HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use STRATTERA safely and effectively. See full prescribing information for STRATTERA.

STRATTERA® (atomoxetine hydrochloride) CAPSULES for Oral Use

Initial U.S. Approval: 2002

WARNING: SUICIDAL IDEATION IN CHILDREN AND ADOLESCENTS

See full prescribing information for complete boxed warning.

Increased risk of suicidal ideation in children or adolescents (5.1)

- No suicides occurred in clinical trials (5.1)
- Patients started on therapy should be monitored closely (5.1)

-----RECENT MAJOR CHANGES -----

Contraindications, Pheochromocytoma (4.4)	mm/yyyy
Warnings and Precautions, Allergic Events (5.8)	07/2010

-----INDICATIONS AND USAGE-----

STRATTERA[®] is a selective norepinephrine reuptake inhibitor indicated for the treatment of Attention-Deficit/Hyperactivity Disorder (ADHD). (1.1)

-----DOSAGE AND ADMINISTRATION-----

Initial, Target and Maximum Daily Dose (2.1)

(Acute and Maintenance/Extended Treatment)

Body Weight	Initial Daily Dose	Target Total Daily Dose	Maximum Total Daily Dose
Children and adolescents up to 70 kg	0.5 mg/kg	1.2 mg/kg	1.4 mg/kg
Children and adolescents over 70 kg and adults	40 mg	80 mg	100 mg

Dosing adjustment — Hepatic Impairment, Strong CYP2D6 Inhibitor, and in patients known to be CYP2D6 poor metabolizers (PMs). (2.4, 12.3)

-----DOSAGE FORMS AND STRENGTHS-----

Each capsule contains atomoxetine HCl equivalent to 10, 18, 25, 40, 60, 80, or 100 mg of atomoxetine. (3, 11, 16)

-----CONTRAINDICATIONS------

- Hypersensitivity to atomoxetine or other constituents of product. (4.1)
- STRATTERA use within 2 weeks after discontinuing MAOI or other
- drugs that affect brain monoamine concentrations. (4.2, 7.1)
- Narrow Angle Glaucoma. (4.3)
- Pheochromocytoma or history of pheochromocytoma. (4.4)

-----WARNINGS AND PRECAUTIONS------

- Suicidal Ideation Monitor for suicidality, clinical worsening, and unusual changes in behavior. (5.1)
- Severe Liver Injury Should be discontinued and not restarted in patients with jaundice or laboratory evidence of liver injury. (5.2)
- Serious Cardiovascular Events Sudden death, stroke and myocardial infarction have been reported in association with atomoxetine treatment. Patients should have a careful history and physical exam to assess for presence of cardiovascular disease. STRATTERA generally should not be used in children or adolescents with known serious structural cardiac abnormalities, cardiomyopathy, serious heart rhythm abnormalities, or other serious cardiac problems that may place them at increased vulnerability to its noradrenergic effects. Consideration should be given

to not using STRATTERA in adults with clinically significant cardiac abnormalities. (5.3)

- Emergent Cardiovascular Symptoms Patients should undergo prompt cardiac evaluation. (5.3)
- Effects on Blood Pressure and Heart Rate Can increase blood pressure and heart rate; orthostasis, syncope and Raynaud's phenomenon may occur. Use with caution in patients with hypertension, tachycardia, or cardiovascular or cerebrovascular disease. (5.4)
- Emergent Psychotic or Manic Symptoms Consider discontinuing treatment if such new symptoms occur. (5.5)
- Bipolar Disorder Screen patients to avoid possible induction of a mixed/manic episode. (5.6)
- Aggressive behavior or hostility should be monitored. (5.7)
- Possible allergic reactions, including anaphylactic reactions, angioneurotic edema, urticaria, and rash. (5.8)
- Effects on Urine Outflow Urinary hesitancy and retention may occur. (5.9)
- Priapism Prompt medical attention is required in the event of suspected priapism. (5.10, 17.5)
- Growth Height and weight should be monitored in pediatric patients. (5.11)
- Concomitant Use of Potent CYP2D6 Inhibitors or Use in patients known to be CYP2D6 PMs - Dose adjustment of STRATTERA may be necessary. (5.13)

-----ADVERSE REACTIONS------

Most common adverse reactions (≥5% and at least twice the incidence of placebo patients)

- Child and Adolescent Clinical Trials Nausea, vomiting, fatigue, decreased appetite, abdominal pain, and somnolence. (6.1)
- Adult Clinical Trials Constipation, dry mouth, nausea, fatigue, decreased appetite, insomnia, erectile dysfunction, urinary hesitation and/or urinary retention and/or dysuria, dysmenorrhea, and hot flush. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Eli Lilly and Company at 1-800-LillyRx (1-800-545-5979) or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

-----DRUG INTERACTIONS------DRUG INTERACTIONS------

- Monoamine Oxidase Inhibitors. (4.2, 7.1)
- CYP2D6 Inhibitors Concomitant use may increase atomoxetine steadystate plasma concentrations in EMs. (7.2)
- Pressor Agents Possible effects on blood pressure. (7.3)
- Albuterol (or other beta2 agonists) Action of albuterol on cardiovascular system can be potentiated. (7.4)

------USE IN SPECIFIC POPULATIONS------

- Pregnancy/Lactation Pregnant or nursing women should not use unless potential benefit justifies potential risk to fetus or infant. (8.1, 8.3)
- Hepatic Insufficiency Increased exposure (AUC) to atomoxetine than with normal subjects in EM subjects with moderate (Child-Pugh Class B) (2-fold increase) and severe (Child-Pugh Class C) (4-fold increase). (8.6)
- Renal Insufficiency Higher systemic exposure to atomoxetine than healthy subjects for EM subjects with end stage renal disease - no difference when exposure corrected for mg/kg dose. (8.7)
- Patients with Concomitant Illness Does not worsen tics in patients with ADHD and comorbid Tourette's Disorder. (8.10)
- Patients with Concomitant Illness Does not worsen anxiety in patients with ADHD and comorbid Anxiety Disorders. (8.10)

See 17 for PATIENT COUNSELING INFORMATION and the FDAapproved Medication Guide

Revised: mm/yyyy

FULL PRESCRIBING INFORMATION: CONTENTS* WARNING: SUICIDAL IDEATION IN CHILDREN AND ADOLESCENTS

1 INDICATIONS AND USAGE

- Attention-Deficit/Hyperactivity Disorder (ADHD) 1.1
- 1.2 **Diagnostic Considerations**
- 1.3 Need for Comprehensive Treatment Program

Reference ID: 2914553

- 2.1 Acute Treatment
- 2.2 Maintenance/Extended Treatment
- 2.3 General Dosing Information 2.4

Dosing in Specific Populations

DOSAGE FORMS AND STRENGTHS 3

4 CONTRAINDICATIONS

Hypersensitivity 4.1

- 4.3 Narrow Angle Glaucoma
- 4.4 Pheochromocytoma

WARNINGS AND PRECAUTIONS 5

- 5.1 Suicidal Ideation
- Severe Liver Injury 5.2
- Serious Cardiovascular Events 5.3
- 5.4 Effects on Blood Pressure and Heart Rate
- Emergence of New Psychotic or Manic Symptoms 5.5
- 5.6 Screening Patients for Bipolar Disorder Aggressive Behavior or Hostility
- 5.7 Allergic Events 5.8
- Effects on Urine Outflow from the Bladder 5.9
- 5.10 Priapism
- Effects on Growth 5.11
- 5.12 Laboratory Tests
- Concomitant Use of Potent CYP2D6 Inhibitors or Use in 5.13 patients who are known to be CYP2D6 PMs

ADVERSE REACTIONS 6

- 6.1 Clinical Trials Experience
- Postmarketing Spontaneous Reports 6.2

7 DRUG INTERACTIONS

- 7.1 Monoamine Oxidase Inhibitors
- 7.2 Effect of CYP2D6 Inhibitors on Atomoxetine
- 7.3 Pressor Agents
- 7.4 Albuterol
- 7.5 Effect of Atomoxetine on P450 Enzymes
- 76 Alcohol
- 77 Methylphenidate
- Drugs Highly Bound to Plasma Protein 7.8
- Drugs that Affect Gastric pH 7.9

USE IN SPECIFIC POPULATIONS 8

- 8.1 Pregnancy
- Labor and Delivery 8.2
- Nursing Mothers 8.3
- 8.4 Pediatric Use
- Geriatric Use 8.5
- Hepatic Insufficiency 8.6
- 87 Renal Insufficiency
- 8.8 Gender

- DRUG ABUSE AND DEPENDENCE
 - 9.1 Controlled Substance
 - 9.2 Abuse
 - 9.3 Dependence

10 **OVERDOSAGE**

0

- 10.1 Human Experience
- 10.2 Management of Overdose
- DESCRIPTION 11
- CLINICAL PHARMACOLOGY 12
 - 12.1 Mechanism of Action
 - Pharmacodynamics 12.2
 - 12.3 Pharmacokinetics
- 13 NONCLINICAL TOXICOLOGY
 - Carcinogenesis, Mutagenesis, Impairment of Fertility 13.1

14 CLINICAL STUDIES

- ADHD studies in Children and Adolescents 14.1
- 14.2 ADHD studies in Adults

HOW SUPPLIED/STORAGE AND HANDLING 16

- 16.1 How Supplied
- 16.2 Storage and Handling

PATIENT COUNSELING INFORMATION 17

- General Information 17.1
- 17.2 Suicide Risk
- 17.3 Severe Liver Injury
- 17.4 Aggression or Hostility
- 17.5 Priapism
- 17.6 Ocular Irritant
- 17.7 Drug-Drug Interaction
- 17.8 Pregnancy
- 17.9 Food 17.10 Missed Dose
- Interference with Psychomotor Performance 17.11

*Sections or subsections omitted from the full prescribing information are not listed

WARNING: SUICIDAL IDEATION IN CHILDREN AND ADOLESCENTS

STRATTERA (atomoxetine) increased the risk of suicidal ideation in short-term studies in children or adolescents with Attention-Deficit/Hyperactivity Disorder (ADHD). Anyone considering the use of STRATTERA in a child or adolescent must balance this risk with the clinical need. Co-morbidities occurring with ADHD may be associated with an increase in the risk of suicidal ideation and/or behavior. Patients who are started on therapy should be monitored closely for suicidality (suicidal thinking and behavior), clinical worsening, or unusual changes in behavior. Families and caregivers should be advised of the need for close observation and communication with the prescriber. STRATTERA is approved for ADHD in pediatric and adult patients. STRATTERA is not approved for major depressive disorder.

Pooled analyses of short-term (6 to 18 weeks) placebo-controlled trials of STRATTERA in children and adolescents (a total of 12 trials involving over 2200 patients, including 11 trials in ADHD and 1 trial in enuresis) have revealed a greater risk of suicidal ideation early during treatment in those receiving STRATTERA compared to placebo. The average risk of suicidal ideation in patients receiving STRATTERA was 0.4% (5/1357 patients), compared to none in placebotreated patients (851 patients). No suicides occurred in these trials [see Warnings and Precautions (5.1)].

INDICATIONS AND USAGE 1

1.1 Attention-Deficit/Hyperactivity Disorder (ADHD)

STRATTERA is indicated for the treatment of Attention-Deficit/Hyperactivity Disorder (ADHD).

