CENTER FOR DRUG EVALUATION AND RESEARCH

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LABELING

MEDICATION GUIDE METHYLPHENIDATE HYDROCHLORIDE EXTENDED-RELEASE CAPSULES (LA)

Read the Medication Guide that comes with methylphenidate hydrochloride extended-release capsules (LA) 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 or your child's treatment with methylphenidate hydrochloride extended-release capsules (LA).

What is the most important information I should know about Methylphenidate Hydrochloride Extended-Release Capsules $(|A\rangle)$?

The following have been reported with use of methylphenidate hydrochloride and other stimulant medicines. 1. 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 have any heart problems, heart defects, high blood pressure, or a family history of these nrohlems

Your doctor should check you or your child carefully for heart problems before starting methylphenidate hydrochloride extended-release capsules (LA).

Your doctor should check your or your child's blood pressure and heart rate regularly during treatment with methylphenidate hydrochloride extended-release capsules (LA).

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 methylphenidate hydrochloride extended-release capsules (LA).

2. Mental (Psychiatric) problems:

All Patients

new or worse behavior and thought problems

new or worse bipolar illness

new or worse aggressive behavior or hostility

Children and Teenagers

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

Tell your doctor about any mental problems you or your child have, or about a family history of suicide, bipolar illness, or depressio

Call your doctor right away if you or your child have any new or worsening mental symptoms or problems while taking methylphenidate hydrochloride extended-release capsules (LA), especially seeing or hearing things that are not real, believing things that are not real, or are suspicious.

What are Methylphenidate Hydrochloride Extended-Release Capsules (LA)?

Methylphenidate hydrochloride extended-release capsules (LA) are a central nervous system stimulant prescription medicine. It is used for the treatment of Attention-Deficit Hyperactivity Disorder (ADHD). Methylphenidate hydrochloride extended-release capsules (LA) may help increase attention and decrease impulsiveness and hyperactivity in patients with ADHD

Methylphenidate hydrochloride extended-release capsules (LA) should be used as a part of a total treatment program for ADHD that may include counseling or other therapies.

Methylphenidate hydrochloride extended-release capsules (LA) are a federally controlled substance (CII) because it can be abused or lead to dependence. Keep methylphenidate hydrochloride extended-release capsules (LA) in a safe place to prevent misuse and abuse. Selling or giving away methylphenidate hydrochloride extended-release capsules (LA) may harm others, and is against the law.

Tell your doctor if you or your child have (or have a family history of) ever abused or been dependent on alcohol, prescription medicines or street drugs.

Who should not take Methylphenidate Hydrochloride Extended-Release Capsules (LA)?

Methylphenidate hydrochloride extended-release capsules (LA) should not be taken if you or your child:

· are very anxious, tense, or agitated

• have an eye problem called glaucoma

 have tics or Tourette's syndrome, or a family history of Tourette's syndrome. Tics are hard to control repeated movements or sounds

 are taking or have taken within the past 14 days an anti-depression medicine called a monoamine oxidase inhibitor or ΜΔΟΙ

 are allergic to anything in methylphenidate hydrochloride extended-release capsules (LA). See the end of this Medication Guide for a complete list of ingredients.

Methylphenidate hydrochloride extended-release capsules (LA) should not be used in children less than 6 years old because it has not been studied in this age group.

Methylphenidate hydrochloride extended-release capsules (LA) may not be right for you or your child. Before starting methylphenidate hydrochloride extended-release capsules (LA) tell your or your child's doctor about all health conditions (or a family history of) including:

• heart problems, heart defects, high blood pressure

• mental problems including psychosis, mania, bipolar illness, or depression

• tics or Tourette's syndrome

• seizures or have had an abnormal brain wave test (EEG)

Tell your doctor if you or your child is pregnant, planning to become pregnant, or breast-feeding.

Can Methylphenidate Hydrochloride Extended-Release Capsules (LA) be taken with other medicines?

Tell your doctor about all of the medicines that you or your child take including prescription and nonprescription





Rx Only DESCRIPTION

ate hydrochloride USP is a central nervous system (CNS) stimulant. Methylphenidate hydrochloride USP is a central nervous system (CNS) stimulant. Methylphenidate hydrochloride extended-release capsules (LA) are an extended-release formulation of methylphenidate with a bi-modal release profile. Each bead-filled methylphenidate hydrochloride extended-release capsule (LA) contains half the dose as immediate-release beads and half as enteric-coated, delayed-release beads, thus providing an immediate release of methylphenidate and a second delayed release of methylphenidate. Methylphenidate hydrochloride extended-release 10, 20, 30, and 40 mg capsules (LA) provide in a single dose the same amount of methylphenidate as dosages of 5, 10, 15, or 20 mg of nethylphenidate hydrochloride tablets given b.i.d. The active substance in methylphenidate hydrochloride extended-release cansules (LA) is methyl α -phenyl-2-

piperidipeacetate hydrochloride, and its structural formula is COOCH₃



Methylphenidate hydrochloride USP is a white, odorless, fine crystalline powder. Its solutions are acid to lit nus. It is freely soluble in water and in methanol, soluble in alcohol, and slightly soluble in chloroform and in icetone. Its molecular weight is 269.77.

acetone. Its molecular weight is 269.77. Inactive ingredients: sugar spheres (which contain sucrose and starch), hypromellose, cellulose acetate bu-tyrate, hypromellose acetate succinate, acetyltributyl citrate, acetone, taic, and purified water. Opaque gelatin capsules contain: titanium dioxide and gelatin. The 30 and 40 mg capsules contain D&C Red #28 and FD&C Blue #1. The capsules are imprinted with black ink which contains black iron oxide, shellac and potassium hydroxide.

CLINICAL PHARMACOLOGY

Pharmacodynamics

Pharmacodynamics Methylphenidate hydrochloride USP, the active ingredient in methylphenidate hydrochloride extended-release capsules (LA), is a central nervous system (ONS) stimulant. The mode of therapeutic action in Attention Deficit Hyperactivity Disorder (ADHD) is not known. Methylphenidate is thought to block the reuptake of norepineph-rine and dopamine into the presynaptic neuron and increase the release of these monoamines into the extra-neuronal space. Methylphenidate is a racemic mixture comprised of the *d*- and *l*-three enantiomers. The *d*-three enantiomer is more pharmacologically active than the *l*-three enantiomer. Effects on OT Interval

he effect of dexmethylphenidate hydrochloride extended-release (dexmethylphenidate, the pharmacologicall The energy of th 10 ms for all time matched comparisons versus placebo. This was below the threshold of clinical concern and there was no evident-exposure response relationship.

