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- **Adderall®: Understanding and Preventing its Abuse Amongst College-aged Students**



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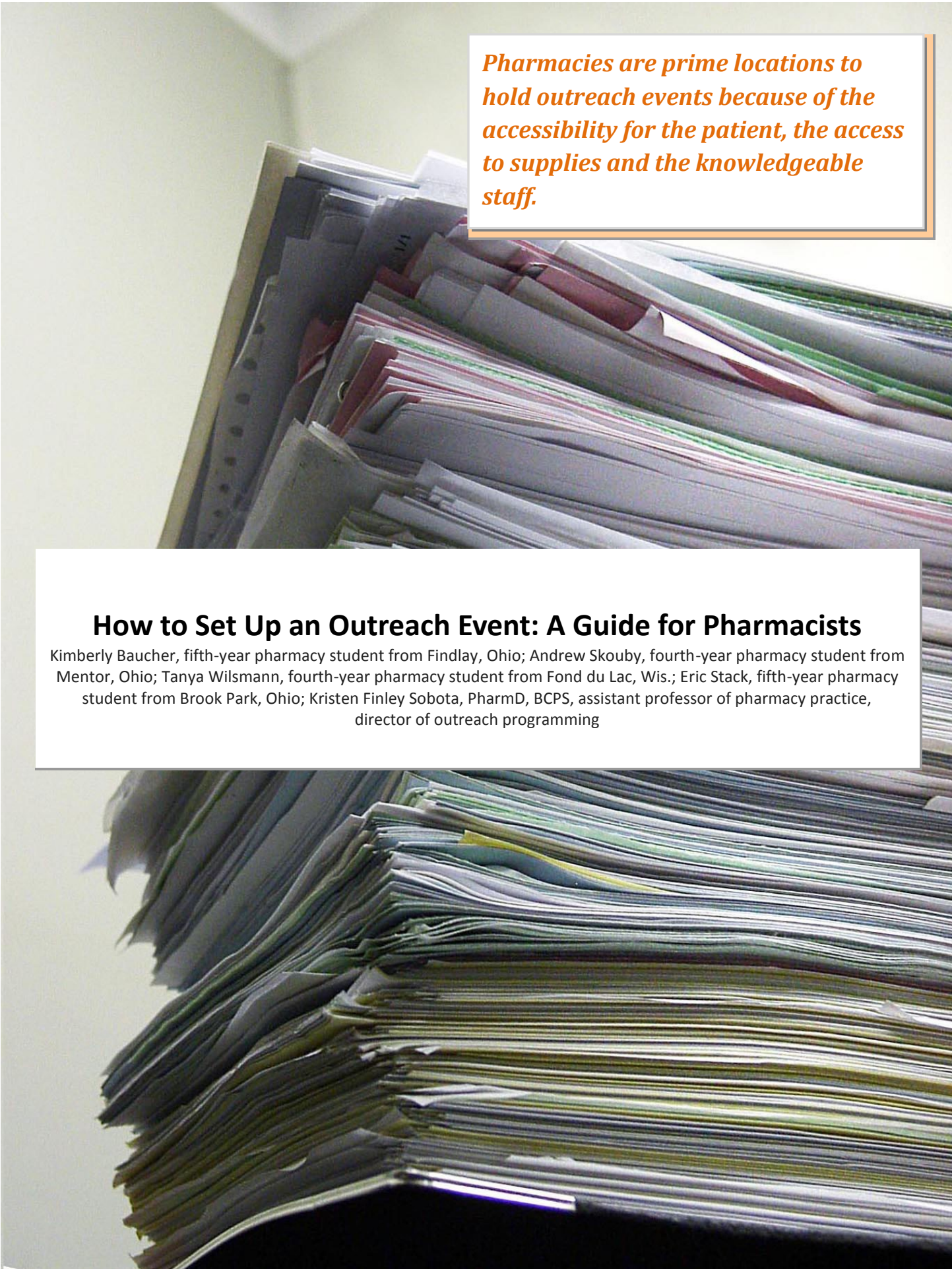
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Pharmacies are prime locations to hold outreach events because of the accessibility for the patient, the access to supplies and the knowledgeable staff.

How to Set Up an Outreach Event: A Guide for Pharmacists

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Introduction

Outreach events are an important part of the health care profession largely due to the fact that they increase the public's awareness of certain diseases and medical conditions. Oftentimes, specific tests can be done during an outreach event which allow for immediate feedback on each patient's condition, in effect enabling individualized education. For example, when screening for diabetes, blood glucose and hemoglobin A1C tests can indicate the status of a patient's condition. At Ohio Northern University Raabe College of Pharmacy, there are 14 different student pharmacy organizations, each of which focuses on at least one outreach program. The American Pharmacists Association Academy of Student Pharmacists (APhA – ASP) has four different “Operations” within the group; each of these focuses on a specific outreach event. The “Operations” are diabetes, immunizations, self-care and Generation Rx. The Student National Pharmaceutical Association (SNPhA) also has different outreach initiatives, such as chronic kidney disease, smoking cessation, and sexually transmitted diseases. Outreach events are important for patient education on common disease states, but the events can also be used as preventive or early detection measures. Students at outreach events can perform tests such as cholesterol, blood glucose or hemoglobin A1C, and osteoporosis screenings; moreover, using these tests, students can identify patients with abnormal values to refer them on for further care. There can also be immunization outreach events in which pharmacists, and student pharmacists, can administer certain vaccines, such as the influenza vaccine, in order to provide preventive measures for a disease within the population. Immunization outreach events are different from other outreach events because they are a form of primary prevention, meaning the goal is to prevent a disease. Most outreaches are secondary prevention, which mainly consists of screening patients in order to find a disease early and get the patient the care they need. Pharmacies are prime locations to hold outreach events because of the accessibility for the patient, the access to supplies and the knowledgeable staff.

Selecting an Outreach Program

Before even starting to plan an outreach, the pharmacist needs to determine the specific topic or disease on which he or she wishes to focus. There are multiple ways to approach this decision. A solid starting point is to determine the specific patient population that is involved, or most at risk, for the chosen disease state. The target patient population may vary based on geographical areas, where certain regions may have a higher prevalence of certain diseases.¹ Establishing an outreach event for a highly prevalent disease state or specific health concern attracts patients that would benefit the most. Likewise, if a certain population in general does not have adequate resources for proper health care, then education, or especially disease state screenings, may be beneficial. This is especially the case for those who are not able to go to a primary care physician on a regular basis. Similarly, an outreach event can be tailored to what the patients feel would benefit their overall health, or if there is a certain topic on which they would like to receive clarification. After determining the outreach event that will address the needs of the target patient population, the pharmacist must market the event. One method involves the pharmacist directly talking to the patients as they come into the pharmacy, either when they are coming to pick up their prescriptions, looking for over-the-counter medications or supplements, or during medication reviews, such as medication therapy management. Alternatively, pharmacists could set up an educational event or disease state screening at a public facility, especially at a community event where the target population may be more likely to attend.² Also, primary prevention could be the target, where education is aimed at the young or healthy population, and the emphasis is directed toward methods to prevent a certain disease state.¹ For example, the importance of calcium and vitamin D supplementation for those at risk for osteoporosis could be emphasized. Overall, there are a number of ways to choose and market an appropriate outreach topic, and they can be tailored to meet various needs of the target population.

Foundational Planning

Once an outreach program has been selected, the pharmacist needs to start planning the foundation for the event. The basics of planning include “who,” “when” and “where.” The pharmacist needs to determine what patient population is being targeted, which often correlates to the specific outreach being performed. For example, for an osteoporosis outreach involving education and providing bone mineral density scans, the pharmacist would want to target women greater than 50 years of age. However, providing education to patients who may currently be at a lower risk can still be highly beneficial, especially if they may develop the disease later in life.¹ Next, the pharmacist would have to decide when he or she wants to perform the outreach. Continuing to use the osteoporosis outreach as an example, the pharmacist may want to pick a time when elderly women would most likely be at the location of the outreach event, such as in the morning or afternoon. An additional factor in selecting a time would be the pharmacy's flow of



patients. The outreach should not interfere with the normal business of the pharmacy, so pharmacist staff must be scheduled accordingly. The location of the outreach needs to be determined, which often will be based on the population of patients being targeted. Additionally, legal considerations must be taken into account while planning an outreach program. If the pharmacist is going to perform any point-of-care tests and counsel the patient about the test results or the disease state, he or she should have a consent form for the patient to complete.³ For certain tests, such as blood glucose, the Food and Drug Administration (FDA) requires a Clinical Laboratory Improvement Amendments (CLIA) waiver. By obtaining the waiver, a given list of tests are not required to undergo regulatory oversight by a laboratory.⁴ Along with the CLIA waiver, the pharmacist should also have a waiver that informs the reader that none of the tests are diagnostic and will only indicate if something is abnormal and further medical care is needed. The pharmacist should encourage any patient with an abnormal value to see his or her primary care provider, possibly prompting the physician to run additional tests or to make a diagnosis. Likewise, if the outreach event is taking place at any facility outside of the pharmacy, then any legal constraints of the utilized facility must be taken into account.¹ Finally, in order for the outreach event to run smoothly, it is imperative to have a properly trained staff. For example, if the health screening is going to perform tests that will involve taking blood from the patient, then it is vital for the staff to be educated about proper precautions to take with needles and aseptic technique.² In summary, foundational planning is the backbone of a successful outreach event.

