

S O U T H D A K O T A P H A R M A C I S T

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PTCB Certification Requirements to Change

2019 Award Nomination Forms

Community Pharmacy Grant Project



SPRING EDITION 2019

SOUTH DAKOTA PHARMACISTS ASSOCIATION

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www.sdpha.org

The mission of the South Dakota Pharmacists Association is to promote, serve and protect the pharmacy profession.

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Please note: If you are not on our mass e-mail system check our website periodically for district meetings and other upcoming events. They will always be posted at: www.sdpha.org.

APRIL

- 7 Mitchell District Spring Meeting
The Depot, Mitchell, SD • 6 pm
- 7 Mobridge District Spring Meeting
Bob's Resort, Gettysburg, SD • 5:30 pm
- 10–11 NCPA Fly-In: Washington, D.C.
- 11 South Dakota Board of Pharmacy Meeting
The Lodge at Deadwood – Room TBA
Deadwood, SD • 1–5 pm
- 12–13 South Dakota Society of Health System Pharmacists
43rd Annual Meeting
The Lodge at Deadwood, Deadwood SD
- 21 Easter
- 23 Yankton District Spring Meeting
Yankton Medical Clinic Library • 6:30 pm
- 24 Sioux Falls District Spring Meeting
Holiday Inn Downtown, Sioux Falls, SD • 5 pm

MAY

- 2 Black Hills District Spring Meeting
Minerva's, Rapid City, SD • 6 pm
- 9 Aberdeen Spring District Meeting
TBA (Check the website for updated location),
Aberdeen SD • 5:30 pm
- 14 Watertown District Spring Meeting
Minerva's, Watertown, SD • 6:30 pm
- 27 Memorial Day

JUNE

- 8-12 ASHP Summer Meeting & Expo: Boston, MA

SAVE THE DATE: SEPT. 13–14

SDPhA Annual Meeting in Deadwood, SD.
Early bird online registration opens soon!

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DIRECTOR'S COMMENTS

Amanda Bacon // Executive Director



Happy Spring, Everyone!

As I write this, Legislative Session has ended, the office windows are open, I can actually hear birds chirping...as well as the sound of a meteorologist calling for potential significant snowfall next week. (Insert HUGE sigh here...)

Hang in there, friends. Spring has to spring for real eventually!

LEGISLATIVE SESSION

The 2019 Legislative Session was once again an active one for the SDPhA Commercial and Legislative Branch as we engaged in and monitored several bills affecting pharmacy. You can find all of our weekly reports on sdpha.org – simply click on *Resources* and *2019 Legislative Session Updates*. If you weren't receiving those in your email each week, please let me know. SDPhA Lobbyists Robert C. Riter and Margo D. Northrup will offer a full legislative report, and a look ahead to the 2020 Session at the 133 Annual SDPhA Annual Convention Sept. 13-14 in Deadwood. (More about that later.)

HERE'S SOME OF THE HIGHLIGHTS:

HB 1137 – This bill unanimously passed through both chambers of the South Dakota Legislature and was signed into law by Gov. Kristi Noem March 7, 2019. This legislation not only addresses some of the most pressing issues facing our pharmacists and pharmacies, but the patients of South Dakota as well. The bill's major components: preventing Pharmacy Benefit Manager (PBM) clawbacks; preventing retroactive DIR fees; and establishing 340b program protections, garnered strong support from PhRMA, pharmacists, health systems and retailers. Eric Grocott, Pharm.D, Immediate Past President, SDPhA brought strong testimony to lawmakers, sharing numerous examples from pharmacies across the state which showcases the real and often debilitating monetary impact of these practices on pharmacies and ultimately, patients. Melissa Goff, Pharm. D, Assistant Vice-President of Pharmacy – Retail & Innovation, Avera Health, testified for the health system, addressing the importance of the included provisions protecting the 340b programs.

