CADDRA Guide to ADHD Pharmacological Treatments in Canada 2014

Medications available and illustrations	Characteristics	Duration of action [1]	Starting dose [2]	Dose titration as per product monograph	Dose titration as per CADDRA www.caddra.ca
AMPHETAMINE-BASED PSYCHOSTIMULANTS					
Dexedrine® tablets 5 mg Dexedrine® spansules 10, 15 mg	Pill can be crushed easily[3] Spansule (not crushable)	~ 4 h ~ 6 - 8 h	Tablets = 2.5 to 5 mg BID Spansules = 10 mg q.d. a.m.	↑ 2.5 - 5 mg at weekly intervals; Max. dose/day: (q.d. or b.i.d.) All ages = 40 mg	↑ 2.5 - 5 mg/day at weekly intervals Max. dose/day: (q.d. or b.i.d.) Children and Adolescents = 20 - 30 mg Adults = 50 mg
Adderall XR® Capsules 5, 10, 15, 20, 25, 30 mg	Sprinkable Granules	~ 12 h	5 - 10 mg q.d. a.m.	↑ 5 - 10 mg at weekly intervals Max. dose/day: Children = 30 mg Adolescents and Adults = 20 - 30 mg	Children: ↑ 5 mg at weekly intervals Max. dose/day = 30 mg Adolescents and Adults: ↑ 5 mg at weekly intervals max. dose/day = 50 mg
Vyvanse® Capsules 20, 30, 40 50, 60 mg	Capsule content can be diluted in water	~ 13 - 14 h	20 - 30 mg q.d. a.m.	↑ by clinical discretion at weekly intervals Max. dose/day: All ages = 60 mg	↑ 10 mg at weekly intervals Max. dose/day: Children = 60mg Adolescents and Adults = 70 mg
METHYLPHENIDATE-BASED PSYCHOSTIMULANTS					
Methylphenidate short acting, tablets 5 mg (generic) 10, 20 mg (Ritalin®)	Pill can be crushed easily[3] Pill can be crushed easily[3]	~ 3 - 4 h	5 mg b.i.d. to t.i.d. Adult = consider q.i.d.	↑ 5 - 10 mg at weekly intervals Max. dose/day: All ages = 60 mg	↑ 5 mg at weekly intervals Max. dose/day: Children and Adolescents = 60 mg Adults = 100 mg
Biphentin® Capsules 10, 15, 20, 30, 40, 50, 60, 80 mg	Sprinkable Granules	~ 10 - 12 h	10 - 20 mg q.d. a.m.	↑ 10 mg at weekly intervals Max. dose/day: Children and Adolescents = 60 mg Adults = 80 mg	↑ 5 - 10 mg at weekly intervals Max. dose/day: Children = 60 mg Adolescents and Adults = 80 mg
Concerta® Extended Release Tabs 18, 27, 36, 54 mg	Rigid pill (need to swallowed whole)	~ 10 - 12 h	18 mg q.d. a.m.	↑ 18 mg at weekly intervals Max. dose/day: Children = 54 mg Adolescents = 54 mg / Adults = 72 mg	↑ 9 - 18 mg at weekly intervals Max. dose/day: Children = 72 mg Adolescents = 90 mg / Adults = 108 mg
NON PSYCHOSTIMULANT - SELECTIVE NOREPINEPHRINE REUPTAKE INHIBITOR					
Strattera[MD] (Atomoxetine) Capsules 10, 18, 25, 40, 60, 80, 100 mg	Capsule needs to swallowed whole to reduce GI side effects	Up to 24 h	Children and Adolescents : 0.5 mg/kg/day Adults = 40 mg q.d. for 7-14 days	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	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
NON PSYCHOSTIMULANT - SELECTIVE ALPHA-2A ADRENERGIC RECEPTOR AGONIST					
Intuniv XR ™ (Guanfacine XR) Extended release tabs 1, 2, 3, 4 mg	Pill needs to swallowed whole to keep delivery mechanism intact	Up to 24 h	1 mg q.d. (morning or bedtime)	Maintain dose for a minimum of 7 days before adjusting per 1 mg increment Max. dose/day : Children 6 - 12 years = 4 mg	Maintain dose for a minimum of 7 days before adjusting per 1 mg increment Max. dose/day : Children 6 - 12 years = 4 mg

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)

[1] 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.

[2] Starting doses are from product monographs. CADDRA recommends generally starting with the lowest dose available. [3] Higher abuse potential.

Document developed by Annick Vincent MD (www.attentiondeficit-info.com) and Direction de l'intégration des technologies de l'information (Diti), Laval University, with the special collaboration of CADDRA.

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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
- Glaucoma
- Untreated hyperthyroidism
- Moderate to severe hypertension
- Pre-existing severe gastrointestinal narrowing
- Advanced arteriosclerosis
- Known hypersensitivity or allergy to the products

*Contraindications to guanfacine XR and atomoxetine hydrochloride: see chapter 7, Canadian ADHD Practice Guidelines, 3rd edition, www.caddra.ca

POSSIBLE DRUG INTERACTIONS

Psychostimulants

- Psychostimulants may increase the level of phenytoin, carbamazepine, and phenobarbital.
- At the same time, these antiepileptics may lower the psychostimulant level as they act as universal enzyme inducers.
- Psychostimulants increase the level of MAO inhibitor and TCAs. Possible increase in SSRI level.
- Psychostimulants may increase the effect of warfarin.
- Valproic acid – increased concentrations of valproic acid: consider monitoring serum valproic acid concentrations.
- Heart rate-lowering drugs: concomitant use not recommended.

Atomoxetine hydrochloride (Strattera)

- Monoamine oxidase inhibitors are contraindicated.
- Inhibitors of CYP2D6 (e.g., paroxetine, fluoxetine, quinidine) increase atomoxetine steady-state plasma concentrations.
- Antihypertensive drugs and pressor agents - possible effects on blood pressure.

Guanfacine XR (Intuniv XR)

- QT prolonging drugs – since Guanfacine XR may cause a decrease in heart rate, concomitant use with QT prolonging drugs is not recommended.
- Anti-hypertensive drugs – potential for additive pharmacodynamics effects (e.g. hypotension,syncope.).

Additional information: Chapter 7, Canadian ADHD Practice Guidelines, 3rd edition. www.caddra.ca

Clinicians are invited to refer to the Canadian ADHD Practice Guidelines, 3rd edition, www.caddra.ca for more information on ADHD diagnosis and treatments.

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