Compensation

A significant barrier to implementing outreach programs is compensation.¹ In order to convince pharmacists to spend a significant portion of their workday planning and executing a community outreach, a potential compensatory mechanism is desirable. There are several avenues pharmacists can pursue in order to obtain compensation for their outreach efforts, including reimbursement from patient insurance policies and patient self-pay. Some insurance policies provide coverage for their patients to receive pharmacy outreach services.² Due to the incredible differences between plans, the pharmacist should contact insurance companies in order to determine what tests would be covered. By gaining an understanding of how insurances deal with reimbursement for outreach programs, the pharmacist may be able to obtain compensation.

It is likely that the main opportunity to receive compensation is through patient self-pay.² Therefore, the patient must perceive a tangible benefit as a result of the outreach service. This presents the pharmacist coordinator with the challenge of pricing the outreach services reasonably. Without practical, competitive pricing, patients will more than likely prefer to meet with their physician due to the ability of physicians to diagnose and provide additional clinical services.¹ Also, it must be noted that patients located in regions with low socioeconomic status have far less disposable income to spend on health care. In such cases, looking for donations, grants or corporate sponsors to fund these outreach events would be one way to provide for lower income patients. Otherwise, one idea to entice patients to pay would be to require a one-time payment for extended care and analysis. For example, by paying once for a blood pressure outreach, a patient would receive blood pressure monitoring every month from their pharmacist and the peace of mind that pharmacist-physician communication is occurring. This type of outreach would clearly benefit the patient long-term and may convince the patient to purchase the product. Additionally, there is inherent value to the idea that patient education is occurring. Pharmacists have the ability to provide important and insightful tips with regard to disease prevention and management. Advertising a relationship with primary care physicians would likely be enticing to certain patient populations, such as the elderly, who are often plagued by chronic disease states.

Another way to convince patients to invest in outreach services would be to provide a rewards program. One idea for implementation would be via a punch card: every outreach the patient attends and pays for is recorded on the card. Once the punch card is completed, a reward would be earned. The reward should be directed toward the interests of the anticipated patient population of the outreaches. The pharmacy may partner with local businesses to provide the rewards. Oftentimes, small businesses are willing to offer promotions as an advertising mechanism. By utilizing them, a mutual benefit could be achieved where both of the businesses (the one providing the reward and your pharmacy) would see their number of patrons increase. The idea of uniting a population to provide high quality health care should be one of the core goals of a community pharmacy.

However, one possibility that must be considered is the chance that there will be no compensation available for the pharmacist.¹ At this point in time, with many insurance companies unwilling to provide pharmacists compensation for their outreach activities, there is also a high probability that patients will be unwilling to pay for services out of their own pocket. If this is the case, the pharmacist must weigh the idea of providing “free” services to the community within their daily workday. However, it is also critical to consider the notion that outreach programs increase patient traffic into the pharmacy. This simple idea of attendance will likely increase the chance that patients will fill their prescriptions or buy their over-the-counter medications at the pharmacy where the outreach was located. A great way to lower or eliminate costs for an outreach event would be to utilize pharmacy students from local colleges of pharmacy.¹ On-campus student groups often purchase their own supplies to have on-hand for potential outreach events. By forming a relationship with student groups, the pharmacy can minimize overhead costs for the event while also providing quality patient care.

Resources

Once the logistics of an outreach program are determined, the pharmacist must allocate resources in order to ensure the success of the program. This includes allocating staff, providing take-home patient education, and creating a patient informed-consent form. It is critically important to ensure that an adequate amount of qualified staff are available. For the majority of outreach events, an appropriate number of pharmacists and interns should be present to serve the estimated number of patients in attendance. However, the law indicating the number of interns for which a pharmacist can precept and supervise, which varies from state to state, must be considered. Additionally, the pharmacist needs to be aware of the legal tasks of a pharmacy intern, including the specific intern regulations regarding vaccinations. For example, in Ohio, pharmacy interns can only administer the influenza vaccine to patients 18 years of age or older. The pharmacist must be diligent to ensure that proper patient demographics are being obtained so that proper legal procedures may be followed.⁵ Regardless of the specific outreach event, adequate staffing is imperative in order for the patient to have a positive experience.

Additionally, satisfactory training of involved staff must be considered and certain tasks of a pharmacy outreach may require certification (e.g., immunization certification requires Basic Life Support (BLS) certification and completion of a board approved program). Specifically, blood pressure reading, blood glucose testing and HIPAA concerns must be addressed with appropriate training or certification. The Centers for Disease Control and Prevention (CDC) has several accessible training guidelines to ensure that those staffing the outreach program are properly trained.⁶ As a general rule, it must never be assumed that staff members understand the logistics of the outreach. Be sure to talk with every employee involved in the outreach to make sure that they understand the basics of what is being screened or tested for, and to ensure that they are providing accurate information to the patients. Always inform students that asking for help is encouraged and desired when a question arises that they are not completely comfortable answering.

Patient education materials are another resource that must be obtained prior to the start of an outreach. It is critical that patients are provided with tangible handouts that they can re-access when they have questions. These handouts should be simple to read and understand. Always keep in mind the target patient population when designing patient education handouts. These handouts should include the results of the screening that has been conducted. Having access to their specific results allows patients to be more confident in asking questions of their primary care physicians.³ An additional benefit to providing patients with their results is to increase the effort to maintain continuity of care. Patients want to be ensured that their health care team is working together to achieve the highest quality of outcomes. By knowing that there is communication between health care professionals regarding every single screening and test performed, the patient can be put at ease. Pharmacists are the most accessible health care professionals and must be able to tactfully inform patients when their objective lab values are concerning. By voicing these concerns directly with the patients and giving them hardcopy access to these results, physicians will be able to better diagnose conditions and provide more positive therapeutic outcomes. Additionally, it is important to discuss the results of a screening along with what measures can be taken by the patient to improve his or her health status. Educational pamphlets should be supplemental information for the patient, not the sole means of education for the patient.

Lastly, a patient consent form should be considered. These forms may contain a list of any potential drawbacks to the screening process (pressure on the arm, finger pricks, etc.). In addition to physical warnings, it would be prudent to have the pharmacist inquire about any potential medical conditions, prescription medications, or over-the-counter/herbal/dietary supplements that an individual may possess that would be of concern to the specific outreach event. Also, clarify that the outreach process provides screening and testing results only; the results will not be enough to constitute a diagnosis. The form should also include a line recommending that the patient follow up with their primary care physician regarding the results of the tests and the forthcoming discussion with the pharmacist.³



Advertising

The final barrier to implementing a successful patient outreach program is initiating an advertising campaign. In order to make the most of the outreach, a minimum number of patients should be targeted for inclusion. One of the best ways to do this is to have fostered relationships with area physicians who serve patients that would benefit from the outreach. If a positive relationship exists between the two entities, the physicians' offices will often refer their patients to the outreach.¹ Additionally, it may be helpful to begin outreach events with a smaller pilot program. Initially, target a unique subpopulation that would benefit the most from the outreach and allow the program to generate positive word of mouth. This will allow for any forthcoming patient demand to present itself and will give the pharmacist time to readjust for needs that were previously unanticipated.¹ Finally, another simple way to advertise an outreach event is through the use of fliers. Handouts detailing the program can be distributed to patients individually or be posted within the store. This simple advertising technique will increase patient awareness of the program in a cost-effective manner.