The efficacy of STRATTERA Capsules was established in seven clinical trials in outpatients with ADHD: four 6 to 9-week trials in pediatric patients (ages 6 to 18), two 10-week trial in adults, and one maintenance trial in pediatrics (ages 6 to 15) [see Clinical Studies (14)].

Diagnostic Considerations 1.2

A diagnosis of ADHD (DSM-IV) implies the presence of hyperactive-impulsive or inattentive symptoms that cause impairment and that were present before age 7 years. The symptoms must be persistent, must be more severe than is typically Reference in the provide of the second secon

22

23

24

1 2

FULL PRESCRIBING INFORMATION

or occupational functioning, and must be present in 2 or more settings, e.g., school (or work) and at home. The symptoms must not be
 better accounted for by another mental disorder.

The specific etiology of ADHD is unknown, and there is no single diagnostic test. Adequate diagnosis requires the use not only of medical but also of special psychological, educational, and social resources. Learning may or may not be impaired. The diagnosis must be based upon a complete history and evaluation of the patient and not solely on the presence of the required number of DSM-IV characteristics.

For the Inattentive Type, at least 6 of the following symptoms must have persisted for at least 6 months: lack of attention to details/careless mistakes, lack of sustained attention, poor listener, failure to follow through on tasks, poor organization, avoids tasks requiring sustained mental effort, loses things, easily distracted, forgetful. For the Hyperactive-Impulsive Type, at least 6 of the following symptoms must have persisted for at least 6 months: fidgeting/squirming, leaving seat, inappropriate running/climbing, difficulty with quiet activities, "on the go," excessive talking, blurting answers, can't wait turn, intrusive. For a Combined Type diagnosis, both inattentive and hyperactive-impulsive criteria must be met.

1.3 Need for Comprehensive Treatment Program

STRATTERA is indicated as an integral part of a total treatment program for ADHD that may include other measures (psychological, educational, social) for patients with this syndrome. Drug treatment may not be indicated for all patients with this syndrome. Drug treatment is not intended for use in the patient who exhibits symptoms secondary to environmental factors and/or other primary psychiatric disorders, including psychosis. Appropriate educational placement is essential in children and adolescents with this diagnosis and psychosocial intervention is often helpful. When remedial measures alone are insufficient, the decision to prescribe drug treatment medication will depend upon the physician's assessment of the chronicity and severity of the patient's symptoms.

2 DOSAGE AND ADMINISTRATION

2.1 Acute Treatment

<u>Dosing of children and adolescents up to 70 kg body weight</u> — STRATTERA should be initiated at a total daily dose of approximately 0.5 mg/kg and increased after a minimum of 3 days to a target total daily dose of approximately 1.2 mg/kg administered either as a single daily dose in the morning or as evenly divided doses in the morning and late afternoon/early evening. No additional benefit has been demonstrated for doses higher than 1.2 mg/kg/day [see Clinical Studies (14)].

The total daily dose in children and adolescents should not exceed 1.4 mg/kg or 100 mg, whichever is less.

<u>Dosing of children and adolescents over 70 kg body weight and adults</u> — STRATTERA should be initiated at a total daily dose of 40 mg and increased after a minimum of 3 days to a target total daily dose of approximately 80 mg administered either as a single daily dose in the morning or as evenly divided doses in the morning and late afternoon/early evening. After 2 to 4 additional weeks, the dose may be increased to a maximum of 100 mg in patients who have not achieved an optimal response. There are no data that support increased effectiveness at higher doses [see Clinical Studies (14)].

The maximum recommended total daily dose in children and adolescents over 70 kg and adults is 100 mg.

2.2 Maintenance/Extended Treatment

It is generally agreed that pharmacological treatment of ADHD may be needed for extended periods. The benefit of maintaining pediatric patients (ages 6-15 years) with ADHD on STRATTERA after achieving a response in a dose range of 1.2 to 1.8 mg/kg/day was demonstrated in a controlled trial. Patients assigned to STRATTERA in the maintenance phase were generally continued on the same dose used to achieve a response in the open label phase. The physician who elects to use STRATTERA for extended periods should periodically reevaluate the long-term usefulness of the drug for the individual patient *[see Clinical Studies (14.1)]*.

2.3 General Dosing Information

STRATTERA may be taken with or without food.

STRATTERA can be discontinued without being tapered.

STRATTERA capsules are not intended to be opened, they should be taken whole [see Patient Counseling Information (17.6)].

The safety of single doses over 120 mg and total daily doses above 150 mg have not been systematically evaluated.

2.4 Dosing in Specific Populations

<u>Dosing adjustment for hepatically impaired patients</u> — For those ADHD patients who have hepatic insufficiency (HI), dosage adjustment is recommended as follows: For patients with moderate HI (Child-Pugh Class B), initial and target doses should be reduced to 50% of the normal dose (for patients without HI). For patients with severe HI (Child-Pugh Class C), initial dose and target doses should be reduced to 25% of normal [see Use In Specific Populations (8.6)].

<u>Dosing adjustment for use with a strong CYP2D6 inhibitor or in patients who are known to be CYP2D6 PMs</u> — In children and adolescents up to 70 kg body weight administered strong CYP2D6 inhibitors, e.g., paroxetine, fluoxetine, and quinidine, or in patients who are known to be CYP2D6 PMs, STRATTERA should be initiated at 0.5 mg/kg/day and only increased to the usual target dose of 1.2 mg/kg/day if symptoms fail to improve after 4 weeks and the initial dose is well tolerated.

In children and adolescents over 70 kg body weight and adults administered strong CYP2D6 inhibitors, e.g., paroxetine, fluoxetine, and quinidine, STRATTERA should be initiated at 40 mg/day and only increased to the usual target dose of 80 mg/day if symptoms fail to improve after 4 weeks and the initial dose is well tolerated.

Reference ID: 2914553

83 3 DOSAGE FORMS AND STRENGTHS

84 Each capsule contains atomoxetine HCl equivalent to 10 mg (Opaque White, Opaque White), 18 mg (Gold, Opaque White), 85 25 mg (Opaque Blue, Opaque White), 40 mg (Opaque Blue, Opaque Blue), 60 mg (Opaque Blue, Gold), 80 mg (Opaque Brown, 86 Opaque White), or 100 mg (Opaque Brown, Opaque Brown) of atomoxetine.

87 4 **CONTRAINDICATIONS**

88 4.1 **Hypersensitivity**

89 STRATTERA is contraindicated in patients known to be hypersensitive to atomoxetine or other constituents of the product 90 [see Warnings and Precautions (5.7)].

91 4.2 **Monoamine Oxidase Inhibitors (MAOI)**

92 STRATTERA should not be taken with an MAOI, or within 2 weeks after discontinuing an MAOI. Treatment with an MAOI 93 should not be initiated within 2 weeks after discontinuing STRATTERA. With other drugs that affect brain monoamine 94 concentrations, there have been reports of serious, sometimes fatal reactions (including hyperthermia, rigidity, myoclonus, autonomic 95 instability with possible rapid fluctuations of vital signs, and mental status changes that include extreme agitation progressing to 96 delirium and coma) when taken in combination with an MAOI. Some cases presented with features resembling neuroleptic malignant 97 syndrome. Such reactions may occur when these drugs are given concurrently or in close proximity [see Drug Interactions (7.1)].

98 4.3 Narrow Angle Glaucoma 99

In clinical trials, STRATTERA use was associated with an increased risk of mydriasis and therefore its use is not recommended in patients with narrow angle glaucoma.

4.4 Pheochromocvtoma

100

101

102

103

104

106

118

119

120

131

Serious reactions, including elevated blood pressure and tachyarrhythmia, have been reported in patients with pheochromocytoma or a history of pheochromocytoma who received STRATTERA. Therefore, STRATTERA should not be taken by patients with pheochromocytoma or a history of pheochromocytoma.

105 5 WARNINGS AND PRECAUTIONS

5.1 **Suicidal Ideation**

107 STRATTERA increased the risk of suicidal ideation in short-term studies in children and adolescents with Attention-108 Deficit/Hyperactivity Disorder (ADHD). Pooled analyses of short-term (6 to 18 weeks) placebo-controlled trials of STRATTERA in 109 children and adolescents have revealed a greater risk of suicidal ideation early during treatment in those receiving STRATTERA. 110 There were a total of 12 trials (11 in ADHD and 1 in enuresis) involving over 2200 patients (including 1357 patients receiving 111 STRATTERA and 851 receiving placebo). The average risk of suicidal ideation in patients receiving STRATTERA was 0.4% (5/1357 112 patients), compared to none in placebo-treated patients. There was 1 suicide attempt among these approximately 2200 patients, 113 occurring in a patient treated with STRATTERA. No suicides occurred in these trials. All reactions occurred in children 12 years of 114 age or younger. All reactions occurred during the first month of treatment. It is unknown whether the risk of suicidal ideation in 115 pediatric patients extends to longer-term use. A similar analysis in adult patients treated with STRATTERA for either ADHD or major 116 depressive disorder (MDD) did not reveal an increased risk of suicidal ideation or behavior in association with the use of 117 STRATTERA.

All pediatric patients being treated with STRATTERA should be monitored appropriately and observed closely for clinical worsening, suicidality, and unusual changes in behavior, especially during the initial few months of a course of drug therapy, or at times of dose changes, either increases or decreases.

121 The following symptoms have been reported with STRATTERA: anxiety, agitation, panic attacks, insomnia, irritability, 122 123 hostility, aggressiveness, impulsivity, akathisia (psychomotor restlessness), hypomania and mania. Although a causal link between the emergence of such symptoms and the emergence of suicidal impulses has not been established, there is a concern that such symptoms 124 may represent precursors to emerging suicidality. Thus, patients being treated with STRATTERA should be observed for the emergence of such symptoms.

125 126 Consideration should be given to changing the therapeutic regimen, including possibly discontinuing the medication, in 127 128 129 patients who are experiencing emergent suicidality or symptoms that might be precursors to emerging suicidality, especially if these symptoms are severe or abrupt in onset, or were not part of the patient's presenting symptoms.

Families and caregivers of pediatric patients being treated with STRATTERA should be alerted about the need to 130 monitor patients for the emergence of agitation, irritability, unusual changes in behavior, and the other symptoms described above, as well as the emergence of suicidality, and to report such symptoms immediately to healthcare providers. Such 132 monitoring should include daily observation by families and caregivers.

5.2 Severe Liver Injury

133 134 Postmarketing reports indicate that STRATTERA can cause severe liver injury. Although no evidence of liver injury was 135 detected in clinical trials of about 6000 patients, there have been rare cases of clinically significant liver injury that were considered 136 probably or possibly related to STRATTERA use in postmarketing experience. Because of probable underreporting, it is impossible to 137 provide an accurate estimate of the true incidence of these reactions. Reported cases of liver injury occurred within 120 days of 138 initiation of atomoxetine in the majority of cases and some patients presented with markedly elevated liver enzymes [>20 X upper 139 limit of normal (ULN)], and jaundice with significantly elevated bilirubin levels (>2 X ULN), followed by recovery upon atomoxetine 140 discontinuation. In one patient, liver injury, manifested by elevated hepatic enzymes up to 40 X ULN and jaundice with bilirubin up to Reference ID: 2914553 141 12 X ULN, recurred upon rechallenge, and was followed by recovery upon drug discontinuation, providing evidence that 142 STRATTERA likely caused the liver injury. Such reactions may occur several months after therapy is started, but laboratory 143 abnormalities may continue to worsen for several weeks after drug is stopped. The patient described above recovered from his liver 144 injury, and did not require a liver transplant. However, severe liver injury due to any drug may potentially progress to acute liver 145 failure resulting in death or the need for a liver transplant.