HB 1229 – This legislation originally required optional services through Medicaid to be authorized through special appropriation. As written, this legislation would have meant any modification or change of pharmacy or other services in the state Medicaid plan would require a special

appropriations bill and a 2/3 vote of the legislature. SDPhA opposed this bill, which was deferred to the 41st Day by Senate Appropriations Feb. 28. However, March 6, HB 1229 was reconsidered and hoghoused (completely re-written or amended) to provide a \$1M appropriation for the second century habitat fund. SDPhA took no position on this, as the bill no longer contained any provision of consequence to public health or pharmacy.

SB 22 – This legislation served as the annual scheduling bill from the Department of Health. It garnered significant attention due to the language used regarding Epidiolex (the lone FDA approved CBD Oil). After clarification the bill passed both houses and was signed in to law Feb. 19. The bill contained an emergency provision, and therefore went into effect immediately. It's also worthy of note that following session, Jason Ravensborg, South Dakota Attorney General, **issued a statement** clarifying that, with the exception of Epidiolex, hemp and CBD oil remain illegal in South Dakota.

I mentioned it briefly above, but our ability to communicate quickly and effectively with you is key – especially during session. In addition to emails, we've developed the SDPhA Member News and Announcements group page on Facebook. Make sure you've joined!

APHA/NASPA

Shortly after session I joined Erica Bukovich, SDPhA president in Seattle at the Annual APhA meeting. I look forward to these meetings as for me, they are an opportunity to meet face-to-face with my counterparts from across the nation. We're all sharing what's working and what's not in our states on everything from policy to keeping in touch with our members. It's an invaluable time where we come together and share best practices and learn about what's coming on the national scene.

NCPA FLY-IN

SDPhA Immediate Past President Eric Grocott will attend the NCPA Fly-in April 10-11 to meet with our South Dakota Congressional Delegation to secure support for various pieces of federal legislation affecting pharmacy. Shane Clarambeau, Ft. Pierre and Curt and Shirley Rising, Rapid City will also attend the meetings.

SPRING DISTRICT MEETINGS

Spring Meetings are well underway! Check the calendar at the beginning of the Journal, social media and sdpha.org if you're not sure of the date for your district. It's important you remember award nominations are due May 1 – you can find nomination forms online and starting on page 17.

PHARMACY TECHNICIAN UNIVERSITY

We are extremely excited to share the news that the Therapeutic Research Center - PTU 101 module we administer qualifies under the new 2020 requirements as a PTCB-Recognized Education/Training Program of the CPhT program. Beginning January 1, 2020, completion of a PTCB-recognized education/training program or equivalent work experience will be required of all new CPhT applicants. To be considered eligible for the Pharmacy Technician Certification Exam (PTCE) under the 2020 requirement, a candidate must attest to completion of a PTCB-recognized education/training program, or equivalent work experience as a pharmacy technician (min. 500 hours). We've worked closely with TRC on this as they've worked with PTCB, and we're thrilled about the outcome.

We currently have 45 participants enrolled in PTU. If you'd like more information, just give me a shout at the office!

CONVENTION

Save the dates and watch your email and our social media – all the registration information is coming at you SOON! You'll want to be there Sept. 13-14, we'll be back at the Lodge at Deadwood. Our Keynote speaker is Angela Kennecke, and we have a really great lineup coming together! An added bonus – Deadwood Jam is that weekend! Plan some extra time to play!

Respectfully,

AMANDA BACON

SDPhA Executive Director

PRESIDENT'S PERSPECTIVE

Erica Bukovich // SDPhA Board President



Greetings from SDPhA!

Spring is here in South Dakota and we have already had a busy year for SDPhA. I am happy to report highlights of recent activities as well as some updates on upcoming events you won't want to miss!

The first event of this year was Legislative Days. Thank you to all of the pharmacists and students

who participated to make the event a success. Truly a highlight of the year and great opportunity to engage in the legislative process. I hope you found the continued updates from the Association helpful to keep you updated throughout session. A big thank you to Amanda her continued efforts to provide relevant and timely information to SDPhA members.

Next up was the APhA Annual Meeting in Seattle, Washington. With numerous outstanding continuing education options, keynote speakers presenting on timely and relevant topics, and opportunities to network with peers from South Dakota and across the nation, the event truly delivered. I encourage each of you to consider attending a future meeting, perhaps even next year as the event heads to Washington, D.C. next March.

