

PRESCRIBING INFORMATION

1  
2 **PAXIL CR<sup>®</sup>**  
3 **(paroxetine hydrochloride)**  
4 **Controlled-Release Tablets**  
5

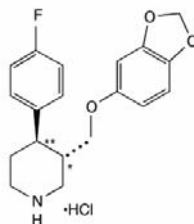
6 **Suicidality and Antidepressant Drugs**

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*-4*R*-(4'-fluorophenyl)-3*S*-[(3',4'-  
26 methylenedioxyphenoxy) methyl] piperidine hydrochloride hemihydrate and has the empirical  
27 formula of C<sub>19</sub>H<sub>20</sub>FNO<sub>3</sub>•HCl•1/2H<sub>2</sub>O. The molecular weight is 374.8 (329.4 as free base). The  
28 structural formula of paroxetine hydrochloride is:



29  
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,  $\alpha_1$ -,  $\alpha_2$ -, beta-adrenergic-,  
51 dopamine ( $D_2$ )-, 5-HT<sub>1</sub>-, 5-HT<sub>2</sub>-, and histamine ( $H_1$ )-receptors; antagonism of muscarinic,  
52 histaminergic, and  $\alpha_1$ -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  
58 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).

63 **Absorption and Distribution:** Tablets of PAXIL CR contain a degradable polymeric  
64 matrix (GEOMATRIX™) designed to control the dissolution rate of paroxetine over a period of  
65 approximately 4 to 5 hours. In addition to controlling the rate of drug release in vivo, an enteric  
66 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  
68 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  
70  $C_{max}$  and  $AUC_{0-inf}$  increased disproportionately with dose (as seen also with immediate-release  
71 formulations). Mean  $C_{max}$  and  $AUC_{0-inf}$  values at these doses were 2.0, 5.5, 9.0, and 12.5 ng/mL,  
72 and 121, 261, 338, and 540 ng•hr./mL, respectively.  $T_{max}$  was observed typically between 6 and

73 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.

75 Paroxetine distributes throughout the body, including the CNS, with only 1% remaining in the  
76 plasma.

77 Approximately 95% and 93% of paroxetine is bound to plasma protein at 100 ng/mL and  
78 400 ng/mL, respectively. Under clinical conditions, paroxetine concentrations would normally be  
79 less than 400 ng/mL. Paroxetine does not alter the in vitro protein binding of phenytoin or  
80 warfarin.

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  
85 study in which normal male and female subjects (n = 23) received PAXIL CR (25 mg daily),  
86 mean steady state  $C_{max}$ ,  $C_{min}$ , and  $AUC_{0-24}$  values were 30 ng/mL, 20 ng/mL, and 550 ng•hr/mL,  
87 respectively.

88 Based on studies using immediate-release formulations, steady-state drug exposure based on  
89  $AUC_{0-24}$  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  
104 treatment. The role of this enzyme in paroxetine metabolism also suggests potential drug-drug  
105 interactions (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

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).

#### 127 **Clinical Trials**

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,  
166 multicenter, double-blind, flexible-dose, placebo-controlled study of adult outpatients with a  
167 primary diagnosis of social anxiety disorder (DSM-IV). In the study, the effectiveness of  
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  
178 paroxetine generally did not indicate differences in treatment outcomes as a function of age, race,  
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  $11 \pm 7$  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.

194 In a third study employing intermittent dosing, patients (N = 366) were treated for the 2 weeks  
195 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 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**

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

204 The efficacy of PAXIL CR in the treatment of a major depressive episode was established in  
205 two 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  
213 guilt or worthlessness, slowed thinking or impaired concentration, a suicide attempt, or suicidal  
214 ideation.

215 The antidepressant action of paroxetine in hospitalized depressed patients has not been  
216 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  
221 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  
224 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  
226 the implications or consequences of the attacks, and/or a significant change in behavior related to  
227 the attacks.

