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Attention Deficit Hyperactivity Disorder (ADHD) Drug Use Evaluation

Recommendations

- Create a safety edit for:
  - Prescribing of ADHD medications by providers other than psychiatrists, mental health nurse practitioners, and pediatricians with developmental specialty when regimen is:
    - Outside of the standard ages
    - Outside the standard doses
    - Non-standard polypharmacy
  - Adults 18 or older receiving ADHD medications
- Require informed consent, controlled substance contract, or similar risk mitigation tool for adults prescribed CNS stimulants

Background

Attention deficit hyperactivity disorder (ADHD) has been characterized as the most commonly diagnosed mental health disorder in children and is increasingly diagnosed in adults.[1,2] Pharmacotherapy, in conjunction with psychosocial interventions, is a core treatment modality for ADHD. As discussed previously, pharmacotherapy options include traditional stimulants (e.g. amphetamine and methylphenidate derivatives), non-traditional stimulants (e.g. modafinil), and non-stimulants (e.g. guanfacine, clonidine, and atomoxetine).[3,4] Current recommendations from the American Academy of Pediatrics (AAP) and the 2011 Drug Effectiveness Review Project (DERP) indicate different pharmacotherapy options for different age groups.[5,6] A 2013 DERP report evaluated state Medicaid program policies managing the use of stimulants for the treatment of ADHD.[1] These finding were compared to the current Oregon Fee-For-Service (FFS) policies[7] and the following areas for improvement were identified:

1. Promote age-specific therapy
2. Verify indications for pharmacotherapy
3. Limit the use of non-standard polypharmacy regimens
4. Develop specific policies for patients with a history of substance abuse
5. Develop an informed consent process

A drug use evaluation (DUE) was performed to determine if policy changes in these areas would impact current pharmacy utilization.

DUE Goals

- Determine the prevalence of members prescribed ADHD treatments according to best practice guidelines (age, indication & polypharmacy)[1,5,6,8]
- Determine the prevalence of substance misuse in adolescents 12-17 and adults receiving ADHD medications

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Methods

Inclusion and Exclusion Criteria

The DUE evaluated claims from 8/1/2011 until 2/13/2013. Members were selected based on the presence of at least one paid Fee-For-Service (FFS) pharmacy claim between 8/1/2012 and 11/30/2012 for a medication used in the treatment of ADHD (Table A1). The Index Event (IE) was defined as the first claim for an ADHD medication during this timeframe. Patients with dual Medicare eligibility during the study period were excluded, as were members enrolled in a coordinated care organization (CCO). Members with a gap in eligibility exceeding 25% during the study period were excluded. Patients with a recent history of hypertension without a diagnosis of ADHD (ICD9 314.xx), only receiving prescriptions for clonidine immediate release were excluded due to the likelihood that clonidine is being used for hypertension, not ADHD. Hypertension was identified by diagnosis codes (ICD9 40x.xx) or outpatient pharmacy claims for common antihypertensive medications (Table A2). Patients with a diagnosis of drug withdrawal (ICD9 292.0) and no ADHD diagnosis receiving only immediate release clonidine were also excluded.

Baseline Characteristics

Baseline characteristics of age, gender and ethnicity were assessed at the IE. Age groups were defined to correspond to age-specific variations in treatment and monitoring recommendations. ADHD diagnosis was assessed based on the presence of medical claims between the IE-365 days and IE+30 days with an ICD9 code of 314.xx.

Measures

Standard therapy definitions were based on the findings and recommendations of the AAP and DERP.[5,8] The term "standard" therapy has been used in recognition that individualized therapy outside of guidelines may be clinically appropriate based on factors not readily available from claims data. Standard therapy is defined as meeting all recommendations for age, dose, indication, and presence of other medication therapies (i.e. polypharmacy). Drug therapy was considered age-standard if the patient's age was within the range listed in table A1 on the first claim date for a given medication during the study period. The dose for a particular prescription was considered standard if the total daily dose was less than or equal to the maximum daily dose listed in table A1. If at least one claim exceeded the maximum daily dose, the member was categorized as receiving non-standard dosing. The daily dose was calculated based on the day supply, quantity dispensed, and strength as indicated on the paid claim.

