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Drug Use Evaluation: Bipolar Disorders

Research Questions:

1. How frequently are patients with bipolar disorder prescribed FDA-approved or guideline recommended medication regimens for bipolar disorder?
2. Which prescriber types and specialties are associated with prescription of pharmacotherapy for patients with bipolar disorder?
3. What comorbid mental health diagnosis are most common in Medicaid patients with bipolar disorder?
4. What is the average duration of therapy for patients with bipolar disorder?
5. What proportion of patients have claims for counseling services?
6. How often do patients with bipolar disorder have hospitalizations or emergency department visits for psychiatric illnesses? Does frequency of visits vary based on treatment experience, medication adherence, or with utilization of non-pharmacological therapy?

Conclusions:

1. Use of FDA-approved medication regimens for bipolar disorder:
    - About 73% of patients with bipolar disorder diagnosis based on ICD-10 diagnosis codes had a claim for a bipolar medication in the one-year timeframe reviewed (6/1/17 – 5/31/18).
    - About 54% of patients with a bipolar diagnosis were prescribed a second-generation antipsychotic. The most commonly prescribed antipsychotics were quetiapine (15%), aripiprazole (13%) and olanzapine (9%).
    - Mood stabilizers were prescribed in 45% of the population. Use of lamotrigine (28%) was significantly more common than lithium (10%) or valproic acid derivatives (8%).
    - Twenty percent of patients with bipolar disorder were prescribed combination treatment with 2 or more agents for at least 8 weeks.
        i. The most common combination treatment regimens were an antipsychotic and mood stabilizer; this combination is consistent with guideline recommendations for patients who continue to have symptoms with monotherapy alone.
        ii. Almost 3% of patients (n=422) were prescribed combination therapy with 3 or more bipolar medications which is not consistent with current Mental Health Clinical Advisory Group (MHCAG) algorithms for first- or second-line therapy for acute bipolar mania or depression.
2. Prescriber types:
    - In the 6 months following an initial prescription for bipolar medication, the majority of patients had both specialists and primary care providers involved in their care (**Table 5**). Prescriber type varied slightly depending on the class of medication. Psychiatric mental health nurse practitioners or psychiatrists were identified as writing prescriptions for about 60% of patients. General practitioners (primarily nurse practitioners, advanced practice nurses, family practitioners, and physician assistants) were involved in care for approximately 75% of patients.
3. Common comorbid mental health diagnosis:
    - Approximately 86% of the population had at least one other psychiatric diagnosis. The most common concurrent conditions were panic or anxiety disorders (66% of patients), major depressive disorder (56%), and post-traumatic stress or adjustment disorders (52%).
4. Duration of bipolar medication therapy:

- About 40% of patients were adherent to long-term maintenance therapy, which was defined as the proportion of days covered (PDC) of more than 75% within the 6 months following the first prescription claim for a bipolar disorder medication. About 40% of patients had a PDC of 26-75% which may indicate intermittently prescribed therapy or poor adherence.
- The PDC was 25% or less in 20% of patients within the 6 months following the first prescription claim for a bipolar disorder medication, which is likely indicative of short-term treatment (≤45 days). Specifically in new start patients, more patients (36%) had a PDC of less than 25%.

5. Use of counseling services:
   - About 63% of patients with bipolar disorder diagnosis had at least one non-pharmacological treatment claim in the one-year timeframe reviewed (6/1/17 – 5/31/18).
   - In the 6 months following prescription of a bipolar medication, most patients had claims for non-pharmacological treatment such as psychotherapy (44%), other counseling (24%), and family or skills training (8%). The duration of non-pharmacotherapy or frequency of visits was not evaluated.
6. Frequency of hospitalizations or emergency department (ED) visits:
   - Only 10% of patients prescribed a bipolar medication had a hospitalization from any cause in the 6 months following prescription of a bipolar medication (6.5% with a psychiatric diagnosis).
   - Forty percent of patients visited the ED (11% with a psychiatric diagnosis) over the same 6-month period.
   - There was no apparent difference in visit frequency between new start patients or all patients with bipolar disorder in the 6 months following prescription of a bipolar medication.
   - Patients with hospitalizations and ED visits had a higher utilization of non-pharmacological services compared to patients without medical visits.
   - Overall differences in hospitalization or ED visits due to psychiatric conditions were small (<5%) between patients with high versus low PDC.
   - A small proportion of patients had more than 3 psychiatric ED visits (n=333) or hospitalizations (n=85) over the first 6 months following the first prescription for a bipolar disorder medication. In this population, patients with a PDC greater than 75% was similar to the broader population.

Recommendations:

- Recommend implementation of a targeted profile review of patients with bipolar disorder who have frequent hospitalizations or ED visits for psychiatric reasons to identify areas for optimization of medications. Notify prescribers if opportunities to improve care are identified.
- Prioritize patients with 3 or more hospitalizations or ED visits over 6 months for psychiatric reasons and who 1) appear non- adherent to current therapy or 2) are prescribed regimens not recommended by the OHA and MHCAG. Non-recommended regimens may include patients with 3 or more bipolar medications, patients prescribed antidepressant monotherapy, or patients who use aripiprazole for bipolar depression.
- Committee recommended monitoring rates of adherence with different medications

Current Policy:

Under the Oregon Health Plan (OHP), antipsychotic medications are primarily carved-out of CCOs and are paid for by FFS. Antipsychotic medications and mood stabilizers for mental health conditions are exempt from traditional preferred drug list (PDL) and prior authorization (PA) requirements. While OHP uses a voluntary PDL, non-preferred medications do not currently require PA. However, clinical PA criteria which address safety concerns or medically inappropriate use may be implemented. Currently, a safety edit is implemented for quetiapine to support medically appropriate use and discourage use for insomnia. Historical initiatives for mental health medications have focused on provider education surrounding monitoring recommendations, dose consolidation initiatives, and safety programs for patients who are non-adherent to antipsychotic therapy.

Background:

Bipolar disorder is characterized by episodes of mania and episodes of depression or hypomania and is estimated to occur in approximately 2% of the world population.[1] Initial diagnosis usually occurs prior to 25 years of age.[1] Diagnosis is based primarily on presence of symptoms and differential diagnosis can include a wide variety of other mental and physical health conditions. Other psychiatric disorders which may present with similar symptoms include attention deficit hyperactivity disorder (ADHD), personality disorders, cyclothymia, schizophrenia, schizoaffective disorders, and unipolar depression. Additionally, bipolar disorder is frequently associated with other comorbid mental health conditions including anxiety disorder, ADHD, and substance use disorders.[1] Bipolar disorder is classified as bipolar I disorder (characterized by at least one manic episode) or bipolar II disorder (primarily characterized by history of depressive and hypomanic episodes).[1] It can be further classified as rapid cycling with at least 4 episodes of mania, hypomania or depression per year, mania with mixed features, or mania with psychotic features (including hallucinations or delusions).[1]

First-line treatment for bipolar disorder is medication therapy; preferred drug choices include antipsychotics (primarily second-generation antipsychotics or haloperidol) or mood stabilizers such as lithium, divalproex, or lamotrigine.[2,3] Goals of treatment include resolution of acute symptoms and long-term prevention of recurrent mania or depressive episodes. If acute symptoms do not resolve with initial treatment, the patient may be switched to an alternative medication or an additional medication is added.[2,3] Non-pharmacologic treatments include electroconvulsive therapy (ECT), psychoeducational therapy, cognitive behavioral therapy and social therapy.[2,3] Recent guidelines from the National Institute for Health and Clinical Excellence (NICE) recommend ECT as an option for patients with life-threatening suicidality, psychosis or refusal to eat.[1,2] ECT may also be considered with severe or treatment-resistant bipolar depression and as a first-line option for pregnant women with severe depression.

