Drug Use Research & Management Program
Oregon State University, 500 Summer Street NE, E35, Salem, Oregon 97301-1079
Phone 503-947-5220 | **Fax** 503-947-1119

Drug Effectiveness Review Project – Literature Scan Summary

Month/Year of Review: January 2013
PDL Class: Attention deficit disorder/Attention Hyperactivity Disorder (ADD/ADHD)

Date of Last Review: July 2013
Source Document: OSU College of Pharmacy, Drug Effectiveness Review Project

Preferred Drugs*	Non-Preferred Drugs
Amphetamine salts** tab (Adderall)	Amphetamine salts** ER cap (Adderall XL)
Dexmethylphenidate ER cap (Focalin XR)	Dexmethylphenidate tab
Dexmethylphenidate tab (**Focalin**)	Dextroamphetamine tab (Dexedrine)
Lisdexamfetamine cap (Vyvanse)	Dextroamphetamine oral sol (Procentra)
Methylphenidate ER cap (**Metadate CD**)	Dextroamphetamine SR cap (Dexedrine Spansule)
Methylphenidate ER TD patch (Daytrana)	Methamphetamine tab (Desoxyn)
Methylphenidate tab (Ritalin)	Methylphenidate ER cap (Biphentin, Concerta, Ritalin LA)
	Methylphenidate ER tab (Metadate ER, Methylin ER, Ritalin SR)
	Methylphenidate chew tab (Methylin)
	Methylphenidate oral sol (Methylin)
	Methylphenidate ER oral susp (Quillivant XR)

Voluntary Mental Health Preferred Drugs	Voluntary Mental Health Non-Preferred Drugs
Atomoxetine cap (Straterra)	Armodafinil tab (Nuvigil) Clonidine tab ER tab (Kapvay) Guanfacine ER tab (Intuniv) Modafinil tab (Provigil)

Abbreviations: cap = capsule; chew = chewable; DSC = discontinued product; ER = extended release; LA = long-acting; sol = solution; SR = sustained release; susp = suspension; TD = transdermal
*Certain strengths may require prior authorization
**Active ingredients = amphetamine aspartate; amphetamine sulfate; dextroamphetamine saccharate; dextroamphetamine sulfate
BOLDED: Branded product only preferred

Previous Conclusions and Recommendations:

- There is insufficient evidence methylphenidate oral suspension (Quillivant XR®) has improved efficacy or safety relative to other formulations.
- There is no new clinical evidence to make changes to current PDL status.

Research Questions:

1. Evidence on Effectiveness and Efficacy
    a. What is the comparative or non-comparative evidence that pharmacologic treatments for attention deficit disorders improve effectiveness outcomes?
    b. What is the comparative efficacy between any included pharmacologic treatment, between stimulants and non-stimulants, and between immediate-release compared with intermediate-release compared with long-acting formulations, for attention deficit disorders?
2. Tolerability, Serious Adverse Events, Misuse, and Diversion

a. What is the evidence of comparative tolerability of different pharmacologic treatments, between stimulants and non-stimulants, and between immediate-release compared with intermediate-release compared with long-acting formulations, for attention deficit disorders?
b. What is the evidence of serious adverse events or long-term adverse events associated with use of pharmacologic treatments for attention deficit disorders?
c. What is the comparative or non-comparative evidence that pharmacologic treatments for attention deficit disorders impact the risk of misuse or illicit diversion in patients with no history of misuse or diversion?

3. Evidence in Subgroups of Patients
    a. What is the evidence of benefits and harms of pharmacologic treatments, between stimulants and non-stimulants, and between immediate-release compared with intermediate-release compared with long-acting formulations, for attention deficit disorders in subgroups of patients based on demographics (age, racial groups, gender), socioeconomic status, other medications or therapy, or comorbidities (e.g. tics, anxiety, substance use disorders, disruptive behavior disorders)?
    b. What is the comparative or non-comparative evidence of misuse or illicit diversion of pharmacologic treatments for attention deficit disorders in patients with current or past substance use disorder comorbidities?

Conclusions and Recommendations:

- There is no new clinical evidence to make changes to current PDL status. No further review or research needed at this time.
- Evaluate comparative costs in executive session.

Methods:

The DERP scan was used to identify any new comparative research drug formulations used to treat ADHD in children and adults since the last P&T review in July 2013.[1]

Summary:

The DERP scan identified no new drugs, indications, or black boxed warnings pertaining to drugs to treat ADHD, nor have there have been any comprehensive comparative effectiveness reviews of drugs to treat ADHD in children and adults published that would necessitate updating the PDL. Five new head-to-head trials and 12 new placebo-controlled trials were identified since the last P&T review. New head-to-head evidence in adults is limited to 2 trials of methylphenidate immediate release (IR) or atomoxetine compared with osmotic-release oral system (OROS) methylphenidate (MPH). New head-to-head trials in children include 3 of lisdexamfetamine versus MPH OROS (plus 1 *post hoc* analysis) reporting on quality-of-life and efficacy throughout the day, and 2 of dexmethylphenidate extended-release versus mixed amphetamine salts or MPH IR.

References:

1. Holzhammer B, McDonagh M. Drug Class Review on Pharmacologic Treatments for ADHD, Preliminary Update Scan Report 3, September 2014. Drug Effectiveness Review Project. Pacific Northwest Evidence-based Practice Center, Oregon Health & Science University.