Polypharmacy was evaluated during the 90 days following the IE. Polypharmacy was defined as at least 60 days covered by each agent, with a minimum overlap of 60 days and a gap in therapy not exceeding 32 days.[9] The use of a long acting stimulant in conjunction with an immediate release stimulant was not considered polypharmacy. Polypharmacy was categorized as non-standard in children under 6 years old, regardless of the combination, per AAP guidelines.[5] Polypharmacy was considered a standard therapy in children 6-17 when a stimulant was used in combination with clonidine, or guanfacine. All other combinations were considered non-standard in children 6-17. All polypharmacy in adults was considered non-standard.[6,10]

Therapy was considered standard for the indication if there was a history of ADHD (ICD9 314.xx) at baseline. Member receiving stimulants for narcolepsy (ICD9 347.xx) were categorized has receiving standard therapy. The presence of obstructive sleep apnea (ICD9 327.xx) and the use of modafinil or armodafinil were considered standard indications.

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Patients without any of these indications were considered as treated for non-standard indications. A second aggregate measure of non-standard regimens, excluding standard indication, was also reported.

Substance misuse was identified by medical claims with a diagnosis contained in Table A3 or outpatient prescriptions listed in table A4. Recent history of substance misuse was defined as the presence of at least one claim between 365 days before the IE and 30 days after the IE. Any history of misuses includes members with any claim prior to the IE + 30 days. Substance misuse was only evaluated in adolescents and adults as these are the two highest risk groups for misuse and diversion.[6]

Results

The majority of members receiving ADHD therapy were under 18 years old, male, and white (Table 1). Of the 2,355 member included 1,045 (44%) had a claims history suggesting non-standard pharmacotherapy (Table 2). Non-standard polypharmacy was uncommon (5%, n=126). Overall the most common type of non-standard therapy was non-standard indication (37%). In children 3-5 years old, non-standard regimens were most commonly characterized as inappropriate for this age group (94%). Of the 83 members receiving pharmacotherapy outside standard doses, 48 (59%) were receiving medications for which there are no current PA criteria (atomoxetine, clonidine, guanfacine, and modafinil).

In adults receiving ADHD pharmacotherapy, 19% had a recent history of substance misuse and 34% have a history of substance misuse (Table 3). Of the 172 adult members with a any history of substance misuse, 110 (64%) were receiving traditional CNS Stimulants. Of the 85 adolescents with a history of substance misuse, 59 (70%) were receiving traditional stimulants.

Table 1. Baseline Characteristics

	n=2355	
	#	%
Age		
Under 3 years	1	0%
3-5 years	50	2%
6-11 years	858	36%
12-17 years	944	40%
18 years and older	502	21%
Ethnicity		
Non-White	455	19%
White	1,900	81%
Gender		
F	845	36%
M	1,510	64%

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Table 2. ADHD Pharmacotherapy Descriptions

	Overall		Under 3 years		3-5 years		6-11 years		12-17 years		18 years and older	
	n=2355		n=1		n=50		n=858		n=944		n=502	
	#	%	#	%	#	%	#	%	#	%	#	%
Non-Standard Prescribing - Overall	1,045	44%	1	100%	47	94%	299	35%	402	43%	296	59%
Outside Standard Age	184	8%	1	100%	47	94%	0	0%	4	0%	132	26%
Outside Standard Dose	83	4%	0	0%	1	2%	17	2%	37	4%	28	6%
No Standard Indication	870	37%	1	100%	18	36%	253	29%	347	37%	251	50%
Non-Standard Polypharmacy	126	5%	0	0%	3	6%	52	6%	44	5%	27	5%

Table 3. Substance Misuse History

	12-17 years		18 years and older	
	n=944		n=502	
	#	%	#	%
Recent History of Substance Misuse				
Any	54	6%	95	19%
Stimulants	8	1%	21	4%
Other Drugs	46	5%	75	15%
Any History of Substance Misuse				
Any	85	9%	172	34%
Stimulants	14	1%	53	11%
Other Drugs	77	8%	152	30%

Discussion

A significant proportion (44%) of FFS members receiving ADHD pharmacotherapy were identified as being treated with non-standard prescribing. There was a high prevalence (37%) of no documented standard indication for ADHD therapy but past experience has shown that administrative claims may underreport the prevalence of a disorder. The use of non-standard doses was low (4%), likely due to the current PA criteria indicating CNS stimulants exceeding maximum doses must be prescribed by a psychiatrist.