228 The efficacy of PAXIL CR controlled-release tablets was established in two 10-week trials in  
229 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

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  
234 accelerated heart rate; (2) sweating; (3) trembling or shaking; (4) sensations of shortness of  
235 breath or smothering; (5) feeling of choking; (6) chest pain or discomfort; (7) nausea or  
236 abdominal distress; (8) feeling dizzy, unsteady, lightheaded, or faint; (9) derealization (feelings  
237 of unreality) or depersonalization (being detached from oneself); (10) fear of losing control; (11)  
238 fear of dying; (12) paresthesias (numbness 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  
241 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,  
246 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  
248 which the person is exposed to unfamiliar people or to possible scrutiny by others. Exposure to  
249 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  
251 avoidance, anxious anticipation, or distress in the feared situation(s) interferes significantly with  
252 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  
254 performance anxiety or shyness generally do not require psychopharmacological treatment.

255 The efficacy of PAXIL CR as a treatment for social anxiety disorder has been established, in  
256 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  
258 trial, in adult outpatients with social anxiety disorder (DSM-IV). PAXIL CR has not been studied  
259 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,  
270 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  
273 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  
276 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.

278 The effectiveness of PAXIL CR in long-term use, that is, for more than 3 menstrual cycles,  
279 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  
291 suicidal ideation and behavior (suicidality) or unusual changes in behavior, whether or not they  
292 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  
294 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  
296 the emergence of suicidality in certain patients during the early phases of treatment. Pooled  
297 analyses of short-term placebo-controlled trials of antidepressant drugs (SSRIs and others)  
298 showed that these drugs increase the risk of suicidal thinking and behavior (suicidality) in  
299 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

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**

Age Range	Drug-Placebo Difference in Number of Cases of Suicidality per 1,000 Patients Treated
Increases Compared 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  
316 No suicides occurred in any of the pediatric trials. There were suicides in the adult trials, but  
317 the number was not sufficient to reach any conclusion about drug effect on suicide.

318 It is unknown whether the suicidality risk extends to longer-term use, i.e., beyond several  
319 months. However, there is substantial evidence from placebo-controlled maintenance trials in  
320 adults with depression that the use of antidepressants can delay the recurrence of depression.

321 **All patients being treated with antidepressants for any indication should be monitored**  
322 **appropriately and observed closely for clinical worsening, suicidality, and unusual changes**  
323 **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.**

325 The following symptoms, anxiety, agitation, panic attacks, insomnia, irritability, hostility,  
326 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  
330 depression and/or the emergence of suicidal impulses has not been established, there is concern  
331 that such symptoms may represent precursors to emerging suicidality.

332 Consideration should be given to changing the therapeutic regimen, including possibly  
333 discontinuing the medication, in patients whose depression is persistently worse, or who are  
334 experiencing emergent suicidality or symptoms that might be precursors to worsening depression  
335 or suicidality, especially if these symptoms are severe, abrupt in onset, or were not part of the  
336 patient's presenting symptoms.

337 If the decision has been made to discontinue treatment, medication should be tapered, as  
338 rapidly as is feasible, but with recognition that abrupt discontinuation can be associated with  
339 certain symptoms (see PRECAUTIONS and DOSAGE AND ADMINISTRATION—  
340 Discontinuation of Treatment With PAXIL CR, for a description of the risks of discontinuation  
341 of PAXIL CR).

342 **Families and caregivers of patients being treated with antidepressants for major**

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  
352 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  
357 detailed psychiatric history, including a family history of suicide, bipolar disorder, and  
358 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

383 **Interaction With Monoamine Oxidase Inhibitors).**

384 **If concomitant treatment with PAXIL CR with a 5-hydroxytryptamine receptor agonist**  
385 **(triptan) is clinically warranted, careful observation of the patient is advised, particularly**  
386 **during treatment initiation and dose increases (see PRECAUTIONS—Drug Interactions).**

387 **The concomitant use of PAXIL CR with serotonin precursors (such as tryptophan) is**  
388 **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.**

393 **An in vivo study suggests that drugs which inhibit CYP2D6, such as paroxetine, will**  
394 **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  
398 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 of  
407 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  
413 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

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<sup>2</sup> 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  
433 the MRHD on an mg/m<sup>2</sup> basis. The no-effect dose for rat pup mortality was not determined. The  
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 six-  
450 fold higher for infants exposed to SSRIs after the 20<sup>th</sup> week of gestation compared to infants who  
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  
479 who develops seizures.

480 **Discontinuation of Treatment With PAXIL CR:** Adverse events while discontinuing  
481 therapy with PAXIL CR were not systematically evaluated in most clinical trials; however, in  
482 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.

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 be  
546 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  
553 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  
555 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  
557 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 these  
559 occur while taking PAXIL CR.