The APhA Annual Meeting was also a great opportunity to engage with our friends from the SDSU College of Pharmacy. It was exciting to see students and faculty

presenting, competing, and representing on the national stage. Overall a great to see the future of pharmacy in action and engage with other pharmacists passionate about the profession!

As I write this many of you may already be attending Spring District meetings and engaging with other pharmacists in your area. This time is also an excellent opportunity to consider nominating a deserving individual for any of the annual awards. The SDPhA Board appreciates your time to recognize those around you who are making a difference in our profession. We look forward to hearing from you about all of the great work being done by pharmacists in our state!

Annual Convention may be in September, but we at SDPhA are already in full swing planning the event. Make this the year to come and enjoy Deadwood and the SDPhA Annual Convention on September 13-14. This year is shaping up to be a great lineup set against the backdrop of the beautiful Black Hills. Make plans now to join us for the fun and exciting event. Stay tuned for continued updates and information as we get closer to the event.

As always, we love to hear from you and encourage you to reach to Amanda or one of your SDPhA Board members. Looking forward to seeing many of you at upcoming events throughout the year!

Respectfully,

ERICA BUKOVICH

SDPhA Board President

SOUTH DAKOTA BOARD of PHARMACY

Kari Shanard-Koenders // Executive Director



BOARD WELCOMES NEW REGISTERED PHARMACISTS/ PHARMACIES

Congratulations to the following two candidates who recently met licensure requirements and were registered as pharmacists in South Dakota: Oluwaseyi (Chey) Ogundolani and Michele Rahn. There were three full-time

pharmacy licenses approved and issued during the period. They are Lewis Family Drug LLC, dba Lewis Family Drug #43, Aberdeen; Lewis Family Drug LLC, dba Lewis Family Drug #44, Sisseton; and Ameripharm Inc., dba Medvantx Pharmacy Services 2. There were also three part-time pharmacy licenses issued: Regional Health Pain Management, Rapid City; Avera McKennan dba Avera LTC Pharmacy AMDD #2, Yankton; and Avera McKennan dba Avera LTC Pharmacy AMDD #3, Aberdeen.

SD BOARD ADOPTS NEW LICENSURE SYSTEM

By *Melanie Houg, Program Assistant*

The Board of Pharmacy is pleased to announce that beginning in April, all new and renewal licenses and registrations will be completed online on our new licensing software, iGov Solutions. Paper applications will no longer be accepted, except for reinstatements. Also, we will not be accepting checks, only credit or debit cards will be accepted.

When applying, review the training manual for the license/registration being applied for or renewing. The manual will be on the Board of Pharmacy website at www.pharmacy.sd.gov and will outline all the information needed for the online process. Have all information ready including any documents needed for upload (a scanner will be necessary for some licenses). Once you begin the online process, it must be completed in one sitting as the system will not

capture the information entered until the application has been submitted and the payment process is complete. Once submitted, no changes can be made to the application. Payments will need to be made online using Mastercard or Visa ONLY. If you do not have a Mastercard or Visa, purchase a Mastercard or Visa gift card to complete the payment for the application.

Each registrant will need to set up an account to begin the online process. Click on *sign up* at: https://sdbop.igovsolution.com/online/User_login.aspx. If you are responsible for more than one license, the user ID and password must be unique for each license. Be sure to retain your login information for future use.

After the application has been submitted and payment has been made, the Board of Pharmacy will review the application, email the registrant if additional information is needed, and approve or deny the application.

You must log back into your account to check application status, print a receipt, and, once approved, print your license. Licenses and registrations will no longer be mailed. Any license or registration can also now be primary source verified on the Board website at: <http://doh.sd.gov/boards/pharmacy/verification.aspx>.