The prevalence of substance abuse history in adult ADHD patients was high (recent 19%, any 34%). Published reports indicate diversion and misuse issues are also significant in adolescents with 5% to 8% reporting misusing and high incidence of giving them away (15% to 24%) or selling them (7%-19%). The 1% rate of stimulant misuse in adolescents is significantly lower than other published rates. This could be a function of underreporting in claims data.

There is currently no mechanism to ensure patients with treatment-resistant ADHD symptoms are receiving specialty psychiatric care. Neither is there a process to support increased monitoring for members receiving CNS stimulants with an increased risk of substance misuse.

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Recommendations

Multiple states have implemented prior authorizations to monitor and manage non-standard prescribing practices (Table 4). Several state (Delaware, Idaho, Utah, and Missouri) require screening and monitoring for efficacy and safety of ADHD medications in patients with a history of substance abuse.[1] Idaho is the most restrictive and does not approve the use of CNS stimulants in adults with a history of substance abuse. There is no clear evidence supporting a particular approach.

Appendix B contains a safety edit designed to promote specialized care for patients receiving non-standard ADHD pharmacotherapy. The safety edit be triggered for:

- ADHD medications prescribed by non-psychiatrists when regimen is:
  - Outside of the standard ages
  - Outside the standard doses
  - Non-standard polypharmacy

Table 4. Prior Authorization Policies for Non-Standard Prescribing[1]

	Age Restrictions	Dose Limits	Polypharmacy
Arkansas	✓	✓	✓
Colorado		✓	
Delaware	✓		
Idaho	✓		
Illinois	✓		
Missouri			✓
New York	✓		
Oregon		✓	
Tennessee		✓	
Texas		✓	✓
Utah	✓		

There are client confidentiality regulations constraining targeted safety edits in patients with a history of substance misuse. Certain types of substance abuse treatment history cannot be disclosed without written patient consent. Therefore a prior authorization policy based on this information is not practical. Requiring prior authorizations for all adults could unnecessarily restrict access to physician or pharmacy services. A provider survey and education campaign represents a low-impact option to determine current strategies and opportunities for DMAP to provide additional resources (e.g. sample documents). Providers who prescribed CNS stimulants to FFS members during the prior 12 months would be a reasonable target audience. Results of this survey and further policy recommendations will be brought to the P & T committee.

A risk associated with any utilization control is the unintended discontinuation of therapy.[12] This can occur when patient do not understand the process or the prescriber does not complete the request. A retrospective drug use review will monitor patients for claims denied due to the PA requirement without either a PA requested or an alternative prescription. The retrospective review will also monitor for denied claims, a proxy for prescriptions paid for with cash.

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Appendix A

Table A1 ADHD Medications[5,6,8]

Generic Name	Minimum Age	Maximum Age	Maximum Daily Dose (mg)
armodafinil	18		250
atomoxetine	6		100
clonidine*	6	17	0.4
dexmethylphenidate	6		20
dextroamphetamine sulfate	6		40
dextroamphetamine/amphetamine	6		60
guanfacine	6	17	4
lisdexamfetamine dimesylate	6		70
methamphetamine	6		60
methylphenidate immediate release	3		90
methylphenidate sustained release	6		90
methylphenidate transdermal	6		30
modafinil	18		200

*Prescriptions for transdermal clonidine we excluded, as these are only indicated for cardiovascular indications. Bupropion and desipramine were excluded due to their common use in the treatment of affective disorders.

Table A2 – Antihypertensive agents

Drug Class	Generic name
ACE, ARB, DRI Drugs	ALISKIREN HEMIFUMARATE
ACE, ARB, DRI Drugs	AZILSARTAN MEDOXOMIL
ACE, ARB, DRI Drugs	BENAZEPRIL HCL
ACE, ARB, DRI Drugs	CANDESARTAN CILEXETIL
ACE, ARB, DRI Drugs	CAPTOPRIL
ACE, ARB, DRI Drugs	ENALAPRIL MALEATE
ACE, ARB, DRI Drugs	EPROSARTAN MESYLATE
ACE, ARB, DRI Drugs	FOSINOPRIL SODIUM
ACE, ARB, DRI Drugs	IRBESARTAN
ACE, ARB, DRI Drugs	LISINOPRIL
ACE, ARB, DRI Drugs	LOSARTAN POTASSIUM
ACE, ARB, DRI Drugs	MOEXIPRIL HCL
ACE, ARB, DRI Drugs	OLMESARTAN MEDOXOMIL
ACE, ARB, DRI Drugs	PERINDOPRIL ERBUMINE
ACE, ARB, DRI Drugs	QUINAPRIL HCL
ACE, ARB, DRI Drugs	QUINAPRIL HCL/MAG CARB
ACE, ARB, DRI Drugs	RAMIPRIL
ACE, ARB, DRI Drugs	TELMISARTAN
ACE, ARB, DRI Drugs	TRANDOLAPRIL
ACE, ARB, DRI Drugs	VALSARTAN
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	ALISKIREN/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	AZILSARTAN MED/CHLORTHALIDONE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	BENAZEPRIL/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	CANDESARTAN/HYDROCHLOROTHIAZID
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	CAPTOPRIL/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	ENALAPRIL/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	EPROSARTAN/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	FOSINOPRIL/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	IRBESARTAN/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	LISINOPRIL/HYDROCHLOROTHIAZIDE

