Role of Specialty Pharmacist in Cannabidiol Use

Kayla Johnson, PharmD, BCPS, BCPP | Holly Dial, PharmD Candidate | Wendi Owens, CPhT | Josh DeClercq, MS | Leena Choi, PhD | Autumn D. Zuckerman, PharmD, BCPS, AAHIVP, CSP | Nisha B. Shah, PharmD

1Vanderbilt Specialty Pharmacy, Vanderbilt University Medical Center; 2Lipscomb University College of Pharmacy; 3Department of Biostatistics, Vanderbilt University Medical Center

**BACKGROUND**

- Prescription cannabidiol (CBD) is approved for the treatment of Dravet, Lennox Gaustaut, and Tuberous Sclerosis Syndromes as adjunct therapy in combination with other antiepileptic drugs (AEDs). 1
- CBD may affect multiple metabolism pathways, leading to a variety of pharmacodynamic epileptic drugs (AEDs).

**STUDY OBJECTIVE**

Describe the number and type of actions performed by a neurology specialty pharmacist at time of prescription CBD initiation

**METHODS**

**Design**
Single-center, retrospective cohort study

**Inclusion**
All patients prescribed CBD for the management of a seizure disorder by the center’s outpatient neurology clinics from January 1, 2019 – April 30, 2020

**Exclusion**
Access and fulfillment of prescription CBD was not handled by the integrated specialty pharmacy or participation in a prescription CBD clinical trial

**Data sources**
Electronic health record and specialty pharmacy management system

**PK Interactions**
An interaction involving metabolism pathways which effects the risk of side effects, toxicity, or therapeutic control

**PD Interactions**
An interaction involving additive side effects without altering medication levels

**RESULTS**

**Figure 1. Role of Integrated Neurology Specialty Pharmacist**

- Decide to treat with prescription CBD
- Patient evaluation (indication, contraindication, DDIs)
- Benefits investigation
- Prior authorization (PA) +/- appeal +/- financial assistance
- Patient/caregiver medication counseling and delivery scheduling
- Patient starts CBD therapy

**Figure 2. Number and Type of Pharmacist Actions at CBD Initiation**

- DDIM: Patient/Caregiver Education
- Medication Access Navigation

**Figure 3. PA Outcomes**

- 92% of PAs were approved upon initial request
- 14 patients required additional financial assistance

**Figure 4. Types of DDIs**

- Benzodiazepines (excluding clobazam) (n = 58, 24.6%)
- Carbamazepine (n = 1, 0.4%)
- Clobazam (n = 63, 26.7%)
- mTor inhibitor (n = 1, 0.4%)
- Other AEDs (n = 31, 13.1%)
- Phenoobarbital (n = 5, 2.1%)
- Other medications (n = 9, 3.8%)
- Valproic acid (n = 26, 11%)
- Artisinal CBD (n = 18, 7.6%)

**Figure 5. Outcomes of DDI Management (N = 236)**

- The most common DDIs were benzodiazepines (24.6%), clobazam (28.7%), other AEDs (13.1%), and valproic acid (11%)

**CONCLUSIONS**

- Our study provides previously unavailable data on real-world management of patients utilizing an integrated specialty pharmacy at time of prescription CBD initiation.
- Our findings demonstrate the integral role of a neurology specialty pharmacist in securing insurance approval, educating patients, and managing possible DDIs to ensure safe initiation of prescription CBD therapy.
- Further research is ongoing to evaluate the role of a neurology specialty pharmacist in the long-term management of this patient population.

References: 1. Spalding (noauthor). &col; 2020. Authors of this study have the following financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation: Autumn Zuckerman – Pharm, Alcoholics, Nicka Stark – Pharm, AnimalWear.