146 STRATTERA should be discontinued in patients with jaundice or laboratory evidence of liver injury, and should not 147 be restarted. Laboratory testing to determine liver enzyme levels should be done upon the first symptom or sign of liver dysfunction 148 (e.g., pruritus, dark urine, jaundice, right upper quadrant tenderness, or unexplained "flu like" symptoms) [see Warnings and 149 Precautions (5.12); Patient Counseling Information (17.3)].

150 5.3 Serious Cardiovascular Events 151

152

153

154

155

156

157

158

159

161

164

167

168

169

170

Sudden Death and Pre-existing Structural Cardiac Abnormalities or Other Serious Heart Problems

Children and Adolescents - Sudden death has been reported in association with atomoxetine treatment at usual doses in children and adolescents with structural cardiac abnormalities or other serious heart problems. Although some serious heart problems alone carry an increased risk of sudden death, atomoxetine generally should not be used in children or adolescents with known serious structural cardiac abnormalities, cardiomyopathy, serious heart rhythm abnormalities, or other serious cardiac problems that may place them at increased vulnerability to the noradrenergic effects of atomoxetine.

Adults — Sudden deaths, stroke, and myocardial infarction have been reported in adults taking atomoxetine at usual doses for ADHD. Although the role of atomoxetine in these adult cases is also unknown, adults have a greater likelihood than children of having serious structural cardiac abnormalities, cardiomyopathy, serious heart rhythm abnormalities, coronary artery disease, or other 160 serious cardiac problems. Consideration should be given to not treating adults with clinically significant cardiac abnormalities.

Assessing Cardiovascular Status in Patients being Treated with Atomoxetine

162 Children, adolescents, or adults who are being considered for treatment with atomoxetine should have a careful history 163 (including assessment for a family history of sudden death or ventricular arrhythmia) and physical exam to assess for the presence of cardiac disease, and should receive further cardiac evaluation if findings suggest such disease (e.g., electrocardiogram and 165 echocardiogram). Patients who develop symptoms such as exertional chest pain, unexplained syncope, or other symptoms suggestive 166 of cardiac disease during atomoxetine treatment should undergo a prompt cardiac evaluation.

5.4 **Effects on Blood Pressure and Heart Rate**

STRATTERA should be used with caution in patients with hypertension, tachycardia, or cardiovascular or cerebrovascular disease because it can increase blood pressure and heart rate. Pulse and blood pressure should be measured at baseline, following STRATTERA dose increases, and periodically while on therapy.

171 In pediatric placebo-controlled trials, STRATTERA-treated subjects experienced a mean increase in heart rate of about 172 6 beats/minute compared with placebo subjects. At the final study visit before drug discontinuation, 2.5% (36/1434) of STRATTERA-173 treated subjects had heart rate increases of at least 25 beats/minute and a heart rate of at least 110 beats/minute, compared with 174 0.2% (2/850) of placebo subjects. There were 1.1% (15/1417) pediatric STRATTERA-treated subjects with a heart rate increase of at 175 least 25 beats/minute and a heart rate of at least 110 beats/minute on more than one occasion. Tachycardia was identified as an adverse 176 event for 0.3% (5/1597) of these pediatric subjects compared with 0% (0/934) of placebo subjects. The mean heart rate increase in 177 extensive metabolizer (EM) patients was 5.0 beats/minute, and in poor metabolizer (PM) patients 9.4 beats/minute.

178 STRATTERA-treated pediatric subjects experienced mean increases of about 1.6 and 2.4 mm Hg in systolic and diastolic 179 blood pressures, respectively compared with placebo. At the final study visit before drug discontinuation, 4.8% (59/1226) of 180 STRATTERA-treated pediatric subjects had high systolic blood pressure measurements compared with 3.5% (26/748) of placebo 181 subjects. High systolic blood pressures were measured on 2 or more occasions in 4.4% (54/1226) of STRATTERA-treated subjects 182 and 1.9% (14/748) of placebo subjects. At the final study visit before drug discontinuation, 4.0% (50/1262) of STRATTERA-treated 183 pediatric subjects had high diastolic blood pressure measurements compared with 1.1% (8/759) of placebo subjects. High diastolic 184 blood pressures were measured on 2 or more occasions in 3.5% (44/1262) of STRATTERA-treated subjects and 0.5% (4/759) of 185 placebo subjects. (High systolic and diastolic blood pressure measurements were defined as those exceeding the 95th percentile, 186 stratified by age, gender, and height percentile - National High Blood Pressure Education Working Group on Hypertension Control 187 in Children and Adolescents.)

188 In adult placebo-controlled trials, STRATTERA-treated subjects experienced a mean increase in heart rate of 5 beats/minute 189 compared with placebo subjects. Tachycardia was identified as an adverse event for 1.5% (8/540) of these adult atomoxetine subjects 190 compared with 0.5% (2/402) of placebo subjects.

191 STRATTERA-treated adult subjects experienced mean increases in systolic (about 2.0 mm Hg) and diastolic (about 192 1.0 mm Hg) blood pressures compared with placebo. At the final study visit before drug discontinuation, 2.2% (11/510) of 193 STRATTERA-treated adult subjects had systolic blood pressure measurements \geq 150 mm Hg compared with 1.0% (4/393) of placebo 194 subjects. At the final study visit before drug discontinuation, 0.4% (2/510) of STRATTERA-treated adult subjects had diastolic blood 195 pressure measurements \geq 100 mm Hg compared with 0.5% (2/393) of placebo subjects. No adult subject had a high systolic or 196 diastolic blood pressure detected on more than one occasion.

197 Orthostatic hypotension and syncope have been reported in patients taking STRATTERA. In child and adolescent trials, 0.2% 198 (12/5596) of STRATTERA-treated patients experienced orthostatic hypotension and 0.8% (46/5596) experienced syncope. In short-199 term child and adolescent controlled trials, 1.8% (6/340) of STRATTERA-treated patients experienced orthostatic hypotension 200compared with 0.5% (1/207) of placebo-treated patients. Syncope was not reported during short-term child and adolescent placebo201controlled ADHD trials. STRATTERA should be used with caution in any condition that may predispose patients to hypotension, or 202 conditions associated with abrupt heart rate or blood pressure changes.

203 Peripheral vascular effects — There have been spontaneous postmarketing reports of Raynaud's phenomenon (new onset and 204 exacerbation of preexisting condition).

205 5.5 **Emergence of New Psychotic or Manic Symptoms** 206 207

Treatment emergent psychotic or manic symptoms, e.g., hallucinations, delusional thinking, or mania in children and adolescents without a prior history of psychotic illness or mania can be caused by atomoxetine at usual doses. If such symptoms occur, consideration should be given to a possible causal role of atomoxetine, and discontinuation of treatment should be considered. In a pooled analysis of multiple short-term, placebo-controlled studies, such symptoms occurred in about 0.2% (4 patients with reactions 210 out of 1939 exposed to atomoxetine for several weeks at usual doses) of atomoxetine-treated patients compared to 0 out of 1056 placebo-treated patients.

5.6 **Screening Patients for Bipolar Disorder**

212 213 214 215 216 In general, particular care should be taken in treating ADHD in patients with comorbid bipolar disorder because of concern for possible induction of a mixed/manic episode in patients at risk for bipolar disorder. Whether any of the symptoms described above represent such a conversion is unknown. However, prior to initiating treatment with STRATTERA, patients with comorbid depressive symptoms should be adequately screened to determine if they are at risk for bipolar disorder; such screening should include a detailed psychiatric history, including a family history of suicide, bipolar disorder, and depression.

218 219 220 221 222 223 223 224 5.7 Aggressive Behavior or Hostility

Patients beginning treatment for ADHD should be monitored for the appearance or worsening of aggressive behavior or hostility. Aggressive behavior or hostility is often observed in children and adolescents with ADHD. In short-term controlled clinical trials, 21/1308 (1.6%) of atomoxetine patients versus 9/806 (1.1%) of placebo-treated patients spontaneously reported treatment emergent hostility-related adverse events. Although this is not conclusive evidence that STRATTERA causes aggressive behavior or hostility, these behaviors were more frequently observed in clinical trials among children and adolescents treated with STRATTERA compared to placebo (overall risk ratio of 1.33 [95% C.I. 0.67-2.64 - not statistically significant]).

5.8 Allergic Events

Although uncommon, allergic reactions, including anaphylactic reactions, angioneurotic edema, urticaria, and rash, have been reported in patients taking STRATTERA.

5.9 Effects on Urine Outflow from the Bladder

228 229 230 231 232 In adult ADHD controlled trials, the rates of urinary retention (1.7%, 9/540) and urinary hesitation (5.6%, 30/540) were increased among atomoxetine subjects compared with placebo subjects (0%, 0/402; 0.5%, 2/402, respectively). Two adult atomoxetine subjects and no placebo subjects discontinued from controlled clinical trials because of urinary retention. A complaint of urinary retention or urinary hesitancy should be considered potentially related to atomoxetine.

5.10 **Priapism**

233 234 235 236 Rare postmarketing cases of priapism, defined as painful and nonpainful penile erection lasting more than 4 hours, have been reported for pediatric and adult patients treated with STRATTERA. The erections resolved in cases in which follow-up information was available, some following discontinuation of STRATTERA. Prompt medical attention is required in the event of suspected priapism.

5.11 **Effects on Growth**

238 239 Data on the long-term effects of STRATTERA on growth come from open-label studies, and weight and height changes are 240 compared to normative population data. In general, the weight and height gain of pediatric patients treated with STRATTERA lags 240 241 242 243 244 behind that predicted by normative population data for about the first 9-12 months of treatment. Subsequently, weight gain rebounds and at about 3 years of treatment, patients treated with STRATTERA have gained 17.9 kg on average, 0.5 kg more than predicted by their baseline data. After about 12 months, gain in height stabilizes, and at 3 years, patients treated with STRATTERA have gained 19.4 cm on average, 0.4 cm less than predicted by their baseline data (see Figure 1 below).



246

237

208

209

211

217

225 226 227



Figure 1: Mean Weight and Height Percentiles Over Time for Patients With Three Years of STRATTERA Treatment

This growth pattern was generally similar regardless of pubertal status at the time of treatment initiation. Patients who were pre-pubertal at the start of treatment (girls ≤ 8 years old, boys ≤ 9 years old) gained an average of 2.1 kg and 1.2 cm less than predicted after three years. Patients who were pubertal (girls ≥ 8 to ≤ 13 years old, boys ≥ 9 to ≤ 14 years old) or late pubertal (girls ≥ 13 years old, boys ≥ 14 years old) had average weight and height gains that were close to or exceeded those predicted after three years of treatment.