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Drug Class	Generic name
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	LOSARTAN/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	MOEXIPRIL/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	OLMESARTAN/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	QUINAPRIL/HYDROCHLOROTHIAZIDE
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	TELMISARTAN/HYDROCHLOROTHIAZID
ACE-HCTZ, ARB-HCTZ, DRI-HCTZ Drugs	VALSARTAN/HYDROCHLOROTHIAZIDE
Beta-Blockers	ACEBUTOLOL HCL
Beta-Blockers	ATENOLOL
Beta-Blockers	BETAXOLOL HCL
Beta-Blockers	BISOPROLOL FUMARATE
Beta-Blockers	CARTEOLOL HCL
Beta-Blockers	CARVEDILOL
Beta-Blockers	CARVEDILOL PHOSPHATE
Beta-Blockers	LABETALOL HCL
Beta-Blockers	METOPROLOL SUCCINATE
Beta-Blockers	METOPROLOL TARTRATE
Beta-Blockers	NADOLOL
Beta-Blockers	NEBIVOLOL HCL
Beta-Blockers	PENBUTOLOL SULFATE
Beta-Blockers	PINDOLOL
Beta-Blockers	PROPRANOLOL HCL
Beta-Blockers	SOTALOL HCL
Beta-Blockers	TIMOLOL MALEATE
Calcium Channel Blockers - Dihydropyridine	AMLODIPINE BESYLATE
Calcium Channel Blockers - Dihydropyridine	BEPRIDIL HCL
Calcium Channel Blockers - Dihydropyridine	DILTIAZEM MALATE
Calcium Channel Blockers - Dihydropyridine	FELODIPINE
Calcium Channel Blockers - Dihydropyridine	ISRADIPINE
Calcium Channel Blockers - Dihydropyridine	NICARDIPINE HCL
Calcium Channel Blockers - Dihydropyridine	NIMODIPINE
Calcium Channel Blockers - Dihydropyridine	NISOLDIPINE
Calcium Channel Blockers - Non-Dihydropyridine	DILTIAZEM HCL
Calcium Channel Blockers - Non-Dihydropyridine	NIFEDIPINE
Calcium Channel Blockers - Non-Dihydropyridine	VERAPAMIL HCL
Diuretics	AMILORIDE HCL
Diuretics	AMILORIDE/HYDROCHLOROTHIAZIDE
Diuretics	BENDROFLUMETHIAZIDE
Diuretics	BENZTHIAZIDE
Diuretics	BUMETANIDE
Diuretics	CHLOROTHIAZIDE
Diuretics	CHLORTHALIDONE
Diuretics	EPLERENONE
Diuretics	ETHACRYNIC ACID
Diuretics	FUROSEMIDE
Diuretics	HYDROCHLOROTHIAZIDE
Diuretics	HYDROFLUMETHIAZIDE
Diuretics	INDAPAMIDE
Diuretics	METHYCLOTHIAZIDE
Diuretics	METOLAZONE
Diuretics	POLYTHIAZIDE
Diuretics	SPIRONOLACT/HYDROCHLOROTHIAZID
Diuretics	SPIRONOLACTONE
Diuretics	TORSEMIDE
Diuretics	TRIAMTERENE
Diuretics	TRIAMTERENE/HYDROCHLOROTHIAZID
Diuretics	TRICHLORMETHIAZIDE

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Table A3 Diagnosis Codes and Categories