Expanding

Once an outreach program has been established, it is then time to consider expansion to other disease states. Programs never become stagnant but are always looking for ways to improve and reach more patients. One way to increase the patient population is to find more locations where the targeted individuals are available. For outreach programs that are aimed at reaching the elderly, civic groups such as the Elks Club might be a potential avenue.⁷ Local schools provide a good access point for those programs that are aimed at younger populations. Another approach

Programs never become stagnant but are always looking for ways to improve and reach more patients.

to reaching more patients is collaborating with other groups that have similar goals. At Ohio Northern University, several outreach groups have created programs in local pharmacies and grocery stores. In these locations, the outreach event is highly visible and provides a comfortable setting for patients in places they already frequently visit. The different outreach organizations have collaborated to create health fairs and other similar events to provide opportunities for the public to access information concerning various disease states and screening options. By working together, each of these groups can increase their patient population and better serve the community.

Outreach Example

In order to properly organize an influenza vaccine outreach, many of the steps listed to build a successful program are required. The target population for the influenza vaccine would be all patients over 6 months of age, according to CDC recommendations (although pharmacists can only vaccinate individuals of certain ages based on state laws). It is appropriate to administer the influenza vaccine as soon as it is available; normally administration begins in August/September and continues through January. The location would ideally be one where the target patient population can be found, perhaps a retail or grocery store containing a pharmacy. It would also have to be a location with enough room and privacy available to provide patients with a confidential and sterile environment. The pharmacist should also look into any legal considerations concerning influenza vaccines and make sure their outreach event is in compliance with them. This would include developing an emergency plan for adverse effects, such as anaphylactic shock. In considering compensation efforts, many insurance companies cover influenza vaccines. The pharmacist would need to make sure they have the resources available to work with insurance companies at the outreach event. For patients who are not covered by their insurance, offering the vaccine at a low cost may provide the pharmacist with the opportunity to reach new patients. Determining the resources will depend on the expected number of patients. This includes the number of personnel authorized to administer vaccines, the number of vaccines, educational materials and consent forms. Many of these guidelines are available through the CDC website.⁸ Because pharmacy students are also trained to administer influenza vaccines, it would be ideal to utilize them as personnel for these outreach events. Potential methods for advertisement include the media, the store where the pharmacy is located and through local physicians' offices. Finally, when looking to expand in future years, pharmacists should look for ways to reach additional patients.

Conclusion

Constructing outreach events may appear a daunting task, as they require much work and preparation to implement. However, the possible benefits are immense, being both economically advantageous for the pharmacy as well as clinically effective for the patient. Outreach programs not only help to improve the quality of life for patients living with chronic disease states, but they also help to prevent currently healthy patients from developing preventable disease states through vaccinations, screening and pharmacist provided patient education. Secondly, pharmacists benefit by possibly profiting financially, directly through compensation or indirectly through increasing accessibility to the community, which may aid a pharmacy in augmenting its patient population. Though the task of creating an outreach event is substantial, by following the guidelines and focusing on the goals presented here, pharmacists can provide a clinical service resulting in significant benefit to all parties involved.

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Common Questions and Answers Regarding OARRS for Pharmacists

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Once the pharmacist obtains an OARRS report on a patient, professional judgment must also be utilized to then decide whether or not to dispense the prescription.

Introduction and Overview

The practice of pharmacy is an ever changing world full of rules and regulations. This is necessary due to the dynamic nature of medicine. However, it can be difficult to keep up-to-date with the most current information, which can lead to a great deal of confusion on the part of pharmacists. One major change that took place in October 2011 in Ohio was the requirement of pharmacists to utilize the Ohio Automated Rx Reporting System, more commonly known as OARRS.¹ This article hopes to alleviate concerns and answer questions that may arise due to this relatively new legislation.

Ohio Automated Rx Reporting System is a database used as a prescription monitoring program and is maintained by the Ohio State Board of Pharmacy. OARRS was created to monitor the misuse and diversion of controlled substances, as defined in section 3719.01 of the Revised Code. An OARRS report contains information about outpatient prescriptions, including Schedule II-V drugs, as well as tramadol, related to a specific patient, which is generated by the OARRS database. Information in OARRS is input by pharmacies and prescribers, and requesting a report will allow the user to see information that the system believes belongs to a particular patient. The system uses addresses, dates of birth and names to compile information into a report. Currently, the OARRS database has the ability to include additional states' information (for example, Michigan and Indiana), and it is likely that more states will be added to the system in the future.^{1,2}

Prior to October of 2011, the use of OARRS was voluntary. However, the Board of Pharmacy has determined that reviewing an OARRS report is beneficial and that all pharmacists should be required to do so prior to dispensing an OARRS-related prescription, if certain circumstances are present. When House Bill (HB 93) passed, it implemented the changes detailed below.^{1,2}

A pharmacist is required to review an OARRS report covering at least one year and/or another state's report if the pharmacist becomes aware that the patient meets any of the following conditions.^{1,3}

- Receiving OARRS reported drugs from multiple prescribers
- Receiving OARRS reported drugs for more than 12 consecutive weeks
- Abusing or misusing OARRS reported drugs (early refills, overuse, patient appears sedated or intoxicated when presenting the Rx, or an unfamiliar patient requests an OARRS reported drug by a specific name, street name, color or identifying marks)
- Requesting the dispensing of OARRS reported drugs from a prescription issued by a prescriber with which the pharmacist is not familiar (prescriber is located out of state or outside the normal pharmacy geographic prescriber care area)
- Presenting a prescription for OARRS reported drugs when the patient resides outside the usual pharmacy geographic patient population

After the pharmacist reviews the initial OARRS report, he or she must use professional judgment based on standards of practice to determine when and how frequently other OARRS reports will be requested for each patient. Once the pharmacist obtains an OARRS report on a patient, professional judgment must also be utilized to then decide whether or not to dispense the prescription. It is also important to note that OARRS does not provide definitive evidence that a patient is misusing or abusing medications. A report is simply compiled data that pharmacies and physicians have submitted, which the OARRS system correlates to a specific patient. There may be more than one patient represented in a single OARRS report, though the software attempts to minimize this. OARRS is simply another tool that a pharmacist has at his or her disposal in order to aid in making professional judgments. It is essential to talk to the patient and potentially other pharmacies and prescribers to verify information.¹



Image: <http://www.ok.gov/sib/images/Pharmacist%20Using%20Computer%20ORFS.jpg>

If an OARRS report is not immediately available, the pharmacist must use professional judgment to decide whether or not to fill the prescription prior to receiving the report. Also, pharmacies are required to have internet access, so that they are able to request these reports. If your pharmacy does not have internet access available, the law states that this must change.¹

If you are not already registered, here are the steps for registering with OARRS:¹

1. Go to www.ohiopmp.gov
2. Click on "Register"
3. Fill out the form online
4. Print the completed form
5. Sign the form in the presence of a notary public
6. Send in the form, along with copies of your pharmacist's ID card and driver's license
7. OARRS will send you an email, which you must respond to (in order to show that you have provided a legitimate e-mail address)
8. You will receive your user ID via email and password via U.S. Mail
9. Once you have both your ID and password, you will be able to access the system

Questions and Answers³⁻⁵

Setting up and Accessing an OARRS Account

Q: What does a pharmacist need to know about setting up an OARRS account?

A: It is important to note that the application process can be greatly delayed if the pharmacist fails to complete all of the paperwork. If the application is not filled out thoroughly and completely, the Board will have to contact the pharmacist to acquire the missing information.

In regard to new graduates, future employers expect them to be able to run reports when needed. It is essential to have an OARRS account, but the graduates must be actively employed before they can actually create an account.

Q: When I lock myself out of my account, what are the necessary steps to log back in?

A: Your account locks you out after you enter your password incorrectly three times. This is done to protect you by keeping someone else from using your account. You must contact OARRS (phone number 614-466-4143) to regain access to your account.

Q: I have not logged into OARRS for a while and my password does not work, what should I do?

A: If you have not accessed OARRS in six or more months, your account has become inactive. You are required to contact OARRS (phone number 614-466-4143) in order to regain access to your account.

Q: Can a pharmacist access an OARRS report from their laptop or home computer?

A: Yes. However, the pharmacist needs to make sure they are following HIPAA policies.

Submitting Patient Information to OARRS

Q: What types of drugs must be reported to OARRS?

A: According to Rule 4731-11-11, "reported drugs" refer to schedules II, III, IV, V, and any tramadol-containing dangerous drug products.