Recent resources from the Oregon Mental Health Clinical Advisory Group (MHCAG) provide treatment algorithms for acute bipolar depression and mania.[4,5] Current medication algorithms focus on therapy for the current symptoms (acute mania or depression) and do not differentiate between patients with bipolar type I or II disorder. For patients with bipolar disorder, medication treatment is always recommended in combination with psychosocial treatment based on patient preference, interest and service availability. For treatment of acute bipolar depression, first-line medications include lamotrigine, lithium, or quetiapine.[4] Aripiprazole or antidepressant monotherapy should be avoided for acute bipolar depression due to evidence of ineffectiveness.[4] For continued symptoms, second-line medication therapy includes the following:[4]

- Switching to a different first-line agent as monotherapy
- Switching to cariprazine, divalproex, or lurasidone as monotherapy
- Combination therapy with any of the following:
    - lamotrigine and another bipolar medication
    - lurasidone plus lithium or divalproex
    - olanzapine and fluoxetine
    - SSRI or bupropion plus another bipolar medication

Lithium and quetiapine are recommended as first-line medication options by MHCAG for treatment of acute bipolar mania.[5] Anxiety or insomnia may be managed with short-term use of lorazepam as needed, and agitation may be improved by use of olanzapine as needed.[5] If symptoms continue despite monotherapy treatment, combination treatment with quetiapine and either lithium or divalproex is recommended.[5] If symptoms persist despite combination treatment, monotherapy with a different second-generation antipsychotic may be considered based on patient-specific factors and adverse effects. Recommended second-generation antipsychotics include aripiprazole, asenapine, cariprazine, risperidone, or ziprasidone. Recommendations are made to avoid use of lamotrigine in patients with acute mania.[5]

Methods:

This analysis included 2 distinct populations of patients. The first population included any patient with a diagnosis of bipolar disorder based on ICD-10 codes. This population provides estimates of patients prescribed medication and frequency of medical visits. However, because over 85% of the population have at least one comorbid psychiatric indication which may present with similar symptoms, it is difficult to estimate the accuracy of this diagnostic data. Therefore, in order to more accurately identify patients who may actually have a diagnosis of bipolar disorder, the primary analysis focused on patients with a paid claim for a bipolar medication AND an ICD-10 code associated with bipolar disorder. Specific methods for each population are described below.

Bipolar Population based on Diagnosis

Patients with an ICD-10 code indicating a bipolar disorder diagnosis between 6/1/2017 to 5/31/2018 were identified. Patients were excluded if they had Medicare part D coverage or had 75% or less Medicaid eligibility for the reporting period. Patients were stratified by presence or absence of a paid claim for a bipolar medication in that timeframe as described above in methods section. Hospitalizations, emergency department (ED) visits, and visits for non-pharmacological services were documented for the same timeframe in patients with at least one paid prescription for bipolar medication compared to patients without a paid claim for a bipolar medication. This data describes estimated frequency and rates for patients with a bipolar disorder diagnosis. However, temporal relationships between diagnosis, medication use, and medical visits cannot be determined from this data.

Patients with Bipolar Diagnosis and Medication Therapy

The primary analysis included current Medicaid patients (enrolled in fee-for-service [FFS] and coordinated care organizations [CCOs]) with an index event from 6/1/2017 to 5/31/2018. The index event was defined as the first paid FFS pharmacy claim for medications recommended for maintenance treatment of bipolar disorder such as lithium, valproic acid (or its derivatives), lamotrigine, second-generation antipsychotics, or other bipolar medications (see **Appendix 2 Table A2**). Patients were included if they had medical claims with a diagnosis of bipolar disorder identified based on ICD-10 diagnosis codes in the 1.5 years before or 6 months after the index event (see **Table A1**). Type of bipolar disorder was classified according to the medical claim temporally closest to the index event. Comorbid mental health conditions were also evaluated using ICD-10 diagnosis codes in the 1.5 years before or 6 months after the index event. Categories of comorbid medical conditions are shown in **Table A1**. Data in the most recent 6 months may not capture all patients with a diagnosis of bipolar disorder as medical claims may be incomplete. Patients were excluded if they had Medicare part D coverage or had 75% or less Medicaid eligibility in the year prior to the index event in order to ensure complete medical records for diagnoses.

New start patients were defined as patients without any claims for bipolar medications in the year prior year to the index event. In some cases, patients may have a remote history of antipsychotic use. In new start patients, a remote history of bipolar medication use was defined as patients with paid claims for bipolar therapy at greater than 12 months before the index event. These data may be incomplete as many patients may not have a history of Medicaid eligibility. In addition, these patients may have been prescribed medications for conditions other than bipolar disorder.

The number of patients prescribed 2 or more concomitant bipolar medications was evaluated in the 6 months following the index event. There is little evidence to support long-term use of multiple drugs in the same drug class (e.g., 2 antipsychotics), but combination use of a mood stabilizer and an antipsychotic is recommended for patients not controlled on a single agent. Utilization of concomitant bipolar therapy was defined as paid claims for at least 2 distinct drugs (based on HSN) with a duration of 8 weeks or longer of continuous treatment, 8 weeks or longer of overlapping therapy, and no more than one week gap in concomitant therapy. Utilization of other medications for mental health conditions were also examined using the same parameters. Other mental health medications were categorized according to criteria in **Table A3**.

Adherence to bipolar medications was evaluated using the PDC and duration of continuous therapy. PDC was calculated based on days covered as a proportion of outpatient eligible days (which excludes any days in which the patient was hospitalized). Continuous therapy was defined as the time after the index event to

the first 3-week gap in coverage for any bipolar medication. As defined here, short-term therapy over a period of 6 months would correspond to a PDC of up to 25% (≤45 days), intermittent therapy corresponds to PDC of 25-75%, and long-term therapy corresponds to a PDC of 75% or more (>135 days).

The most common providers who prescribe bipolar drug therapy to patients with bipolar disorder were evaluated. Prescriptions for bipolar therapy were evaluated in the 6 months following the index event and were stratified according to the primary provider specialty. If a patient was prescribed more than one therapy or prescribed therapy from more than one provider, they may be listed more than once.

Patients were also evaluated for medical claims for non-pharmacological counseling services, hospitalizations and ED visits in the 6 months following the index event. Codes used to identify non-pharmacological counseling services are shown in **Table A4**. In addition, the total number of ED visits and hospitalizations as well as visits specifically associated with a psychiatric illness (ICD 10 codes F01.5-F99) were identified for several subgroups of patients, including new start patients, patients with non-pharmacological services, and patients with PDC less than or equal to 25% or greater than 75%.

Results:

Bipolar Population based on Diagnosis

In total, 18,707 patients were identified with an ICD-10 diagnosis of bipolar disorder. Most of the identified patients (73.7%) had at least one paid claim for a bipolar medication in the same period and about 86% of patients had at least one other psychiatric diagnosis. The proportion of patients with a hospitalization or ED visit was similar in patients with and without bipolar disorder medication. Visits for non-pharmacological counseling services, as well as hospitalizations or ED visits due to psychiatric diagnoses were slightly lower in patients without bipolar medication. Because populations are not matched based on baseline characteristics, these data should be interpreted with caution. Differences may be explained by variation in disease severity, comorbidities, or diagnostic accuracy between groups. On average patients without a paid claim for a bipolar medication had fewer medical visits associated with that diagnosis (mean visits per year of 5.0; median of 2) compared to patients prescribed medication (mean visits per year of 9.7; median of 4).

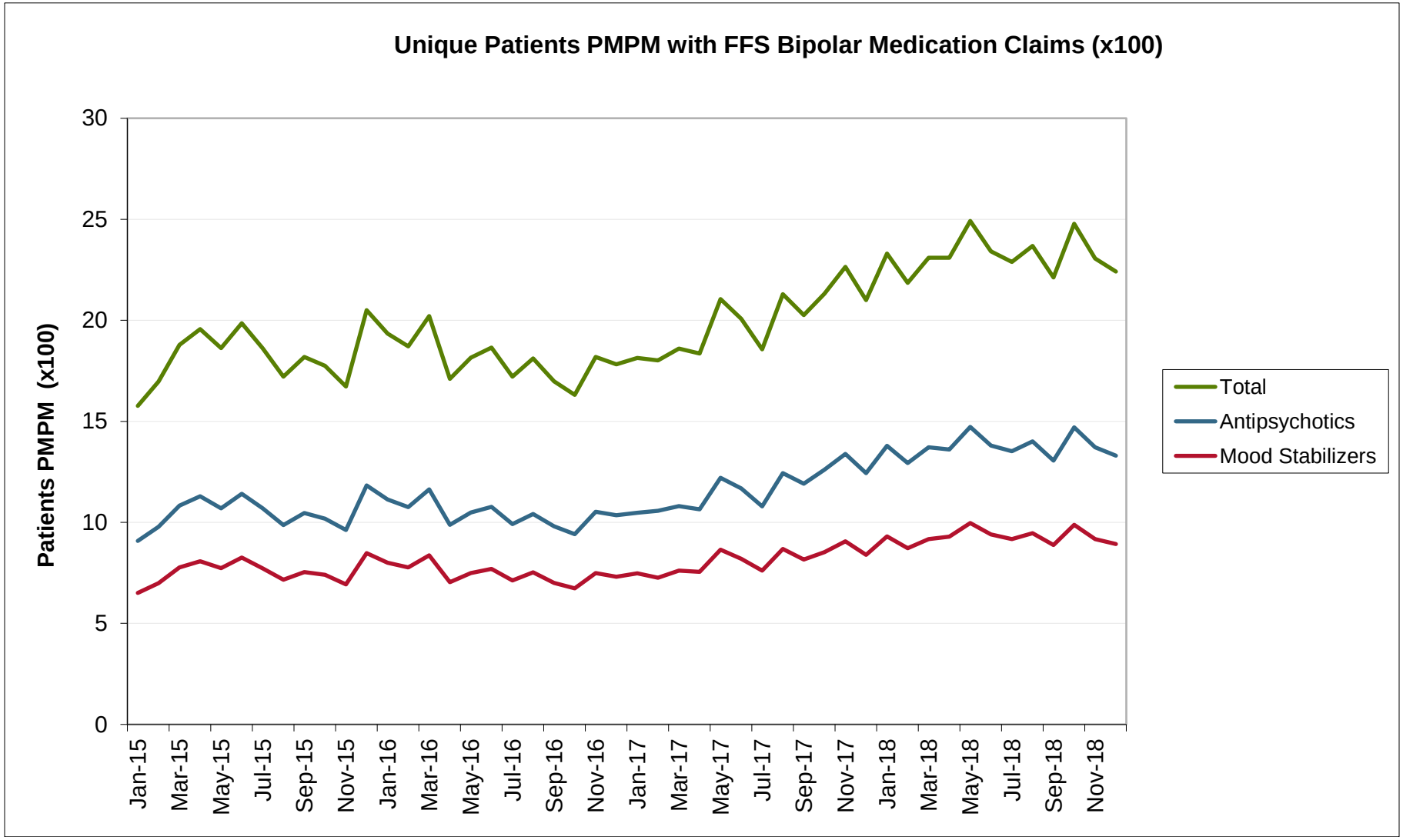
Table 1. Incidence of hospitalizations, ED visits, non-pharmacological services and other psychiatric diagnoses in patients with a bipolar disorder diagnosis.