PDMP UPDATE

by *Melissa DeNoon, PDMP Director*

2019 began with the statutory annual PDMP report on the monitoring and use of prescription opioids to the 2019 SD Legislature's Senate and House standing committees on health and human services. The report included: 1) Program highlights, 2) SD patients' opioid prescription data for the previous three years including total prescription counts, total quantities, and total days of supply, 3) Top seven SD counties for opioid prescription count based on patient zip code, 4) Trending query data by SD prescribers and pharmacists for the previous three years, and 5) Information on Clinical Alerts, the 2018 enhancement to the PMP AWARxE platform.

The Board of Pharmacy is encouraged by the trends shown in both opioid prescriptions and number of queries. Opioid prescriptions have decreased in our state over the last three years in all three parameters: prescription count, total quantity, and total days of supply. PDMP utilization is measured by the number of patient queries performed by approved program users. In the last three years, prescriber queries have increased almost fourfold and pharmacist queries have increased almost fivefold. Doubling our number of users since the end of 2016 has contributed to these increases but the biggest driver has been the increase in the number of entities that have integrated the SD PDMP into their electronic health records and pharmacy software systems. Integration provides one-click, in-workflow access to this clinical decision-making tool which can directly affect patient care and impact the misuse, abuse, and diversion of controlled prescription drugs, all of which are goals of the SD PDMP.

MEDDROP DRUG TAKE-BACK PROGRAM EXPANSION

by *Melissa DeNoon*

The SD Board of Pharmacy has secured additional grant funding from the Department of Social Services to expand the MedDrop drug take-back program. Pharmacists-in-charge at both SD retail and hospital pharmacies were sent invitations in March to participate. The Board hopes for continued funding of this program as the availability of take-back receptacles addresses the avenue of diversion created by unused, unwanted, and expired drugs in an individual's medicine cabinet. Send questions on this program to sdpdmp@state.sd.us.

Respectfully Submitted for the Board,

KARI SHANARD-KOENDERS

Executive Director

BOARD MEETING DATES

Check our website for the time, location and agenda for future Board meetings.