560 **Clinical Worsening and Suicide Risk:** Patients, their families, and their caregivers should  
561 be encouraged to be alert to the emergence of anxiety, agitation, panic attacks, insomnia,  
562 irritability, hostility, aggressiveness, impulsivity, akathisia (psychomotor restlessness),  
563 hypomania, mania, other unusual changes in behavior, worsening of depression, and suicidal  
564 ideation, especially early during antidepressant treatment and when the dose is adjusted up or  
565 down. Families and caregivers of patients should be advised to look for the emergence of such  
566 symptoms on a day-to-day basis, since changes may be abrupt. Such symptoms should be  
567 reported to the patient’s prescriber or health professional, especially if they are severe, abrupt in  
568 onset, or were not part of the patient’s presenting symptoms. Symptoms such as these may be  
569 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.

575 **Interference With Cognitive and Motor Performance:** Any psychoactive drug may  
576 impair judgment, thinking, or motor skills. Although in controlled studies immediate-release  
577 paroxetine hydrochloride has not been shown to impair psychomotor performance, patients  
578 should be cautioned about operating hazardous machinery, including automobiles, until they are  
579 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.

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.

586       **Alcohol:** Although immediate-release paroxetine hydrochloride has not been shown to  
587 increase the impairment of mental and motor skills caused by alcohol, patients should be advised  
588 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  
596 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  
604 was associated with mean increases in pimozide AUC of 151% and C<sub>max</sub> of 62%, compared to  
605 pimozide administered alone. Due to the narrow therapeutic index of pimozide and its known  
606 ability to prolong the QT interval, concomitant use of pimozide and PAXIL CR is  
607 contraindicated (see CONTRAINDICATIONS).

608       **Serotonergic Drugs:** Based on the mechanism of action of SNRIs and SSRIs, including  
609 paroxetine hydrochloride, and the potential for serotonin syndrome, caution is advised when  
610 PAXIL CR is coadministered with other drugs that may affect the serotonergic neurotransmitter  
611 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,

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<sub>450</sub> (oxidative) enzymes. In a study  
628 where immediate-release paroxetine (30 mg once daily) was dosed orally for 4 weeks,  
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  
633 pharmacokinetics was not studied.

634 **Phenobarbital:** Phenobarbital induces many cytochrome P<sub>450</sub> (oxidative) enzymes. When a  
635 single oral 30-mg dose of immediate-release paroxetine was administered at phenobarbital  
636 steady state (100 mg once daily for 14 days), paroxetine AUC and T<sub>1/2</sub> 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<sub>1/2</sub>  
645 were reduced (by an average of 50% and 35%, respectively) compared to immediate-release  
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<sub>450</sub> isozyme CYP2D6. Like other agents that are metabolized by  
656 CYP2D6, paroxetine may significantly inhibit the activity of this isozyme. In most patients  
657 (>90%), this CYP2D6 isozyme is saturated early during paroxetine dosing. In 1 study, daily  
658 dosing of immediate-release paroxetine (20 mg once daily) under steady-state conditions  
659 increased single-dose desipramine (100 mg) C<sub>max</sub>, AUC, and T<sub>1/2</sub> 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)  
665 approximately 1.4-fold. The effect of paroxetine on the pharmacokinetics of atomoxetine has  
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  
668 atomoxetine every 12 hours. This resulted in increases in steady state atomoxetine AUC values  
669 that were 6- to 8-fold greater and in atomoxetine  $C_{max}$  values that were 3- to 4-fold greater than  
670 when atomoxetine was given alone. Dosage adjustment of atomoxetine may be necessary and it  
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  
684 governed by alternative  $P_{450}$  isozymes that, unlike CYP2D6, show no evidence of saturation (see  
685 PRECAUTIONS—Tricyclic Antidepressants).