Q: How do I avoid having multiple patients appear on a single requested OARRS report?

A: Information in OARRS is only as accurate as what you submit to it. The more specific you are in reporting patient information, the less chance you will have of pulling up multiple patients on one report.

When you submit/search be sure to include all of the following: full patient name, address including zip code, telephone number, and date of birth. Try to avoid using nicknames, and if the patient does not have a telephone number use the area code of the pharmacy then zeros for the phone number (e.g. 6140000000 for a patient in Columbus).

Q: How do you make corrections on the database once you have submitted information?

A: In order to have the most accurate data on file, entries may need to be omitted if prescriptions were reversed in the pharmacy, or may need to be edited if incorrect information was originally submitted. Rule 4729-37-11 discusses these issues.



Image: http://www.cohcaonline.org/wp-content/uploads/2012/01/755993_17670480-538x218.jpg

After the discovery of an omission and/or erroneous drug dispensing information, the pharmacy, prescriber or wholesaler must report the corrected information to the Board of Pharmacy during the next reporting time period.

If the erroneous information was discovered by the licensee, they must notify the Board of Pharmacy of the error immediately by telephone and submit written documentation that identifies the erroneous information.

If the omission or erroneous information is the result of a computer programming error, the pharmacy, prescriber or wholesaler must notify the Board of Pharmacy immediately by telephone and submit written documentation.

Requesting an OARRS Report

Q: When is it necessary for me to check OARRS?

A: According to Rule 4731-11-11, in the following scenarios it is mandatory to consult OARRS prior to personally furnishing or prescribing a controlled substance or tramadol:

- a. If signs of drug abuse or diversion are evident in a patient;
- b. When a patient has received treatment with the controlled drug/dangerous drug product for more than 12 weeks.

Q: If an OARRS report is not available immediately at the time of request, what should I do?

A: A report may be unavailable for a variety of reasons such as network outages or being held for review by the OARRS committee. If this is the case, a pharmacist should document the reason for the unavailability of the report and follow up to obtain the report at a later time.

Q: How current is the data in OARRS?

A: Data is uploaded once weekly so the information in OARRS may be eight days behind.

Q: What is the time period an OARRS report is required to cover?

A: A timeframe of one year from the current date needs to be included when running an initial report. However, depending on the signs of diversion or drug abuse observed, you may choose to cover a longer period of time up to two years. Any ensuing reports need to cover the interval from the date of the last report to the present.

Q: After I request an initial OARRS report after 12 weeks of therapy, when do I have to request another one?

A: According to Rule 4729-5-20 (D) (5): The pharmacist should use his or her professional judgment in deciding the frequency of requesting additional OARRS reports for a patient.

Q: How long is information in OARRS?

A: Two years. It is a rolling database, so information that is over two years old is deleted and cannot be recovered.

Legalities of Sharing an OARRS Report

Q: Can a pharmacist legally discuss the contents of an OARRS report with a physician?

A: Yes.

Q: Can a pharmacist show a physician an OARRS report that the pharmacist has requested?

A: Yes.

Q: Can a pharmacist provide a copy of an OARRS report to the physician?

A: No, the physician must request their own report. They are able to view the pharmacist's copy, but they cannot have a copy.

Q: A pharmacist requests an OARRS report and the patient wants a copy. Can the pharmacist provide a copy?

A: No, the patient must request their own report from the Board of Pharmacy.

Q: Am I allowed to give law enforcement a copy of a patient's report?

A: As a pharmacist, you are not allowed to provide a copy of an OARRS report to anyone else, including law enforcement, under any circumstance. You may, however, discuss the information about the patient in question and also provide the OARRS phone number (614-466-4143) or website (www.ohiopmp.gov). Law enforcement officers must obtain their own report when the patient is the subject of an open investigation involving a drug crime.

To obtain information from the database, state, federal, or local law enforcement must: complete and submit a request form to the Board of Pharmacy by giving required information including an active case number assigned by the investigating agency and approval by a supervisor.

Q: Can the pharmacist's technician or intern request an OARRS report?

A: Pharmacists are now permitted to have delegates that can access the OARRS system for them, effective March 13, 2013. The delegate must be employed or supervised by the pharmacist, and must obtain their own username and password for the OARRS system. If the delegate changes jobs or the supervising pharmacist changes, the delegate must notify OARRS. The pharmacist is responsible for the actions of their delegates while on OARRS, and the pharmacist is still the only one that can interpret information pulled from the system.

Institutional

Q: For drugs administered in an office based or in-patient setting, is the OARRS rule still applicable?

A: No, it is not. Rule 4731-11-11 is required to be upheld only when prescribing or personally supplying tramadol or controlled substances to a patient. If a pharmacist was to refill a patient's morphine pump he or she would not be required to check OARRS since this administration of the drug takes place in an in-patient (office-based) setting. Of course, no matter what the setting, you may still decide to request a report based upon your professional judgment.

Q: A physician in the emergency department asks a pharmacist (who is registered with OARRS) to request an OARRS report on a patient as part of a "consult." Is this legal?

A: Yes, in an inpatient setting this is legal because the patient's medical record is kept by the hospital. However, this would not be legal in an outpatient setting because the patient's medical record is kept by the physician. Therefore, the physician would have to request their own copy of the OARRS report.

Q: A physician in the emergency department asks a nurse (who is registered with OARRS as the physician's agent) to pull a report on a patient. Is this legal?

A: Yes, licensed individuals, such as nurses and physician assistants may obtain an account from the Board of Pharmacy to access OARRS on the physician's behalf. A physician may also name non-licensed staff such as medical assistants or other office personnel, as delegates to access OARRS on the physician's behalf. However, the Board of Pharmacy limits the number of non-licensed delegates to three per physician.

Q: A physician in the emergency department gives a nurse his or her OARRS user ID and password and asks the nurse to pull a report on a patient. Is this legal?

A: No, pharmacists and physicians are not allowed to share their usernames or passwords with anyone else. Those credentials were authorized for their personal use only.

Q: A baby is in the NICU, and his mother is nowhere to be found. The baby displays symptoms of withdrawal. Can the pharmacist request an OARRS report on the mother to see what she was taking during pregnancy so that they know how to treat the baby's withdrawal symptoms?

A: No, the mother is not a patient in the hospital.



Image: http://www.pharmamanager.gr/uploads/image/computer_pharmacy.jpg

Community

Q: Does a copy of an OARRS report need to be kept in the medical record of a patient?

A: It is suggested that you do not simply take the entire report and file it, but notate the date the report was requested along with any important findings. This method of documenting the receipt and evaluation of an OARRS report is preferred, but if you do choose to maintain an actual copy of the OARRS report in the patient's file it should be in a part of the record that is non-reproducible.

It is essential to take every necessary measure to maintain patient confidentiality, as any unauthorized disclosure of an OARRS report is likely in violation of federal privacy laws (HIPAA) and/or laws from the Board of Pharmacy. If further information is desired, contact the Board of Pharmacy.

Q: If a patient is prescribed OARRS reported drugs and sees multiple doctors in a medical practice because it is a staff model health maintenance organization (HMO) or a Medicaid clinic, does this qualify as seeing multiple prescribers?

A: This is very common. However, the 12 weeks of consecutive therapy will most likely be the condition that triggers an OARRS report in this situation.

Q: Can I use the DEA number of a hospital for a physician?

A: Yes, however you must include his/her suffix assigned by the hospital both in the pharmacy records and in the report submitted to OARRS.

Q: Are prescriptions filled by the VA included in OARRS?

A: No, because it is a federal institution.

Q: Pharmacist 'A' pulls an OARRS report on a patient who has been taking Vicodin® for 12 weeks. The patient brings in another prescription 30 days later for Vicodin® and Pharmacist 'B' is working. Does Pharmacist 'B' have to request another OARRS report because it was a different pharmacist filling the prescription?

A: No, as long as Pharmacist 'A' documented in the patient record that the first OARRS report was done and his or her findings regarding the review of that report. However, Pharmacist 'B' can request an OARRS report if he or she deems it necessary.

Q: A pharmacist dispenses 10 weeks of alprazolam 1 mg and then the patient is switched to diazepam 2 mg for four weeks. Does this apply to the 12-week requirement for requesting an OARRS report?

A: Yes, since the drugs are in the same therapeutic class, the pharmacist must request an OARRS report.