Growth followed a similar pattern in both extensive and poor metabolizers (EMs, PMs). PMs treated for at least two years gained an average of 2.4 kg and 1.1 cm less than predicted, while EMs gained an average of 0.2 kg and 0.4 cm less than predicted. In short-term controlled studies (up to 9 weeks), STRATTERA-treated patients lost an average of 0.4 kg and gained an

average of 0.9 cm, compared to a gain of 1.5 kg and 1.1 cm in the placebo-treated patients. In a fixed-dose controlled trial, 1.3%, 7.1%, 19.3%, and 29.1% of patients lost at least 3.5% of their body weight in the placebo, 0.5, 1.2, and 1.8 mg/kg/day dose groups. Growth should be monitored during treatment with STRATTERA.

5.12 Laboratory Tests

Routine laboratory tests are not required.

<u>CYP2D6 metabolism</u> — Poor metabolizers (PMs) of CYP2D6 have a 10-fold higher AUC and a 5-fold higher peak concentration to a given dose of STRATTERA compared with extensive metabolizers (EMs). Approximately 7% of a Caucasian population are PMs. Laboratory tests are available to identify CYP2D6 PMs. The blood levels in PMs are similar to those attained by taking strong inhibitors of CYP2D6. The higher blood levels in PMs lead to a higher rate of some adverse effects of STRATTERA [see Adverse Reactions (6.1)].

5.13 Concomitant Use of Potent CYP2D6 Inhibitors or Use in patients who are known to be CYP2D6 PMs

Atomoxetine is primarily metabolized by the CYP2D6 pathway to 4-hydroxyatomoxetine. Dosage adjustment of STRATTERA may be necessary when coadministered with potent CYP2D6 inhibitors (e.g., paroxetine, fluoxetine, and quinidine) or when administered to CYP2D6 PMs. [See Dosage and Administration (2.4) and Drug Interactions (7.2)].

6 ADVERSE REACTIONS

6.1 Clinical Trials Experience

STRATTERA was administered to 5382 children or adolescent patients with ADHD and 1007 adults with ADHD in clinical studies. During the ADHD clinical trials, 1625 children and adolescent patients were treated for longer than 1 year and 2529 children and adolescent patients were treated for over 6 months.

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

Child and Adolescent Clinical Trials

<u>Reasons for discontinuation of treatment due to adverse reactions in child and adolescent clinical trials</u> — In acute child and adolescent placebo-controlled trials, 3.0% (48/1613) of atomoxetine subjects and 1.4% (13/945) placebo subjects discontinued for adverse reactions. For all studies, (including open-label and long-term studies), 6.3% of extensive metabolizer (EM) patients and 11.2% of poor metabolizer (PM) patients discontinued because of an adverse reaction. Among STRATTERA-treated patients, irritability (0.3%, N=5); somnolence (0.3%, N=5); aggression (0.2%, N=4); nausea (0.2%, N=4); vomiting (0.2%, N=4); abdominal pain (0.2%, N=4); constipation (0.1%, N=2); fatigue (0.1%, N=2); feeling abnormal (0.1%, N=2); and headache (0.1%, N=2) were the reasons for discontinuation reported by more than 1 patient.

<u>Seizures</u> — STRATTERA has not been systematically evaluated in pediatric patients with seizure disorder as these patients were excluded from clinical studies during the product's premarket testing. In the clinical development program, seizures were reported in 0.2% (12/5073) of children whose average age was 10 years (range 6 to 16 years). In these clinical trials, the seizure risk among poor metabolizers was 0.3% (1/293) compared to 0.2% (11/4741) for extensive metabolizers.

<u>Commonly observed adverse reactions in acute child and adolescent, placebo-controlled trials</u> — Commonly observed adverse reactions associated with the use of STRATTERA (incidence of 2% or greater) and not observed at an equivalent incidence among placebo-treated patients (STRATTERA incidence greater than placebo) are listed in Table 1. Results were similar in the BID and the QD trial except as shown in Table 2, which shows both BID and QD results for selected adverse reactions based on statistically significant Breslow-Day tests. The most commonly observed adverse reactions in patients treated with STRATTERA (incidence of 5% or greater and at least twice the incidence in placebo patients, for either BID or QD dosing) were: nausea, vomiting, fatigue, decreased appetite, abdominal pain, and somnolence (*see* Tables 1 *and* 2).

Table 1: Common Treatment–Emergent Adverse Reactions Associated with the Use of STRATTERA in Acute (up to 18 weeks) Child and Adolescent Trials

Adverse Reaction ^a	Percentage of Patients	Percentage of Patients Reporting Reaction				
	STRATTERA	Placebo				
	(N=1597)	(N=934)				
Gastrointestinal Disorders						
Abdominal pain ^b	18	10				
Vomiting	11	6				
Nausea	10	5				

General Disorders and Administration Site Conditions		
Fatigue	8	3
Irritability	6	3
Therapeutic response unexpected	2	1
Investigations		
Weight decreased	3	0
Metabolism and Nutritional Disorders		
Decreased appetite	16	4
Anorexia	3	1
Nervous System Disorders		
Headache	19	15
Somnolence ^c	11	4
Dizziness	5	2
Skin and Subcutaneous Tissue Disorders		
Rash	2	1

299 а Reactions reported by at least 2% of patients treated with atomoxetine, and greater than placebo. The following reactions did not 300 meet this criterion but were reported by more atomoxetine-treated patients than placebo-treated patients and are possibly related 301 to atomoxetine treatment: blood pressure increased, early morning awakening, flushing, mydriasis, sinus tachycardia, asthenia, 302 palpitations, mood swings, constipation. The following reactions were reported by at least 2% of patients treated with 303 atomoxetine, and equal to or less than placebo: pharyngolaryngeal pain, insomnia (insomnia includes the terms, insomnia, initial 304 insomnia, middle insomnia). The following reaction did not meet this criterion but shows a statistically significant dose 305 relationship: pruritus.

- b 306 Abdominal pain includes the terms: abdominal pain upper, abdominal pain, stomach discomfort, abdominal discomfort, epigastric 307 discomfort.
- 308 с Somnolence includes the terms: sedation, somnolence. 309

Table 2: Common Treatment-Emergent Adverse Reactions Associated with the Use of STRATTERA in Acute (up to 18 weeks) Child and Adolescent Trials

weeks) China and Adolescent Trials							
Adverse Reaction	Percentage of Patients		Percentage of Patients				
	Reporting Reac	Reporting Reaction from		orting Reaction from			
	BID Tria	als		QD Trials			
	STRATTERA	Placebo	STRATTERA	Placebo			
	(N=715)	(N=434)	(N=882)	(N=500)			
Gastrointestinal Disorders							
Abdominal pain ^a	17	13	18	7			
Vomiting	11	8	11	4			
Nausea	7	7 6		4			
Constipation ^b	2	1	1	0			
General Disorders							
Fatigue	6	4	9	2			
Psychiatric Disorders							
Mood swings ^c	2	0	1	1			

312 a Abdominal pain includes the terms: abdominal pain upper, abdominal pain, stomach discomfort, abdominal discomfort, epigastric 313 314 315 discomfort.

b Constipation didn't meet the statistical significance on Breslow-Day test but is included in the table because of pharmacologic plausibility. 316

с Mood swings didn't meet the statistical significance on Breslow-Day test at 0.05 level but p-value was <0.1 (trend).

318 319 320 321 322 323 The following adverse reactions occurred in at least 2% of PM patients and were either twice as frequent or statistically significantly more frequent in PM patients compared with EM patients: insomnia (15% of PMs, 10% of EMs); weight decreased (7% of PMs, 4% of EMs); constipation (7% of PMs, 4% of EMs); depression¹ (7% of PMs, 4% of EMs); tremor (5% of PMs, 1% of EMs); excoriation (4% of PMs, 2% of EMs); conjunctivitis (3% of PMs, 1% of EMs); syncope (3% of PMs, 1% of EMs); early morning awakening (2% of PMs, 1% of EMs); mydriasis (2% of PMs, 1% of EMs).

¹Depression includes the following terms: depression, major depression, depressive symptoms, depressed mood, dysphoria.

Adult Clinical Trials

Reasons for discontinuation of treatment due to adverse reactions in acute adult placebo-controlled trials — In the acute adult placebo-controlled trials, 11,3% (61/541) atomoxetine subjects and 3.0% (12/405) placebo subjects discontinued for adverse reactions. Reference ID: 2914553

317

324

325 326 327

328

 Among STRATTERA-treated patients, insomnia (0.9%, N=5); nausea (0.9%, N=5); chest pain (0.6%, N=3); fatigue (0.6%, N=3); anxiety (0.4%, N=2); erectile dysfunction (0.4%, N=2); mood swings (0.4%, N=2); nervousness (0.4%, N=2); palpitations (0.4%, N=2); and urinary retention (0.4%, N=2) were the reasons for discontinuation reported by more than 1 patient.

<u>Seizures</u> — STRATTERA has not been systematically evaluated in adult patients with a seizure disorder as these patients were excluded from clinical studies during the product's premarket testing. In the clinical development program, seizures were reported on 0.1% (1/748) of adult patients. In these clinical trials, no poor metabolizers (0/43) reported seizures compared to 0.1% (1/705) for extensive metabolizers.

<u>Commonly observed adverse reactions in acute adult placebo-controlled trials</u> — Commonly observed adverse reactions associated with the use of STRATTERA (incidence of 2% or greater) and not observed at an equivalent incidence among placebo-treated patients (STRATTERA incidence greater than placebo) are listed in Table 3. The most commonly observed adverse reactions in patients treated with STRATTERA (incidence of 5% or greater and at least twice the incidence in placebo patients) were: constipation, dry mouth, nausea, fatigue, decreased appetite, insomnia, erectile dysfunction, urinary hesitation and/or urinary retention and/or dysuria, dysmenorrhea, and hot flush (*see* Table 3).