ICD9 Code	Description	Stimulant Related
291	ALCOHOL-INDUCED MENTAL DISORDERS	
2910	Alcohol withdrawal delirium	
29100	DSM ALCOHOL WITHDRAWAL DELIRIU	
2911	Alcohol-induced persisting amnestic disorder	
29110	DSM ALCOHOL AMNESTIC SYNDROME	
2912	Alcohol-induced persisting dementia	
29120	DSM OTHER ALCOHOLIC DEMENTIA	
2913	Alcohol-induced psychotic disorder with hallucinations	
29130	DSM ALCOHOL WITHDRAWAL HALLUCI	
2914	Idiosyncratic alcohol intoxication	
29140	DSM IDIOSYNCRATIC ALCOHOL INTO	
2915	Alcohol-induced psychotic disorder with delusions	
2918	OTHER SPECIFIED ALCOHOL-INDUCED MENTAL DISORDERS	
29180	DSM OTHER SPEC ALCOHOL PSYCHOS	
29181	Alcohol withdrawal	
29182	Alcohol induced sleep disorders	
29189	Other alcohol-induced mental disorders	
2919	Unspecified alcohol-induced mental disorders	
292	DRUG-INDUCED MENTAL DISORDERS	
2920	Drug withdrawal	
29200	DSM DRUG WITHDRAWAL SYNDROME	
2921	PARANOID &OR HALLUCINATORY STATES INDUCED DRUGS	
29211	Drug-induced psychotic disorder with delusions	
29212	Drug-induced psychotic disorder with hallucinations	
2922	Pathological drug intoxication	
2928	OTHER SPECIFIED DRUG-INDUCED MENTAL DISORDERS	
29281	Drug-induced delirium	
29282	Drug-induced persisting dementia	
29283	Drug-induced persisting amnestic disorder	
29284	Drug-induced mood disorder	
29285	Drug induced sleep disorders	
29289	Other specified drug-induced mental disorders	
2929	Unspecified drug-induced mental disorder	
29290	DSM UNSPECIFIED DRUG INDUCED O	
30016	Factitious disorder with predominantly psychological signs and symptoms	
303	ALCOHOL DEPENDENCE SYNDROME	
3030	ACUTE ALCOHOLIC INTOXICATION	
30300	Acute alcoholic intoxication in alcoholism, unspecified	
30301	Acute alcoholic intoxication in alcoholism, continuous	

ICD9 Code	Description	Stimulant Related
30302	Acute alcoholic intoxication in alcoholism, episodic	
30303	Acute alcoholic intoxication in alcoholism, in remission	
3039	OTHER AND UNSPECIFIED ALCOHOL DEPENDENCE	
30390	Other and unspecified alcohol dependence, unspecified	
30391	Other and unspecified alcohol dependence, continuous	
30392	Other and unspecified alcohol dependence, episodic	
30393	Other and unspecified alcohol dependence, in remission	
304	DRUG DEPENDENCE	
3040	OPIOID TYPE DEPENDENCE	
30400	Opioid type dependence, unspecified	
30401	Opioid type dependence, continuous	
30402	Opioid type dependence, episodic	
30403	Opioid type dependence, in remission	
3041	SEDATIVE HYPNOTIC OR ANXIOLYTIC DEPENDENCE	
30410	Sedative, hypnotic or anxiolytic dependence, unspecified	
30411	Sedative, hypnotic or anxiolytic dependence, continuous	
30412	Sedative, hypnotic or anxiolytic dependence, episodic	
30413	Sedative, hypnotic or anxiolytic dependence, in remission	
3042	COCAINE DEPENDENCE	
30420	Cocaine dependence, unspecified	
30421	Cocaine dependence, continuous	
30422	Cocaine dependence, episodic	
30423	Cocaine dependence, in remission	
3043	CANNABIS DEPENDENCE	
30430	Cannabis dependence, unspecified	
30431	Cannabis dependence, continuous	
30432	Cannabis dependence, episodic	
30433	Cannabis dependence, in remission	
3044	AMPHETAMINE AND OTHER PSYCHOSTIMULANT DEPENDENCE	Yes
30440	Amphetamine and other psychostimulant dependence, unspecified	Yes
30441	Amphetamine and other psychostimulant dependence, continuous	Yes
30442	Amphetamine and other psychostimulant dependence, episodic	Yes