	Patients with a paid claim for bipolar medication		Patients without a paid claim for bipolar medication	
	13,783		**4,924**	
Hospitalization	2,574	18.7%	856	17.4%
ED visit	8,263	60.0%	3,142	63.8%
Hospitalization due to psychiatric diagnosis	1,853	13.4%	490	10.0%
ED visit due to psychiatric diagnosis	2,792	20.3%	694	14.1%
Patients with any non-pharmacological counseling services	9,207	66.8%	2,573	52.3%
Patients with at least one other psychiatric diagnosis	11,926	86.5%	4,145	84.2%

Bipolar Medication Trends

Over the last several years there has been a slight increase in utilization of medications indicated for bipolar disorder. **Figure 1** describes trends in utilization for second-generation antipsychotics and mood stabilizers (lithium, lamotrigine, or valproic acid) in the Medicaid population from 2015 through 2018. Second-generation antipsychotics are prescribed more commonly than mood stabilizers in the Medicaid population. Utilization is not specific to patients with bipolar disorder diagnoses and likely includes medications prescribed for conditions other than bipolar disorder (e.g., schizophrenia or seizure disorders).

Figure 1. Trend of drug utilization (per member per month [PMPM]) based on unique patient count for members over the last 3 years.



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Patients with Bipolar Diagnosis and Medication Therapy

Most patients prescribed bipolar disorder medications were white, female adult patients. Approximately 29% of patients had a diagnosis of bipolar I with a current episode, 23% of patients were classified as having other bipolar disorders (including bipolar II disorder), and 43% of patients had an unspecified bipolar diagnosis. In almost 90% of patients, the time from the first diagnosis in medical claims to initial pharmacological treatment was less than 6 months.

Table 2. Baseline demographics for patients with bipolar disorders

N=	14,763	%
Age		
Average (min - max)	38.2	(4-74)
<13	168	1.1%
13-18	826	5.6%
19-59	13,102	88.7%
>=60	667	4.5%
Female	9,552	64.7%
Race		
White	8,990	60.9%
Hispanic	172	1.2%
African American	313	2.1%
Native American	821	5.6%
Other/Unknown	4,467	30.2%
Average time between first diagnosis and index event		
>=1 year	609	4.1%
>=6 months	995	6.7%
<6 months	13,159	89.1%
Type of Bipolar		
Bipolar, current episode (F310x-F316x)	4,323	29.3%
Bipolar, in remission (F317x)	745	5.0%
Bipolar, other (F318x)	3,385	22.9%
Bipolar, unspecified (F319x)	6,310	42.7%

Table 3 describes utilization of medications for bipolar disorder based on the first claim in the reporting period. Overall, more than 14,700 patients met inclusion criteria for the analysis and 22% of patients were classified as new start patients with no utilization of bipolar disorder medications in the year prior to the index event. In new start patients, 37% had a remote history of bipolar disorder medication use with paid claims for bipolar therapy longer than 12 months before the index event. Approximately 54% of patients with a bipolar disorder diagnosis were prescribed a second-generation antipsychotic. The most commonly prescribed antipsychotics were quetiapine (15%), aripiprazole (13%) and olanzapine (9%). Mood stabilizers were prescribed in 45% of the entire population; use of lamotrigine (28%) was more common than use of lithium (10%) or valproic acid derivatives (8%). These trends were also consistent in new start patients.

Table 3. Utilization of bipolar disorder medications for all patients with bipolar disorders based on the Index Event.

	All Bipolar Patients	
Index Drug	**14,763**	**%**
Mood Stabilizers	**6,703**	**45.4%**
Lithium*	1,414	9.6%
Divalproex or valproic acid*	1,170	7.9%
Lamotrigine*	4,119	27.9%
2nd generation oral antipsychotics (or LAIs when specified)	**7,984**	**54.1%**
Aripiprazole (oral or injectable)*	1,951	13.2%
Asenapine*	137	0.9%
Brexpiprazole	82	0.6%
Clozapine	49	0.3%
Cariprazine*	75	0.5%
Iloperidone		0.0%
Lurasidone*	874	5.9%
Olanzapine* or Olanzapine/fluoxetine*	1,340	9.1%
Paliperidone	128	0.9%
Pimavanserin		0.0%
Quetiapine*	2,245	15.2%
<= 50 mg	633	4.3%
Risperidone (oral or injectable)*	762	5.2%
Ziprasidone*	341	2.3%
Other bipolar medications	**76**	**0.5%**
Carbamazepine*	31	0.2%
Chlorpromazine (oral or injectable) *	45	0.3%

**Medications which are FDA-approved as monotherapy or adjunct therapy for bipolar disorder*

Of the 14,763 bipolar patients who are prescribed bipolar disorder medications, 2,925 (20%) were prescribed combination bipolar disorder therapy for at least 8 weeks (**Table 4**). Most patients with combination therapy (86%) were prescribed only 2 bipolar disorder drugs at any given time. The most commonly prescribed

medications were a mood stabilizer and an antipsychotic. See **Table 4** for a list of the most commonly prescribed drugs used in combination. In 44% of patients, the duration of combined therapy was short-term (8-12 weeks) before the patient had a break in therapy of at least one week. In most cases, duration of combination therapy was long-term and 27% of patients were prescribed combination therapy for the entire 6-month evaluation period indicating good adherence with guideline recommendations for maintenance therapy.

Table 4. Concomitant therapy in patients with ≥2 bipolar disorder medications (duration of overlap ≥ 8 weeks) in the 6 months after the Index Event.

			All Bipolar Patients		New Start Patients	
N=			**2,925**	**%**	**218**	**%**
Duration of overlap						
8-12 weeks			1,295	44.3%	128	58.7%
13-24 weeks			1,318	45.1%	91	41.7%
>24 weeks			800	27.4%	11	5.0%
Number of drugs						
2			2,503	85.6%	210	96.3%
3			379	13.0%	8	3.7%
4			41	1.4%		0.0%
5			2	0.1%		0.0%
Concomitant Medications						
≥2 antipsychotics			568	19.4%	30	13.8%
At least 1 antipsychotic and 1 mood stabilizer			2,430	83.1%	180	82.6%
≥2 mood stabilizers			369	12.6%	14	6.4%
Other			50	1.7%	1	0.5%
Top 20 commonly prescribed concomitant bipolar medications						
1	Lamotrigine	Quetiapine	428	14.6%	27	12.4%
2	Lamotrigine	Aripiprazole	336	11.5%	33	15.1%
3	Lithium	Lamotrigine	241	8.2%	10	4.6%
4	Lithium	Quetiapine	220	7.5%	11	5.0%
5	Lamotrigine	Lurasidone	218	7.5%	13	6.0%
6	Divalproex or valproic acid	Quetiapine	193	6.6%	12	5.5%
7	Lamotrigine	Olanzapine	171	5.8%	20	9.2%
8	Lamotrigine	Risperidone	168	5.7%	9	4.1%
9	Divalproex or valproic acid	Olanzapine	149	5.1%	9	4.1%
10	Lithium	Olanzapine	128	4.4%	19	8.7%
11	Lithium	Aripiprazole	119	4.1%	5	2.3%
12	Divalproex or valproic acid	Risperidone	106	3.6%	4	1.8%
13	Divalproex or valproic acid	Aripiprazole	106	3.6%	6	2.8%
14	Quetiapine	Aripiprazole	94	3.2%	4	1.8%
15	Lamotrigine	Ziprasidone	89	3.0%	2	0.9%
16	Lithium	Lurasidone	79	2.7%	5	2.3%

17	Lithium	Risperidone	77	2.6%	8	3.7%
18	Divalproex or valproic acid	Lamotrigine	72	2.5%	0	0.0%
19	Lithium	Divalproex or valproic acid	70	2.4%	4	1.8%
20	Quetiapine	Lurasidone	64	2.2%	6	2.8%

The most common prescribers of bipolar disorder medications included psychiatric mental health nurse practitioners and psychiatrists. These mental health specialists were involved in care for about 60% of all patients with bipolar disorder in the 6 months following an initial prescription (**Table 5**). There was little variance between provider specialty and the type of bipolar disorder medication prescribed. Nurse practitioners, advanced practice nurses and family practitioners also commonly prescribe medications in patients with bipolar disorder.