Pharmacokinetics

Methylphenidate hydrochloride extended-release cansules (LA) produce a bi-modal plasma concentration-time profile (i.e., two distinct peaks approximately four hours apart) when orally administered to children diagnose with ADHD and to healthy adults. The initial rate of absorption for methylphenidate hydrochloride extended-re with ADHD and to healthy adults. The initial rate of absorption for methylphenidate hydrochloride extended-re-lease capsules (LA) is similar to that of methylphenidate hydrochloride tablets as shown by the similar rate parameters between the two formulations, i.e., initial lag time (T_{ab}), first peak concentration (C_{max}), and time to the first peak (T_{max}), which is reached in 1 to 3 hours. The mean time to the interpeak minimum (T_{mink}), and time to the second peak (T_{max}) are also similar for methylphenidate hydrochloride extended-release capsules (LA) given once daily and methylphenidate hydrochloride tablets given in two doese 4 hours apart (see Figure 1 and Table 1), although the ranges observed are greater for methylphenidate hydrochloride extended-release capsules (LA).

Methylphenidate hydrochloride extended-release capsules (LA) given once daily exhibit a lower second peat concentration (C_{max}), higher interpeak minimum concentrations (C_{minib}), and less peak and trough fluctua tions than methylphenidate hydrochloride tablets given in two doses given 4 hours apart. This is due to an ear lier onset and more prolonged absorption from the delayed-release beads (see Figure 1 and Table 1). The relative bioavailability of methylphenidate hydrochloride extended-release capsules (LA) given once daily

total dose of methylphenidate hydrochloride tablets given apart in both children and in adults

Figure 1. Mean plasma concentration time-profile of methylphenidate after a single dose of Methylphenidate Hydrochloride Extended-Release Capsules (LA) 40 mg q.d. and Methylphenida Hydrochloride Tablets 20 mg given in two doses four hours apart



 Table 1. Mean ± SD and range of pharmacokinetic parameters of methylphenidate after a single dose of Methylphenidate Hydrochloride Extended-Release Capsules (LA) and Methylphenidate Hydrochloride Tablets given in two doses 4 hours apart

Population	Children		Adult	Males
Formulation	Methylphenidate Hydrochloride Tablets	Methylphenidate Hydrochloride Extended- Release Capsules (LA)	Methylphenidate Hydrochloride Tablets	Methylphenidate Hydrochloride Extended- Release Capsules (LA)
Dose	10 mg & 10 mg	20 mg	10 mg & 10 mg	20 mg
N	21	18	9	8
T _{lag} (h)	0.24 ± 0.44	0.28 ± 0.46	1.0 ± 0.5	0.7 ± 0.2
	0 to 1	0 to 1	0.7 to 1.3	0.3 to 1.0
T _{max1} (h)	1.8 ± 0.6	2.0 ± 0.8	1.9 ± 0.4	2.0 ± 0.9
-	1 to 3	1 to 3	1.3 to 2.7	1.3 to 4.0
Cmax1(ng/mL)	10.2 ± 4.2	10.3 ± 5.1	4.3 ± 2.3	5.3 ± 0.9
	4.2 to 20.2	5.5 to 26.6	1.8 to 7.5	3.8 to 6.9
T _{minip} (h)	4.0 ± 0.2	4.5 ± 1.2	3.8 ± 0.4	3.6 ± 0.6
	4 to 5	2 to 6	3.3 to 4.3	2.7 to 4.3
Cminip (ng/mL)	5.8 ± 2.7	6.1 ± 4.1	1.2 ± 1.4	3.0 ± 0.8
	3.1 to 14.4	2.9 to 21.0	0.0 to 3.7	1.7 to 4.0
Tmax2 (h)	5.6 ± 0.7	6.6 ±1.5	5.9 ± 0.5	5.5 ± 0.8
	5 to 8	5 to 11	5.0 to 6.5	4.3 to 6.5
Cmax2 (ng/ml)	15.3 ± 7.0	10.2 ± 5.9	5.3 ± 1.4	6.2 ± 1.6
	6.2 to 32.8	4.5 to 31.1	3.6 to 7.2	3.9 to 8.3
AUC(0-∞)	102.4 ± 54.6	86.6 ± 64.0 a	37.8 ± 21.9	45.8 ± 10.0
(ng/mL x h-1)	40.5 to 261.6	43.3 to 301.44	14.3 to 85.3	34.0 to 61.6
t _{1/2} (h)	2.5 ± 0.8	2.4 ± 0.7a	3.5 ± 1.9	3.3 ± 0.4
	1.8 to 5.3	1.5 to 4.0	1.3 to 7.7	3.0 to 4.2



centrations (Cmax1 and Cmax2) Distribution

Binding to plasma proteins is low (10% to 33%). The volume of distribution was 2.65±1.11 L/kg for dmethylphenidate and 1.80±0.91 L/kg for I-methylphenidate Metaholism

The absolute oral bioavailability of methylobenidate in children was 22+8% for d-methylobenidate and 5+3% The absolute of a bioavalation of the implicit metal in a limit of the absolute of a bioavalation of the implicit metal is a set of the original product of the absolute of t 2-piperidine acetic acid (ritalinic acid). Only small amounts of hydroxylated metabolites (e.g., hydrox nethylphenidate and hydroxyritalinic acid) are detectable in plasma. Therapeutic activity is principally due to the parent compound.

Elimination

Entimation In studies with methylphenidate hydrochloride extended-release capsules (LA) and methylphenidate hydrochlo-ride tablets in adults, methylphenidate from methylphenidate hydrochloride tablets is eliminated from plasma with an average half-life of about 3.5 hours, (range 1.3 to 7.7 hours). In children the average half-life is about 2.5 hours, with a range of about 1.5 to 5.0 hours. The rapid half-life in both children and adults may result in un measurable concentrations between the morning and mid-day doses with methylphenidate hydrochloride tablet: Incastrate concentration scheree in monima and more yousse in menyprendate interpretended about No accumulation of methylphenidate is expected following multiple once a day and dosing with methylphenidate hydrochloride extended-release capsules (LA). The half-life of ritalinic acid is about 3 to 4 hours.