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ICD9 Code	Description	Stimulant Related
30443	Amphetamine and other psychostimulant dependence, in remission	Yes
3045	HALLUCINOGEN DEPENDENCE	
30450	Hallucinogen dependence, unspecified	
30451	Hallucinogen dependence, continuous	
30452	Hallucinogen dependence, episodic	
30453	Hallucinogen dependence, in remission	
3046	OTHER SPECIFIED DRUG DEPENDENCE	
30460	Other specified drug dependence, unspecified	
30461	Other specified drug dependence, continuous	
30462	Other specified drug dependence, episodic	
30463	Other specified drug dependence, in remission	
3047	COMB OPIOID DRUG W/ANY OTH DRUG DEPENDENCE	
30470	Combinations of opioid type drug with any other drug dependence, unspecified	
30471	Combinations of opioid type drug with any other drug dependence, continuous	
30472	Combinations of opioid type drug with any other drug dependence, episodic	
30473	Combinations of opioid type drug with any other drug dependence, in remission	
3048	COMB DRUG DEPENDENCE EXCLUDING OPIOID DRUG	
30480	Combinations of drug dependence excluding opioid type drug, unspecified	
30481	Combinations of drug dependence excluding opioid type drug, continuous	
30482	Combinations of drug dependence excluding opioid type drug, episodic	
30483	Combinations of drug dependence excluding opioid type drug, in remission	
3049	UNSPECIFIED DRUG DEPENDENCE	
30490	Unspecified drug dependence, unspecified	
30491	Unspecified drug dependence, continuous	
30492	Unspecified drug dependence, episodic	
30493	Unspecified drug dependence, in remission	
305	NONDEPENDENT ABUSE OF DRUGS	
3050	NONDEPENDENT ALCOHOL ABUSE	
30500	Alcohol abuse, unspecified	
30501	Alcohol abuse, continuous	
30502	Alcohol abuse, episodic	
30503	Alcohol abuse, in remission	
3052	NONDEPENDENT CANNABIS ABUSE	
30520	Cannabis abuse, unspecified	
30521	Cannabis abuse, continuous	
30522	Cannabis abuse, episodic	
30523	Cannabis abuse, in remission	
3053	NONDEPENDENT HALLUCINOGEN ABUSE	
30530	Hallucinogen abuse, unspecified	

ICD9 Code	Description	Stimulant Related
30531	Hallucinogen abuse, continuous	
30532	Hallucinogen abuse, episodic	
30533	Hallucinogen abuse, in remission	
3054	NONDEPENDENT SEDATIVE HYPNOTIC/ANXIOLYTIC ABUSE	
30540	Sedative, hypnotic or anxiolytic abuse, unspecified	
30541	Sedative, hypnotic or anxiolytic abuse, continuous	
30542	Sedative, hypnotic or anxiolytic abuse, episodic	
30543	Sedative, hypnotic or anxiolytic abuse, in remission	
3055	NONDEPENDENT OPIOID ABUSE	
30550	Opioid abuse, unspecified	
30551	Opioid abuse, continuous	
30552	Opioid abuse, episodic	
30553	Opioid abuse, in remission	
3056	NONDEPENDENT COCAINE ABUSE	
30560	Cocaine abuse, unspecified	
30561	Cocaine abuse, continuous	
30562	Cocaine abuse, episodic	
30563	Cocaine abuse, in remission	
3057	NONDEPEND AMPHET/REL ACTING SYMPATHOMIMET ABS	Yes
30570	Amphetamine or related acting sympathomimetic abuse, unspecified	Yes
30571	Amphetamine or related acting sympathomimetic abuse, continuous	Yes
30572	Amphetamine or related acting sympathomimetic abuse, episodic	Yes
30573	Amphetamine or related acting sympathomimetic abuse, in remission	Yes
3058	NONDEPENDENT ANTIDEPRESSANT TYPE ABUSE	
30580	Antidepressant type abuse, unspecified	
30581	Antidepressant type abuse, continuous	
30582	Antidepressant type abuse, episodic	
30583	Antidepressant type abuse, in remission	
3059	OTHER MIXED/UNSPECIFIED NONDEPENDENT DRUG ABUSE	
30590	Other, mixed, or unspecified drug abuse, unspecified	
30591	Other, mixed, or unspecified drug abuse, continuous	
30592	Other, mixed, or unspecified drug abuse, episodic	
30593	Other, mixed, or unspecified drug abuse, in remission	
9650	POISONING BY OPIATES AND RELATED NARCOTICS	
96500	Poisoning by opium (alkaloids), unspecified	