Table 5. The 10 most common prescriber types for bipolar disorder medications assessed 6 months after the Index Event. Patients prescribed medication from multiple providers will be counted more than once.

		Lithium		Divalproex or Valproic Acid		Lamotrigine		2nd generation antipsychotic		Other Bipolar Therapy	
All Bipolar Patients		**2,309**		**1,871**		**5,711**		**10,294**		**169**	
1	Psychiatric Mental Health Nurse Practitioner	662	28.7%	488	26.1%	1,679	29.4%	3,643	35.4%	49	29.0%
2	Psychiatrist	752	32.6%	533	28.5%	1,337	23.4%	3,009	29.2%	67	39.6%
3	Nurse Practitioner (default Spec)	431	18.7%	318	17.0%	1,088	19.1%	2,134	20.7%	21	12.4%
4	Advance Practice Nurse	351	15.2%	257	13.7%	844	14.8%	1,779	17.3%	25	14.8%
5	Family Practitioner	381	16.5%	373	19.9%	1,072	18.8%	1,735	16.9%	23	13.6%
6	Family Nurse Practitioner	259	11.2%	242	12.9%	731	12.8%	1,346	13.1%	11	6.5%
7	Physician Assistants	208	9.0%	190	10.2%	552	9.7%	965	9.4%	18	10.7%
8	Internist	126	5.5%	155	8.3%	344	6.0%	711	6.9%	6	3.6%
9	Physician (Default Spec)	68	2.9%	65	3.5%	126	2.2%	310	3.0%	21	12.4%
10	Neurologist	33	1.4%	67	3.6%	146	2.6%	148	1.4%	5	3.0%

Adherence to bipolar therapy was evaluated using PDC and the time to the first 3-week gap in coverage (**Table 6**). About 40% of patients were adherent to long-term therapy with a PDC more than 75% in the 6 months following the index event. In 20% of patients, PDC was less than 25% (≤45 days) indicating only short-term treatment or poor adherence therapy. Forty percent of patients had PDC of 26-75% which may indicate intermittent use of long-term maintenance therapy or multiple short-term treatments. In new start patients, a larger proportion received short-term or intermittent therapy. Similar trends were observed when evaluating adherence based on the time to the first 3-week gap in coverage.

Table 6. Adherence to any bipolar disorder therapy in the 6 months following the Index Event.

	All Bipolar Patients		New Start Patients	
N=	**14,763**	**%**	**3,322**	**%**
Proportion of Days Covered				
<=25%	2,963	20.1%	1,204	36.2%
26-75%	5,912	40.0%	1,371	41.3%
>75%	5,888	39.9%	747	22.5%
Duration of continuous therapy (time to first 3 week gap in coverage)				
<= 30 days	3,284	22.2%	1,163	35.0%
31-90 days	2,382	16.1%	742	22.3%
91-150 days	1,684	11.4%	440	13.2%
>= 151 days	7,413	50.2%	977	29.4%

A significant proportion of patients with a bipolar disorder had other comorbid medical conditions. **Table 7** describes comorbid mental health conditions in patients with a diagnosis of bipolar disorder. The most common concurrent conditions were panic or anxiety disorders (66% of patients), major depressive disorder (56%), and post-traumatic stress or adjustment disorders (52%). Substance use disorders (for stimulants, cannabis, alcohol or opioids) were documented in 15% to 26% of the population. Patients with a diagnosis of bipolar disorder in remission (ICD-10 F317x) were less likely to have other comorbid mental health diagnoses.

Table 7. Concomitant diagnosis for common mental health conditions. If patients have multiple diagnoses, they will be counted more than once.

	Bipolar Diagnosis	
	All bipolar	
N=	**14,763**	**%**
Panic or Anxiety	9,812	66.5%
Major Depressive Disorder	8,250	55.9%
Post-traumatic Stress or Adjustment Disorders	7,650	51.8%
Stimulant Abuse	3,828	25.9%
Cannabis Abuse	3,532	23.9%
Alcohol Abuse	3,393	23.0%
Other Mood Disorders	2,731	18.5%
Attention Deficit Hyperactivity Disorder	2,659	18.0%
Opioid Abuse	2,173	14.7%
Single Manic Episode	572	3.9%
Developmental Disorder	534	3.6%

Utilization of concurrent therapy with other drugs for mental health conditions in the 6 months following the index event was limited (**Table 8**). About 37% of patients with a bipolar disorder diagnosis were prescribed an antidepressant in addition to bipolar disorder medication. A small proportion of patients were

prescribed stimulants or ADHD medications (6%), long-acting injectable antipsychotics (8%) or benzodiazepines (9%). Similar trends were observed in new start patients: only 24% of new start patients were prescribed a concurrent antidepressant medication.

Table 8. Concomitant medications for mental health conditions were evaluated in the 6 months after the Index Event. Concomitant therapy was defined as a duration of overlap ≥ 8 weeks with the bipolar medications specified above. Evaluation of concomitant therapy included both CCO and FFS claims.

	All Bipolar Patients	
Other concomitant mental health medications	**14,763**	**%**
ADHD Drugs and Other Stimulants	894	6.1%
Antidepressants	5,491	37.2%
Antipsychotics, 1st generation	240	1.6%
Antipsychotics, parenteral (all)	1,217	8.2%
Benzodiazepines	1,278	8.7%

More than half of patients had claims for non-pharmacological treatment such as psychotherapy, other counseling, and family or skills training in the 6 months following the index event (**Table 9**). Rates of non-pharmacological services were slightly higher in new start patients but were consistent with the overall population.

Table 9. Proportion of patients with claims for non-pharmacological services in the 6 months following the Index Event.

	All Bipolar Patients		New Start Patients	
N=	**14,763**	**%**	**3,322**	**%**
Counseling or Other Therapy	3,611	24.5%	887	26.7%
Education	103	0.7%	23	0.7%
Family or Skills Training	1,151	7.8%	228	6.9%
Psychotherapy	6,553	44.4%	1,681	50.6%

The rate of hospitalizations and ED visits for patients with bipolar disorder are listed in **Table 10**. Only 10% of patients prescribed a bipolar disorder medication had a hospitalization in the 6 months following the index event. In about 6.5% of these patients, admission was associated with a psychiatric diagnosis. Only a small proportion of patients had multiple hospitalizations. Forty percent of patients visited the ED over the 6-month period, but ED visits due to a psychiatric condition were less frequent (11%). In 333 patients, visits to the ED for psychiatric conditions occurred more than 3 times over the 6-month period. Similar trends were observed in a subgroup of new start patients (data not shown). The most common primary psychiatric diagnoses for patients with more than 3 ED visits were bipolar disorder (10%), major depressive disorder (10%), anxiety disorders (9%), and alcohol related disorders (9%).

Table 10. Number of hospitalizations or ED visits in the 6 months following the Index Event

	All Bipolar Patients	
N=	**14,763**	**%**
Hospitalizations		
All hospitalizations	1,398	9.5%
0	13,365	90.5%
1-2	1,245	8.4%
3-4	124	0.8%
≥5	29	0.2%
Hospitalizations associated with psychiatric diagnosis	954	6.5%
0	13,809	93.5%
1-2	869	5.9%
3-4	73	0.5%
≥5	12	0.1%
Emergency Department Visits		
All ED visits	5,985	40.5%
0	8,778	59.5%
1-2	4,035	27.3%
3-4	1,099	7.4%
≥5	851	5.8%
ED visits associated with psychiatric diagnosis	1,636	11.1%
0	13,127	88.9%
1-2	1,303	8.8%
3-4	199	1.3%
≥5	134	0.9%

To identify potential reasons for psychiatric hospitalization admissions and ED visits, patients were evaluated based on treatment characteristics (use of non-pharmacological services and PDC; **Table 11**). Patients with hospitalizations and ED visits for psychiatric reasons had a higher utilization of non-pharmacological services compared to patients without medical visits. Overall differences in hospitalization or ED visits due to psychiatric conditions were small (<5%) between patients with high versus low PDC.