686 **Drugs Metabolized by Cytochrome CYP3A4:** An in vivo interaction study involving  
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<sub>0-24</sub>, C<sub>max</sub>, and C<sub>min</sub> 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

743 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  
745 (mouse) and 3 (rat) times the maximum recommended human dose (MRHD) on a mg/m<sup>2</sup> basis.  
746 There was a significantly greater number of male rats in the high-dose group with reticulum cell  
747 sarcomas (1/100, 0/50, 0/50, and 4/50 for control, low-, middle-, and high-dose groups,  
748 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  
750 dose-related increase in the number of tumors in mice, there was no drug-related increase in the  
751 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  
755 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  
757 rats at a dose of paroxetine of 15 mg/kg/day, which is approximately twice the MRHD on a  
758 mg/m<sup>2</sup> basis. Irreversible lesions occurred in the reproductive tract of male rats after dosing in  
759 toxicity studies for 2 to 52 weeks. These lesions consisted of vacuolation of epididymal tubular  
760 epithelium at 50 mg/kg/day and atrophic changes in the seminiferous tubules of the testes with  
761 arrested spermatogenesis at 25 mg/kg/day (approximately 8 and 4 times the MRHD on a mg/m<sup>2</sup>  
762 basis)

763 **Pregnancy:** Pregnancy Category D. See WARNINGS—Usage in Pregnancy: *Teratogenic and*  
764 *Nonteratogenic Effects.*

765 **Labor and Delivery:** The effect of paroxetine on labor and delivery in humans is unknown.

766 **Nursing Mothers:** Like many other drugs, paroxetine is secreted in human milk, and caution  
767 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  
770 placebo-controlled trials in 752 pediatric patients with MDD have been conducted with PAXIL,  
771 and the data were not sufficient to support a claim for use in pediatric patients. Anyone  
772 considering the use of PAXIL CR in a child or adolescent must balance the potential risks with  
773 the clinical need.

774 In placebo-controlled clinical trials conducted with pediatric patients, the following adverse  
775 events were reported in at least 2% of pediatric patients treated with immediate-release  
776 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  
778 mood fluctuations), hostility, decreased appetite, tremor, sweating, hyperkinesia, and agitation.

779 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  
781 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

783 ideation, suicide attempt, mood changes, and tearfulness), nervousness, dizziness, nausea, and  
784 abdominal pain (see Discontinuation of Treatment With PAXIL CR).

785 **Geriatric Use:** In worldwide premarketing clinical trials with immediate-release paroxetine  
786 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  
788 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  
794 and ADVERSE REACTIONS—Table 2.)

### 795 **ADVERSE REACTIONS**

796 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  
798 data from 11 placebo-controlled clinical trials. Three of these studies were conducted in patients  
799 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,  
803 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).

#### 807 **Adverse Findings Observed in Short-Term, Placebo-Controlled Trials With PAXIL** 808 **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  
811 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:

	<b>PAXIL CR</b> <b>(n = 212)</b>	<b>Placebo</b> <b>(n = 211)</b>
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:

	<b>PAXIL CR</b> <b>(n = 104)</b>	<b>Placebo</b> <b>(n = 109)</b>
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:

	<b>PAXIL CR</b> <b>(n = 444)</b>	<b>Placebo</b> <b>(n = 445)</b>
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  
825 social anxiety disorder study discontinued treatment due to an adverse event. Events meeting the  
826 above criteria included the following:

	<b>PAXIL CR</b> <b>(n = 186)</b>	<b>Placebo</b> <b>(n = 184)</b>
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  
831 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  
835 employed a continuous dosing regimen are shown in the following table. This table also shows  
836 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)
<b>TOTAL</b>	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 the  
841 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.

850 Using the same criteria, the adverse events associated with the use of PAXIL CR in a study of  
851 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,  
855 and female genital disorders (generally anorgasmia or difficulty achieving orgasm).

856 ***Social Anxiety Disorder:*** In the social anxiety disorder study, the adverse events meeting  
857 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  
861 (incidence of 5% or greater and incidence for PAXIL CR at least twice that for placebo, derived  
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  
895 some basis for estimating the relative contribution of drug and nondrug factors to the side effect  
896 incidence rate in the population studied.

897

898 **Table 2. Treatment-Emergent Adverse Events Occurring in  $\geq$ 1% of Patients**

899 **Treated With PAXIL CR in a Pool of 2 Studies in Major Depressive**  
 900 **Disorder<sup>1,2</sup>**