The systemic clearance is 0.40±0.12 L/h/kg for d-methylphenidate and 0.73±0.28 L/h/kg for I-methylph After oral administration of an immediate release formulation of methylphenidate. 78% to 97% of the dose is excreted in the urine and 1% to 3% in the feces in the form of metabolites within 48 to 96 hours. Only small quantities (<1%) of unchanged methylphenidate appear in the urine. Most of the dose is excreted in the urine ritalinic acid (60% to 86%), the remainder being accounted for by minor metabolites Food Effects

Administration times relative to meals and meal composition may need to be individually titrated

When methylphenidate hydrochloride extended-release capsules (LA) was administered with a high fat break fast to adults, methylphenidate hydrochloride extended-release capsules (LA) had a longer lag time until ab sorption began and variable delays in the time until the first peak concentration, the time until the interpeat sorption logan and variable dealys in the time time time time tay beat concentration, the time time time time the minimum, and the time until the second peak. The first peak concentration and the extent of absorption wer unchanged after food relative to the fasting state, although the second peak was approximately 25% lowe The effect of a high fat lunch was not examined.

here were no differences in the pharmacokinetics of methylphenidate hydrochloride extended-release capsules (LA) when administered with applesauce, compared to administration in the fasting condition. There is no evidence of dose dumping in the presence or absence of food.

For patients unable to swallow the capsule, the contents may be sprinkled on applesauce and administered (see DOSAGE AND ADMINISTRATION

Special Populations

Age: The pharmackinetics of methylphenidate hydrochloride extended-release capsules (LA) was examined in 18 children with ADHD between 7 and 12 years of age. Fifteen of these children were between 10 and 12 years of age. The time until the between peak minimum, and the time until the second peak were delayed and more variable in children compared to adults. After a 20-mg dose of methylphenidate hydrochloride extended-release capsules (LA), concentrations in children were approximately twice the concentrations observed in 18 to 35 year old adults. This higher exposure is almost completely due to the smaller body size and total volume of distri-bution in children, as apparent clearance normalized to body weight is independent of age.

Gender: There were no apparent gender differences in the pharmacokinetics of methylphenidate be

male and female adults when administered methylphenidate hydrochloride extended-release capsules (LA). Renal Insufficiency: Methylphenidate hydrochloride extended-release capsules (LA) have not been studied in renally-impaired natients. Benal insufficiency is expected to have minimal effect on the pharmacokinetics of methylphenidate since less than 1% of a radiolabeled dose is excreted in the urine as unchanged compoun and the major metabolite (ritalinic acid), has little or no pharmacologic activity.

Hepatic Insufficiency: Methylphenidate hydrochloride extended-release capsules (LA) have not been studied in patients with hepatic insufficiency. Hepatic insufficiency is expected to have minimal effect on the pharmacokinetics of methylphenidate since it is metabolized primarily to ritalinic acid by nonmicrosomal hydrolytic esterases that are widely distributed throughout the body

CUNICAL STUDIES

Methylphenidate hydrochloride extended-release capsules (LA) were evaluated in a randomized, double-blind placebo-controlled, parallel group clinical study in which 134 children, ages 6 to 12, with DSM-IV diagnoses of Attention Deficit Hyperactivity Disorder (ADHD) received a single morning dose of methylphenidate hy-drochloride extended-release capsules (LA) in the range of 10 to 40 mg/day, or placebo, for up to 2 weeks. The doses used were the optimal doses established in a previous individual dose titration phase. In that titration phase, 53 of 164 patients (32%) started on a daily dose of 10 mg and 111 of 164 patients (68%) started on a daily dose of 20 mg or higher. The patient's regular schoolteacher completed the Conners ADHD/DSM-IV Scale for Teachers (CADS-T) at haseline and the end of each week. The CADS-T assesses symptoms of hyperactiv In reaches (ADS-1) at baseline and the end of each week. The CADS-1 assesses symptoms of hyperache ity and inattention. The change from baseline of the (CADS-1) scores during the last week of treatment was an alyzed as the primary efficacy parameter. Patients treated with methylphenidate hydrochloride extended-release capsules (LA) showed a statistically significant improvement in symptom scores from baseline over patients who received placebo. (See Figure 2.) This demonstrates that a single morning dose of methylphenidate hy drochloride extended-release cansules (LA) exerts a treatment effect in ADHD

Figure 2, CADS-T total subscale - Mean change from baseline



Methylphenidate hydrochloride extended-release capsules (LA) are indicated for the treatment of Attentio Deficit Hyperactivity Disorder (ADHD).

The efficacy of methylphenidate hydrochloride extended-release capsules (LA) in the treatment of ADHD was established in one controlled trial of children aged 6 to 12 who met DSM-IV criteria for ADHD (see CLINICAL PHARMACOLOGY)

A diagnosis of Attention Deficit Hyperactivity Disorder (ADHD: DSM-IV) implies the presence of hyperactive The approximation of the appro counted for by another mental disorder. For the Inattentive Type, at least six of the following symptoms mus 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; reduring ustained antenuon; poor listener, failure to follow through on tasks; poor organization; avoids tasks; requiring ustained mental ef fort; loses things; easily distracted; forgetful. For the Hyperactive-Impulsive Type, at least six 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. The Combined Types requires both inattentive and hyperactive-impulsive criteria to be met.