Image complement of photostock: http://www.freedigitalphotos.net/images/Pills_and_Drugs_g279-Packs_Of_Colorful_Medicine_Pills_Background_p23031.html

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Different Types of Board Certified Pharmacists

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...benefits varied from improved self-worth, additional consulting opportunities, advancement of pharmacy practice, job security, salary increases and promotions.

Introduction

Due to increasing complexity in disease states and therapeutic regimens, there is a need for more knowledgeable and experienced medication experts. Through board-specialty certification programs, pharmacists can concentrate on specific areas of health care that require more advanced levels of medication proficiency. The Board of Pharmacy Specialties (BPS) is an independent certification agency of the American Pharmacists Association (APhA).¹ It was created on January 5, 1976, to certify and acknowledge pharmacists involved in specialized pharmacy practice.² Currently, six specialty pharmacy practice areas are recognized by BPS including Ambulatory Care Pharmacy, Nuclear Pharmacy, Nutrition Support Pharmacy, Oncology Pharmacy, Pharmacotherapy and Psychiatric Pharmacy.¹ Also, the Commission for Certification in Geriatric Pharmacy (CCGP) offers a specialty certification program in Geriatric Pharmacy.³

It is important to note that a board certified pharmacist is different than a certified anticoagulation care provider, certified diabetes educator or health care professional that has a certificate in regard to a special skill set. There is a distinction between certification and certificate training because some certificates may indicate participation in a specialized educational program, but do not assess a practitioner's competence.¹

The BPS is the sole agency that operates across the profession of pharmacy to provide specialty certification of pharmacists. Through this specialized certification program, a pharmacist's education, experience, knowledge and skills in a targeted practice area are validated.¹ Many studies have been performed to analyze the benefits realized by board certified pharmacists. Results showed that the benefits varied from improved self-worth, additional consulting opportunities, advancement of pharmacy practice, job security, salary increases and promotions.² Although there are many advantages in becoming a board certified pharmacist, the primary purpose of specialization within the pharmacy practice is to ensure that the public receives the proper level of pharmaceutical care that will improve a patient's quality of life. This article contains information about the different types of board certified pharmacists, including a general overview of the various certification specialties, specific requirements for certification, continuing education needed to maintain certification status, career opportunities and the impact of certification on the health care system.¹

General Requirements

There are some requirements which are the same for all six types of board certified pharmacists. These requirements include:¹

- Graduation from an Accreditation Council for Pharmacy Education (ACPE) certified university or international equivalent
- Hold a current valid pharmacy practice license
- Pass a content specific examination
- Complete pharmacy practice experience; varies for each certification
- Pay a yearly certification fee of \$100 (\$400 the seventh year for recertification)

Ambulatory Care Pharmacy

A pharmacist holding the title of Board Certified Ambulatory Care Pharmacist (BCACP) specializes in delivering ambulatory care services to patients on an ambulatory or outpatient basis. Examples of ambulatory services include patient education and counseling on drugs, health promotion and self-management. Ambulatory pharmacists work with other health care professionals to coordinate patient care by bridging the gap between physician follow-ups after a patient is discharged from the hospital. In particular, a BCACP is responsible for monitoring drug therapy to ensure compliance and recommending interventions to prevent adverse medication events. A pharmacist that specializes in ambulatory care takes a lead role in integration of patient care across multiple disciplines and fostering long-term patient-provider relationships.⁴

The general requirements needed for certification are listed above; specific prerequisites needed for certification in ambulatory care include:¹

- Completing one of these three options:
 - Four years of practice experience with at least 50 percent of time spent in ambulatory care pharmacy activities as defined by BPS
 - A PGY1 residency and one extra year of experience with at least 50 percent of time spent in ambulatory care pharmacy activities defined by BPS
 - A specialty PGY2 residency in ambulatory care pharmacy (As of January 1, 2013, all pharmacy residencies must be American Society of Health-System Pharmacists (ASHP) accredited.)
- Passing the Ambulatory Care Specialty Certification Examination

A BCACP must renew his or her certification every seven years by either achieving a passing score on BPS's recertification exam or by accumulating 100 hours of continuing education (CE) credit provided through the development program offered by the American College of Clinical Pharmacy (ACCP) and/or the joint program offered by ASHP and APhA. However, during the first three years of the certification cycle, BPS will accept no more than fifty hours of CE. As well, ASHP and APhA both offer ambulatory care pharmacy preparatory review courses for pharmacists.¹

In terms of career outlook, ambulatory certification gives pharmacists a competitive advantage, as well as a salary raise. However, as a BCACP one must accept a large amount of professional responsibility since he or she is a key component in direct patient medication management. Also, ambulatory pharmacists are in the position to expand the role of the pharmacist in health care by monitoring patient medication usage to ensure compliance and optimizing clinical outcomes. Ambulatory care certified pharmacists have many job opportunities including institutional and community based ambulatory pharmacies, nursing homes, private offices and senior citizen wellness centers.⁴

Nuclear Pharmacy

A Board Certified Nuclear Pharmacist (BCNP) provides expertise not only to the nuclear medicine team, but to patients as well. Nuclear pharmacists have specialized skills in radiopharmaceuticals including compounding, quality control testing, counseling and dispensing. Using radiopharmaceuticals safely and effectively is the main priority of a BCNP.¹

Some requirements must be met to become a BCNP, including those listed at the beginning of this article and the following:¹

- Obtain 4,000 hours training or experience in nuclear pharmacy
- Pass the Nuclear Pharmacy Specialty Certification Examination

The hours required for certification can be obtained in a number of ways, including up to 2,000 hours in an academic setting or 4,000 hours through nuclear training or practice. Academic experience includes nuclear undergraduate or postgraduate courses, M.S. or Ph.D. in nuclear pharmacy, completion of the Nuclear Pharmacy Certificate Program, and completion of the Nuclear Education Online (NEO) program, while training and practice experience is gained through a nuclear pharmacy residency, internship or practice.¹

Recertification is required every seven years and it is a three-step process. The first step involves a self-evaluation, while the second step is a peer review which is to be reviewed by the Specialty Council on Nuclear Pharmacy. The final step is a formal assessment of the pharmacist's knowledge, through either CE or a formal examination. Seventy hours of CE are required and 30 of those hours must be obtained in the last three years before recertification. During the recertification process, BCNPs are also required to complete an annual practice report provided by BPS.¹

A pharmacist with this certification could likely see an increase in pay scale and added responsibilities such as oversight of the nuclear pharmacy. Furthermore, nuclear pharmacists provide patients with added reassurance in the safety and quality of medication preparations made for them. Employment opportunities as a BCNP include working with radiopharmaceuticals in a nuclear pharmacy or institutionally in a nuclear medicine department, as well as owning and managing a nuclear pharmacy and research or academia.¹



Image: <http://www.pharmacy-tech-resources.com/images/exam2r.jpg>

Nutrition Support Pharmacy

The nutrition support pharmacist is an important team member of many inpatient and outpatient care settings. This pharmacist plays an important role in ensuring that each patient receives proper nutritional support. Their work includes designing and modifying patient specific enteral and parenteral nutrition regimens while collaborating with other health care professionals. This pharmacist includes the title Board Certified Nutrition Support Pharmacist (BCNSP).¹

In order to become a BCNSP, the general requirements mentioned at the beginning of the article must be met. The practice specific requirements for certification are to:¹

- Complete three years of practice with 50 percent of practice time in nutrition support activities, or complete an ASHP certified PGY2 residency in nutrition support pharmacy
- Pass the Nutrition Support Pharmacy Specialty Certification Examination

There is another certification program available to pharmacists in addition to the program through the Board of Certified Pharmacists. This program is available through the National Board of Nutrition Support Certification (NBNSC) and is an interdisciplinary certification including dietitians, nurses, pharmacists and physicians.⁵

Once a pharmacist has become a BCNSP, he or she must be recertified every seven years. The recertification requirements are to complete 30 hours of CE in nutritional support from providers approved by ACPE and to pass a recertification exam. The pharmacist must complete at least 10 hours of CE every 2 years during the seven year period.¹

Becoming a BCNSP has many benefits for the pharmacist, the employer of the pharmacist and the patient receiving treatment. For the pharmacist, having the certification adds credibility to the recommendations made and provides a competitive edge when seeking employment. Job opportunities for BCNSPs include long term care facilities, hospitals and home care. The employer benefits by knowing that the certified pharmacist will stay up-to-date on nutritional developments and be continually refining his or her specialized knowledge base. The patient benefits by being comforted that his or her health care provider is specially certified to provide personalized patient care.¹