<b>Body System/Adverse Event</b>	<b>% Reporting Event</b>	
	<b>PAXIL CR (n = 212)</b>	<b>Placebo (n = 211)</b>
<b>Body as a Whole</b>		
Headache	27%	20%
Asthenia	14%	9%
Infection <sup>3</sup>	8%	5%
Abdominal Pain	7%	4%
Back Pain	5%	3%
Trauma <sup>4</sup>	5%	1%
Pain <sup>5</sup>	3%	1%
Allergic Reaction <sup>6</sup>	2%	1%
<b>Cardiovascular System</b>		
Tachycardia	1%	0%
Vasodilatation <sup>7</sup>	2%	0%
<b>Digestive System</b>		
Nausea	22%	10%
Diarrhea	18%	7%
Dry Mouth	15%	8%
Constipation	10%	4%
Flatulence	6%	4%
Decreased Appetite	4%	2%
Vomiting	2%	1%
<b>Nervous System</b>		
Somnolence	22%	8%
Insomnia	17%	9%
Dizziness	14%	4%
Libido Decreased	7%	3%
Tremor	7%	1%
Hypertonia	3%	1%
Paresthesia	3%	1%
Agitation	2%	1%
Confusion	1%	0%
<b>Respiratory System</b>		
Yawn	5%	0%
Rhinitis	4%	1%
Cough Increased	2%	1%
Bronchitis	1%	0%
<b>Skin and Appendages</b>		
Sweating	6%	2%
Photosensitivity	2%	0%
<b>Special Senses</b>		
Abnormal Vision <sup>8</sup>	5%	1%

Taste Perversion	2%	0%
<b>Urogenital System</b>		
Abnormal Ejaculation <sup>9,10</sup>	26%	1%
Female Genital Disorder <sup>9,11</sup>	10%	<1%
Impotence <sup>9</sup>	5%	3%
Urinary Tract Infection	3%	1%
Menstrual Disorder <sup>9</sup>	2%	<1%
Vaginitis <sup>9</sup>	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  
903 dreams, anxiety, arthralgia, depersonalization, dysmenorrhea, dyspepsia,  
904 hyperkinesia, increased appetite, myalgia, nervousness, pharyngitis, purpura,  
905 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<sup>1,2</sup>**

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

Somnolence	21%	12%
Insomnia	10%	8%
Dizziness	9%	5%
Libido Decreased	8%	<1%
Tremor	7%	0%
<b>Skin and Appendages</b>		
Sweating	10%	<1%
<b>Urogenital System</b>		
Abnormal Ejaculation <sup>3,4</sup>	17%	3%
Impotence <sup>3</sup>	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 and  
922 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<sup>1,2</sup>**

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

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

- 929 1. Adverse events for which the reporting rate for PAXIL CR was less than or equal  
930 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,  
934 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

946 **Table 5. Treatment-Emergent Adverse Effects Occurring in  $\geq 1\%$  of Patients**  
 947 **Treated With PAXIL CR in a Social Anxiety Disorder Study<sup>1,2</sup>**

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

<b>Respiratory System</b>		
Yawn	2%	0%
<b>Skin and Appendages</b>		
Sweating	14%	3%
Eczema	1%	0%
<b>Special Senses</b>		
Abnormal Vision <sup>5</sup>	2%	0%
Abnormality of Accommodation	2%	0%
<b>Urogenital System</b>		
Abnormal Ejaculation <sup>6,7</sup>	15%	1%
Impotence <sup>6</sup>	9%	0%
Female Genital Disorders <sup>8,9</sup>	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.
- 952 2. <1% means greater than zero and less than 1%.
- 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  $\geq 1\%$  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<sup>1,2,3</sup>**

Body System/Adverse Event	% Reporting Event			
	Continuous Dosing		Luteal Phase Dosing	
	PAXIL CR (n = 681)	Placebo (n = 349)	PAXIL CR (n = 246)	Placebo (n = 120)
<b>Body as a Whole</b>				
Asthenia	17%	6%	15%	4%
Headache	15%	12%	-	-
Infection	6%	4%	-	-
Abdominal pain	-	-	3%	0%
<b>Cardiovascular System</b>				
Migraine	1%	<1%	-	-
<b>Digestive System</b>				
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%
<b>Metabolic and Nutritional Disorders</b>				
Generalized Edema	-	-	1%	<1%
Weight Gain	-	-	1%	<1%
<b>Musculoskeletal System</b>				
Arthralgia	2%	1%	-	-
<b>Nervous System</b>				
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%	-	-