 Table 3: Common Treatment-Emergent Adverse Reactions Associated with the Use of STRATTERA in Acute (up to 25 weeks) Adult Trials

Adverse Reaction ^a	Percentage of Patients Reporting Reaction			
	STRATTERA	Placebo		
System Organ Class/Adverse Reaction	(N=540)	(N=402)		
Cardiac Disorders				
Palpitations	3	1		
Gastrointestinal Disorders				
Dry mouth	21	7		
Nausea	21	5		
Constipation	9	3		
Abdominal pain ^b	7	5		
Dyspepsia	4	2		
Vomiting	3	2		
General Disorders and Administration Site Conditions				
Fatigue	9	4		
Chills	3	1		
Therapeutic response unexpected	3	1		
Feeling jittery	2	0		
Investigations				
Weight decreased	2	1		
Metabolism and Nutritional Disorders				
Decreased appetite	11	2		
Nervous System Disorders				
Dizziness	6	4		
Somnolence ^c	4	3		
Paraesthesia	3	1		
Sinus headache	3	1		
Tremor	2	0		
Psychiatric Disorders		-		
Insomnia ^d	15	7		
Libido decreased	4	2		
Sleep disorder	3	1		
Renal and Urinary Disorders				
Urinary hesitation and/or urinary retention	7	1		
Dysuria	3	0		
Reproductive System and Breast Disorders				
Erectile dysfunction ^e	9	1		
Dysmenorrhea ^f	6	2		
Ejaculation delayed ^e and/or ejaculation disorder ^e	3	1		
Menstruation irregular ^f	2	0		
Skin and Subcutaneous Tissue Disorders		0		
Hyperhidrosis	4	1		
Rash	2	1		
Vascular Disorders Reference ID: 2914553		1		

				10
	Η	lot flush	8	1
345	a	Reactions reported by at least 2% of patients treated with atomoxetine, and great	ater than placebo. The foll	owing reactions did not

- 346 meet this criterion but were reported by more atomoxetine-treated patients than placebo-treated patients and are possibly related 347 to atomoxetine treatment: early morning awakening, peripheral coldness, tachycardia, prostatitis, testicular pain, and orgasm 348 abnormal. The following reactions were reported by at least 2% of patients treated with atomoxetine, and equal to or less than 349 placebo: headache, pharyngolaryngeal pain, irritability.
- b 350 Abdominal pain includes the terms: abdominal pain upper, abdominal pain, stomach discomfort, abdominal discomfort, epigastric 351 discomfort.
- 352 Somnolence includes the terms: sedation, somnolence.
- d 353 Insomnia includes the terms: insomnia, initial insomnia, middle insomnia.
- 354 e Based on total number of males (STRATTERA, N=326; placebo, N=260).
- 355 Based on total number of females (STRATTERA, N=214; placebo, N=142). 356

357 <u>Male and female sexual dysfunction</u> — Atomoxetine appears to impair sexual function in some patients. Changes in sexual 358 desire, sexual performance, and sexual satisfaction are not well assessed in most clinical trials because they need special attention and 359 because patients and physicians may be reluctant to discuss them. Accordingly, estimates of the incidence of untoward sexual 360 experience and performance cited in product labeling are likely to underestimate the actual incidence. Table 3 above displays the 361 incidence of sexual side effects reported by at least 2% of adult patients taking STRATTERA in placebo-controlled trials.

362 There are no adequate and well-controlled studies examining sexual dysfunction with STRATTERA treatment. While it is 363 difficult to know the precise risk of sexual dysfunction associated with the use of STRATTERA, physicians should routinely inquire 364 about such possible side effects.

365 6.2 **Postmarketing Spontaneous Reports**

366 The following adverse reactions have been identified during post approval use of STRATTERA. Unless otherwise specified, 367 these adverse reactions have occurred in adults and children and adolescents. Because these reactions are reported voluntarily from a 368 population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug 369 exposure 370

Cardiovascular system - QT prolongation, syncope.

General disorders and administration site conditions - Lethargy.

Nervous system disorders — Hypoaesthesia; paraesthesia in children and adolescents; sensory disturbances; tics.

<u>Psychiatric disorders</u> — Depression and depressed mood; anxiety.

374 Seizures — Seizures have been reported in the postmarketing period. The postmarketing seizure cases include patients with 375 pre-existing seizure disorders and those with identified risk factors for seizures, as well as patients with neither a history of nor 376 identified risk factors for seizures. The exact relationship between STRATTERA and seizures is difficult to evaluate due to 377 uncertainty about the background risk of seizures in ADHD patients. 378

Skin and subcutaneous tissue disorders - Hyperhidrosis.

379 Urogenital system — Male pelvic pain; urinary hesitation in children and adolescents; urinary retention in children and 380 adolescents.

381 7 DRUG INTERACTIONS

371

372

373

382 7.1 **Monoamine Oxidase Inhibitors**

383 With other drugs that affect brain monoamine concentrations, there have been reports of serious, sometimes fatal reactions 384 (including hyperthermia, rigidity, myoclonus, autonomic instability with possible rapid fluctuations of vital signs, and mental status 385 changes that include extreme agitation progressing to delirium and coma) when taken in combination with an MAOI. Some cases 386 presented with features resembling neuroleptic malignant syndrome. Such reactions may occur when these drugs are given 387 concurrently or in close proximity [see Contraindications (4.2)].

388 7.2 Effect of CYP2D6 Inhibitors on Atomoxetine

389 In extensive metabolizers (EMs), inhibitors of CYP2D6 (e.g., paroxetine, fluoxetine, and quinidine) increase atomoxetine 390 steady-state plasma concentrations to exposures similar to those observed in poor metabolizers (PMs). In EM individuals treated with 391 paroxetine or fluoxetine, the AUC of atomoxetine is approximately 6- to 8-fold and C_{ssmax} is about 3- to 4-fold greater than 392 atomoxetine alone.

393 In vitro studies suggest that coadministration of cytochrome P450 inhibitors to PMs will not increase the plasma 394 concentrations of atomoxetine.

395 7.3 **Pressor Agents**

396 Because of possible effects on blood pressure, STRATTERA should be used cautiously with pressor agents (e.g., dopamine, 397 dobutamine).

398 7.4 Albuterol

399 STRATTERA should be administered with caution to patients being treated with systemically-administered (oral or

- 400 intravenous) albuterol (or other beta₂ agonists) because the action of albuterol on the cardiovascular system can be potentiated
- 401 resulting in increases in heart rate and blood pressure. Albuterol (600 mcg iv over 2 hours) induced increases in heart rate and blood Reference ID: 2914553

402 pressure. These effects were potentiated by atomoxetine (60 mg BID for 5 days) and were most marked after the initial 403 coadministration of albuterol and atomoxetine. However, these effects on heart rate and blood pressure were not seen in another study 404 after the coadministration with inhaled dose of albuterol (200-800 mcg) and atomoxetine (80 mg QD for 5 days) in 21 healthy Asian 405 subjects who were excluded for poor metabolizer status.

406 7.5 Effect of Atomoxetine on P450 Enzymes

407 Atomoxetine did not cause clinically important inhibition or induction of cytochrome P450 enzymes, including CYP1A2, 408 CYP3A, CYP2D6, and CYP2C9.

409 CYP3A Substrate (e.g., Midazolam) - Coadministration of STRATTERA (60 mg BID for 12 days) with midazolam, a model 410 compound for CYP3A4 metabolized drugs (single dose of 5 mg), resulted in 15% increase in AUC of midazolam. No dose adjustment 411 is recommended for drugs metabolized by CYP3A.

412 CYP2D6 Substrate (e.g., Desipramine) — Coadministration of STRATTERA (40 or 60 mg BID for 13 days) with 413 desipramine, a model compound for CYP2D6 metabolized drugs (single dose of 50 mg), did not alter the pharmacokinetics of 414 desipramine. No dose adjustment is recommended for drugs metabolized by CYP2D6.

415 7.6 Alcohol 416

419

Consumption of ethanol with STRATTERA did not change the intoxicating effects of ethanol.

417 7.7 Methylphenidate 418

Coadministration of methylphenidate with STRATTERA did not increase cardiovascular effects beyond those seen with methylphenidate alone.

420 7.8 **Drugs Highly Bound to Plasma Protein**

421 In vitro drug-displacement studies were conducted with atomoxetine and other highly-bound drugs at therapeutic 422 concentrations. Atomoxetine did not affect the binding of warfarin, acetylsalicylic acid, phenytoin, or diazepam to human albumin. 423 Similarly, these compounds did not affect the binding of atomoxetine to human albumin.

424 7.9 **Drugs that Affect Gastric pH**

425 Drugs that elevate gastric pH (magnesium hydroxide/aluminum hydroxide, omeprazole) had no effect on STRATTERA 426 bioavailability.

427 8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

428 429 <u>Pregnancy Category C</u> — Pregnant rabbits were treated with up to 100 mg/kg/day of atomoxetine by gavage throughout the 430 period of organogenesis. At this dose, in 1 of 3 studies, a decrease in live fetuses and an increase in early resorptions was observed. 431 Slight increases in the incidences of atypical origin of carotid artery and absent subclavian artery were observed. These findings were 432 observed at doses that caused slight maternal toxicity. The no-effect dose for these findings was 30 mg/kg/day. The 100 mg/kg dose is 433 approximately 23 times the maximum human dose on a mg/m² basis; plasma levels (AUC) of atomoxetine at this dose in rabbits are 434 estimated to be 3.3 times (extensive metabolizers) or 0.4 times (poor metabolizers) those in humans receiving the maximum human 435 dose.

436 Rats were treated with up to approximately 50 mg/kg/day of atomoxetine (approximately 6 times the maximum human dose 437 on a mg/m^2 basis) in the diet from 2 weeks (females) or 10 weeks (males) prior to mating through the periods of organogenesis and 438 lactation. In 1 of 2 studies, decreases in pup weight and pup survival were observed. The decreased pup survival was also seen at 439 25 mg/kg (but not at 13 mg/kg). In a study in which rats were treated with atomoxetine in the diet from 2 weeks (females) or 10 weeks 440 (males) prior to mating throughout the period of organogenesis, a decrease in fetal weight (female only) and an increase in the 441 incidence of incomplete ossification of the vertebral arch in fetuses were observed at 40 mg/kg/day (approximately 5 times the 442 maximum human dose on a mg/m^2 basis) but not at 20 mg/kg/day.

443 No adverse fetal effects were seen when pregnant rats were treated with up to 150 mg/kg/day (approximately 17 times the 444 maximum human dose on a mg/m^2 basis) by gavage throughout the period of organogenesis.

445 No adequate and well-controlled studies have been conducted in pregnant women. STRATTERA should not be used during 446 pregnancy unless the potential benefit justifies the potential risk to the fetus.

447 8.2 Labor and Delivery 448

Parturition in rats was not affected by atomoxetine. The effect of STRATTERA on labor and delivery in humans is unknown.

449 8.3 **Nursing Mothers**

450 Atomoxetine and/or its metabolites were excreted in the milk of rats. It is not known if atomoxetine is excreted in human milk. 451 Caution should be exercised if STRATTERA is administered to a nursing woman.

8.4 **Pediatric Use**

452

453 Anyone considering the use of STRATTERA in a child or adolescent must balance the potential risks with the clinical need 454 [see Boxed Warning and Warnings and Precautions (5.1)].

455 The pharmacokinetics of atomoxetine in children and adolescents are similar to those in adults. The safety, efficacy, and 456 pharmacokinetics of STRATTERA in pediatric patients less than 6 years of age have not been evaluated.

457 A study was conducted in young rats to evaluate the effects of atomoxetine on growth and neurobehavioral and sexual 458 development. Rats were treated with 1, 10, or 50 mg/kg/day (approximately 0.2, 2, and 8 times, respectively, the maximum human dose on a mg/m² basis) of atomoxetine given by gavage from the early postnatal period (Day 10 of age) through adulthood. Slight Reference ID: 2914553 459

460 delays in onset of vaginal patency (all doses) and preputial separation (10 and 50 mg/kg), slight decreases in epididymal weight and 461 sperm number (10 and 50 mg/kg), and a slight decrease in corpora lutea (50 mg/kg) were seen, but there were no effects on fertility or 462 reproductive performance. A slight delay in onset of incisor eruption was seen at 50 mg/kg. A slight increase in motor activity was 463 seen on Day 15 (males at 10 and 50 mg/kg and females at 50 mg/kg) and on Day 30 (females at 50 mg/kg) but not on Day 60 of age. 464 There were no effects on learning and memory tests. The significance of these findings to humans is unknown.