Special Diagnostic Considerations

Specific etiology of this syndrome is unknown, and there is no single diagnostic test. Adequate diagnosis re-quires the use not only of medical but of special psychological, educational, and social resources. Learning may uns de la control de la control de la construction de la construction

Need for Comprehensive Treatment Program

Methylphenidate hydrochloride extended-release capsules (LA) are indicated as an integral part of a total treat-ment program for ADHD that may include other measures (psychological, educational, social) for patients with this syndrome. Drug treatment may not be indicated for all children with this syndrome. Stimulants are not inended for use in the child who exhibits symptoms secondary to environmental factors and/or other primary psychiatric disorders, including psychosis, Appropriate educational placement is essential and psychosocial in psychianic discretes, including psychiosis. Appropriate educational practiment is essential and psychiosota-trevention is offen helpful. When remedial measures alone are insufficient, the decision to prescribe stimu medication will depend upon the physician's assessment of the chronicity and severity of the child's sympto rihe stimulan

Lona-Term Use

, methylphenidate hydrochloride extended-release capsules (LA) for long-term use, i.e., for The effectiveness of methylphenidate hydrochionde extendeu-release capsules (h) or non-relin ave, i.e., or more than 2 weeks, has not been systematically evaluated in controlled trials. Therefore, the physician who elects to use methylphenidate hydrochloride extended-release capsules (LA) for extended periods should pe-riodically re-evaluate the long-term usefulness of the drug for the individual patient (see DOSAGE AND AD-MINISTRATION)

CONTRAINDICATIONS

Agitation

Methylphenidate hydrochloride extended-release capsules (LA) are contraindicated in marked anxiety, tension. and agitation, since the drug may aggravate these symptoms

Hypersensitivity to Methylphenidate when idate hydrochloride extended-release cansules (LA) are contraindicated in patients known to be hy-

Monoamine Oxidase Inhibitors

Serious Cardiovascular Events

sympathomimetic effects of a stimulant drug.

hould also generally not be treated with stimulant drugs

stimulant treatment should undergo a prompt cardiac evaluation

a family history of suicide, hipolar disorder, and depression

Emergence of New Psychotic or Manic Symptoms

discontinuation of treatment may be appropriate.

Psychiatric Adverse Events

tients with a pre-existing psychotic disorder

Pre-Existing Psychosis

Rinolar Illness

Aggression

aggressive behavior or hostility.

stimulants, and patie treatment interrupted

Seizures

he discontinued

Visual Disturbance

Long-Term Suppression of Growth

Avpertension and Other Cardiovascular Conditions

persensitive to methylphenidate or other components of the product. Glaucoma

Methylphenidate hydrochloride extended-release capsules (LA) are contraindicated during treatment with

when you have a strain of the second of the second of the second and the second a

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

adolescents with structural cardiac abnormalities or other serious heart problems. Although some serious hear

problems alone carry an increased risk of sudden death, stimulant products generally should not be used in

children or adolescents with known serious structural cardiac abnormalities cardiomyonathy serious heart rhythm abnormalities, or other serious cardiac problems that may place them at increased vulnerability to the

Sudden death, stroke, and myocardial infarction have been reported in adults taking stimulant drugs at usual

doses for ADHD. Although the role of stimulants in these adult cases is also unknown, adults have a greater

likelihood than children of having serious structural cardiac abnormalities, cardiomyonathy, serious heart rhythm

abnormalities, coronary artery disease, or other serious cardiac problems. Adults with such abnormalities

Stimulant medications cause a modest increase in average blood pressure (about 2 to 4 mmHg) and average

heart rate (about 3 to 6 bpm), and individuals may have larger increases. While the mean changes alone would

not be expected to have short-term consequences, all natients should be monitored for larger changes in heart

Tate and blood pressure. Caution is indicated in treating patients should be individed on larger charges in near rate and blood pressure. Caution is indicated in treating patients whose underlying medical conditions might be compromised by increases in blood pressure or heart rate, e.g., those with pre-existing hypertension, heart failure, recent myocardial infarction, or ventricular arrhythmia.

Children, adolescents, or adults who are being considered for treatment with stimulant medications should

United in a detection, addressents, or addressent of the detection of a detection

such as exertional chest pain, unexplained syncope, or other symptoms suggestive of cardiac disease during

Administration of stimulants may exacerbate symptoms of behavior disturbance and thought disorder in pa

Diputar immess Particular care should be taken in using stimulants to treat ADHD in patients with comorbid bipolar disorder because of concern for possible induction of a mixed/manic episode in such patients. Prior to initiating treat-ment with a stimulant, patients with comorbid depressive symptoms should be adequately screened to deter-

mine if they are at risk for bipolar disorder: such screening should include a detailed psychiatric history, including

Emergence or New response or Maine Symptons Treatment emergent psychotic or maine Symptoms, e.g., hallucinations, delusional thinking, or mania in chil-dren and adolescents without a prior history of psychotic illness or mania can be caused by stimulants at usual

doses. If such symptoms occur, consideration should be given to a possible causal role of the stimulant, and

In a pooled analysis of multiple short-term, placeho-controlled studies, such symptoms occurred in about

In a pooled analysis of multiple shortertin, place/orcontrolled sources, such symptomis occurred in adout 0.1% (4 patients with events out of 3.482 exposed to methylphenidate or amphetamine for several weeks at usual doses) of stimulant-treated patients compared to 0 in placebo-treated patients.

Aggressive behavior or hostility is often observed in children and adolescents with ADHD, and has been reported

in clinical trials and the postmarketing experience of some medications indicated for the treatment of ADHD in-cluding methylohenidate. Although there is no systematic evidence that stimulants cause aggressive behavior

or hostility, patients beginning treatment for ADHD should be monitored for the appearance of or worsening o

Careful follow-up of weight and height in children ages 7 to 10 years who were randomized to either methylphenidate or non-medication treatment groups over 14 months, as well as in naturalistic subgroups of newly methylphenidate-treated and non-medication treated children over 36 months (to the ages of 10 to 13

vears), suggests that consistently medicated children (i.e., treatment for 7 days per week throughout the year years), suggess that consistently meutaet climiteri (i.e., treatment of Yaays per week introduction the years) have a temporary slowing in growth rate (on average, a total of about 2 cm less growth in height and 2.7 kg less growth in weight over 3 years), without evidence of growth rebound during this period of development. In the double-blind placebo-controlled study of methylphenidate hydrochloride extended-release capsules (LA), the mean weight gain was greater for patients receiving placebo (+1.0 kg) than for patients receiving the double-blind block blo

methylphenidate hydrochloride extended-release capsules (LA) (+0.1 kg). Published data are inadequate to determine whether chronic use of amphetamines may cause a similar suppression of growth, however, it is an

ticipated that they likely have this effect as well. Therefore, growth should be monitored during treatment with

here is some clinical evidence that stimulants may lower the convulsive threshold in patients with prior his-

tory of seizures, in patients with prior EEG abnormalities in absence of seizures, and, very rarely, in patients with