Lack of Emotion	2%	<1%	-	-
Depression	-	-	2%	<1%
Vertigo	-	-	2%	<1%
Abnormal Dreams	1%	<1%	-	-
Amnesia	-	-	1%	0%
<b>Respiratory System</b>				
Sinusitis	-	-	4%	2%
Yawn	2%	<1%	-	-
Bronchitis	-	-	2%	0%
Cough Increased	1%	<1%	-	-
<b>Skin and Appendages</b>				
Sweating	7%	<1%	6%	<1%
<b>Special Senses</b>				
Abnormal Vision	-	-	1%	0%
<b>Urogenital System</b>				
Female Genital Disorders <sup>4</sup>	8%	1%	2%	0%
Menorrhagia	1%	<1%	-	-
Vaginal Moniliasis	1%	<1%	-	-
Menstrual Disorder	-	-	1%	0%

- 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%.
- 972 3. The luteal phase and continuous dosing PMDD trials were not designed for making direct  
973 comparisons between the 2 dosing regimens. Therefore, a comparison between the 2 dosing  
974 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

**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**

<b>Common Adverse Event</b>	<b>PAXIL CR 25 mg (n = 348)</b>	<b>PAXIL CR 12.5 mg (n = 333)</b>	<b>Placebo (n = 349)</b>
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%

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  
 984 dependency for some of the more common adverse events associated with the use of  
 985 immediate-release paroxetine.

986 **Male and Female Sexual Dysfunction With SSRIs:** Although changes in sexual desire,  
 987 sexual performance, and sexual satisfaction often occur as manifestations of a psychiatric  
 988 disorder, they may also be a consequence of pharmacologic treatment. In particular, some  
 989 evidence suggests that SSRIs can cause such untoward sexual experiences.

990 Reliable estimates of the incidence and severity of untoward experiences involving sexual  
 991 desire, performance, and satisfaction are difficult to obtain; however, in part because patients and  
 992 physicians may be reluctant to discuss them. Accordingly, estimates of the incidence of  
 993 untoward sexual experience and performance cited in product labeling, are likely to  
 994 underestimate their actual incidence.

995 The percentage of patients reporting symptoms of sexual dysfunction in the pool of 2  
 996 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 Depressive Disorder		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
<b>n (males)</b>	<b>78</b>	<b>78</b>	<b>162</b>	<b>194</b>	<b>88</b>	<b>97</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
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
<b>n (females)</b>	<b>134</b>	<b>133</b>	<b>282</b>	<b>251</b>	<b>98</b>	<b>87</b>	<b>681</b>	<b>349</b>	<b>246</b>	<b>120</b>
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 treatment.

1003

1004

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

1005

1006

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

1007

1008

**Weight and Vital Sign Changes:** Significant weight loss may be an undesirable result of treatment with paroxetine for some patients but, on average, patients in controlled trials with PAXIL CR or the immediate-release formulation, had minimal weight loss (about 1 pound). No significant changes in vital signs (systolic and diastolic blood pressure, pulse, and temperature) were observed in patients treated with PAXIL CR, or immediate-release paroxetine hydrochloride, in controlled clinical trials.

1013

1014

**ECG Changes:** In an analysis of ECGs obtained in 682 patients treated with immediate-release paroxetine and 415 patients treated with placebo in controlled clinical trials, no clinically significant changes were seen in the ECGs of either group.

1016

1017

**Liver Function Tests:** In a pool of 2 placebo-controlled clinical trials, patients treated with PAXIL CR or placebo exhibited abnormal values on liver function tests at comparable rates. In particular, the controlled-release paroxetine-versus-placebo comparisons for alkaline phosphatase, SGOT, SGPT, and bilirubin revealed no differences in the percentage of patients with marked abnormalities.

1021

1022

In a study of elderly patients with major depressive disorder, 3 of 104 patients treated with PAXIL CR and none of 109 placebo patients experienced liver transaminase elevations of potential clinical concern.

1023

1024

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.

1031 In placebo-controlled clinical trials with the immediate-release formulation of paroxetine,  
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

1065 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.

1071 Events are listed alphabetically within the respective body system. Events of major clinical  
1072 importance 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.

1093 **Hemic and Lymphatic System:** Infrequent were anemia, eosinophilia, hypochromic  
1094 anemia, leukocytosis, leukopenia, lymphadenopathy, purpura; rare were thrombocytopenia; also  
1095 observed were anisocytosis, basophilia, bleeding time increased, lymphedema, lymphocytosis,  
1096 lymphopenia, microcytic anemia, monocytosis, normocytic anemia, thrombocythemia.