465 8.5 Geriatric Use 466

The safety, efficacy and pharmacokinetics of STRATTERA in geriatric patients have not been evaluated.

467 8.6 **Hepatic Insufficiency**

468 Atomoxetine exposure (AUC) is increased, compared with normal subjects, in EM subjects with moderate (Child-Pugh 469 Class B) (2-fold increase) and severe (Child-Pugh Class C) (4-fold increase) hepatic insufficiency. Dosage adjustment is 470 recommended for patients with moderate or severe hepatic insufficiency [see Dosage and Administration (2.3)].

471 87 **Renal Insufficiency**

472 EM subjects with end stage renal disease had higher systemic exposure to atomoxetine than healthy subjects (about a 473 65% increase), but there was no difference when exposure was corrected for mg/kg dose. STRATTERA can therefore be administered 474 to ADHD patients with end stage renal disease or lesser degrees of renal insufficiency using the normal dosing regimen.

475 8.8 Gender 476

Gender did not influence atomoxetine disposition.

477 8.9 Ethnic Origin

478 Ethnic origin did not influence atomoxetine disposition (except that PMs are more common in Caucasians).

479 8.10 **Patients with Concomitant Illness**

480 Tics in patients with ADHD and comorbid Tourette's Disorder — Atomoxetine administered in a flexible dose range of 0.5 to 481 1.5 mg/kg/day (mean dose of 1.3 mg/kg/day) and placebo were compared in 148 randomized pediatric (age 7-17 years) subjects with a 482 DSM-IV diagnosis of ADHD and comorbid tic disorder in an 18 week, double-blind, placebo-controlled study in which the majority 483 (80%) enrolled in this trial with Tourette's Disorder (Tourette's Disorder: 116 subjects; chronic motor tic disorder: 29 subjects). A 484 non-inferiority analysis revealed that STRATTERA did not worsen tics in these patients as determined by the Yale Global Tic 485 Severity Scale Total Score (YGTSS). Out of 148 patients who entered the acute treatment phase, 103 (69.6%) patients discontinued 486 the study. The primary reason for discontinuation in both the atomoxetine (38 of 76 patients, 50.0%) and placebo (45 of 72 patients, 487 62.5%) treatment groups was identified as lack of efficacy with most of the patients discontinuing at Week 12. This was the first visit 488 where patients with a CGI-S≥4 could also meet the criteria for "clinical non-responder" (CGI-S remained the same or increased from 489 study baseline) and be eligible to enter an open-label extension study with atomoxetine. There have been postmarketing reports of tics 490 [see Adverse Reactions (6.2)].

491 Anxiety in patients with ADHD and comorbid Anxiety Disorders - In two post-marketing, double-blind, placebo-controlled 492 trials, it has been demonstrated that treating patients with ADHD and comorbid anxiety disorders with STRATTERA does not worsen 493 their anxiety.

494 In a 12-week double-blind, placebo-controlled trial, 176 patients, aged 8-17, who met DSM-IV criteria for ADHD and at least 495 one of the anxiety disorders of separation anxiety disorder, generalized anxiety disorder or social phobia were randomized. Following 496 a 2-week double-blind placebo lead-in, STRATTERA was initiated at 0.8 mg/kg/day with increase to a target dose of 1.2 mg/kg/day 497 (median dose 1.30 mg/kg/day +/- 0.29 mg/kg/day). STRATTERA did not worsen anxiety in these patients as determined by the 498 Pediatric Anxiety Rating Scale (PARS). Of the 158 patients who completed the double-blind placebo lead-in, 26 (16%) patients 499 discontinued the study.

500 In a separate 16-week, double-blind, placebo-controlled trial, 442 patients aged 18-65, who met DSM-IV criteria for adult 501 ADHD and social anxiety disorder (23% of whom also had Generalized Anxiety Disorder) were randomized. Following a 2-week 502 double-blind placebo lead-in, STRATTERA was initiated at 40 mg/day to a maximum dose of 100 mg/day (mean daily dose 83 503 mg/day +/- 19.5 mg/day). STRATTERA did not worsen anxiety in these patients as determined by the Liebowitz Social Anxiety Scale 504 (LSAS). Of the 436 patients who completed the double-blind placebo lead-in, 172 (39.4%) patients discontinued the study. There have 505 been postmarketing reports of anxiety [see Adverse Reactions (6.2)].

506 DRUG ABUSE AND DEPENDENCE

507 9.1 **Controlled Substance**

508 STRATTERA is not a controlled substance.

509 9.2 Abuse

517

510 In a randomized, double-blind, placebo-controlled, abuse-potential study in adults comparing effects of STRATTERA and 511 placebo, STRATTERA was not associated with a pattern of response that suggested stimulant or euphoriant properties.

512 9.3 Dependence

513 Clinical study data in over 2000 children, adolescents, and adults with ADHD and over 1200 adults with depression showed 514 only isolated incidents of drug diversion or inappropriate self-administration associated with STRATTERA. There was no evidence of 515 symptom rebound or adverse reactions suggesting a drug-discontinuation or withdrawal syndrome. 516

Animal Experience — Drug discrimination studies in rats and monkeys showed inconsistent stimulus generalization between

atomoxetine and cocaine Reference ID: 2914553

13

518 10 **OVERDOSAGE**

519 10.1 **Human Experience**

520 521 522 523 524 No fatal overdoses occurred in clinical trials. There is limited clinical trial experience with STRATTERA overdose. During postmarketing, there have been fatalities reported involving a mixed ingestion overdose of STRATTERA and at least one other drug. There have been no reports of death involving overdose of STRATTERA alone, including intentional overdoses at amounts up to 1400 mg. In some cases of overdose involving STRATTERA, seizures have been reported. The most commonly reported symptoms accompanying acute and chronic overdoses of STRATTERA were gastrointestinal symptoms, somnolence, dizziness, tremor, and 525 526 527 abnormal behavior. Hyperactivity and agitation have also been reported. Signs and symptoms consistent with mild to moderate sympathetic nervous system activation (e.g., tachycardia, blood pressure increased, mydriasis, dry mouth) have also been observed. Most events were mild to moderate. Less commonly, there have been reports of QT prolongation and mental changes, including 528 disorientation and hallucinations

10.2 **Management of Overdose**

529 530 Consult with a Certified Poison Control Center for up to date guidance and advice. Because atomoxetine is highly protein-531 bound, dialysis is not likely to be useful in the treatment of overdose.

DESCRIPTION 11

532 533 STRATTERA® (atomoxetine HCl) is a selective norepinephrine reuptake inhibitor. Atomoxetine HCl is the R(-) isomer as 534 determined by x-ray diffraction. The chemical designation is (-)-N-Methyl-3-phenyl-3-(o-tolyloxy)-propylamine hydrochloride. The 535 molecular formula is $C_{17}H_{21}NO$ •HCl, which corresponds to a molecular weight of 291.82. The chemical structure is:

536 537 Atomoxetine HCl is a white to practically white solid, which has a solubility of 27.8 mg/mL in water. 538 STRATTERA capsules are intended for oral administration only. 539 Each capsule contains atomoxetine HCl equivalent to 10, 18, 25, 40, 60, 80, or 100 mg of atomoxetine. The capsules also 540 541 542 contain pregelatinized starch and dimethicone. The capsule shells contain gelatin, sodium lauryl sulfate, and other inactive ingredients. The capsule shells also contain one or more of the following: FD&C Blue No. 2, synthetic yellow iron oxide, titanium dioxide, red iron oxide. The capsules are imprinted with edible black

543 ink.

544 12 CLINICAL PHARMACOLOGY

545 12.1 **Mechanism of Action**

546 547 The precise mechanism by which atomoxetine produces its therapeutic effects in Attention-Deficit/Hyperactivity Disorder (ADHD) is unknown, but is thought to be related to selective inhibition of the pre-synaptic norepinephrine transporter, as 548 determined in ex vivo uptake and neurotransmitter depletion studies.

12.2 **Pharmacodynamics**

549 550 551 552 An exposure-response analysis encompassing doses of atomoxetine (0.5, 1.2 or 1.8 mg/kg/day) or placebo demonstrated atomoxetine exposure correlates with efficacy as measured by the Attention-Deficit/Hyperactivity Disorder Rating Scale-IV-Parent Version: Investigator administered and scored. The exposure-efficacy relationship was similar to that observed between dose and 553 efficacy with median exposures at the two highest doses resulting in near maximal changes from baseline [see Clinical Studies 554 (14.2)].

555 12.3 **Pharmacokinetics**

556 557 558 Atomoxetine is well-absorbed after oral administration and is minimally affected by food. It is eliminated primarily by oxidative metabolism through the cytochrome P450 2D6 (CYP2D6) enzymatic pathway and subsequent glucuronidation. Atomoxetine has a half-life of about 5 hours. A fraction of the population (about 7% of Caucasians and 2% of African Americans) are poor 559 metabolizers (PMs) of CYP2D6 metabolized drugs. These individuals have reduced activity in this pathway resulting in 10-fold higher 560 AUCs, 5-fold higher peak plasma concentrations, and slower elimination (plasma half-life of about 24 hours) of atomoxetine 561 compared with people with normal activity [extensive metabolizers (EMs)]. Drugs that inhibit CYP2D6, such as fluoxetine, 562 paroxetine, and quinidine, cause similar increases in exposure.

563 The pharmacokinetics of atomoxetine have been evaluated in more than 400 children and adolescents in selected clinical 564 trials, primarily using population pharmacokinetic studies. Single-dose and steady-state individual pharmacokinetic data were also 565 obtained in children, adolescents, and adults. When doses were normalized to a mg/kg basis, similar half-life, C_{max}, and AUC values



566 were observed in children, adolescents, and adults. Clearance and volume of distribution after adjustment for body weight were also 567 similar. 568

Absorption and distribution — Atomoxetine is rapidly absorbed after oral administration, with absolute bioavailability of about 63% in EMs and 94% in PMs. Maximal plasma concentrations (C_{max}) are reached approximately 1 to 2 hours after dosing.

570 STRATTERA can be administered with or without food. Administration of STRATTERA with a standard high-fat meal in 571 572 adults did not affect the extent of oral absorption of atomoxetine (AUC), but did decrease the rate of absorption, resulting in a 37% lower C_{max}, and delayed T_{max} by 3 hours. In clinical trials with children and adolescents, administration of STRATTERA with food 573 resulted in a 9% lower Cmax. 574 575

The steady-state volume of distribution after intravenous administration is 0.85 L/kg indicating that atomoxetine distributes primarily into total body water. Volume of distribution is similar across the patient weight range after normalizing for body weight. At therapeutic concentrations, 98% of atomoxetine in plasma is bound to protein, primarily albumin.

576 577 Metabolism and elimination — Atomoxetine is metabolized primarily through the CYP2D6 enzymatic pathway. People with 578 579 reduced activity in this pathway (PMs) have higher plasma concentrations of atomoxetine compared with people with normal activity (EMs). For PMs, AUC of atomoxetine is approximately 10-fold and C_{ss,max} is about 5-fold greater than EMs. Laboratory tests are 580 581 available to identify CYP2D6 PMs. Coadministration of STRATTERA with potent inhibitors of CYP2D6, such as fluoxetine, paroxetine, or quinidine, results in a substantial increase in atomoxetine plasma exposure, and dosing adjustment may be necessary [see Warnings and Precautions (5.13)]. Atomoxetine did not inhibit or induce the CYP2D6 pathway.