Table 11. Treatment characteristics of patients with psychiatric hospital admissions or ED visits in the 6 months following the Index Event.

	Hospitalization				Emergency Department Visits			
	Psychiatric Hospitalization		No hospitalization		Psychiatric ED Visit		No ED visit	
N=	954		13,809		1,636		13,127	
Patients with Non-Pharmacological Services	700	73.4%	7,612	55.1%	1,191	72.8%	7,121	54.2%
Patients with PDC >75%	411	43.1%	5,477	39.7%	584	35.7%	5,304	40.4%
Patients with PDC <=25%	178	18.7%	2,785	20.2%	387	23.7%	2,576	19.6%

Limitations:

Data presented in this report is based on Medicaid claims history and has several inherent limitations.

- Diagnostic accuracy: Diagnoses based on claims history may not be accurate and patients without a recent medical claim for bipolar disorder would be excluded from the analysis. In addition, because many patients have other co-occurring mental health conditions such as depression, the diagnostic accuracy of ICD-10 codes based on claims data is unclear. ICD-10 codes classify bipolar disorder according to current symptoms (manic, hypomanic, depressed, or mixed episodes) making it difficult to determine differences between patients with bipolar type I and II disorder.
- Provider specialty: Information on provider specialty may be inaccurate, out-of-date, or incomplete for some providers. Prescribers with multiple specialties or designations may not be identified.
- Proportion of days covered: Use of proportion of days covered attempts to estimate the frequency which a patient takes a prescription, but accuracy of this method has not been validated and patients may not always be categorized appropriately. The current data does not describe the intended duration of treatment. Therapy may be intended as long-term maintenance treatment or it may be prescribed as short-term treatment during a manic episode.
- Medical claims for non-pharmacological services: Due to delays in submission of medical claims and billing mechanisms for non-pharmacological therapies, the frequency of patient visits for psychotherapy or counseling is difficult to evaluate. Often billing for medical visits is significantly delayed and claims data may not accurately capture all visits. For patients enrolled in a CCO, non-pharmacological treatments, hospitalizations, and emergency department visits are paid for by the patients CCO while medication therapy for the member is paid by FFS.
- Unidentified patient populations: Because patients with bipolar disorder were identified based on paid claims for a bipolar medication (**Table A2**), it is unclear what proportion of bipolar patients may be prescribed antidepressant monotherapy. Fifty-six percent of identified patients had a recent diagnosis of comorbid unipolar depression, and it is unclear which diagnosis (unipolar or bipolar depression) may be most accurate.

References:

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4. Acute Bipolar Depression Algorithm. Pharmacy and Therapeutics - Mental Health Clinical Advisory Group. Updated December 2019. Accessed February 14, 2020. Available at https://apps.state.or.us/Forms/Served/le7549i.pdf.
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Low Dose Quetiapine

Goal(s):
- To promote and ensure use of quetiapine that is supported by the medical literature.
- To discourage off-label use for insomnia.
- Promote the use of non-pharmacologic alternatives for chronic insomnia.

Initiative:
- Low dose quetiapine (Seroquel® and Seroquel XR®)

Length of Authorization:
- Up to 12 months (criteria-specific)

Requires PA:
- Quetiapine (HSN = 14015) doses ≤50 mg/day
- Auto PA approvals for :
  - Patients with a claim for a second generation antipsychotic in the last 6 months
  - Patients with prior claims evidence of schizophrenia or bipolar disorder
  - Prescriptions identified as being written by a mental health provider

Covered Alternatives:
- Preferred alternatives listed at www.orpdl.org/drugs/
- Zolpidem is available for short-term use (15 doses/30 days) without PA.

Table 1. Adult (age ≥18 years) FDA-approved Indications for Quetiapine

Bipolar Disorder	F3010; F302; F3160-F3164; F3177-3178; F319	
Major Depressive Disorder	F314-315; F322-323; F329; F332-333; F339	Adjunctive therapy with antidepressants for Major Depressive Disorder
Schizophrenia	F205; F209; F2081; F2089	
Bipolar Mania	F3010; F339; F3110-F3113; F312	
Bipolar Depression	F3130	

Table 2. Pediatric FDA-approved indications

Schizophrenia	Adolescents (13-17 years)	
Bipolar Mania	Children and Adolescents (10 to 17 years)	Monotherapy

Approval Criteria		
1. What diagnosis is being treated?	Record ICD10 code. Do not proceed and deny if diagnosis is not listed in Table 1 or Table 2 above (medical appropriateness)	
2. Is the prescription for quetiapine less than or equal to 50 mg/day? (verify days' supply is accurate)	**Yes**: Go to #3	**No:** Trouble-shoot claim processing with the pharmacy.
3. Is planned duration of therapy longer than 90 days?	**Yes:** Go to #4	**No:** Approve for titration up to maintenance dose (60 days).
4. Is reason for dose ≤50 mg/day due to any of the following: • low dose needed due to debilitation from a medical condition or age; • unable to tolerate higher doses; • stable on current dose; or • impaired drug clearance? • any diagnosis in table 1 or 2 above?	**Yes:** Approve for up to 12 months	**No:** Pass to RPh. Deny for medical appropriateness. Note: may approve up to 6 months to allow taper.

P&T/DUR Review: *3/19 (DM); 9/18; 11/17; 9/15; 9/10; 5/10*
Implementation: *1/1/18; 10/15; 1/1/11*

Appendix 2: Coding information

Table A1. ICD-10 Codes for medical conditions

ICD10	ICD-10 Description	Category
F310x	Bipolar disorder, current episode hypomanic	Bipolar Disorder
F311x	Bipolar disorder, current episode manic without psychotic features	Bipolar Disorder
F312x	Bipolar disorder, current episode manic severe with psychotic features	Bipolar Disorder
F313x	Bipolar disorder, current episode depressed, mild or moderate severity	Bipolar Disorder
F314x	Bipolar disorder, current episode depressed, severe, without psychotic features	Bipolar Disorder
F315x	Bipolar disorder, current episode depressed, severe, with psychotic features	Bipolar Disorder

F316x	Bipolar disorder, current episode mixed	Bipolar Disorder
F317x	Bipolar disorder, currently in remission	Bipolar Disorder
F318x	Other bipolar disorders (including bipolar II disorder)	Bipolar Disorder
F319x	Bipolar disorder, unspecified	Bipolar Disorder
F30xx	Manic episode	Single Maniac Episode
F32xx	Major depressive disorder, single episode	MDD
F33xx	Major depressive disorder, recurrent	MDD
F34xx	Persistent mood [affective] disorders	Other mood disorders
F39xx	Unspecified mood [affective] disorder	Other mood disorders
F10xxx	Alcohol related disorders	Alcohol abuse or dependence
F11xxx	Opioid related disorders	Opioid abuse or dependence
F12xxx	Cannabis related disorders	Cannabis abuse or dependence
F14xxx-	Cocaine related disorders	Stimulant abuse or dependence
F15xxx	Other stimulant related disorders	Stimulant abuse or dependence
F19xxx	Other psychoactive substance related disorders	Stimulant abuse or dependence
F32xxx	Major depressive disorder, single episode	MDD
F33xxx	Major depressive disorder, recurrent	MDD
F41xxx	Other anxiety disorders	Panic or anxiety disorder
F40xxx	Phobic anxiety disorders	Panic or anxiety disorder
F43xxx	Reaction to severe stress, and adjustment disorders	PTSD or adjustment disorders
F34xxx	Persistent mood [affective] disorders	Other mood disorders
F84xxx	Pervasive developmental disorders	Developmental disorders
F90xxx	Attention-deficit hyperactivity disorders	ADHD
Z590	Homelessness	Housing and Economic Circumstances
Z591	Inadequate housing	Housing and Economic Circumstances
Z598	Other problems related to housing and economic circumstances	Housing and Economic Circumstances
Z599	Problem related to housing and economic circumstances, unspecified	Housing and Economic Circumstances
Z595	Extreme Poverty	Housing and Economic Circumstances

Table A2. Bipolar Drug Codes

PDL Class	HSN	Generic	Carve Out
Antipsychotics, 2nd Gen	004834	clozapine	Y
Antipsychotics, 2nd Gen	008721	risperidone	Y
Antipsychotics, 2nd Gen	011814	olanzapine	Y
Antipsychotics, 2nd Gen	014015	quetiapine fumarate	Y
Antipsychotics, 2nd Gen	021974	ziprasidone HCl	Y
Antipsychotics, 2nd Gen	034343	paliperidone	Y
Antipsychotics, 2nd Gen	036576	asenapine maleate	Y
Antipsychotics, 2nd Gen	037321	lurasidone HCl	Y
Antipsychotics, 2nd Gen	024551	aripiprazole	Y
Antipsychotics, 2nd Gen	042283	brexpiprazole	Y