Oncology Pharmacy

A Board Certified Oncology Pharmacist (BCOP) plays a major role in medication management of cancer patients by helping design a specific therapeutic plan for chemotherapy. He or she works as part of a health care team to provide optimal drug therapy by implementing a chemotherapy regimen and intervening when necessary. A BCOP also educates and counsels patients and caregivers on therapeutic plans. Furthermore, a BCOP specializes in chemotherapy drugs and acts as an informational resource for other health care professionals. A pharmacist specializing in oncology helps to reduce the risk of complications and adverse events related to chemotherapy drugs.¹



Image complement of photostock: http://www.freedigitalphotos.net/images/Pills_and_Drugs_g279-Medicine_Spilling_Out_p59864.html

Common prerequisites needed to become a BCOP are listed at the beginning of the article, whereas specific stipulations include:¹

- Completing one of these three options:
 - Four years of practice experience with at least 50 percent of time spent in oncology pharmacy activities as defined by BPS
 - Completion of a PGY1 residency and one extra year of experience with at least 50 percent of time spent in oncology pharmacy activities defined by BPS
 - Completion of a specialty PGY2 residency in oncology pharmacy (As of January 1, 2013, all pharmacy residencies must be ASHP accredited.)
- Passing the Oncology Specialty Certification Examination

With regard to maintaining an oncology certified status, a BCOP must be recertified every seven years by either passing a recertification exam administered by BPS or earning 100 hours of CE provided by a professional development program approved by BPS. For instance, in 2005, BPS approved a professional development program, which is offered by ACCP in conjunction with ASHP and the Hematology/Oncology Pharmacy Association (HOPA), that can be used by BCOPs for recertification.¹

A pharmacist specializing in oncology plays a vital role in providing high quality care for cancer patients through a multidisciplinary team approach. Similarly, a BCOP can interpret new drug information and analyze its clinical usefulness in cancer patients. These pharmacists are a valuable resource for physicians whose patients are responding poorly to current medications on the market. Moreover, a BCOP can raise awareness among the public and health care providers regarding cancer-related issues. Benefits as an oncology drug specialist involve a higher salary and competitive advantage. Also, BCOP job opportunities can be found in community hospitals, particularly those with large oncology departments, private doctor offices, and specialty cancer treatment centers.¹

Pharmacotherapy

As a member of a multidisciplinary health care team, a Board Certified Pharmacotherapy Specialist (BCPS), is not only a vital source of drug information, but is also involved in direct patient care. The BCPS pharmacist takes charge of evaluating drug appropriateness, safety and cost effectiveness for each individual patient.¹

Certain requirements must be met in order to become a BCPS, which include those listed at the beginning of this article and also these specific guidelines:¹

- Completion of three years of practice with 50 percent or more time spent doing pharmacotherapy activities, or completion of an ASHP accredited PGY1 residency
- Pass the Pharmacotherapy Specialty Certification Examination

Recertification is required every seven years and can be obtained either through an examination or CE. One-hundred and twenty hours of CE are needed and they can only be obtained through a BPS approved professional development program.¹

Certification in pharmacotherapy also allows for further specialization in a focused area of study. This is available through an added qualification. Currently, only two added qualifications exist, which are specific to pharmacotherapy: Cardiology and Infectious Disease.¹

A BCPS pharmacist possesses increased knowledge regarding drug therapies, thereby facilitating better patient outcomes and decreasing costs of treatment for both the patient and employer. This expertise in pharmacotherapy may result in increased monetary gain for the pharmacist and assurance to the employer that patients are receiving quality care. Possible opportunities for pharmacists who obtain a BCPS include hospital, other institutional care facilities, ambulatory care, teaching and research.¹

Psychiatric Pharmacy

The psychiatric pharmacist works with an interdisciplinary team of health care professionals to direct the pharmaceutical care of patients with psychiatric related illnesses. Specific responsibilities include optimizing medication regimens by ensuring safety and efficacy, along with other unique opportunities such as offering education programs, assisting with formulary decisions, and conducting original research.⁶ This pharmacist uses the title Board Certified Psychiatric Pharmacist (BCPP).¹

In order to become a BCPP, one must meet the requirements listed at the beginning of the article. The practice specific requirements for a BCPP are:¹

- Complete either four years of practice with at least 50 percent of time in psychiatric pharmacy activities, or complete a PGY2 residency in psychiatric pharmacy plus one year of practice with at least 50 percent of time in psychiatric pharmacy activities
- Pass the Psychiatric Pharmacy Specialty Certification Exam

A BCPP must be recertified every seven years to maintain their BCPP title. The recertification requirements include:¹

- Completion of one of two options:
 - Pass the recertification exam
 - Earn 100 hours of CE provided by a BPS approved provider (including a review course at least once during each seven year recertification cycle)

Benefits of being a BCPP are similar to those of other pharmacy certifications including assurance of staying up-to-date in his or her area of focus, possible monetary compensation for certification, and patient satisfaction in knowing that his or her pharmacist has been specially trained for their need. Various job opportunities for a BCPP include academia, administration, ambulatory care, hospitals, forensic centers, long term care facilities and research.¹

Geriatric Pharmacy

The certification to become a Certified Geriatric Pharmacist (CGP) is not through the BPS, but through the Commission for Certification in Geriatric Pharmacy (CCGP). According to the CCGP, becoming a CGP is essential for pharmacists who provide Medication Therapy Management (MTM) to geriatric patients. The certification includes education regarding medications as related to disease states and also as related to the aging process in general.³

These certifications will enhance skills and knowledge that can provide pharmacists with the tools needed for direct patient care and enhanced qualification for specific career paths within pharmacy.

Requirements to become certified as a CGP through the CCGP include:³

- Hold a current pharmacy license
- Have at least two years of experience as a licensed pharmacist
- Pass a computer based exam
- Application fee of \$600 plus a maintenance fee of \$250 for the five year certification
 - The maintenance fee is used for education and other services to CGP

Requirements to become recertified include:³

- Recertification every five years
- Fee of \$400 plus a maintenance fee of \$250
- Completion of one of two options:
 - Retake the CGP exam
 - Professional Development Pathway: Complete 75 hours of CCGP approved CE
 - ♦ These hours are also ACPE approved and may be used toward pharmacy license maintenance

Many potential jobs are available to CGPs, especially through long term care facilities. These opportunities are increasing as the population ages and companies become more aware of the value of pharmacists and MTM. Some long term care facilities already require their pharmacists to be CGPs. Besides the unique job opportunities, this certification provides an edge in the market, opportunity for promotion, and the satisfaction of knowing that one is providing the best patient care possible.³

Conclusion

Many certifications are currently available to allow pharmacists the opportunity to specialize in focused areas of pharmacy including Ambulatory Care Pharmacy, Nuclear Pharmacy, Nutrition Support Pharmacy, Oncology Pharmacy, Pharmacotherapy, Psychiatric Pharmacy, and Geriatric Pharmacy. These certifications will enhance skills and knowledge that can provide pharmacists with the tools needed for direct patient care and enhanced qualification for specific career paths within pharmacy. More specialized programs for pharmacists will likely become available in the future as well. These could include additional qualifications from BPS. Although currently only two added qualifications exist specifically for pharmacotherapy, new added qualifications can be created for any of the specialties. These can be formed with a petition signed by at least 25 pharmacists that are certified in the same BPS specialty.¹



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The future of pharmacy practice is leaning toward focus and specialization. Receiving certifications such as the BPS certifications detailed above or even ones to come in the future, will provide pharmacists with specialized skills, education and knowledge as well as a competitive edge in order to provide optimal drug therapy to the public.¹

Table 1: Key Terms

Abbreviation	Definition
ACCP	American College of Clinical Pharmacy
ACPE	Accreditation Council for Pharmacy Education
APhA	American Pharmacists Association
ASHP	American Society of Health-System Pharmacists
BCACP	Board Certified Ambulatory Care Pharmacist
BCNP	Board Certified Nuclear Pharmacist
BCNSP	Board Certified Nutrition Support Pharmacist
BCOP	Board Certified Oncology Pharmacist
BCPP	Board Certified Psychiatric Pharmacist
BCPS	Board Certified Pharmacotherapy Specialist
BPS	Board of Pharmacy Specialties
CCGP	Commission for Certification in Geriatric Pharmacy
CE	Continuing Education
CGP	Certified Geriatric Pharmacist
HOPA	Hematology/Oncology Pharmacy Association
MTM	Medication Therapy Management
NBNSC	National Board of Nutrition Support Certification
NEO	Nuclear Education Online
PGY	Post Graduate Year