582 583 584 The major oxidative metabolite formed, regardless of CYP2D6 status, is 4-hydroxyatomoxetine, which is glucuronidated. 4-Hydroxyatomoxetine is equipotent to atomoxetine as an inhibitor of the norepinephrine transporter but circulates in plasma at much 585 lower concentrations (1% of atomoxetine concentration in EMs and 0.1% of atomoxetine concentration in PMs).

586 4-Hydroxyatomoxetine is primarily formed by CYP2D6, but in PMs, 4-hydroxyatomoxetine is formed at a slower rate by several 587 other cytochrome P450 enzymes. N-Desmethylatomoxetine is formed by CYP2C19 and other cytochrome P450 enzymes, but has 588 589 590 substantially less pharmacological activity compared with atomoxetine and circulates in plasma at lower concentrations (5% of atomoxetine concentration in EMs and 45% of atomoxetine concentration in PMs).

Mean apparent plasma clearance of atomoxetine after oral administration in adult EMs is 0.35 L/hr/kg and the mean half-life 591 is 5.2 hours. Following oral administration of atomoxetine to PMs, mean apparent plasma clearance is 0.03 L/hr/kg and mean half-life 592 is 21.6 hours. For PMs, AUC of atomoxetine is approximately 10-fold and C_{ss.max} is about 5-fold greater than EMs. The elimination 593 half-life of 4-hydroxyatomoxetine is similar to that of N-desmethylatomoxetine (6 to 8 hours) in EM subjects, while the half-life of N-594 desmethylatomoxetine is much longer in PM subjects (34 to 40 hours).

595 Atomoxetine is excreted primarily as 4-hydroxyatomoxetine-O-glucuronide, mainly in the urine (greater than 80% of the 596 dose) and to a lesser extent in the feces (less than 17% of the dose). Only a small fraction of the STRATTERA dose is excreted as 597 unchanged atomoxetine (less than 3% of the dose), indicating extensive biotransformation. 598

[See Use In Specific Populations (8.4, 8.5, 8.6, 8.7, 8.8, 8.9)].

599 13 NONCLINICAL TOXICOLOGY

569

600 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

601 Carcinogenesis — Atomoxetine HCl was not carcinogenic in rats and mice when given in the diet for 2 years at time-weighted 602 average doses up to 47 and 458 mg/kg/day, respectively. The highest dose used in rats is approximately 8 and 5 times the maximum 603 human dose in children and adults, respectively, on a mg/m² basis. Plasma levels (AUC) of atomoxetine at this dose in rats are 604 estimated to be 1.8 times (extensive metabolizers) or 0.2 times (poor metabolizers) those in humans receiving the maximum human 605 dose. The highest dose used in mice is approximately 39 and 26 times the maximum human dose in children and adults, respectively, 606 on a mg/m^2 basis.

607 <u>Mutagenesis</u> — Atomoxetine HCl was negative in a battery of genotoxicity studies that included a reverse point mutation 608 assay (Ames Test), an in vitro mouse lymphoma assay, a chromosomal aberration test in Chinese hamster ovary cells, an unscheduled 609 DNA synthesis test in rat hepatocytes, and an in vivo micronucleus test in mice. However, there was a slight increase in the percentage 610 of Chinese hamster ovary cells with diplochromosomes, suggesting endoreduplication (numerical aberration).

611 The metabolite N-desmethylatomoxetine HCl was negative in the Ames Test, mouse lymphoma assay, and unscheduled DNA 612 synthesis test.

613 Impairment of fertility — Atomoxetine HCl did not impair fertility in rats when given in the diet at doses of up to 614 57 mg/kg/day, which is approximately 6 times the maximum human dose on a mg/m² basis.

615 14 **CLINICAL STUDIES**

616 14.1 **ADHD studies in Children and Adolescents**

617 Acute Studies — The effectiveness of STRATTERA in the treatment of ADHD was established in 4 randomized, double-618 blind, placebo-controlled studies of pediatric patients (ages 6 to 18). Approximately one-third of the patients met DSM-IV criteria for 619 inattentive subtype and two-thirds met criteria for both inattentive and hyperactive/impulsive subtypes.

620 Signs and symptoms of ADHD were evaluated by a comparison of mean change from baseline to endpoint for STRATTERA-621 and placebo-treated patients using an intent-to-treat analysis of the primary outcome measure, the investigator administered and scored 622 ADHD Rating Scale-IV-Parent Version (ADHDRS) total score including hyperactive/impulsive and inattentive subscales. Each item 623 on the ADHDRS maps directly to one symptom criterion for ADHD in the DSM-IV.

In Study 1, an 8-week randomized, double-blind, placebo-controlled, dose-response, acute treatment study of children and adolescents aged 8 to 18 (N=297), patients received either a fixed dose of STRATTERA (0.5, 1.2, or 1.8 mg/kg/day) or placebo. STRATTERA was administered as a divided dose in the early morning and late afternoon/early evening. At the 2 higher doses, improvements in ADHD symptoms were statistically significantly superior in STRATTERA-treated patients compared with placebotreated patients as measured on the ADHDRS scale. The 1.8 mg/kg/day STRATTERA dose did not provide any additional benefit over that observed with the 1.2 mg/kg/day dose. The 0.5 mg/kg/day STRATTERA dose was not superior to placebo.

In Study 2, a 6-week randomized, double-blind, placebo-controlled, acute treatment study of children and adolescents aged 6 to 16 (N=171), patients received either STRATTERA or placebo. STRATTERA was administered as a single dose in the early morning and titrated on a weight-adjusted basis according to clinical response, up to a maximum dose of 1.5 mg/kg/day. The mean final dose of STRATTERA was approximately 1.3 mg/kg/day. ADHD symptoms were statistically significantly improved on STRATTERA compared with placebo, as measured on the ADHDRS scale. This study shows that STRATTERA is effective when administered once daily in the morning.

In 2 identical, 9-week, acute, randomized, double-blind, placebo-controlled studies of children aged 7 to 13 (Study 3, N=147;
Study 4, N=144), STRATTERA and methylphenidate were compared with placebo. STRATTERA was administered as a divided dose in the early morning and late afternoon (after school) and titrated on a weight-adjusted basis according to clinical response. The maximum recommended STRATTERA dose was 2.0 mg/kg/day. The mean final dose of STRATTERA for both studies was approximately 1.6 mg/kg/day. In both studies, ADHD symptoms statistically significantly improved more on STRATTERA than on placebo, as measured on the ADHDRS scale.

Examination of population subsets based on gender and age (<12 and 12 to 17) did not reveal any differential responsiveness on the basis of these subgroupings. There was not sufficient exposure of ethnic groups other than Caucasian to allow exploration of differences in these subgroups.

645 Maintenance Study — The effectiveness of STRATTERA in the maintenance treatment of ADHD was established in an 646 outpatient study of children and adolescents (ages 6-15 years). Patients meeting DSM-IV criteria for ADHD who showed continuous 647 response for about 4 weeks during an initial 10 week open-label treatment phase with STRATTERA (1.2 to 1.8 mg/kg/day) were 648 randomized to continuation of their current dose of STRATTERA (N=292) or to placebo (N=124) under double-blind treatment for 649 observation of relapse. Response during the open-label phase was defined as CGI-ADHD-S score ≤2 and a reduction of at least 25% 650 from baseline in ADHDRS-IV-Parent: Inv total score. Patients who were assigned to STRATTERA and showed continuous response 651 for approximately 8 months during the first double-blind treatment phase were again randomized to continuation of their current dose 652 of STRATTERA (N=81) or to placebo (N=82) under double-blind treatment for observation of relapse. Relapse during the double-653 blind phase was defined as CGI-ADHD-S score increases of at least 2 from the end of open-label phase and ADHDRS-IV-Parent:Inv 654 total score returns to \geq 90% of study entry score for 2 consecutive visits. In both double-blind phases, patients receiving continued 655 STRATTERA treatment experienced significantly longer times to relapse than those receiving placebo.

656 14.2 ADHD studies in Adults

The effectiveness of STRATTERA in the treatment of ADHD was established in 2 randomized, double-blind, placebocontrolled clinical studies of adult patients, age 18 and older, who met DSM-IV criteria for ADHD.

Signs and symptoms of ADHD were evaluated using the investigator-administered Conners Adult ADHD Rating Scale
 Screening Version (CAARS), a 30-item scale. The primary effectiveness measure was the 18-item Total ADHD Symptom score (the sum of the inattentive and hyperactivity/impulsivity subscales from the CAARS) evaluated by a comparison of mean change from
 baseline to endpoint using an intent-to-treat analysis.

In 2 identical, 10-week, randomized, double-blind, placebo-controlled acute treatment studies (Study 5, N=280; Study 6, N=256), patients received either STRATTERA or placebo. STRATTERA was administered as a divided dose in the early morning and late afternoon/early evening and titrated according to clinical response in a range of 60 to 120 mg/day. The mean final dose of STRATTERA for both studies was approximately 95 mg/day. In both studies, ADHD symptoms were statistically significantly improved on STRATTERA, as measured on the ADHD Symptom score from the CAARS scale.

668Examination of population subsets based on gender and age (<42 and \geq 42) did not reveal any differential responsiveness on669the basis of these subgroupings. There was not sufficient exposure of ethnic groups other than Caucasian to allow exploration of670differences in these subgroups.

671 16 HOW SUPPLIED/STORAGE AND HANDLING

16.1 How Supplied

672

STRATTERA®							
Capsules	10 mg ^a	18 mg ^a	25 mg ^a	40 mg ^a	60 mg ^a	80 mg ^a	100 mg ^a
Color	Opaque	Gold,	Opaque	Opaque	Opaque	Opaque	Opaque
	White,	Opaque	Blue,	Blue,	Blue,	Brown,	Brown,
	Opaque	White	Opaque	Opaque Blue	Gold	Opaque	Opaque
	White		White			White	Brown
Identification	LILLY 3227	LILLY 3238	LILLY 3228	LILLY 3229	LILLY 3239	LILLY 3250	LILLY 3251
	10 mg	18 mg	25 mg	40 mg	60 mg	80 mg	100 mg
NDC Codes:							
Bottles of 30	0002-3227-	0002-3238-	0002-3228-	0002-3229-	0002-3239-	0002-3250-	0002-3251-
Reference ID: 2914553							

										10
			30	30	30	30	30	30	30	
672	a	A								

16

673 ^a Atomoxetine base equivalent.

67416.2Storage and Handling675Store at 25°C (77°F); ex

Store at 25°C (77°F); excursions permitted to 15° to 30°C (59° to 86°F) [see USP Controlled Room Temperature].

676 17 PATIENT COUNSELING INFORMATION

677 *See FDA-approved Medication Guide.*

678 17.1 General Information

679 Physicians should instruct their patients to read the Medication Guide before starting therapy with STRATTERA and to reread 680 it each time the prescription is renewed.

Prescribers or other health professionals should inform patients, their families, and their caregivers about the benefits and risks associated with treatment with STRATTERA and should counsel them in its appropriate use. The prescriber or health professional should instruct patients, their families, and their caregivers to read the Medication Guide and should assist them in understanding its contents. Patients should be given the opportunity to discuss the contents of the Medication Guide and to obtain answers to any questions they may have.