Difficulties with accommodation and blurring of vision have been reported with stimulant treatment.

out a history of seizures and no prior EEG evidence of seizures. In the presence of seizures, the drug should

and patients who are not growing or gaining height or weight as expected may need to have the

Assessing Cardiovascular Status in Patients being Treated with Stimulant Medications

Methylphenidate hydrochloride extended-release capsules (LA) are contraindicated in patients with glaucoma

WARNINGS

Children and Adolescents

Tics Methylphenidate hydrochloride extended-release capsules (LA) are contraindicated in natients with motor tics or with a family history or diagnosis of Tourette's syndrome. (See **ADVERSE REACTIONS**

eported in association with CNS stimulant treatment at usual doses in children and

Use in Children Under Six Years of Age

Drua Dependence

thylphenidate hydrochloride extended-release capsules (LA) should be given cautiously to patients with a history of drug dependence or alcoholism. Chronic abusive use can lead to marked tolerance and psychological dependence with varving degrees of abnormal behavior. Frank psychotic episodes can occur, especially with renteral abuse. Careful supervision is required during withdrawal from abusive use, since severe depression nay occur. Withdrawal following chronic therapeutic use may unmask symptoms of the underlying disorde that may require follow-up.

PRECAUTIONS

Hematologic Monitoring Periodic CBC, differential, and platelet counts are advised during prolonged therapy

Information for Patients

Prescribers or other health professionals should inform patients, their families, and their carenivers about the Prescruers of outer realing procession as shown more patients, then ramines, and then caregivers about the benefits and risks associated with treatment with methylphenidate and should coursel them in its appropriate use. A patient Medication Guide is available for methylphenidate hydrochloride extended-release capsules (IA). The prescriber or health professional should instruct patients, their families, and their caregivers to read the Medication Guide and should assist them in understanding its contents. Patients should be given the opportunity to discuss the contents of the Medication Guide and to obtain answers to any questions they may have The complete text of the Medication Guide is reprinted at the end of this document

Drug Interactions

phenidate is metabolized primarily by de-esterification (nonmicrosomal hydrolytic esterases) to ritalinic acid and not through oxidative pathways.

The effects of gastrointestinal pH alterations on the absorption of methylphenidate from methylphenidate hy-drochloride extended-release capsules (LA) have not been studied. Since the modified release characteristics of methylphenidate hydrochloride extended-release capsules (LA) are pH dependent, the coadministration of antacids or acid suppressants could alter the release of methylphenidate.

Methylphenidate may decrease the effectiveness of drugs used to treat hypertension. Because of possible efssure, methylphenidate should be used cautiously with pressor agents.

As an inhibitor of dopamine reuptake, methylphenidate may be associated with pharmacodynamic interactions when coadministered with direct and indirect dopamine agonists (including DOPA and tricyclic antidepres-sants) as well as dopamine antagonists (antipsychotics, e.g., haloperidol).

Case reports suggest a potential interaction of methylphenidate with coumarin anticoagulants, anticonvulsants (e.g., phenobarbial, phenytoin, primidone), and tricyclic drugs (e.g., inipramine, clomipramine, closipramine) but pharmacokinetic interactions were not confirmed when explored at higher sample sizes. Downward dose adjustment of these drugs may be required when given concomitantly with methylphenidate. It may be necessary to adjust the dosage and monitor plasma drug concentrations (or, in the case of coumarin, coagulation times), when initiating or discontinuing concomitant methylphenidate.

Methylphenidate is not metabolized by cytochrome P450 to a clinically relevant extent. Inducers or inhibitors of cytochrome 450 are not expected to have any relevant impact on methylphenidate planmackinetics on or cytochrome 4450 are not expected to have any relevant impact on methylphenidate planmackinetics. Con-versely, the d- and I- enantiomers of methylphenidate did not relevantly inhibit cytochrome P450 1A2, 2C8, 2C9, 2C19, 2D6, 2E1 or 3A.

Methylphenidate coadministration did not increase plasma concentrations of the CYP2D6 substrate desipramine

An interaction with the anticoagulant ethylbiscournacetate in 4 subjects was not confirmed in a subsequent study with a higher sample size (n=12) Other specific drug-drug interaction studies with methylphenidate have not been performed in vivo

Carcinogenesis/Mutagenesis/Impairment of Fertility

Calcingerites/s/impartment of returns of returns of returns of returns of returns of returns of the second of the hepatic tumors, and the significance of these results to humans is unknown.

Methylphenidate did not cause any increases in tumors in a lifetime carcinogenicity study carried out in F344 rats; the highest dose used was approximately 45 mg/kg/day, which is approximately 22 times and 5 times the maximum recommended human dose on a mg/kg and mg/m² basis, respectively.

In a 24-week carcinogenicity study in the transgenic mouse strain p53+/-, which is sensitive to genotoxic car-If a 24-Week calculation study in us transform mode state year, there is a state to be a state year to be a state year of the state of a carcinogenicity. Male and female mice were fed diets containing the same concentration of methylphenidate as in the lifetime carcinogenicity study, the high-dose groups were exposed to 60 to 74 mg/kg/day of methylphenidate.

Methylphanidate was not mutanenic in the in vitro Ames reverse mutation assay or in the in vitro mouse lym-Mempipiendate was not intradgeric in the *in vito* Arnes reverse mutation assay or in the *in vito* mouse synt-phoma cell forvard mutation assay. Sister chromatid exchanges and chromosome aberrations were increased, indicative of a weak clastogenic response, in an *in vitro* assay in cultured Chinese Hamster Ovary (CHO) cells. Methylphenidate was negative in vivo in males and females in the mouse bone marrow micronucleus assav Methylphenidate did not impair fertility in male or female mice that were fed diets containing the drug in an 18week Continuous Breeding study. The study was conducted at doses up to 160 mg/kg/day, approximately 80-

fold and 8-fold the highest recommended dose on a mg/kg and mg/m² basis, resp Pregnancy