Table 2: Overview of Requirements for Board Certified Pharmacists¹

Types of Board Certifications	General Requirements for BPS Certification	Pharmacy Practice Experience Requirements for Certification	Requirements for Recertification (every seven years for BPS certifications)
Ambulatory Care Pharmacy	1. Graduation from an ACPE certified university or international equivalent 2. Hold a current valid pharmacy practice license 3. Pass a content specific examination	Complete one of three options: 1. Four years of practice experience with at least 50 percent of time spent in ambulatory care pharmacy activities 2. A PGY1 residency and one extra year of experience with at least 50 percent of time spent in ambulatory care pharmacy activities 3. A specialty PGY2 residency in ambulatory care pharmacy	Complete one of two options: 1. Pass a recertification exam 2. 100 hours of CE in ambulatory care pharmacy
Nuclear Pharmacy	4. Complete pharmacy practice experience; varies for each certification 5. Pay a yearly certification fee of \$100 (\$400 the seventh year for recertification)	Obtain 4,000 hours of training or experience in nuclear pharmacy	Three-step process: 1. Self-evaluation 2. Peer review that is looked over by the Specialty Council on Nuclear Pharmacy 3. Formal assessment of the pharmacist's knowledge, through either 700 hours of CE or a formal examination
Nutrition Support Pharmacy		Complete one of two options: 1. Three years of practice with 50 percent of practice time in nutrition support activities 2. An ASHP certified PGY2 residency in nutrition support pharmacy	Complete 30 hours of CE in nutritional support and pass a recertification exam
Oncology Pharmacy		Complete one of three options: 1. Four years of practice experience with at least 50 percent of time spent in oncology pharmacy activities 2. A PGY1 residency and one extra year of experience with at least 50 percent of time spent in oncology pharmacy activities 3. A specialty PGY2 residency in oncology pharmacy	Complete one of two options: 1. Pass a recertification exam 2. 100 hours of CE in oncology pharmacy
Pharmacotherapy		Complete one of two options: 1. Three years of practice with 50 percent or more time spent doing pharmacotherapy activities 2. An ASHP accredited PGY1 residency	Complete one of two options: 1. Pass a recertification exam 2. 120 hours of CE in pharmacotherapy
Psychiatric Pharmacy		Complete one of two options: 1. Four years of practice with at least 50 percent of time in psychiatric pharmacy activities 2. A PGY2 residency in psychiatric pharmacy plus one year of practice with at least 50 percent of time in psychiatric pharmacy activities	Complete one of two options: 1. Pass a recertification exam 2. 100 hours of CE in psychiatric pharmacy (including a review course at least once during each seven year recertification cycle)
*Geriatric Pharmacy	1. Hold a current pharmacy license 2. Pass a computer based exam 3. Application fee of \$600 plus a maintenance fee of \$250 for the five year certification	Have at least two years of experience as a licensed pharmacist	1. Recertification every five years 2. Fee of \$400 plus a maintenance fee of \$25 3. Complete one of two options: A. Retake the CGP exam B. 75 hours of CCGP approved CE

¹The certification to become a Certified Geriatric Pharmacist is not through the Board of Pharmacy Specialties, but through the Commission for Certification in Geriatric Pharmacy. Therefore, it has different requirements for certification and renewal that are specific for Geriatric Pharmacy.³

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Adderall®: Understanding and Preventing its Abuse Amongst College-aged Students

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There are many reasons why a college student would illicitly use drugs, and some students even deem illicit use of prescription medications as morally justifiable.

Introduction

Drug abuse is a growing problem in the United States with respect to both prescription and nonprescription drugs. We currently live in a society where drug abuse is given a negative connotation, but regardless of the stigma, we continue to see it being especially problematic in college-aged individuals. The 2011 National Survey on Drug Use and Health (NSDUH) is an annual survey that provides insight to the extent of drug abuse in the United States. The 2011 NSDUH found illicit drug use rates in adults between eighteen and twenty-five years old were substantially higher (21.4 percent) than teenagers from 12 to 17 years of age (10.1 percent) and adults greater than 25 years of age (6.3 percent). Illicit drug use continues to be on the rise with increases seen from 19.7 percent in 2008 to 21.4 percent in 2011 among individuals from 18 to 25 years of age.¹ There are many reasons why a college student would illicitly use drugs, and some students even deem illicit use of prescription medications as morally justifiable. Illegal prescription abuse is seen on college campuses across the United States with the abuse of prescription stimulants, especially Adderall®.

Adderall®, a mixed amphetamine and dextroamphetamine salt, is a schedule II substance and member of the stimulant class. The indicated uses for Adderall® per the Food and Drug Administration (FDA) are treatment of Attention Deficit Hyperactivity Disorder (ADHD) and narcolepsy. Other stimulant drugs that also have use in the treatment of ADHD include: Ritalin®, Concerta®, and Dextro-drine®. Adderall® works to correct neurotransmitter imbalances in patients who suffer from ADHD. These patients display suboptimal stimulation of regions of the brain associated with focus and learning, as well as increases in areas controlling movement. This leads to primary pathological symptoms including inattention, hyperactivity, distractibility, and impulsivity.³⁻⁶

Therapeutically, acute administration of stimulant drugs works to increase CNS arousal and hyperactivity, in addition to a noticeable side effect of pleasure, elation and euphoria, which again contribute to its potential for abuse.⁷ Extended release and controlled release Adderall® formulations inherently contain a higher dose of amphetamine salts, which are distributed in a steady, dose-dependent manner as described by the basic pharmacokinetic properties of the individual dosage form. These products have a higher market for abuse as crushing the tablet into a fine powder to be inhaled or injected destroys the mechanisms that release the dose over a period of time causing an immediate, high dose concentration of the drug. When these drugs are crushed and then administered intranasally, signal transduction produces stimulant effects similar to those of cocaine.^{6,8,9} Although proper administration can decrease the addiction potential with use of prescription stimulants, abuse is a growing problem on many college campuses.

Many studies have looked into the prevalence of prescription stimulant abuse on college campuses across the United States. McCabe et al. were the first to research prescription stimulant abuse from a national perspective and surveyed over 10,000 students at 119 colleges. Overall, they found 6.9 percent of students had used prescription stimulants in their lifetime. When analyzing individual colleges, prevalence rates varied drastically. The percentage of students who used prescription stimulants across college campuses ranged from zero to 25 percent.¹⁰ While McCabe et al. looked at stimulant abuse across the entire United States, numerous studies have researched individual colleges. These smaller, individual college-based studies also showed varying prevalence. Weyandt et al. concluded that 9.3 percent of students on one college campus had illegally used prescription stimulants in their lifetime, with 7.3 percent using within 30 days of the study.¹¹ Additionally, one study even found prevalence on an individual college campus to be as high as 34 percent.¹² Analysis of the aforementioned surveys demonstrates that prescription stimulant abuse is prevalent on college campuses across the entire nation.

Multiple factors play a role in the incidence of stimulant abuse on individual college campuses. For example, a national study showed that students at schools with highly competitive admission standards were two times more likely to illegally abuse prescription stimulants than students who attended schools with less competitive admission standards.¹⁰ This raises the question, “Are high academic standards forcing students to resort to prescription stimulant abuse in order to gain an academic edge?” The number one motive given by students for prescription stimulant abuse was to achieve an academic advantage. Specific reasons pertaining to this advantage include: increasing concentration levels, reading comprehension, interest, cognition and memory, while decreasing fatigue.¹¹⁻¹³ Other non-academic motives included weight loss, “getting high,” and experimentation.¹³

In-depth interviews by DeSantis et al. in a follow-up study looked specifically at students’ perception and justifications for stimulant abuse.¹⁴ These researchers categorized student responses into four main justifications. The first reason students provided was the belief that Adderall® had better outcomes when compared to other “party drugs.” Many students felt that they were using these medications for the right reasons and some students went as far as to claim that Adderall® is not a drug, but rather a study tool. Some students reasoned that Adderall® was not harmful as long as it was used in moderation and only taken when needed. Researchers noted that when students discussed moderation, they were referring to frequency of use, not dosage size. Some students were not even aware Adderall® had different dosage strengths.¹⁴ Another justification for using Adderall® was that students felt they had undiagnosed ADHD and were simply self-medicating. Finally, students believed prescription stimulants were completely safe and harmless, although many admitted to having little to no health information on prescription stimulants. In fact, some students saw no difference between Adderall® and caffeine.¹⁴

How are Students Acquiring These Medications?