Antipsychotics, 2nd Gen	042552	cariprazine HCl	Y
Antipsychotics, 2nd Gen	043373	pimavanserin tartrate	Y
Mood stabilizers	001669	lithium carbonate	Y
Mood stabilizers	001670	lithium citrate	Y
Mood stabilizers	001882	valproic acid (as sodium salt)	Y
Mood stabilizers	001883	valproic acid	Y
Mood stabilizers	001884	divalproex sodium	Y
Mood stabilizers	007378	lamotrigine	Y
Other Bipolar Medications	001893	carbamazepine	Y and N
Other Bipolar Medications	001621	chlorpromazine	Y
Other Bipolar Medications	025800	olanzapine/fluoxetine	Y
Antipsychotics, Parenteral	024551	aripiprazole	Y
Antipsychotics, Parenteral	008721	risperidone	Y
Antipsychotics, Parenteral	001621	chlorpromazine HCl	Y

Table A3. Other mental health drug therapy

PDL Class	HSN	Generic	Carve Out
Antidepressants	001643	amitriptyline HCl	Y
Antidepressants	001648	amoxapine	Y
Antidepressants	036156	bupropion HBr	Y
Antidepressants	001653	bupropion HCl	Y
Antidepressants	010321	citalopram hydrobromide	Y
Antidepressants	004744	clomipramine HCl	Y
Antidepressants	001645	desipramine HCl	Y
Antidepressants	040202	desvenlafaxine	Y
Antidepressants	040692	desvenlafaxine fumarate	Y
Antidepressants	035420	desvenlafaxine succinate	Y
Antidepressants	001650	doxepin HCl	Y
Antidepressants	026521	duloxetine HCl	Y
Antidepressants	024022	escitalopram oxalate	Y
Antidepressants	001655	fluoxetine HCl	Y
Antidepressants	006338	fluvoxamine maleate	Y
Antidepressants	001641	imipramine HCl	Y
Antidepressants	001642	imipramine pamoate	Y
Antidepressants	001638	isocarboxazid	Y
Antidepressants	040632	levomilnacipran HCl	Y
Antidepressants	001651	maprotiline HCl	Y
Antidepressants	011505	mirtazapine	Y
Antidepressants	009612	nefazodone HCl	Y
Antidepressants	001644	nortriptyline HCl	Y
Antidepressants	025800	olanzapine/fluoxetine HCl	Y

Antidepressants	007344	paroxetine HCl	Y
Antidepressants	025796	paroxetine mesylate	Y
Antidepressants	001639	phenelzine sulfate	Y
Antidepressants	001646	protriptyline HCl	Y
Antidepressants	033510	selegiline	Y
Antidepressants	006324	sertraline HCl	Y
Antidepressants	001640	tranylcypromine sulfate	Y
Antidepressants	001652	trazodone HCl	Y
Antidepressants	001649	trimipramine maleate	Y
Antidepressants	008847	venlafaxine HCl	Y
Antidepressants	037597	vilazodone HCl	Y
Antidepressants	040637	vortioxetine hydrobromide	Y
Antipsychotics, Parenteral	042595	aripiprazole lauroxil	Y
Antipsychotics, Parenteral	045050	aripiprazole lauroxil,submicr.	Y
Antipsychotics, Parenteral	001624	fluphenazine decanoate	Y
Antipsychotics, Parenteral	001626	fluphenazine HCl	Y
Antipsychotics, Parenteral	001660	haloperidol decanoate	Y
Antipsychotics, Parenteral	001661	haloperidol lactate	Y
Antipsychotics, Parenteral	011814	olanzapine	Y
Antipsychotics, Parenteral	036716	olanzapine pamoate	Y
Antipsychotics, Parenteral	036479	paliperidone palmitate	Y
Antipsychotics, Parenteral	025509	risperidone microspheres	Y
Antipsychotics, Parenteral	001630	trifluoperazine HCl	Y
Antipsychotics, Parenteral	023379	ziprasidone mesylate	Y
Benzodiazepines	001617	alprazolam	Y
Benzodiazepines	001656	amitriptyline/chlordiazepoxide	Y
Benzodiazepines	001611	chlordiazepoxide	Y
Benzodiazepines	001610	chlordiazepoxide HCl	Y
Benzodiazepines	002037	chlordiazepoxide/clidinium Br	N
Benzodiazepines	001894	clonazepam	N
Benzodiazepines	001612	clorazepate dipotassium	Y
Benzodiazepines	001615	diazepam	Y
Benzodiazepines	004846	lorazepam	Y
Benzodiazepines	001616	oxazepam	Y
Other Stimulants	034868	armodafinil	Y
Other Stimulants	010865	modafinil	Y
ADHD Drugs	043652	amphetamine	N
ADHD Drugs	002064	amphetamine sulfate	N
ADHD Drugs	024703	atomoxetine HCl	Y
ADHD Drugs	000113	clonidine HCl	Y
ADHD Drugs	022987	dexmethylphenidate HCl	N

ADHD Drugs	002065	dextroamphetamine sulfate	N
ADHD Drugs	013449	dextroamphetamine/amphetamine	N
ADHD Drugs	000120	guanfacine HCl	Y
ADHD Drugs	034486	lisdexamfetamine dimesylate	N
ADHD Drugs	002067	methamphetamine HCl	N
ADHD Drugs	033556	methylphenidate	N
ADHD Drugs	001682	methylphenidate HCl	N
ADHD Drugs	043652	amphetamine	N
Antipsychotics, 1st Gen	001626	fluphenazine HCl	Y
Antipsychotics, 1st Gen	001662	haloperidol	Y
Antipsychotics, 1st Gen	001661	haloperidol lactate	Y
Antipsychotics, 1st Gen	039886	loxapine	Y
Antipsychotics, 1st Gen	001664	loxapine succinate	Y
Antipsychotics, 1st Gen	001627	perphenazine	Y
Antipsychotics, 1st Gen	001637	pimozide	Y
Antipsychotics, 1st Gen	001631	thioridazine HCl	Y
Antipsychotics, 1st Gen	001668	thiothixene	Y
Antipsychotics, 1st Gen	001667	thiothixene HCl	Y
Antipsychotics, 1st Gen	001630	trifluoperazine HCl	Y

Table A4. Non-pharmacological services

Code	Short Name	Long Name	Category
97532	Cognitive Skills Development	Development Of Cognitive Skills To Improve Attention, Memory, Or Problem Solving, Each 15 Minutes	Counseling or Other Therapy
97770	Development Of Cognitive, Skills To Impr	Development Of Cognitive Skills To Improve Attention, Memory, Problem Solving, Includes Compensatory	Counseling or Other Therapy
99510	Home Visit Sing/M/Fam Couns	Home Visit For Individual, Family, Or Marriage Counseling	Counseling or Other Therapy
0372T	Social Skills Training Group	Behavior Treatment Social Skills Group Administered By Physician Or Other Qualified Health Care Prof	Counseling or Other Therapy
4306F	Pt Tlk Psych & Rx Opd Addic	Patient Counseled Regarding Psychosocial And Pharmacologic Treatment Options For Opioid Addiction (S	Counseling or Other Therapy
4320F	Pt Talk Psychsoc&Rx Oh Dpnd	Patient Counseled Regarding Psychosocial And Pharmacologic Treatment Options For Alcohol Dependence	Counseling or Other Therapy
BA013	Mhddsd - Med (Children): Family Therapy	Mhddsd - Med (Children): Family Therapy	Counseling or Other Therapy
BA024	Mhddsd - Med (Children): Individual Psyc	Mhddsd - Med (Children): Individual Psychosocial Skills Development	Counseling or Other Therapy
BA113	Mhddsd - Med(Adult): Family Therapy	Mhddsd - Med(Adult): Family Therapy	Counseling or Other Therapy
BA152	Mhddsd - Med (Jobs): Individual Therapy	Mhddsd - Med (Jobs): Individual Therapy	Counseling or Other Therapy
BA154	Mhddsd - Med (Jobs): Family Therapy	Mhddsd - Med (Jobs): Family Therapy	Counseling or Other Therapy
BA155	Mhddsd-Med (Jobs): Physician Individual	Mhddsd - Med (Jobs): Physician Individual Therapy	Counseling or Other Therapy