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BOARD OF PHARMACY

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PDMP DATA ACCESS

<https://southdakota.pmpaware.net/login>

PDMP DATA SUBMITTERS

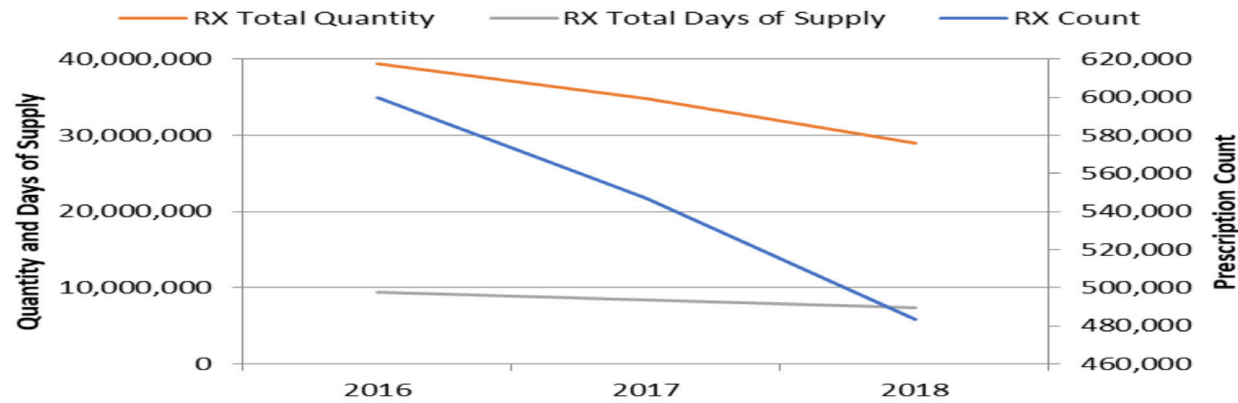
<https://pmpclearinghouse.net/>

NATIONAL ASSOCIATION OF BOARDS OF PHARMACY

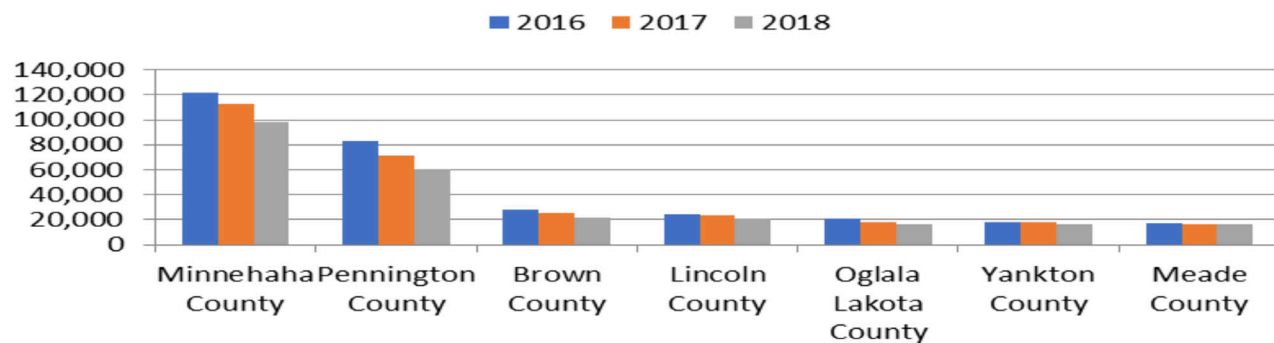
www.NABP.pharmacy

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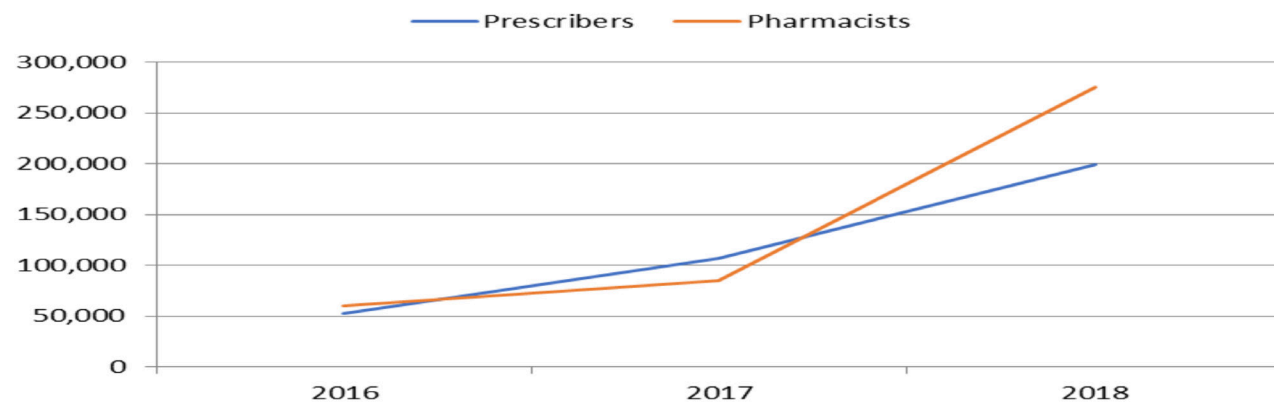
SD Patients' Opioid Prescriptions



Top Opioid RX Count SD Counties by Patient Zip Code



Trending PDMP Queries by SD Users



SOUTH DAKOTA SOCIETY of HEALTH-SYSTEM PHARMACISTS

Aaron Larson, PharmD, BCPS // SDSHP President



Greetings from the South Dakota Society of Health System Pharmacists!

ASHP RECOGNIZES GARY VAN RIPER FOR 40+ YEARS OF SERVICE

SDSHP recently held a well-attended appreciation party for Gary Van Riper in January at Shenanigans Sports Bar and Grill in Sioux Falls. In April he will be stepping down from his longstanding role as SDSHP secretary. At his appreciation party, Gary was presented with a letter written by the ASHP CEO, Paul Abramowitz, which recognized Gary for his continued outstanding service in health-systems pharmacy. In addition to the recognition letter, Gary received a plaque from ASHP to help commemorate his unwavering leadership within SDSHP.