Adderall® and other stimulants are classified as schedule II drugs, which means by law only a 30 day supply can be dispensed with no refills. While under the stringent regulation by the FDA, how does a drug such as Adderall® become so readily available to students? The answer to this question may be provided by one study that analyzed outpatient prescribing patterns for patients from 0 to 17 years of age between 2002 and 2010. Conclusions indicated that during this time period, prescriptions for ADHD medications increased by 46 percent. They also found methylphenidate (Ritalin) was the most prescribed prescription for children ages twelve to seventeen, while Adderall® was the fifth most prescribed medication for this age group.¹⁵ Results from this study concluded that there were an increasing number of prescriptions for ADHD stimulants, especially for teenagers who would soon be entering college. When researchers asked students about the level of difficulty to obtain prescription stimulants, approximately half of students believed it was easy.¹¹ In-depth interviews with students revealed how these medications circulated throughout college campuses so quickly. Conclusions from these interviews revealed that many students who had legal prescriptions did not take their prescription daily and instead, these students took Adderall® as needed and then sold the surplus.¹⁵

Adderall® Abuse: Why is This a Problem?

Adderall® abuse is a large concern among the college community because of the potential adverse events, drug interactions and lack of knowledge among students. Being a schedule II drug, Adderall® requires the tightest FDA regulation due to its large potential for abuse. In fact, the potential for abuse is one of the “black box” warnings instilled upon this class of medications. The other “black box” warning associated with this prescription stimulant is an increased risk of cardiovascular events. College students, like many other abusers, are especially vulnerable to experiencing adverse events due to their lack of knowledge regarding these medications.

College students, like many other abusers, are especially vulnerable to experiencing adverse events due to their lack of knowledge regarding these medications.

Due to the perceived benefits of these stimulants, researchers estimate that students will continue to abuse these medications regardless of potential harm. Additionally, frequent prescribing of stimulants from physicians is not helping to alleviate the problem either. In October 2012, the New York Times article “Attention Disorder or Not, Pills to Help in School” reported emerging prescribing patterns of Adderall® to low income elementary school students struggling in school. The story described physicians prescribing stimulants to elementary and middle school students without a true diagnosis of ADHD. Instead, these prescriptions were used to boost academic performance. When questioned, physicians felt that their decision was justifiable in order to help struggling students who could not afford behavior-based therapies such as tutoring or counseling. Parents in this report also agreed with their physician’s decision and encouraged their children to take these stimulants. One mother stated that although her children do not like taking their medications, she forced them in order to achieve higher grades.¹⁶



The study by DeSantis et al. found that out of the 1,811 students evaluated, only 4 percent had a legal prescription for Adderall®. As a result, students with legal prescriptions were the individuals distributing Adderall® throughout campus.¹² Therefore, as parents continue to utilize Adderall® in order for their children to achieve high grades and have a successful academic career, accessibility to this stimulant on college campuses will continue to rise.

In addition to physician prescribing patterns, students are also manipulating doctors to receive a stimulant prescription. According to another article by the New York Times, “Risky Rise of the Good-Grade Pill,” students claimed it was easy to obtain a prescription by lying to physicians. During an appointment with their physician, students falsely report experiencing the common symptoms of ADHD. Based upon this evaluation, physi-

cians then commonly prescribe a stimulant medication.¹⁷ As students continue to gain access to Adderall® both legally and illegally, this abuse is only expected to rise in the future. Though many may deem the use of Adderall® to be safe, there are currently no long term studies published that analyze effects of Adderall® abuse within the young adult population.

With prescription stimulant abuse being a growing problem, many are unaware of the legal implications involved with the distribution and use of prescription stimulants. A common misconception students have is the legal repercussions associated with prescription selling and abuse. This belief was demonstrated by a series of student interviews conducted by Desantis et al. According to one student, “[O]ther drugs have jail sentences that people get for using them and distributing them. With Adderall®, it’s done all over without people getting in trouble.”¹⁸ Contrary to this belief, the penalties for the illicit use, possession and dispensing of scheduled drugs, including Adderall®, range from a third-degree misdemeanor to a fourth-degree felony with an associated prison term.¹⁹

Pharmacist Impact

Because pharmacists are on the front lines of patient interaction, the duty falls on the profession to further educate patients about illicit stimulant abuse. Pharmacists have an obligation to use professional judgment and determine the right course of action for medication therapies. By urging for more stringent prescribing regulations to informing patients about the illegal distribution of these medications, the abuse of stimulant medications can be decreased.

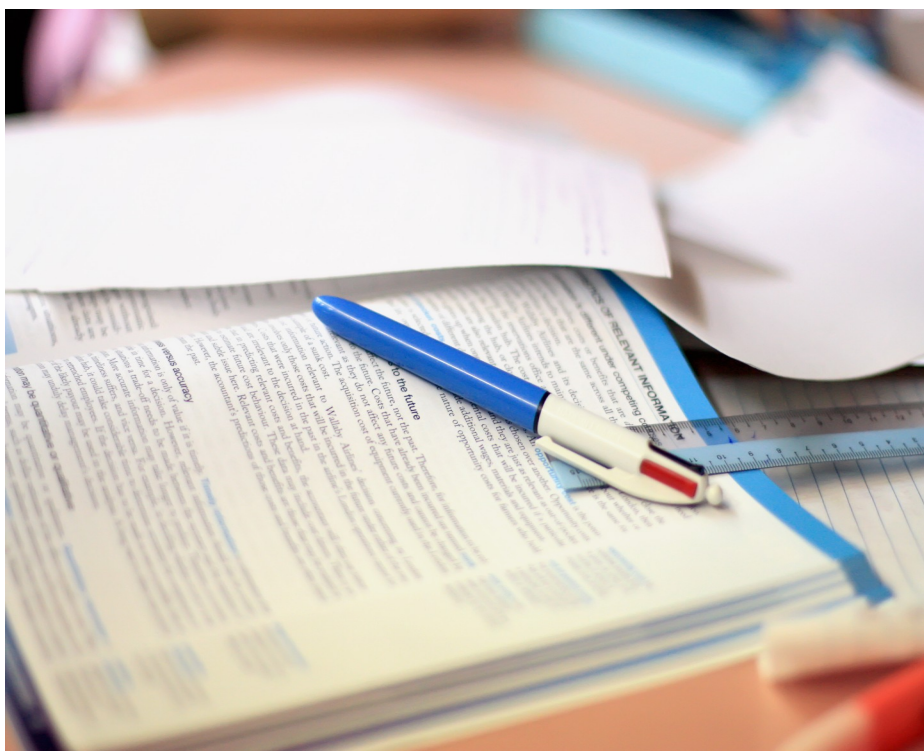
Given that Adderall® seems to be easily obtainable from friends and physicians, education of the patient seems to be best option to stop Adderall® abuse.

Professional organizations such as the American Pharmacists Association (APhA) and the American Society of Health-System Pharmacists (ASHP) are striving to reduce drug abuse. APhA encourages pharmacists to raise awareness and educate their patients about prescription drug abuse. According to APhA,

“Stronger educational efforts aimed at prescription and nonprescription medication abuse prevention are critically needed, and many existing resources can be used in these efforts. Pharmacists, student pharmacists and pharmacy technicians have the expertise and community connections to use these resources toward the improvement of public health.”²⁰

Similarly, ASHP has supported the development of substance abuse prevention and assistance programs as well as identified the need for a multidisciplinary controlled-substance inventory system. Both APhA and ASHP have declared that pharmacists can aid in the education of drug abuse by providing information about support groups to patients, the appropriate use of medications, and by maintaining professional competency through formal and informal continuing education.²¹

Despite the negative stigma of drug abuse, college-aged students are still using illicit drugs and abusing prescription medications. With the current prescribing trends, some perceive this problem will continue growing. Many students believe that although Adderall® is a prescription medication, it is safe to take without a prescription as long as it is used as needed. Given that Adderall® seems to be easily obtainable from friends and physicians, education of the patient seems to be the best option to stop Adderall® abuse. As the drug experts, pharmacists are in a prime position to take on this role in the fight against prescription stimulant abuse.



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