BA156	Mhddsd - Med (Jobs): Group Therapy	Mhddsd - Med (Jobs): Group Therapy	Counseling or Other Therapy
BA312	Oadap: Individual/Family Therapy	Oadap: Individual/Family Therapy	Counseling or Other Therapy
BA321	Oadap: Multi-Family Group Therapy	Oadap: Multi-Family Group Therapy	Counseling or Other Therapy
BA383	Oadap - Methadone: Individual/Family The	Oadap - Methadone: Individual/Family Therapy	Counseling or Other Therapy
BA388	Oadap - Methadone: Multi-Family Group Th	Oadap - Methadone: Multi-Family Group Therapy	Counseling or Other Therapy
BA392	Oadap - Residential: Individual/Family T	Oadap - Residential: Individual/Family Therapy	Counseling or Other Therapy
BA397	Oadap - Residential: Multi-Family Group	Oadap - Residential: Multi-Family Group Therapy	Counseling or Other Therapy
BA413	Mhddsd - Med (Adult) Extended Care: Fami	Mhddsd - Med (Adult) Extended Care: Family Therapy	Counseling or Other Therapy
CDA02	Oadap: Family Therapy, For Morrison Cent	Oadap: Family Therapy, For Morrison Center Clients Only	Counseling or Other Therapy
G0409	Corf Related Serv 15 Mins Ea	Social Work And Psychological Services, Directly Relating To And/Or Furthering The Patient'S Rehabil	Counseling or Other Therapy
G0443	Brief Alcohol Misuse Counsel	Brief Face-To-Face Behavioral Counseling For Alcohol Misuse, 15 Minutes	Counseling or Other Therapy
G0445	High Inten Beh Couns Std 30m	High Intensity Behavioral Counseling To Prevent Sexually Transmitted Infection; Face-To-Face, Indivi	Counseling or Other Therapy
G0447	Behavior Counsel Obesity 15m	Face-To-Face Behavioral Counseling For Obesity, 15 Minutes	Counseling or Other Therapy
G0473	Group Behave Couns 2-10	Face-To-Face Behavioral Counseling For Obesity, Group (2-10), 30 Minutes	Counseling or Other Therapy
H0004	Alcohol And/Or Drug Services	Behavioral Health Counseling And Therapy, Per 15 Minutes	Counseling or Other Therapy
H5010	Therapy, Individual, By Social Worker, P	Therapy, Individual, By Social Worker, P	Counseling or Other Therapy
T1006	Family/Couple Counseling	Alcohol And/Or Substance Abuse Services, Family/Couple Counseling	Counseling or Other Therapy
H0025	Alcohol And/Or Drug Preventi	Behavioral Health Prevention Education Service (Delivery Of Services With Target Population To Affec	Education
H1010	Nonmed Family Planning Ed	Non-Medical Family Planning Education, Per Session	Education
H2027	Psychoed Svc, Per 15 Min	Psychoeducational Service, Per 15 Minutes	Education
BA021	Mhddsd - Med (Children): Group Skills De	Mhddsd - Med (Children): Group Skills Development	Family or Skills Training
BA121	Mhddsd - Med (Adult): Skills Training -	Mhddsd - Med (Adult): Skills Training - Group	Family or Skills Training
BA122	Mhddsd - Med (Adult): Skills Training -	Mhddsd - Med (Adult): Skills Training - Individual	Family or Skills Training
BA153	Mhddsd - Med (Jobs): Skills Training - G	Mhddsd - Med (Jobs): Skills Training - Group	Family or Skills Training
BA421	Mhddsd - Med (Adult) Extended Care: Skil	Mhddsd - Med (Adult) Extended Care: Skills Training - Group	Family or Skills Training
BA422	Mhddsd - Med (Adult) Extended Care: Skil	Mhddsd - Med (Adult) Extended Care: Skills Training - Individual	Family or Skills Training
ECC60	Mhddsd-Encounter Or Ocp Only: Group Pare	Mhddsd-Encounter Or Ocp Only: Group Parent Psychosocial Skills Development	Family or Skills Training
ECC70	Mhddsd-Encounter Or Ocp Only: Individual	Mhddsd-Encounter Or Ocp Only: Individual Parent Psychosocial Skills Development	Family or Skills Training
G0177	Opps/Php; Train & Educ Serv	Training And Educational Services Related To The Care And Treatment Of Patient'S Disabling Mental He	Family or Skills Training
G0515	Cognitive Skills Development	Development Of Cognitive Skills To Improve Attention, Memory, Problem Solving (Includes Compensatory	Family or Skills Training
H2014	Skills Train And Dev, 15 Min	Skills Training And Development, Per 15 Minutes	Family or Skills Training
OR360	Training, Family; Per Session	Training, Family; Per Session	Family or Skills Training

OR361	Training, Non-Family; Per Session	Training, Non-Family; Per Session	Family or Skills Training
OR400	Independent Living Skills Training And D	Independent Living Skills Training And Development	Family or Skills Training
OR513	Family Training For Child Development, G	Family Training For Child Development, Group	Family or Skills Training
OR514	Family Training And Counseling For Child	Family Training And Counseling For Child Development, Individual	Family or Skills Training
OR515	Family Training And Counseling For Child	Family Training And Counseling For Child Development, Social Worker	Family or Skills Training
OR516	Family Training And Counseling For Child	Family Training And Counseling For Child Development, Psychologist	Family or Skills Training
OR529	Independent Skills Assessment\Training\I	Independent Skills Assessment\Training\Instructions, Dd, Home Or Community	Family or Skills Training
OR570	Behavioral Consultation, Assessment And	Behavioral Consultation, Assessment And Training For Dd	Family or Skills Training
T1012	Alcohol/Substance Abuse Skil	Alcohol And/Or Substance Abuse Services, Skills Development	Family or Skills Training
T1027	Family Training & Counseling	Family Training And Counseling For Child Development, Per 15 Minutes	Family or Skills Training
90804	Psytx Office 20-30 Min	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Office Or Ou	Psychotherapy
90805	Psytx Off 20-30 Min W/E&M	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Office Or Ou	Psychotherapy
90806	Psytx Off 45-50 Min	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Office Or Ou	Psychotherapy
90807	Psytx Off 45-50 Min W/E&M	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Office Or Ou	Psychotherapy
90808	Psytx Office 75-80 Min	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Office Or Ou	Psychotherapy
90809	Psytx Off 75-80 W/E&M	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Office Or Ou	Psychotherapy
90810	Intac Psytx Off 20-30 Min	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90811	Intac Psytx 20-30 W/E&M	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90812	Intac Psytx Off 45-50 Min	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90813	Intac Psytx 45-50 Min W/E&M	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90814	Intac Psytx Off 75-80 Min	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90815	Intac Psytx 75-80 W/E&M	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90816	Psytx Hosp 20-30 Min	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Inpatient Ho	Psychotherapy
90817	Psytx Hosp 20-30 Min W/E&M	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Inpatient Ho	Psychotherapy
90818	Psytx Hosp 45-50 Min	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Inpatient Ho	Psychotherapy

90819	Psytx Hosp 45-50 Min W/E&M	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Inpatient Ho	Psychotherapy
90821	Psytx Hosp 75-80 Min	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Inpatient Ho	Psychotherapy
90822	Psytx Hosp 75-80 Min W/E&M	Individual Psychotherapy, Insight Oriented, Behavior Modifying And/Or Supportive, In An Inpatient Ho	Psychotherapy
90823	Intac Psytx Hosp 20-30 Min	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90824	Intac Psytx Hsp 20-30 W/E&M	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90826	Intac Psytx Hosp 45-50 Min	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90827	Intac Psytx Hsp 45-50 W/E&M	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90828	Intac Psytx Hosp 75-80 Min	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90829	Intac Psytx Hsp 75-80 W/E&M	Individual Psychotherapy, Interactive, Using Play Equipment, Physical Devices, Language Interpreter,	Psychotherapy
90832	Psytx W Pt 30 Minutes	Psychotherapy, 30 Minutes	Psychotherapy
90833	Psytx W Pt W E/M 30 Min	Psychotherapy, 30 Minutes	Psychotherapy
90834	Psytx W Pt 45 Minutes	Psychotherapy, 45 Minutes	Psychotherapy
90836	Psytx W Pt W E/M 45 Min	Psychotherapy, 45 Minutes	Psychotherapy
90837	Psytx W Pt 60 Minutes	Psychotherapy, 60 Minutes	Psychotherapy
90838	Psytx W Pt W E/M 60 Min	Psychotherapy, 60 Minutes	Psychotherapy
90839	Psytx Crisis Initial 60 Min	Psychotherapy For Crisis, First 60 Minutes	Psychotherapy
90840	Psytx Crisis Ea Addl 30 Min	Psychotherapy For Crisis	Psychotherapy
90841	Individual Medical Psychotherapy By A Ph	Individual Medical Psychotherapy By A Ph	Psychotherapy
90843	Individual Medical Psychotherapy By A Ph	Individual Medical Psychotherapy By A Ph	Psychotherapy
90844	Individual Medical Psychotherapy By A Ph	Individual Medical Psychotherapy By A Ph	Psychotherapy
90846	Family Psytx W/O Pt 50 Min	Family Psychotherapy, 50 Minutes	Psychotherapy
90847	Family Psytx W/Pt 50 Min	Family Psychotherapy Including Patient, 50 Minutes	Psychotherapy
90848	Family Medical Psychotherapy (Conjoint	Family Medical Psychotherapy (Conjoint Psychotherapy) With Continuing Medical Dia	Psychotherapy
90849	Multiple Family Group Psytx	Multiple-Family Group Psychotherapy	Psychotherapy
90853	Group Psychotherapy	Group Psychotherapy	Psychotherapy
90857	Intac Group Psytx	Interactive Group Psychotherapy	Psychotherapy
90875	Psychophysiological Therapy	Individual Psychophysiological Therapy Incorporating Biofeedback Training With Psychotherapy, 30 Min	Psychotherapy
90876	Psychophysiological Therapy	Individual Psychophysiological Therapy Incorporating Biofeedback Training With Psychotherapy, 45 Min	Psychotherapy

