# CADDRA Guide to ADHD Pharmacological Treatments in Quebec - September 2019

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<th>Medications available and Illustrations</th>
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<td><strong>AMPHETAMINE-BASED PSYCHOSTIMULANTS</strong></td>
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<tr>
<td>Dexedrine® Tablets 5 mg</td>
<td>Pill can be crushed</td>
<td>~ 4 h</td>
<td>5 mg b.i.d.</td>
<td>Max. dose/day: 18 mg Adults = 60 mg</td>
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<td>Covered</td>
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<tr>
<td>Dexedrine® spraysules 10, 15 mg</td>
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<tr>
<td>Adderall XR® Capsules 5, 10, 15, 20, 25, 30 mg</td>
<td>Sprinkable Granules</td>
<td>~ 12 h</td>
<td>5 - 20 mg q.d.</td>
<td>Max. dose/day: Adults = 60 mg</td>
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<tr>
<td>Vyanse® Capsules 10, 20, 30, 40, 50, 60, 70* mg</td>
<td>Capsule content can be diluted in water, orange juice and yogurt. Tablet must be chewed thoroughly before swallowing. Can be substituted with Vyvanse capsules on a mg per mg basis</td>
<td>~ 13 - 14 h</td>
<td>20 - 30 mg q.d. a.m.</td>
<td>10 mg at weekly intervals Max. dose/day: Children = 60 mg Adolescents and Adults = 80 mg</td>
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<tr>
<td>Chewable Tablets 10, 20, 30, 40, 50, 60 mg</td>
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<tr>
<td><strong>METHYLPHENIDATE-BASED PSYCHOSTIMULANTS</strong></td>
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<tr>
<td>Methylphenidate short acting Tablets 5 mg (generic) 10, 20 mg (Ritalin®)</td>
<td>Pill can be crushed</td>
<td>~ 3 - 4 h</td>
<td>5 mg b.i.d. to t.i.d. Adult = consider q.i.d.</td>
<td>Max. dose/day: All ages = 60 mg</td>
<td>5 mg at weekly intervals Max. dose/day: Children and Adolescents = 60 mg Adults = 100 mg</td>
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<tr>
<td>Biphentin® Capsules 10, 15, 20, 30, 40, 50, 60, 80 mg</td>
<td>Sprinkable Granules</td>
<td>~ 10 - 12 h</td>
<td>10 - 20 mg q.d. a.m.</td>
<td>10 mg at weekly intervals Max. dose/day: Children and Adolescents = 60 mg Adults = 80 mg</td>
<td>5 - 10 mg at weekly intervals Max. dose/day: Children = 60 mg Adolescents and Adults = 80 mg</td>
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<tr>
<td>Concerta® Extended Release Tablets 18, 27, 36, 54 mg</td>
<td>Pill needs to swallowed whole to keep delivery mechanism intact.</td>
<td>~ 12 h</td>
<td>18 mg q.d. a.m.</td>
<td>18 mg at weekly intervals Max. dose/day: Children and Adolescents = 54 mg Adults = 72 mg</td>
<td>9 - 18 mg at weekly intervals Max. dose/day: Children = 72 mg Adolescents = 90 mg Adults = 108 mg</td>
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<tr>
<td>Fostex® Capsules 25, 35, 45, 55, 70, 85, 100 mg</td>
<td>Sprinkable Granules</td>
<td>~ 16 h</td>
<td>25 mg q.d. a.m.</td>
<td>10-15 mg in intervals of no less than 5 days Max. dose/day: Children and Adolescents = 70 mg Adults = 100 mg</td>
<td>10-15 mg in intervals of no less than 5 days Max. dose/day: Children and Adolescents = 70 mg Adults = 100 mg</td>
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<td><strong>NON PSYCHOSTIMULANT - SELECTIVE NOREPINEPHRINE REUPTAKE INHIBITOR</strong></td>
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<tr>
<td>Strattera® (Atomoxetine) Capsules 10, 18, 25, 40, 60, 80, 100 mg</td>
<td>Capsule needs to swallowed whole to reduce GI side effects.</td>
<td>Up to 24 h</td>
<td>Children and Adolescents: 0.5 mg/kg/day Adults = 40 mg q.d. for 7-14 days</td>
<td>Maintain dose for a minimum of 7 - 14 days before adjusting: Children = 0.8 then 1.2 mg/kg/day 70 kg or Adults = 60 then 80 mg/day Max. dose/day : 1.4 mg/kg/day or 100 mg</td>
<td>Maintain dose for a minimum of 7 - 14 days before adjusting: Children = 0.8 then 1.2 mg/kg/day 70 kg or Adults = 60 then 80 mg/day Max. dose/day: 1.4 mg/kg/day or 100 mg</td>
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<tr>
<td><strong>NON PSYCHOSTIMULANT - SELECTIVE ALPHA-2A ADRENERGIC RECEPTOR AGONIST</strong></td>
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<tr>
<td>Intuniv® (Guafencine XR) Extended Release Tablets 1, 2, 3, 4 mg</td>
<td>Pills need to swallowed whole to keep delivery mechanism intact.</td>
<td>Up to 24 h</td>
<td>1 mg q.d. (morning or evening)</td>
<td>Maintain dose for a minimum of 7 days before adjusting by no more than 1 mg increment weekly Max. dose/day: Monotherapy: 6-12 years: 4 mg 13-17 years: 7 mg. As adjunctive therapy to psychostimulants 6-17 years: 4 mg</td>
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Note: Illustrations do not reflect real size of pills/capsules. For specific details on how to start, adjust and switch ADHD medications, clinicians are invited to refer to the Canadian ADHD Practice Guidelines (www.caddra.ca). * Pharmacokinetics and pharmacodynamic response vary from individual to individual. The clinician must use clinical judgement as to the duration of efficacy and not solely rely on reported values for PK and duration of effect. ** Starting doses are from product monographs. CADDRA recommends generally starting with the lowest dose available. ALT Higher abuse potential. * Vyvanse 70 mg is an off-label dosage for ADHD treatment in Canada. In Québec, RAMQ does NOT authorize the reimbursement of the 70 mg capsule while all the other doses are covered following the criteria of the Exceptional medications program. Document developed by Annick Vincent MD (www.attentiondeficit-info.com) and Direction des communications et de la philanthropie, Laval University, with the special collaboration of CADDRA.
Pharmacological treatment for ADHD must be integrated in a multimodal approach and needs to include medical evaluation and follow-up. Comorbid disorders and co-administration of other medications must be taken into account. Here is a brief summary of contraindications and possible drug interactions.