1097 **Metabolic and Nutritional Disorders:** Infrequent were generalized edema,  
1098 hyperglycemia, hypokalemia, peripheral edema, SGOT increased, SGPT increased, thirst; rare  
1099 were bilirubinemia, dehydration, hyperkalemia, obesity; also observed were alkaline phosphatase  
1100 increased, BUN increased, creatinine phosphokinase increased, gamma globulins increased,  
1101 gout, hypercalcemia, hypercholesteremia, hyperphosphatemia, hypocalcemia, hypoglycemia,  
1102 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.

1119 **Skin and Appendages:** Frequent were rash; infrequent were acne, alopecia, dry skin,  
1120 eczema, pruritus, urticaria; rare were exfoliative dermatitis, furunculosis, pustular rash,  
1121 seborrhea; also observed were angioedema, ecchymosis, erythema multiforme, erythema  
1122 nodosum, hirsutism, maculopapular rash, skin discoloration, skin hypertrophy, skin ulcer,  
1123 sweating decreased, vesiculobullous rash.

1124 **Special Senses:** Infrequent were conjunctivitis, earache, keratoconjunctivitis, mydriasis,  
1125 photophobia, retinal hemorrhage, tinnitus; rare were blepharitis, visual field defect; also observed  
1126 were amblyopia, anisocoria, blurred vision, cataract, conjunctival edema, corneal ulcer, deafness,  
1127 exophthalmos, glaucoma, hyperacusis, night blindness, parosmia, ptosis, taste loss.

1128 **Urogenital System:** Frequent were dysmenorrhea<sup>\*</sup>; infrequent were albuminuria,  
1129 amenorrhea<sup>\*</sup>, breast pain<sup>\*</sup>, cystitis, dysuria, prostatitis<sup>\*</sup>, urinary retention; rare were breast  
1130 enlargement<sup>\*</sup>, breast neoplasm<sup>\*</sup>, female lactation, hematuria, kidney calculus, metrorrhagia<sup>\*</sup>,  
1131 nephritis, nocturia, pregnancy and puerperal disorders<sup>\*</sup>, salpingitis, urinary incontinence, uterine  
1132 fibroids enlarged<sup>\*</sup>; 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.

1135 <sup>\*</sup>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  
1138 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

1145 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  
1149 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  
1153 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  
1157 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,  
1161 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**

1165 **Human Experience:** Since the introduction of immediate-release paroxetine hydrochloride in  
1166 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  
1170 amount of paroxetine ingested were generally confounded by the ingestion of other drugs or  
1171 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

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  
1191 drug, forced diuresis, dialysis, hemoperfusion, and exchange transfusion are unlikely to be of  
1192 benefit. 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 overdose, consider the possibility of multiple-drug involvement. The physician  
1199 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**

1203 **Major Depressive Disorder: Usual Initial Dosage:** PAXIL CR should be administered as  
1204 a single daily dose, usually in the morning, with or without food. The recommended initial dose  
1205 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.

1211       Patients should be cautioned that PAXIL CR should not be chewed or crushed, and should be  
1212 swallowed 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

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

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**

1286 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.

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**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**

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

1311 **What is the most important information I should know about antidepressant medicines,**  
1312 **depression and other serious mental illnesses, and suicidal thoughts or 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**  
1318 **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
- 1340 • Feeling very agitated or restless
- 1341 • Panic attacks
- 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

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1349 **What else do I need to know about antidepressant medicines?**

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- 1351 • Never stop an antidepressant medicine without first talking to a healthcare provider.  
1352 Stopping an antidepressant medicine suddenly can cause other symptoms.

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- 1354 • Antidepressants are medicines used to treat depression and other illnesses. It is important  
1355 to discuss all the risk of treating depression and also the risks of not treating it. Patients  
1356 and their families or other caregivers should discuss all treatment choices with the  
1357 healthcare provider, not just the use of antidepressants.

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- 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.

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- 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  
1364 provider. Do not start new medicines without first checking with your healthcare  
1365 provider.

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- 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.

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1370 This Medication Guide has been approved by the U.S. Food and Drug Administration for all  
1371 antidepressants.

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1376 GlaxoSmithKline  
1377 Research Triangle Park, NC 27709

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1381 June 2007

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