4060F	Psych Svcs Provided	Psychotherapy Services Provided (Mdd, Mdd Adol)	Psychotherapy
G0072	Individual Psychotherapy, Insight Orient	Individual Psychotherapy, Insight Orient	Psychotherapy
G0073	Individual Psychotherapy, Insight Orient	Individual Psychotherapy, Insight Orient	Psychotherapy
G0074	Individual Psychotherapy, Insight Orient	Individual Psychotherapy, Insight Orient	Psychotherapy
G0075	Individual Psychotherapy, Insight Orient	Individual Psychotherapy, Insight Orient	Psychotherapy
G0088	Individual Psychotherapy, Insight Orient	Individual Psychotherapy, Insight Orient	Psychotherapy
G0089	Individual Psychotherapy, Interactive, I	Individual Psychotherapy, Interactive, I	Psychotherapy
G0090	Individual Psychotherapy, Interactive, I	Individual Psychotherapy, Interactive, I	Psychotherapy
G0091	Individual Psychotherapy, Interactive, I	Individual Psychotherapy, Interactive, I	Psychotherapy
G0092	Individual Psychotherapy, Interactive, I	Individual Psychotherapy, Interactive, I	Psychotherapy
G0093	Individual Psychotherapy, Interactive, I	Individual Psychotherapy, Interactive, I	Psychotherapy
G0094	Individual Psychotherapy, Interactive, I	Individual Psychotherapy, Interactive, I	Psychotherapy
G0410	Grp Psych Partial Hosp 45-50	Group Psychotherapy Other Than Of A Multiple-Family Group, In A Partial Hospitalization Setting, App	Psychotherapy
G0411	Inter Active Grp Psych Parti	Interactive Group Psychotherapy, In A Partial Hospitalization Setting, 45 To 50 Minute	Psychotherapy
H2017	Psysoc Rehab Svc, Per 15 Min	Psychosocial Rehabilitation Services, Per 15 Minutes	Psychotherapy
H2018	Psysoc Rehab Svc, Per Diem	Psychosocial Rehabilitation Services, Per Diem	Psychotherapy
H5020	Psychotherapy, Group (Maximum 8 Persons	Psychotherapy, Group (Maximum 8 Persons	Psychotherapy
H5025	Psychotherapy, Group (Maximum 8 Persons	Psychotherapy, Group (Maximum 8 Persons	Psychotherapy

Appendix 3. RetroDUR Proposal

Inclusion Criteria

- Patients currently enrolled in FFS AND
- Patients with a at least 3 medical visits associated with bipolar disorder (F31x) in the past year AND
- Patients with at least 3 psychiatric hospitalizations or ED visits in the past 6 months AND
- Meeting at least one of the following criteria:
    - No paid claims in the last 60 days for bipolar therapy (including mood stabilizers or antipsychotics, 2nd generation) OR
    - Paid claims in the last 60 days an antidepressant AND without paid claims for bipolar therapy in the last 60 days OR
    - Paid claims in the last 60 days for aripiprazole AND with recent diagnosis of bipolar II disorder or bipolar depression OR
    - Paid claims for ≥3 unique bipolar therapies (based on HSN) in the last 60 days from more than one prescriber
    - Paid claims for ≥4 unique bipolar therapies (based on HSN) in the last 60 days from any single provider
    - Paid claims for bipolar medications with PDC <30% in the past 4 months

Exclusion Criteria

- Patients previously reviewed with this initiative in the last 6 months (once the program is implemented)
- Patients with other primary insurance (Medicare Part D or TPL)
- Patients who are deceased

RetroDUR Reporting

Profile Review: High-risk patients – bipolar disorder

- Proiles reviewed
- Providers notified
- Change in bipolar drug therapy in the following 90 days
    - New bipolar therapy prescribed
    - Drug discontinued

Prescriber alert: High Risk Patient On Bipolar Therapy

Date: MM/DD/YYYY
To: Provider name
NPI: NPI
Address: Mailing address
City: City
State: State **ZIP:** ZIP
Phone number: ###-###-####
Fax number: ###-###-####
Total pages: #
Regarding patient: Name, Medicaid ID, DOB

Dear Physician/Allied Health Prescriber:

The Oregon Health Authority (OHA) reviews fee-for-service prescription medications dispensed and prescribed to Oregon Health Plan (OHP) members. Based on OHA's review of your patient's current profile, there is an opportunity for optimization of their bipolar therapy to prevent adverse outcomes, as described below:

<Concern 1>

<Free-form Text (Rationale)>

<Concern 2>

<Free-form Text (Rationale)>

What should you do?

OHA offers the following recommendations to help ensure your patient's medication regimen is safe and appropriate:

- <Recommendation 1>
- <Recommendation 2>

Please consider these clinical recommendations then coordinate with co-prescribers and your patient as clinically appropriate. Thank you for continuing to serve OHP patients.

For additional recommendations on bipolar disorder, including medication algorithms, Mental Health Clinical Advisory Group recommendations are available at: *https://www.oregon.gov/oha/HSD/OHP/Pages/PT-MHCAG.aspx*

Author: Servid

October 2020

Examples of Concern/Rationale/Recommendations (select which are appropriate based on profile review):

(A) Concern: Patient with 3 or more bipolar medications from more than one provider

- Rationale: Use of 3 concurrent bipolar medications is not consistent with current evidence-based guidelines.
- Recommendation: Consider reassessment of current regimen to decrease pill burden and avoid duplication of therapy. Ask for a copy of your patient's recent prescription claim history by initialing this line and faxing this page to 503-947-2596 (Salem). Prescriber initials: _____

(B) Concern: Low adherence to currently bipolar regimen

- Rationale: Many reasons can contribute to adherence including medication efficacy, adverse effects from treatment, lack of motivation or knowledge about treatment, or lack of social support. Estimates of adherence are based on paid claims for the patient and may not accurately categorize patients paying cash or patients with other insurance. Ask for a copy of your patient's recent prescription claim history by initialing this line and faxing this page to 503-947-2596 (Salem). Prescriber initials: _____
- Recommendation: Discuss medication adherence with your patient to identify potential concerns with therapy. For lack of efficacy or significant adverse events, consider modifying therapy. Consider engagement with psychosocial therapy to build skills to improve medication adherence.

(C) Concern: No claims billed for recent psychosocial treatment

- Rationale: Current guidelines recommend psychosocial treatment in conjunction with medication management to improve patient outcomes including quality of life and recurrent hospitalization.
- Recommendation: Optimize of multi-modal therapies to address patient concerns and decrease their risk of readmission or hospitalization.

(D) Concern: Lack of prescribed therapy for bipolar disorder in a patient with recent emergency department visits or hospitalization for psychiatric illnesses

- Rationale: Current guidelines recommended medication in combination with psychosocial therapy for bipolar disorder in order to improve outcomes and prevent readmission
- Recommendation: Consider use of evidence based recommendations for bipolar depression or mania. First-line medication options for bipolar depression include lamotrigine, lithium, or quetiapine. Lithium or quetiapine are recommended as first-line treatments for acute mania.

(E) Concern: Use of antidepressant monotherapy in a patient with bipolar depression

- Rationale: Use of antidepressant monotherapy in patients with bipolar depression may trigger manic or mixed episodes.
- Recommendation: Avoid use of antidepressant monotherapy. Consider combination treatment with another bipolar treatment medication.

(F) Concern: Use of aripiprazole for acute bipolar depression

- Rationale: Current Mental Health Clinical Advisory Group algorithms recommend against use of aripiprazole for acute bipolar depression due to evidence of ineffectiveness. As this patient has had multiple recent medical visits associated with mental health diagnoses, consider therapy with a different agent if appropriate.
- Recommendation: Reassess therapy efficacy and consider an alternative treatment option to optimize treatment if needed. Quetiapine is an alternative treatment option for patients with acute bipolar depression.