Pregnancy Category C In studies conducted in rats and rabbits, methylphenidate was administered orally at doses of up to 75 and 200 mg/kg/day, respectively, during the period of organogenesis. Teratogenic effects (increased incidence of fetal spina bifida) were observed in rabbits at the highest dose, which is approximately 40 times the maximum recommended human dose (MRHD) on a mg/m² basis. The no effect level for embryo-fetal development in rab-bits was 60 mg/kg/day (11 times the MRHD on a mg/m² basis). There was no evidence of specific teratogenic activity in rats, although increased incidences of fetal skeletal variations were seen at the highest dose level (7 advisiy in rats, allocgin increased inclusions or leaf schedul validations were seen at use ingress does rever (times the MRHD on a mg/m² basis), which was also maternally toxic. The no effect level for embryo-fetal de-velopment in rats was 25 mg/kg/day (2 times the MRHD on a mg/m² basis). When methylphenidate was administered to rats throughout pregnancy and lactation at doses of up to 45 mg/kg/day, offspring body weight gain was decreased at the highest dose (4 times the MRHD on a mg/m² basis), but no other effects on post atal development were observed. The no effect level for pre- and postnatal development in rats was 15 mg/kg/day (equal to the MRHD on a mg/m² basis).

Adequate and well-controlled studies in pregnant women have not been conducted. Methylphenidate hy-drochloride extended-release capsules (LA) should be used during pregnancy only if the potential benefit justifies the notential risk to the fetus

Nursing Mothers

It is not known whether methylphenidate is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised if methylphenidate hydrochloride extended-release capsules (LA) are administered to a nursing woman.

Pediatric Use

Long-term effects of methylphenidate in children have not been well established. Methylphenidate hydrochloride extended-release capsules (LA) should not be used in children under six years of age (see WARNINGS).

In a study conducted in young rats, methylphenidate was administered orally at doses of up to 100 mg/kg/day In a study conducted in young rats, methypinelinate was administered orany at doese or up to 100 mg/kg/day for 9 weeks, starting early in the postnatal period (Postnatal Day 7) and continuing through sexual maturity (Postnatal Week 10). When these animals were tested as adults (Postnatal Weeks 13 to 14), decreased spontaneous locomotor activity was observed in males and females previously treated with 50 mg/kg/day (approximately 6 times the maximum recommended human dose [MRHD] on a mg/m² basis) or greater, and a deficit in the acquisition of a specific learning task was seen in females exposed to the highest does [21 times the MRHD on a mg/m² basis). The no effect level for juvenile neurobehavioral development in rats was 5 mg/kg/day (half the MRHD on a mg/m² basis). The clinical significance of the long-term behavioral effects observed in rats

ADVERSE REACTIONS

ADVERSE NEAS I NORS The clinical program for methylphenidate hydrochloride extended-release capsules (LA) consisted of six stud-ies: two controlled clinical studies conducted in children with ADHD aged 6 to 12 years and four clinical phar-

macology studies conducted in healthy adult volunteers. These studies included a total of 256 subjects: 195 children with ADHD and 61 healthy adult volunteers. The subjects received methylohenidate hydrochloride extended-release capsules (LA) in doses of 10 to 40 mo per day. Safety of methylphenidate hydrochloride exnded-release capsules (LA) was assessed by evaluating frequency and nature of adverse events, routine laboratory tests, vital signs, and body weight.

Adverse events during exposure were obtained primarily by general inquiry and recorded by clinical investigators using terminology of their own choosing. Consequently, it is not possible to provide a meaningful estimate of the proportion of individuals experiencing adverse events without first grouping similar types of events into a smaller number of standardized event categories. In the tables and listings that follow, MEDRA terminology has been used to classify reported adverse events. The stated frequencies of adverse events represent the pro-portion of individuals who experienced, at least once, a treatment-emergent adverse event of the type listed. An event was considered treatment emergent if it occurred for the first time or worsened while receiving therapy following baseline evaluation.

Adverse Events in a Double-Blind, Placebo-Controlled Clinical Trial with Methylnhenidate Hydrochloride Extended-Release Cansules (LA) Influence in a controlled characterized and the controlled controlled (LA) in the controlled, double-blind, parallel-group study was conducted to evaluate the efficacy and safety to controlled, double-blind, parallel-group study was conducted to evaluate the efficacy and safety to controlled cont

The prescriber should be aware that these figures cannot be used to predict the incidence of adverse events in

the course of usual medical practice where patient characteristics and other factors differ from those which pre-

vailed in the clinical trials. Similarly, the cited frequencies cannot be compared with figures obtained from other

clinical investigations involving different treatments uses and investigators. The cited figures however do

clinical investigations involving university treatments, uses, and investigations. The cited inguises, noveled, u provide the prescribing physical a with some basis for estimating the relative contribution of drug and nor drug factors to the adverse event incidence rate in the population studied.

Adverse events with an incidence >5% during the initial four-week single-blind methylphenidate hydrochloride

extended-release capsules (LA) titration period of this study were headache, insomnia, upper abdominal pain.

Treatment-emergent adverse events with an incidence >2% among methylphenidate hydrochloride extended-

Methylphenidate Hydrochloride Extended-

Release Capsules (LA)

. N - 65

2 (3.1

n the two-week double-blind treatment phase of a placebo-controlled parallel-group study in children with

ADHD, only one methylphenidate hydrochloride extended-release capsules (LA)-treated subject (1/65, 1.5%)

In the single-blind titration period of this study, subjects received methylphenidate hydrochloride extended-

to adverse events. The adverse events leading to discontinuation were anger (in 2 patients), hypomania, anxi-

Adverse Events Associated with Discontinuation of Treatment

Adverse Events with Other Methylphenidate HCI Dosage Forms

ued due to an adverse event (depression).

etv. depressed mood, fatique, migraine and lethargy,

rvousness and insomnia are the most com

Gastrointestinal: abdominal pain. nausea

Patients Currently Receiving Methylphenidate A practov-controlled, voluble-billio, paraller-group study was conducted to evaluate the encacy and safety on methylphenidate hydrochloride extended-release capsules (LA) in children with ADHD aged 6 to 12 years. All subjects received methylphenidate hydrochloride extended-release capsules (LA) for up to 4 weeks, and had

Placebo

 $\frac{N = 71}{N(\%)}$ 0 (0.0)

0 (0.0)

The recommended dose of methylphenidate hydrochloride extended-release capsules (LA) for patients currently taking methylphenidate b.i.d. or sustained release (SR) is provided below. their dose optimally adjusted, prior to entering the double-blind phase of the trial. In the two-week double-blind then use purning capsed, pion entering the could climb phase of the that in the Worker could climb and the two week could climb phase of this study, patients received either placed or methylphenidate hydrochloride extended-re lease capsules (LA) at their individually-titrated dose (range 10 mg to 40 mg).