WINTER RESIDENT CE EVENTS

SDSHP sponsored three free CE events this year for all SDSHP members to attend. The events were January 26th in Sioux Falls, February 2nd in Sioux Falls, and February 23rd in Rapid City. At each of the events, the residents provided high quality CE on a wide range of clinical pharmacy topics. SDSHP would like to extend a special thank you to the residents for all of their hard work in providing outstanding CE to our membership!

UPCOMING EVENTS

The 43rd Annual SDSHP Conference is coming up fast and will take place on April 12-13, 2019 at the Lodge at Deadwood. We hope you can join us for two days of great continuing education programming and networking! This meeting promises something of interest to all pharmacists, managers/directors, technicians, students, and residents, regardless of your practice setting. Please visit sdshp.com and click on the "events" tab to register!

Mark your calendars! The 18th Annual Gary Van Riper Society Golf Classic will be held at the Central Valley Golf Course in Hartford on Friday, July 26, 2019. This event supports SDSU student pharmacists by providing scholarships and funding for travel to the ASHP Clinical Skills Competition in December. Please go online or contact Tyler Turek at tyler.turek@sanfordhealth.org to register. We hope to see you there!

Last but not least, the 7th Annual SDSHP Statewide Residency Conference will be held again this summer. The date has not yet been set but the conference will continue to provide an opportunity for residents to network and gain knowledge on topics that will benefit them during residency.

THANK YOU

Words cannot describe how thankful I am to have worked with the 2018-2019 Board of Directors. Their dedication to the Society and the pharmacy profession is reflected in SDSHP's many accomplishments during the past year. I also want to extend my gratitude to the outgoing board members including Jessica Harris, Gary Van Riper, Kristina Peterson, Avery Aldridge (term completes in August), and Scott Dingus. Their knowledge, expertise, and hard work have been invaluable to SDSHP.

Finally, I would like to thank the membership of SDSHP for giving me the opportunity to serve as its President. The experience has been tremendously rewarding and enjoyable. During the next year, SDSHP will continue to serve health-system pharmacists and technicians under the excellent leadership of Joe Berendse.

Please visit SDSHP's website at www.sdshp.com to learn more about SDSHP and find a list of upcoming events!

Respectfully submitted,
AARON LARSON
SDSHP President

SOUTH DAKOTA STATE UNIVERSITY COLLEGE of PHARMACY and ALLIED HEALTH PROFESSIONS

Jane Mort // Dean, College of Pharmacy & Allied Health Professions



The College of Pharmacy and Allied Health Professions' mission is to prepare pharmacists for practice both now and in the future. While we know from firsthand experience what pharmacists do, sadly most of our patients don't understand the role or the impact of their pharmacist. To that end, two national initiatives have been created by consortiums of pharmacy organizations.

Pharmacy is Right for Me is one resource that can help prospective students understand what pharmacists do. The resource can be found at <https://pharmacyforme.org/learn-about-pharmacy/>. The headline *Pharmacists Wear White Coats & Many Hats* is an example of their market savvy approach. Another great resource to help spread the word about pharmacy is *Pharmacists for Healthier Lives*, reminding patients that the *closest doctor is often your pharmacist* (<https://pharmacistsforhealthierlives.org/>).

At the College we are committed to helping continually advance the practice of pharmacy with the goal of better patient outcomes. While pharmacy practitioners know the long history of the profession making a difference in patients' health, often this goes unrecognized by our patients and undocumented in the scientific literature. In addition, suboptimal health outcomes provide many opportunities to advance practice in the community. New frontiers include greater involvement of pharmacists in ambulatory care, new services in community pharmacy, and pharmacogenomics. The College has made a significant commitment in each of these areas through the investment of time, resources, and personnel, and our efforts have been bolstered by grants and an endowment. We are confident that together with partners like you, we can truly create a revolution in pharmacy care. My invitation to you is to join us in making this important journey!