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ICD9 Code	Description	Stimulant Related
96501	Poisoning by heroin	
96502	Poisoning by methadone	
96509	Poisoning by other opiates and related narcotics	
9654	Poisoning by aromatic analgesics, not elsewhere classified	
967	POISONING BY SEDATIVES AND HYPNOTICS	
9670	Poisoning by barbiturates	
9671	Poisoning by chloral hydrate group	
9672	Poisoning by paraldehyde	
9673	Poisoning by bromine compounds	
9674	Poisoning by methaqualone compounds	
9675	Poisoning by glutethimide group	
9676	Poisoning by mixed sedatives, not elsewhere classified	
9678	Poisoning by other sedatives and hypnotics	
9679	Poisoning by unspecified sedative or hypnotic	
9694	Poisoning by benzodiazepine-based tranquilizers	
9695	Poisoning by other tranquilizers	
9696	Poisoning by psychodysleptics (hallucinogens)	
9697	POISONING BY PSYCHOSTIMULANTS	Yes
96970	Poisoning by psychostimulant, unspecified	Yes
96971	Poisoning by caffeine	
96972	Poisoning by amphetamines	Yes
96973	Poisoning by methylphenidate	Yes
96979	Poisoning by other psychostimulants	Yes
97081	Poisoning by cocaine	
97089	Poisoning by other central nervous system stimulants	Yes
9779	Poisoning by unspecified drug or medicinal substance	
E8500	Accidental poisoning by heroin	
E8501	Accidental poisoning by methadone	
E8502	Accidental poisoning by other opiates and related narcotics	
E851	Accidental poisoning by barbiturates	
E852	ACCIDENTAL POISONING OTHER SEDATIVES&HYPNOTICS	
E8520	Accidental poisoning by chloral hydrate group	
E8521	Accidental poisoning by paraldehyde	
E8522	Accidental poisoning by bromine compounds	
E8523	Accidental poisoning by methaqualone compounds	
E8524	Accidental poisoning by glutethimide group	
E8525	Accidental poisoning by mixed sedatives, not elsewhere classified	
E8528	Accidental poisoning by other specified sedatives and hypnotics	

ICD9 Code	Description	Stimulant Related
E8529	Accidental poisoning by unspecified sedative or hypnotic	
E8532	Accidental poisoning by benzodiazepine-based tranquilizers	
E8541	Accidental poisoning by psychodysleptics [hallucinogens]	
E8543	Accidental poisoning by central nervous system stimulants	Yes
E860	ACCIDENTAL POISONING BY ALCOHOL NEC	
E8600	Accidental poisoning by alcoholic beverages	
E8601	Accidental poisoning by other and unspecified ethyl alcohol and its products	
E8602	Accidental poisoning by methyl alcohol	
E8603	Accidental poisoning by isopropyl alcohol	
E8604	Accidental poisoning by fusel oil	
E8608	Accidental poisoning by other specified alcohols	
E8609	Accidental poisoning by unspecified alcohol	
E9500	Suicide and self-inflicted poisoning by analgesics, antipyretics, and antirheumatics	
E9501	Suicide and self-inflicted poisoning by barbiturates	
E9502	Suicide and self-inflicted poisoning by other sedatives and hypnotics	
E9503	Suicide and self-inflicted poisoning by tranquilizers and other psychotropic agents	
V652	Person feigning illness	
V6520	DSM PERSON FEIGNING ILLNESS	
V681	Issue of repeat prescriptions	

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Table A4 – Outpatient Medications Associated with Substance Misuse/Abuse

Generic Name
ACAMPROSATE CALCIUM
BUPRENORPHINE HCL
BUPRENORPHINE HCL/NALOXONE HCL
DISULFIRAM
NALTREXONE HCL
NALTREXONE MICROSPHERES

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Appendix B Safety Edit

Attention Deficit Hyperactivity Disorder (ADHD)

Goal(s):
- Cover ADHD medications only for OHP covered diagnoses consistent with current best practices
- Promote care by a psychiatrist for patients requiring therapy outside of best-practice guidelines
- Promote preferred drugs in class

Length of Authorization:
- Up to 12 months

Triggers:
- Regimens prescribed by a non-psychiatrist which are:
  - Outside of standard age (Table 2)
  - Outside standard dose (Table 2)
  - Non-standard polypharmacy (Table 3)
- Adults 18 years or older
- Non-preferred drugs on the enforceable preferred drug list. Preferred alternatives listed at www.orpdl.org