Dosage should be individualized according to the needs and responses of the patients.

ment with methylphenidate hydrochloride extended-release cansules (LA) 10 mg

morning. Methylphenidate hydrochloride extended-release capsules (LA) may be swallowed as whole capsules

or alternatively may be administered by sprinkling the capsule contents on a small amount of applesauce (see

specific instructions below). Methylphenidate hydrochloride extended-release cansules (LA) and/or their con

The cansules may be carefully opened and the heads sprinkled over a spoonful of applesauce. The applesauc

The capsules may be carefully opened and the bears spinished over a spooling or appressive. The appressive should not be warm because it could affect the modified release properties of this formulation. The mixture of drug and applesauce should be consumed immediately in its entirety. The drug and applesauce mixture should

mmended starting dose of methylphenidate hydrochloride extended-release capsules (LA) is 20 mc

once daily. Dosage may be adjusted in weekly 10 mg increments to a maximum of 60 mg/day taken once daily in the morning, depending on tolerability and degree of efficacy observed. Daily dosage above 60 mg is not rec-

ommended. When in the judgement of the clinician a lower initial dose is appropriate, patients may begin treat-

Previous Methylphenidate Dose	Extended-Release Capsule (LA) Dose
5 mg methylphenidate b.i.d.	10 mg q.d.
10 mg methylphenidate b.i.d. or 20 mg methylphenidate SR	20 mg q.d.
15 mg methylphenidate b.i.d.	30 mg q.d.
20 mg methylphenidate b.i.d. or 40 mg of methylphenidate SR	40 mg q.d.
30 mg methylphenidate b.i.d. or 60 mg methylphenidate SR	60 mg q.d.

For other methylphenidate regimens, clinical judgment should be used when selecting the starting dose. Methylphenidate hydrochloride extended-release capsule (LA) dosage may be adjusted at weekly intervals in 10 mg increments. Daily dosage above 60 mg is not recommended. release capsules (LA)-treated subjects, during the two-week double-blind phase of the clinical study, were as follows:

Maintenance/Extended Treatment

tents should not be crushed, chewed, or divided.

drug and applesauce should not be stored for future use.

Initial Treatment

Dosing Recommendations

There is no body of evidence available from controlled trials to indicate how long the patient with ADHD should be treated with methylphenidate hydrochloride extended-release capsules (LA). It is generally agreed, how-ever, that pharmacological treatment of ADHD may be needed for extended periods. Nevertheless, the physician who elects to use methylphenidate hydrochloride extended-release capsules (LA) for extended periods in patients with ADHD should periodically re-evaluate the long-term usefulness of the drug for the individual patient with trials off medication to assess the patient's functioning without pharmacotherapy. Improvement ma be sustained when the drug is either temporarily or permanently discontinued.

Dose Reduction and Discontinuation

If paradoxical aggravation of symptoms or other adverse events occur, the dosage should be reduced, or, if nec-essarv, the drug should be discontinued. If improvement is not observed after appropriate dosage adjustment nth period, the drug should be discontinued

HOW SUPPLIED ase capsules (LA) for up to 4 weeks. During this period a total of six subjects (6/161, 3.7%) discontinued due ochloride Extended-Belease Cansules (LA)

20 mg: white/white (imprinted	C 200)	,	,	
Bottles of 100				NDC 67767-200-01
Bottles of 250				NDC 67767-200-25

- Methylphenidate Hydrochloride Extended-Release Capsules (LA) 30 mg: white/light blue (imprinted 🔗 201) non adverse reactions reported with other methylphenidate products. In children, loss of appetite, abdominal pain, weight loss during prolonged therapy, insomnia, and tachy-cardia may occur more frequently; however, any of the other adverse reactions listed below may also occur. ..NDC 67767-201-01 Bottles of 100. NDC 67767-201-25
 - Bottles of 250 Methylphenidate Hydrochloride Extended-Release Capsules (LA) 40 mg: white/dark blue (imprinted 202)
 - Bottles of 100 NDC 67767-202-01 Bottles of 250. ..NDC 67767-202-25
 - Store at 25°C (77°F), excursions permitted 15°C-30°C (59°F-86°F). [See USP controlled room temperature] Dispense in tight container (USP).

REFERENCE

American Psychiatric Association. Diagnosis and Statistical Manual of Mental Disorders. 4th edition. Washington DC. American Psychiatric Association 1994.

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medicines, vitamins, and herbal supplements. Methylphenidate hydrochloride extended-release capsules (LA) and some medicines may interact with each other and cause serious side effects. Sometimes the doses of other medicines will need to be adjusted while taking methylphenidate hydrochloride extended-release capsules (LA).

Your doctor will decide whether methylphenidate hydrochloride extended-release capsules (I A) can be taken with other medicines

Especially tell your doctor if you or your child takes:

anti-depression medicines including MAOIs	blood pressure medicines
seizure medicines	 stomach acid medicines
blood thinner 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 pharmarist

Do not start any new medicine while taking methylphenidate hydrochloride extended-release capsules (LA) without talking to your doctor first.

How should Methylphenidate Hydrochloride Extended-Release Capsules (LA) be taken?

 Take methylphenidate hydrochloride extended-release capsules (LA) exactly as prescribed. Your doctor may adjust the dose until it is right for you or your child.

 Take methylphenidate hydrochloride extended-release capsules (LA) once a day in the morning. Methylphenidate hydrochloride extended-release capsules (LA) are an extended-release capsule. It releases medicine into your body throughout the day.

 Swallow methylphenidate hydrochloride extended-release capsules (LA) capsules whole with water or other liquids. If you cannot swallow the capsule, open it and sprinkle the medicine over a spoonful of applesauce. Swallow the applesauce and medicine mixture without chewing. Follow with a drink of water or other liquid. Never chew or crush the capsule or the medicine inside the cansule.