I would be remiss if I didn't let you know about the great accomplishments at the College. Congratulations to Dr. Sharrel Pinto, recipient of the College of Pharmacy and Allied Health Professions Outstanding Scholar Award, and Dr. Hemachand Tummala, recipient of the F.O. Butler Award for Excellence in Research. These are outstanding achievements that demonstrate the amazing talent of our faculty. I want to also congratulate Ailin Guo, a PhD student in our program, for winning the Three Minute Thesis competition at SDSU. She will be representing SDSU in the Midwestern Association of Graduate Schools (MAGS) 3MT competition in St. Louis, Missouri in March.

Finally, I want to announce that Dr. Teresa Seefeldt will serve as our Associate Dean for Academic Programs. Dr. Seefeldt, Associate Professor of Pharmaceutical Sciences, joined the College in 2005. She has a long history of curriculum, assessment, and accreditation work and has served in the Acting Assistant Dean for Academic Programs role since 2017. We look forward to her continued leadership in this important position. Please join me in congratulating Dr. Seefeldt.

The College of Pharmacy and Allied Health Professions continues to strive for excellence and we deeply appreciate your role in helping us achieve the College's mission.

Mission - The College of Pharmacy and Allied Health Professions provides high-quality, interprofessional, student-centered education; fosters discovery through innovative research and scholarship; and advances the provision of health care.

Best regards,
JANE MORT
Dean, College of Pharmacy & Allied Health Professions



ACADEMY of STUDENT PHARMACISTS

Bailey Buenger // SCAPP/APhA-ASP SDSU Chapter President



Hello from the SDSU Student Collaboration for the Advancement and Promotion of Pharmacy! We have stayed very busy this spring. The semester started with around forty students traveling to Pierre for Legislative Days. Students that attended found the legislative update held by SDPhA very enlightening and took away from the trip a new appreciation for the legislative process. At our

recent chapter meetings student speakers have presented on various topics. Khia Warzecha presented about the ASHP Midyear meeting and residency showcase. Then we had our own SCCP (Student College of Clinical Pharmacy) members present on various research opportunities that are available throughout pharmacy school. At our last chapter meeting we elected the 2019-2020 Executive Committee.

Students are looking forward to many events coming up. The P3 students will have the opportunity to participate in the Active Generations Health Fair in Sioux Falls again this

year. Eleven students are heading to Seattle, Washington for the APhA Annual Meeting and Exposition. Later this spring, several students will travel to the hills for the annual SDSHP convention in Deadwood. These events are great for students to connect with others in the profession and with other health professionals.

Our committees continue to collaborate and put on great events. Our chapter has created a Women's Health Initiative committee that has been working hard to bring in speakers and host events related to women's health. Our Katy's Kids committee has planned an event at the Boy's and Girl's Club in Brookings. Additionally, our chapter is collaborating with SDSU's Kappa Epsilon Chapter to host a 5K later this spring once the weather warms up. Continue to watch for information and updates on our Facebook page about events going on. I hope everyone has a great spring!

Respectfully,
BAILEY BUENGER
SCAPP/APhA-ASP SDSU Chapter President



1815 Grant Project

South Dakota Community-based Practice Model for Diabetes and CVD

The South Dakota Department of Health is partnering with South Dakota State University (SDSU) College of Pharmacy on a five-year project as part of the 1815: Improving the Health of Americans Through Prevention and Management of Diabetes and Heart Disease and Stroke grant to work toward creating a statewide community-based practice model that is sustainable and financially viable. With pharmacy being an important member of the patient care team, this will assist in overall prevention and management of diabetes and cardiovascular disease throughout South Dakota.

YEAR ONE: SDSU will be conducting a landscape analysis performed at three levels: patient, practitioner, and payer. This will include, but is not limited to stakeholder identification, access pathways, current practices, roles and responsibilities assessment, needs assessment, community asset mapping, and barriers and facilitators to care.

YEAR TWO: Information collected from year one will be used to inform strategic pathways in year two. This year will focus heavily on development by educating and engaging the patient, practitioner, and payer groups on the creation of a community-based practice model of care.

YEAR THREE: This year will focus on implementing the programs developed in year two.

