1347	Other unusual changes in behavior or mood
1348	
1349	What else do I need to know about antidepressant medicines?
1350	
1351	• Never stop an antidepressant medicine without first talking to a healthcare provider.
1352	Stopping an antidepressant medicine suddenly can cause other symptoms. Aligned at: 18 pt + Tab after: 36 pt + Indent at: 36 pt, Left
1353	
1354	• Antidepressants are medicines used to treat depression and other illnesses. It is important Formatted : Bulleted + Level: 1 +
1355	to discuss all the risk of treating depression and also the risks of not treating it. Patients Aligned at: 18 pt + Tab after: 36 pt + Indent at: 36 pt, Tabs: 36 pt, Left
1356	and their families or other caregivers should discuss all treatment choices with the
1357	healthcare provider, not just the use of antidepressants.
1358	
1359	• Antidepressant medicines have other side effects. Talk to the healthcare provider about
1360	the side effects of the medicine prescribed for you or your family member. Aligned at: 18 pt + Tab after: 36 pt + Indent at: 36 pt, Tabs: 36 pt, Left
1361	
1362	• Antidepressant medicines can interact with other medicines. Know all of the medicines
1363	that you or your family member takes. Keep a list of all medicines to show the healthcare Aligned at: 18 pt + Tab after: 36 pt + Indent at: 36 pt, Tabs: 36 pt, Left
1364	provider. Do not start new medicines without first checking with your healthcare
1365	provider.
1366	1
1367	• Not all antidepressant medicines prescribed for children are FDA approved for use in
1368	children. Talk to your child's healthcare provider for more information. Aligned at: 18 pt + Tab after: 36 pt + Indent at: 36 pt, Tabs: 36 pt, Left
1369	
1370	This Medication Guide has been approved by the U.S. Food and Drug Administration for all
1371	antidepressants.
1372	
1373	PCR:2MG
1374	
	gsk GlaxoSmithKline
1375	
1376	GlaxoSmithKline
1377	Research Triangle Park, NC 27709
1378	
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