

USHP Midwinter Meeting 2019  
Student Poster Abstracts

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Title: Pharmacists in Collaborative Practice Agreements

Abstract:

Purpose

Inform the public about how collaborative practice agreements between pharmacist and practitioners improve healthcare outcomes.

Methods

We performed a retrospective literature review of the benefits and challenges of pharmacist collaborative practice agreements throughout the United States.

Results

Forty-eight states allow for pharmacists to practice via collaborative agreements. Pharmacists working via collaborative practice agreements have demonstrated the ability to improve health (e.g. improve hemoglobin A1c screening) and economic outcomes (e.g. reduction of overall healthcare costs). Current state laws dictate what clinical activities that pharmacists can perform under a collaborative practice agreement.

Conclusions

Collaborative agreements between pharmacist and practitioners have demonstrated improvements in patient health care outcomes and a reduction in health care costs. The role of the pharmacist in caring for patients is continuing to develop, and is dependent upon modifications to state/federal legislation and reimbursement.

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Authors: Samuel Wilde, PharmD Candidate, Spencer Davis, PharmD Candidate, Alyssa Meyers, PharmD Candidate,

Title: Gabapentin abuse trends and advocacy for controlled substance classification

Abstract:

Purpose

Gabapentin is an antiepileptic drug commonly prescribed as a first-line agent for treatment of neuropathic pain. As a non-opioid option, Gabapentin use has increased significantly over the past several years. This type of prescribing can lead to misuse and abuse, which is what was similarly seen with Tramadol, eventually leading to legislation for reclassification of Tramadol to a controlled substance to help mitigate abuse and harm. As a result, this literature review was designed to examine trends of misuse, abuse, concomitant opioid use, mortality, and toxicology reports of Gabapentin to determine if reclassification as a controlled substance is necessary.

Methods

To achieve the purpose of this review, a literature search was completed using Cochrane library, EMBASE, and Pubmed. Student pharmacists searched for recently reported statistics on misuse, abuse, concomitant opioid use, mortality trends, and toxicology reports, related to gabapentin. Literature searches were performed using keywords, 'gabapentin,' 'epidemiology,' 'misuse,' 'abuse,' 'substance use disorder,' 'mortality,' and 'toxicology.' A total of 15 publications were included in this review. Trends relating to the purpose of this study were analyzed and reported.

Results

Gabapentin is commonly misused or abused to amplify euphoric effects typically seen in opioids. Misuse and abuse of gabapentin often

involve supratherapeutic dosing to achieve euphoric-like effects, sedation, dissociation, or relaxation. Adverse-event reports from 2004-2015 show 11,940 reports of abuse, with >75% of reports from 2012 or later. Consequently, these behaviors are associated with substance use disorders seen with opioids. Evoy et. al. identified 16 studies that show a prevalence of Gabapentin abuse among opioid dependent patients to be from 3%-68%. Swain et. al. identified 3,340 deaths involving gabapentinoids and estimate 1.2% were due to Gabapentin alone, while 40% were in combination with opioids. Gomes et. al. evaluated opioid-induced deaths related to Gabapentin use within 120 days prior to death. Odds ratios of death are represented by three dosing intervals; 1.32 (not statistically significant) for <900mg daily, 1.56 for 900 - 1,799mg daily, 1.58 for  $\geq 1,800$  mg daily. Toxicology reports from the study showed it was 49% more likely for an individual to have gabapentin exposure prior to an opioid related death. Slavova et. al. identified 22% of opioid-related deaths involved Gabapentin according to postmortem toxicology tests in 2015.

#### Conclusions

Gabapentin has been identified as a substance of misuse and abuse that has the potential to produce dangerous effects, particularly when combined with opioids. As a result, we see higher mortality rates, which are confirmed by toxicology reports. Because of the increased trends of gabapentin use, especially in the last 5 years, we advocate for gabapentin to be reclassified as a controlled substance in order to regulate and track its use.

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Authors: Jeff Sperry, PharmD Candidate, Patrisha Ganowsky, PharmD Candidate, Heather Nyman, PharmD, BCPS

Title: Assessing the Value of Fourth-Year Pharmacy Students on an Acute Care Rotation

#### Abstract:

##### Purpose

Fourth-year pharmacy students are a unique asset to healthcare teams, and their ability to make clinical interventions during their Advanced Pharmacy Practice Experience (APPE) rotations can have a large impact on patient care. However, the full extent of the contributions made by APPE students has not been characterized at the University of Utah Hospital.

The current study will describe and categorize the clinical interventions made by APPE students during an acute care internal medicine rotation and will analyze the cost savings produced by student interventions. Additionally, the study will use a qualitative approach to describe the students' most memorable clinical interventions and the personal impact that these recommendations had on the lives of patients and on the students' own professional development.

##### Methods

APPE students on an acute care internal medicine rotation at the University of Utah Hospital will document their clinical interventions by filling out a standard form within the electronic medical record. Interventions will be categorized according to the system developed by the Pharmacy Quality Alliance, the Medication Therapy Problems Category Framework (PQA Framework). The PQA Framework describes medication-related issues and classifies problems into four broad groupings: Indication, Effectiveness, Safety, and Adherence. Each subcategory of the PQA Framework will be assigned a cost-avoidance dollar value derived from the literature, and these values will be used to calculate the total cost savings generated by student interventions.

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Interviews will be conducted on a one-on-one basis with all APPE students upon completion of the rotation. The interview will contain a variety of specific and non-specific questions to initiate conversation about robust personal experiences students had when making interventions, including what impact those interventions may have had on a specific patient's healthcare and personal life. The data will be divided into groups of similar themes as identified per the National Science Foundation (NSF) qualitative research guidelines in order to identify patterns and draw relevant conclusions.

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