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

687 17.2 Suicide Risk

686

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

695 17.3 Severe Liver Injury

Patients initiating STRATTERA should be cautioned that severe liver injury may develop. Patients should be instructed to contact their physician immediately should they develop pruritus, dark urine, jaundice, right upper quadrant tenderness, or unexplained "flu-like" symptoms [see Warnings and Precautions (5.2)].

69917.4Aggression or Hostility700Patients should be instruct

Patients should be instructed to call their doctor as soon as possible should they notice an increase in aggression or hostility.

701 17.5 Priapism

Rare postmarketing cases of priapism, defined as painful and nonpainful penile erection lasting more than 4 hours, have been
 reported for pediatric and adult patients treated with STRATTERA. The parents or guardians of pediatric patients taking
 STRATTERA and adult patients taking STRATTERA should be instructed that priapism requires prompt medical attention.

705 17.6 Ocular Irritant

706STRATTERA is an ocular irritant. STRATTERA capsules are not intended to be opened. In the event of capsule content707coming in contact with the eye, the affected eye should be flushed immediately with water, and medical advice obtained. Hands and708any potentially contaminated surfaces should be washed as soon as possible.

709 17.7 Drug-Drug Interaction

Patients should be instructed to consult a physician if they are taking or plan to take any prescription or over-the-counter medicines, dietary supplements, or herbal remedies.

71217.8Pregnancy713Patients sho

Patients should be instructed to consult a physician if they are nursing, pregnant, or thinking of becoming pregnant while taking STRATTERA.

715 **17.9 Food**

Patients may take STRATTERA with or without food.

717 17.10 Missed Dose

If patients miss a dose, they should be instructed to take it as soon as possible, but should not take more than the prescribed total daily amount of STRATTERA in any 24-hour period.

720 17.11 Interference with Psychomotor Performance

Patients should be instructed to use caution when driving a car or operating hazardous machinery until they are reasonably certain that their performance is not affected by atomoxetine.

T23 Literature revised MMM DD, YYYY

724

714

716

725

726

Indianapolis, IN 46285, USA www.strattera.com

Eli Lilly and Company

727

728 C 0.01 NL 6265 AMP

PRINTED IN USA

MEDICATION GUIDE STRATTERA[®] (Stra-TAIR-a) (atomoxetine hydrochloride)

Read the Medication Guide that comes with STRATTERA[®] before you or your child starts taking it and each time you get a refill. There may be new information. This Medication Guide does not take the place of talking to your doctor about your treatment or your child's treatment with STRATTERA.

What is the most important information I should know about STRATTERA?

The following have been reported with use of STRATTERA:

1. Suicidal thoughts and actions in children and teenagers:

Children and teenagers sometimes think about suicide, and many report trying to kill themselves. Results from STRATTERA clinical studies with over 2200 child or teenage ADHD patients suggest that some children and teenagers may have a higher chance of having suicidal thoughts or actions. Although no suicides occurred in these studies, 4 out of every 1000 patients developed suicidal thoughts. Tell your child or teenager's doctor if your child or teenager (or there is a family history of):

- has bipolar illness (manic-depressive illness)
- had suicide thoughts or actions before starting STRATTERA

The chance for suicidal thoughts and actions may be higher:

- early during STRATTERA treatment
- during dose adjustments

Prevent suicidal thoughts and action in your child or teenager by:

- paying close attention to your child or teenager's moods, behaviors, thoughts, and feelings during STRATTERA treatment
- keeping all follow-up visits with your child or teenager's doctor as scheduled

Watch for the following signs in your child or teenager during STRATTERA treatment:

- anxiety
- agitation
- panic attacks
- trouble sleeping
- irritability
- hostility
- aggressiveness
- impulsivity
- restlessness
- mania

- depression
- suicide thoughts

Call your child or teenager's doctor right away if they have any of the above signs, especially if they are new, sudden, or severe. Your child or teenager may need to be closely watched for suicidal thoughts and actions or need a change in medicine.

2. Severe liver damage:

STRATTERA can cause liver injury in some patients. Call your doctor right away if you or your child has the following signs of liver problems:

- itching
- right upper belly pain
- dark urine
- yellow skin or eyes
- unexplained flu-like symptoms

3. Heart-related problems:

- sudden death in patients who have heart problems or heart defects
- stroke and heart attack in adults
- · increased blood pressure and heart rate

Tell your doctor if you or your child has any heart problems, heart defects, high blood pressure, or a family history of these problems. Your doctor should check you or your child carefully for heart problems before starting STRATTERA.

Your doctor should check your blood pressure or your child's blood pressure and heart rate regularly during treatment with STRATTERA.

Call your doctor right away if you or your child has any signs of heart problems such as chest pain, shortness of breath, or fainting while taking STRATTERA.

4. New mental (psychiatric) problems in children and teenagers:

• new psychotic symptoms (such as hearing voices, believing things that are not true, being suspicious) or new manic symptoms

Call your child or teenager's doctor right away about any new mental symptoms because adjusting or stopping STRATTERA treatment may need to be considered.

What Is STRATTERA?

STRATTERA is a selective norepinephrine reuptake inhibitor medicine. It is used for the treatment of attention deficit and hyperactivity disorder (ADHD). STRATTERA may help increase attention and decrease impulsiveness and hyperactivity in patients with ADHD.

STRATTERA should be used as a part of a total treatment program for ADHD that may include counseling or other therapies.

STRATTERA has not been studied in children less than 6 years old.

Who should not take STRATTERA?

STRATTERA should not be taken if you or your child:

- are taking or have taken within the past 14 days an anti-depression medicine called a monoamine oxidase inhibitor or MAOI. Some names of MAOI medicines are Nardil[®] (phenelzine sulfate), Parnate[®] (tranylcypromine sulfate) and Emsam[®] (selegiline transdermal system).
- have an eye problem called narrow angle glaucoma
- are allergic to anything in STRATTERA. See the end of this Medication Guide for a complete list of ingredients.
- have or have had a rare tumor called pheochromocytoma.

STRATTERA may not be right for you or your child. Before starting STRATTERA tell your doctor or your child's doctor about all health conditions (or a family history of) including:

- have or had suicide thoughts or actions
- heart problems, heart defects, irregular heart beat, high blood pressure, or low blood pressure
- mental problems, psychosis, mania, bipolar illness, or depression
- liver problems

Tell your doctor if you or your child is pregnant, planning to become pregnant, or breastfeeding.

Can STRATTERA be taken with other medicines?

Tell your doctor about all the medicines that you or your child takes including prescription and nonprescription medicines, vitamins, and herbal supplements. STRATTERA and some medicines may interact with each other and cause serious side effects. Your doctor will decide whether STRATTERA can be taken with other medicines.

Especially tell your doctor if you or your child takes:

- asthma medicines
- anti-depression medicines including MAOIs
- blood pressure medicines
- cold or allergy medicines that contain decongestants

Know the medicines that you or your child takes. Keep a list of your medicines with you to show your doctor and pharmacist.

Do not start any new medicine while taking STRATTERA without talking to your doctor first.

How should STRATTERA be taken?

- Take STRATTERA exactly as prescribed. STRATTERA comes in different dose strength capsules. Your doctor may adjust the dose until it is right for you or your child.
- **Do not chew, crush, or open the capsules.** Swallow STRATTERA capsules whole with water or other liquids. Tell your doctor if you or your child cannot swallow STRATTERA whole. A different medicine may need to be prescribed.
- Avoid touching a broken STRATTERA capsule. Wash hands and surfaces that touched an open STRATTERA capsule. If any of the powder gets in your eyes or your child's eyes, rinse them with water right away and call your doctor.
- STRATTERA can be taken with or without food.

- STRATTERA is usually taken once or twice a day. Take STRATTERA at the same time each day to help you remember. If you miss a dose of STRATTERA, take it as soon as you remember that day. If you miss a day of STRATTERA, do not double your dose the next day. Just skip the day you missed.
- From time to time, your doctor may stop STRATTERA treatment for a while to check ADHD symptoms.
- Your doctor may do regular checks of the blood, heart, and blood pressure while taking STRATTERA. Children should have their height and weight checked often while taking STRATTERA. STRATTERA treatment may be stopped if a problem is found during these check-ups.
- If you or your child takes too much STRATTERA or overdoses, call your doctor or poison control center right away, or get emergency treatment.

What are possible side effects of STRATTERA?

See **"What is the most important information I should know about STRATTERA?"** for information on reported suicidal thoughts and actions, other mental problems, severe liver damage, and heart problems.

Other serious side effects include:

- serious allergic reactions (call your doctor if you have trouble breathing, see swelling or hives, or experience other allergic reactions)
- slowing of growth (height and weight) in children
- problems passing urine including
 - trouble starting or keeping a urine stream
 - cannot fully empty the bladder

Common side effects in children and teenagers include:

- upset stomach
- decreased appetite
- nausea or vomiting
- dizziness
- tiredness
- mood swings

Common side effects in adults include:

- constipation
- dry mouth
- nausea
- decreased appetite
- dizziness
- trouble sleeping
- sexual side effects
- menstrual cramps
- problems passing urine

Other information for children, teenagers, and adults:

• Erections that won't go away (priapism) have occurred rarely during treatment with STRATTERA. If you have an erection that lasts more than 4 hours, seek medical help right away. Because of the potential

for lasting damage, including the potential inability to have erections, priapism should be evaluated by a doctor immediately.

- STRATTERA may affect your ability or your child's ability to drive or operate heavy machinery. Be careful until you know how STRATTERA affects you or your child.
- Talk to your doctor if you or your child has side effects that are bothersome or do not go away.

This is not a complete list of possible side effects. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

How should I store STRATTERA?

- Store STRATTERA in a safe place at room temperature, 59 to 86°F (15 to 30°C).
- Keep STRATTERA and all medicines out of the reach of children.

General information about STRATTERA

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use STRATTERA for a condition for which it was not prescribed. Do not give STRATTERA to other people, even if they have the same condition. It may harm them.

This Medication Guide summarizes the most important information about STRATTERA. If you would like more information, talk with your doctor. You can ask your doctor or pharmacist for information about STRATTERA that was written for healthcare professionals. For more information about STRATTERA call 1-800-Lilly-Rx (1-800-545-5979) or visit www.strattera.com.

What are the ingredients in STRATTERA?

Active ingredient: atomoxetine hydrochloride.

Inactive ingredients: pregelatinized starch, dimethicone, gelatin, sodium lauryl sulfate, FD&C Blue No. 2, synthetic yellow iron oxide, titanium dioxide, red iron oxide, and edible black ink.

Nardil[®] is a registered trademark of Pfizer Inc.

Parnate[®] is a registered trademark of GlaxoSmithKline.

Emsam[®] is a registered trademark of Somerset Pharmaceuticals Inc.

This Medication Guide has been approved by the US Food and Drug Administration.

Patient Information revised MMM DD, YYYY

Eli Lilly and Company Indianapolis, IN 46285, USA

www.strattera.com

Copyright © 2003, 20XX, Eli Lilly and Company. All rights reserved. A 1.0 NL 5855 AMP PRINTED IN USA