### Contraindications to Psychostimulants*
- Treatment with MAO inhibitors and for up to 14 days after discontinuation
- Symptomatic cardiovascular disease
- Glaucoma
- Advanced arteriosclerosis
- Untreated hyperthyroidism
- Known hypersensitivity or allergy to the products
- Acute psychiatric conditions such as mania or psychosis
- Moderate to severe hypertension

### Contraindications to Atomoxetine (Strattera)
- Treatment with MAOIs and for up to 14 days after discontinuation
- Narrow angle glaucoma
- Uncontrolled hyperthyroidism
- Pheochromocytoma
- Moderate to severe hypertension
- Symptomatic cardiovascular disease
- Advanced arteriosclerosis
- Known hypersensitivity or allergy to the products

### Contraindications to Guanfacine XR (Intuniv XR)
- Known hypersensitivity or allergy to the products
- Precautions are advised for those with a history of bradycardia, cardiovascular disease, heart block, hypotension, and syncope.


### Main Potential Drug Interactions
#### Psychostimulants
- Monoamine oxidase inhibitors are contraindicated
- SSRIs and SNRIs – possible increased risk of serotonin syndrome
- TCAs – amphetamines and methylphenidate may interact with TCAs by different mechanisms
- Antipsychotics (e.g. chlorpromazine, fluphenazine) – may reduce the effect of amphetamines
- Anticonvulsants – methylphenidate may increase the level of phenytoin, primidone and phenobarbital
- Warfarin – methylphenidate may increase serum concentrations of warfarin

#### Atomoxetine (Strattera)
- Monoamine oxidase inhibitors are contraindicated.
- Inhibitors of CYP2D6 (e.g., paroxetine, fluoxetine, bupropion, quinidine) – may increase atomoxetine serum concentrations.
- Decongestants (e.g. pseudoephedrine) – possible increase in blood pressure and heart rate.
- QT prolonging agents (e.g. quetiapine, quinidine)- May prolong QTc interval, consider alternatives.

#### Guanfacine XR (Intuniv XR)
- QT prolonging drugs (e.g. quetiapine, quinidine) – since guanfacine XR may cause a decrease in heart rate, concomitant use with QT prolonging drugs is not recommended.
- Beta-blockers – may increase risk of rebound hypertensive effect if guanfacine XR is stopped abruptly.
- Anticonvulsants – guanfacine XR may increase serum concentrations of valproic acid. Carbamazepine, phenobarbital and phenytoin may increase serum concentrations of guanfacine XR through CYP3A4 induction.
- CYP3A4 inducers or inhibitors (e.g. rifampin, fluconazole, ritonavir) - Inducers may increase serum concentrations of guanfacine XR Inhibitors may decrease serum concentrations of guanfacine XR.


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**How can CADDRA help you in your practice?**

- **The Canadian ADHD Practice Guidelines**: Written and reviewed by a multidisciplinary team of medical experts, the Guidelines provide practical information on how to screen, assess, and treat ADHD in children, adolescents, and adults.
- **ADHD Assessment Toolkit**: This is a step-by-step guide to ADHD assessment, provides information on differential diagnosis and comorbid disorders, and includes all required forms and handouts.
- **CADDRA eLearning Portal**: www.adhdlearning.caddra.ca is a virtual library of resources, including video presentations, podcasts, ePosters, and documents on ADHD.
- **Education and Training programs**: Training on ADHD and comorbid disorders across the lifespan.
- **Benefits of becoming a Member**: Join a network of health professionals working in the field of ADHD, receive newsletters, updates, and notifications, obtain a discount of 20% on the cost of our annual conference; get premium access to our ADHD Learning and receive a printed copy of the Canadian ADHD Practice Guidelines in French or English.
- **During our annual conferences**, you have an opportunity to hear the top international experts in the field of ADHD speaking on topical subjects, to participate in practical and interactive workshops on ADHD, and take part in networking sessions.

**Document developed by Annick Vincent MD** (www.attentiondeficit-info.com) and Direction des communications et de la philanthropie, Laval University.

Clinicians are invited to refer to the Canadian ADHD Practice Guidelines, 4th edition, for more information on ADHD diagnosis and treatments, www.caddra.ca