Table 1. Approved and Funded Indications for ADHD Medications

Indication	Methylphenidate and derivatives	Amphetamines	Modafinil (Provigil™)	Armodafinil (Nuvigil™)	Atomoxetine (Strattera™)	Clonidine ER (Kapvay™)	Guanfacine ER (Intuniv™)
ADHD	Six and Older	Three and older	Not approved	Not approved	Six and older	Children 6-17 only	Children 6-17 only
Narcolepsy	Six and older	Three and older	Adults 18 and older	Adults 18 and older	Not approved	Not approved	Not approved
Drug Induced Sedation	Six and older	Three and older	Not approved	Not approved	Not approved	Not approved	Not approved
Obstructive sleep apnea	Not approved	Not approved	Adults 18 and older	Adults 18 and older	Not approved	Not approved	Not approved

Table 2. Standard Age and Dose Ranges for ADHD Medications

Drug Type	Generic Name	Minimum Age	Maximum Age	Maximum Daily Dose
Non-Traditional Stimulant	armodafinil	18		250mg
Non-Stimulant	atomoxetine	6		100mg
Non-Stimulant	clonidine	6	17	0.4mg
CNS Stimulant	dexmethylphenidate	6		20mg or 2mg/kg/day if under 18yrs
CNS Stimulant	dextroamphetamine	6		40 mg or 0.5mg/kg/ day if under 18yrs
CNS Stimulant	dextroamphetamine/amphetamine	6		60 mg or 0.5mg/kg/ day if under 18yrs
Non-Stimulant	guanfacine	6	17	4mg
CNS Stimulant	lisdexamfetamine	6		70mg or 0.5mg/kg/ day if under 18yrs
CNS Stimulant	methylphenidate immediate release	3		90mg or 2mg/kg/ day if under 18yrs
CNS Stimulant	methylphenidate sustained release	6		90mg or 2mg/kg/ day if under 18yrs
CNS Stimulant	methylphenidate transdermal	6		30mg
Non-Traditional Stimulant	modafinil	18		200mg

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Table 3. Standard Combination Therapy for ADHD

Age Group	Standard Combination Therapy
Under 6 years old*	Combination therapy not recommended
6-17 years old*	CNS Stimulant + Guanfacine CNS Stimulant + Clonidine
18 and older**	Combination therapy not recommended

* As recommended by the American Academy of Pediatrics 2011 Guidelines
**As identified by Drug Class Review: Pharmacologic Treatments for Attention Deficit Hyperactivity Disorder: Drug Effectiveness Review Project 2011

Approval Criteria		
1. What diagnosis is being treated?	Record ICD9 code.	
2. Is the treated diagnosis an OHP funded condition?	Yes: Go To #3	No: Pass to RPh. Deny
3. Is the requested agent a non-preferred agent?	Yes: Go To #4	No: Go To #5
4. Is the provider willing to switch to a preferred agent?	Yes: Inform the provider of preferred alternatives	No: Go To #5
5. Is the request for an approved indication? (Table 1)	Yes: Go To #6	No: Pass to RPh. Deny. Medical Appropriateness. May approve continuation of existing therapy once up to 90 days to allow time to appeal.
6. Is the request from a psychiatrist or was the regimen developed in consultation with a psychiatrist?	Yes: Approve 12 months	No: Go To #7
7. Are the age and the dose within the limits in Table 2? Note: For children under 18, the maximum dose for some medications may require a recent weight.	Yes: Go To #8	No: Pass to RPh. Deny. Medical Appropriateness. Doses exceeding defined limits are only approved when prescribed by a psychiatrist or in consultation with a psychiatrist. May approve continuation of existing therapy once up to 90 days to allow time to schedule appointment with a psychiatrist.

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Approval Criteria		
8. Is the requested agent the only ADHD treatment that has been filled within the last 30 days?	Yes: Approve 12 months	No: Go To #9
9. Have all other recent ADHD medications been discontinued or are they in the process of being discontinued / tapered?	Yes: Approve 12 months	No: Go To #10
10. Is the request for a single short acting CNS stimulant and a single long acting CNS stimulant?	Yes: Approve 12 months	No: Pass to RPh. Deny. Medical Appropriateness. Non-standard polypharmacy regimens are only approved when prescribed by a psychiatrist or in consultation with a psychiatrist. May approve continuation of existing therapy once up to 90 days to allow time to schedule appointment with a psychiatrist.