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Evaluation of Clinical Pharmacist Management Trends for Depression

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PROVIDENCE Health & Services

BACKGROUND

- Depression affects almost 10% of Americans over 18 years old.[1]
- Per the Centers for Disease and Control Prevention, the 2020 COVID-19 pandemic has led to an increase in adults struggling with mental health.[1]
- There is currently a shortage of mental health prescribers, with over half of all counties within the United States not having a single psychiatrist.[2]
- Southern Oregon also has a shortage of mental health prescribers, resulting in longer wait times for care.
- Evidence demonstrates that depression managed by pharmacists in the primary care setting led to increased follow-up frequency, increased medication adherence, improved PHQ-9 scores, and patient satisfaction.[3]

PURPOSE

The purpose of this study is to quantify, characterize, assess, and identify the management trends of clinical pharmacy specialists (CPS) that are managing depression of patients at Providence Medical Group (PMG).

METHODS

- A retrospective chart review was performed on patients who were managed by a clinical pharmacist for depression from January 2019 through December 2020. This information was gathered via the intervention tracking tool within the electronic medical record (EMR). The endpoints below were gathered for evaluation of management trends by the pharmacists.
- A presentation was provided to the PMG clinics in Southern Oregon, reviewing the depression collaborative practice agreement (CPA). Patients referred after this presentation were followed up to four months and included in data analysis.
- In order to meet a power of 80%, the calculated sample size is 32.

Inclusion Criteria

- Patients whose depression was managed by clinical pharmacy specialist from 1/1/2019 through 11/30/2020.
- Patients who were referred to clinical pharmacy specialist between 12/3/2020 and 2/28/2021.

Exclusion Criteria

- Any patient referred back to PCP for atypical presentation, goals of therapy not met after multiple pharmacologic alternatives, consideration of psychotherapy, or immediate risk of suicide.
- Pregnant patients

Primary Endpoints

- Mean number and percent rate of follow-up visits
- Number of agent changes
- Number of dosage changes for a single agent
- Reason for changing dose
- Whether the intervention was guideline-directed
- Whether adherence was addressed at any visit
- Number of augmentation agents added
- Frequency of PHQ-9 assessments performed
- Mean change in PHQ-9
- Referring member of care team

Secondary Endpoints

- The number of referrals obtained by clinical pharmacy services from 12/3/2020 to 2/28/2021.

RESULTS

Table 1. Baseline Characteristics

	Retrospective Data (n=25)	Retrospective Data (n=7)
Mean Age, years	57	59
Female, %	48%	100%
Baseline PHQ-9 score	16.5	16.75
Comorbidities, n		
Type 2 diabetes mellitus	15	1
Generalized anxiety disorder	10	5
Chronic pain	4	1
Post-traumatic stress disorder	2	1
Cancer	2	
Hypothyroidism	2	2
Alcohol misuse	1	
Low testosterone	1	
Parkinson's Disease	1	
Bulimia	1	
Attention deficit hyperactivity disorder	1	
Traumatic brain injury		1
On SSRI or SNRI when referred, n	20 (80%)	1 (25%)
Duloxetine	1	1
Venlafaxine	1	1
Citalopram	4	
Escitalopram	3	
Paroxetine	3	
Sertraline	6	1
Fluoxetine	2	
Other agents when referred, n	6 (24%)	1 (25%)
Mirtazapine	1	
Bupropion	3	2
Trazodone	1	
Aripiprazole	1	

Table 2. Primary Endpoints

Mean number of visits	3.25
Mean follow-up frequency	4 weeks
Mean number agent switches per patient over course of PharmD management	1.6
Median frequency of PHQ-9 Assessment	4.5 weeks
Mean change in PHQ-9 Score	-4.2
Total number of patients with augmentation agents	3
Total number of dose increases	28
% of visits adherence was addressed	100%

Figure 1. Number of Patients that had Previously Trialed Each Class

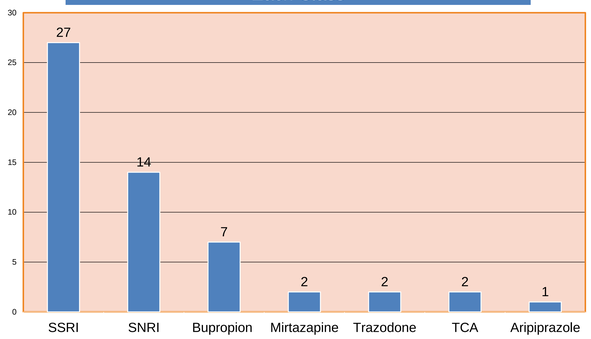


Figure 2: Referring Provider

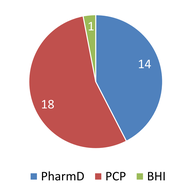


Figure 3: Reason for Drug Discontinuation

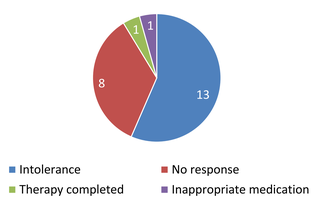


Figure 4: Reason for Drug Addition

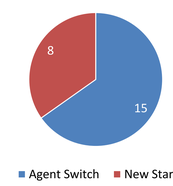
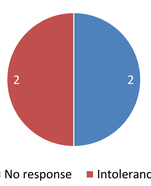


Figure 5: Reason for Dose Decrease



DISCUSSION

- Non-pharmacologic measures were assessed at every patient visit, including addressing presence of support system, meeting with BHI, and exercise.
- Addressing adherence led to therapy changes based on patient-specific needs such as switching antidepressant therapy to a longer-acting agent due to lack of adherence.
- There were only three instances where regimens were augmented with an additional agent. This potentially indicates pharmacists were attempting to identify the best primary medication before augmenting with an additional agent.
- At first visit, dose increase occurred for over 25% of the patients, demonstrating potential benefit of dose increases prior to referrals.
- The mean decrease in PHQ-9 scores shows a clinically significant improvement in depression severity for this subset of patients.

CONCLUSIONS

- Based on the total number of depression referrals received, the depression CPA is currently underutilized.
- When a CPS is managing depression, there is consistent follow-up to assess medication tolerance and response and more frequent follow-up is available if needed.
- There was only one incidence where a medication was increased to a dose that only had anecdotal evidence, demonstrating a strong adherence to evidence-based practice by the clinical pharmacists.
- These evidence-based and meaningful interventions resulted in clinically significant improvements in depression severity.

LIMITATIONS

- There may be missing patients due to inconsistent reporting.
- All previously trialed agents may not be documented in the EMR.

NEXT STEPS

- Streamline referral process to help identify patients who would benefit from CPS depression management, especially those already being managed by CPS for other disease states.
- Survey CPS team to identify potential barriers to depression management and referral.
- Increase opportunities for collaboration between BHI and clinical pharmacy.

Contact Info

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Literature Cited

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3.Silvia R, Plum M, Dufresne R. Efficiencies and outcomes of depression treatment by a psychiatric pharmacist in a primary care clinic compared with treatment within a behavioral health clinic. *J Am Pharm Assoc*. 2020 Sep-Oct;60(5S):S98-S106. doi:10.1016/j.japh.2020.05.015.