 From time to time, your doctor may stop methylphenidate hydrochloride extended-release capsule (LA) treatment for a while to check ADHD symptoms.

 Your doctor may do regular checks of the blood, heart, and blood pressure while taking methylphenidate hydrochloride extended-release capsules (LA). Children should have their height and weight checked often while taking methylphenidate hydrochloride extended-release capsules (LA). Methylphenidate hydrochloride extended-release capsule (LA) treatment may be stopped if a problem is found during these check-ups.

If you or your child takes too much methylphenidate hydrochloride extended-release capsules (LA) or overdoses, call your doctor or poison control center right away, or get emergency treatment.

What are possible side effects of Methylphenidate Hydrochloride Extended-Release Capsules (LA)?

See "What is the most important information I should know about Methylphenidate Hydrochloride Extended-Release Capsules (LA)" for information on reported heart and mental problems.

decreased appetite

trouble sleeping

Other serious side effects include:

• slowing of growth (height and weight) in children evesight changes or blurred vision

seizures, mainly in patients with a history of seizures

Common side effects include:

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 headache 		
 stomach ache 		

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. Ask your doctor or pharmacist for more information.

How should I store Methylphenidate Hydrochloride Extended-Release Capsules (LA)?

 Store methylphenidate hydrochloride extended-release capsules (LA) in a safe place at room temperature, 59 to 86° F (15 to 30° C).

Keep methylphenidate hydrochloride extended-release capsules (LA) and all medicines out of the reach of children. General information about Methylphenidate Hydrochloride Extended-Release Capsules (LA)

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use methylphenidate hydrochloride extended-release capsules (LA) for a condition for which it was not prescribed. Do not give methylphenidate hydrochloride extended-release capsules (LA) to other people, even if they have the same condition. It may harm them and it is against the law.

This Medication Guide summarizes the most important information about methylphenidate hydrochloride extended-release capsules (LA). If you would like more information, talk with your doctor. You can ask your doctor or pharmacist for information about methylphenidate hydrochloride extended-release capsules (LA) that was written for healthcare professionals. For more information about methylphenidate hydrochloride extended-release capsules (LA) call 1-800-432-8534.

What are the ingredients in Methylphenidate Hydrochloride Extended-Release Capsules (LA)?

Active Ingredient: methylphenidate hydrochloride USP

Inactive Ingredients: sugar spheres (which contain sucrose and starch), hypromellose, cellulose acetate butyrate, hypromellose acetate succinate, acetyltributyl citrate, acetone, talc, and purified water. Opaque gelatin capsules contain: titanium dioxide and gelatin. The 30 and 40 mg capsules contain D&C Red #28 and FD&C Blue #1. The capsules are imprinted with black ink which contains black iron oxide, shellac and potassium hydroxide.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

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

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cathartic. Intensive care must be provided to maintain adequate circulation and respiratory exchange: externa Efficacy of peritoneal dialysis or extracorporeal hemodialysis for methylphenidate overdosage has not been

; also, dialysis is considered unlikely to be of benefit due to the large volume of distribution of

DOSAGE AND ADMINISTRATION

Administration of Dose pride extended-release capsules (LA) are for oral administration once daily in the

Cardiac: angina, arrhythmia, palpitations, pulse increased or decreased, tachycardia Immune: hypersensitivity reactions including skin rash, urticaria, fever, arthralgia, exfoliative dermatitis, erythema multiforme with histopathological findings of necrotizing vasculitis, and thrombocytopenic purpura. Metabolism/Nutrition: anorexia, weight loss during prolonged therapy

Nervous System: dizziness, drowsiness, dyskinesia, headache, rare reports of Tourette's syndrome, toxic

Vascular: blood pressure increased or decreased; cerebrovascular vasculitis; cerebral occlusions; cerebral hemorrhages and cerebrovascular accidents Although a definite causal relationship has not been established, the following have been reported in patients

of ingesting his first dose of venlafaxine. It is uncertain whether this case represented a drug-drug interaction

Methylphenidate hydrochloride extended-release capsules (LA), like other products containing methylphenidate

are a Schedule II controlled substance. (See WARNINGS for boxed warning containing drug abuse and de

Its and symptoms of actuate overlossage, resonant principant non-oversamination of the camar nervous sys-and from excessive symptominetic effects, may include the following: voming, aglitation, tremors, hy reflexia, muscle twitching, convulsions (may be followed by coma), euphoria, confusion, hallucinations rirum, sweating, flushing, headache, hyperpyrexia, tachycardia, palpitations, cardiac arrhythmias, hyper

sult with a Certified Poison Control Center regarding treatment for up-to-date guidance and advice

s with the management of all overdosage, the possibility of multiple drug ingestion should be considered.

When treating overdose, practitioners should bear in mind that there is a prolonged release of methylphenidate from methylphenidate hydrochloride extended-release capsules (LA).

Treatment consists of appropriate supportive measures. The patient must be protected against self-injury and

against external stimuli that would aggravate overstimulation already present. Gastric contents may be evacu-ated by gastric lavage as indicated. Before performing gastric lavage, control agitation and seizures if present

and protect the airway. Other measures to detoxify the out include administration of activated charcoal and a

ns of acute overdosage, resulting principally from overstimulation of the central nervous sys

taking methylphenidate:

Blood/Lymphatic: leukopenia and/or anemia

appetite decreased, and anorexia.

Preferred term

Anorexia

Insomnia

Other reactions include:

Hepatobiliary: abnormal liver function, ranging from transaminase elevation to hepatic coma Psychiatric: transient depressed mood, aggressive behavior

Skin/Subcutaneous: scalp hair loss Very rare reports of neuroleptic malignant syndrome (NMS) have been received, and, in most of these, patients were concurrently receiving therapies associated with NMS. In a single report, a ten-year-old boy who had been taking methylphenidate for approximately 18 months experienced an NMS-like event within 45 minutes

a response to either drug alone, or some other cause

ension, mydriasis, and dryness of mucous membranes

cooling procedures may be required for hyperpyrexia.

DRUG ABUSE AND DEPENDENCE

OVERDOSAGE

Signs and Symptoms

Poison Control Center

Recommended Treatment