YEAR FOUR: By quarter two of this year, all programs should be implemented. The early adopter data should be analyzed and used to engage stakeholders (payers, health systems, professional organizations, policy makers) in conversations about next steps. By quarter four, all data from all sites participating in this statewide initiative should be



analyzed and presented. Each presentation should end with an active action item for the health system or site participating in the project. Payers will play a key role in year four. Based on the evaluation reports, SDSU will work to engage them in some early conversations to test re-imbursement models to pilot this year or in year 5.

YEAR FIVE: Evaluation from all the sites will be completed by quarter two, present data to stakeholders. Assess sustainability needs and successful payment models. Train practitioner, patients, and other stakeholders on these future payment models.

WE WANT YOU!

If you or someone you know has any of the following conditions or is taking medications for the following conditions...



DIABETES

RECENT STROKE

HIGH BLOOD PRESSURE

HEART DISEASE



...would like to earn **\$50**, has about an hour to spare, and is interested in participating in a research study, please contact **605.274.9549** to see if you qualify.

SD ASSOCIATION of PHARMACY TECHNICIANS

Jerrie Vedvei, CPhT // SDAPT President



Spring Greetings from SDAPT!

The 2019 fall conference will be October 5th 2019. Once again SDAPT will have three locations on this day to accommodate Technicians from across the state, Pierre, Sioux Falls and Rapid City. We are currently working on securing presenters from each location, of course we will provide the required Ce's of Law and Patient Safety. The

Law CE will be presented by Kari Shanard-Koenders R.Ph, Executive Director of the SD Board of Pharmacy. Others will be announced as soon as they are secured. We are

working hard to provide topics requested from the 2018 surveys we received.

I would like to ask that all pharmacies please send at least one pharmacy technician from each store. As you know education is so very important, and it is always more interesting and valuable to be able to actually see and hear presenters in person.

SDAPT needs and appreciates all of the support from the pharmacies and pharmacists from around the state.

Sincerely,
JERRIE VEDVEI
SDAPT President

2019 SOUTH DAKOTA ASSOCIATION OF PHARMACY TECHNICIANS

WWW.SDAPT.ORG

MEMBERSHIP & CONFERENCE REGISTRATION FORM

MEMBERSHIP INCLUDES

- Annual Continuing Education Conference October 5th in Pierre, satellite locations Sioux Falls and Rapid City (light breakfast, beverages and snacks provided) There will be a speaker/s at each location.
- One year's subscription of The South Dakota Pharmacist Journal and discounted rates for the South Dakota Pharmacist Association Annual Meetings
- An awesome opportunity to network with others in your profession ~ 5 CE's will be earned by attending including the required law and safety CE's.

NAME _____ CELL PHONE (____) _____
STREET ADDRESS _____ CITY _____ SD _____ ZIP _____
EMPLOYER _____ CITY _____ WORK PHONE (____) _____
EMAIL ADDRESS _____
CPHT: YES OR NO _____ PTCB CERTIFICATION# _____ SD STATE REGISTRATION # _____
PAST MEMBER OF SDAPT: YES _____ NO _____ NEW MEMBER _____
PLEASE LIST ANY OTHER STATE OR NATIONAL PHARMACY ORGANIZATION(S) YOU BELONG TO: _____
ARE YOU WILLING TO SERVE ON A COMMITTEE? YES OR NO _____ COMMITTEE: _____

PLEASE CHECK ONE: _____ \$35 MEMBERSHIP AND CONFERENCE
PLEASE CIRCLE THE LOCATION YOU WILL ATTEND: PIERRE SIOUX FALLS RAPID CITY
STUDENTS MAY ATTEND FOR FREE: WHERE ARE YOU CURRENTLY ENROLLED: _____

DUE NO LATER THAN SEPTEMBER 25, 2019 (A LATE FEE OF \$10 WILL BE CHARGED)
MAKE CHECKS PAYABLE TO: SDAPT
MAIL CHECK AND REGISTRATION FORM TO: SDAPT Secretary: Hope Showalter, 921 S Williams Ave, Sioux Falls, SD 57104

- Please note, this form is for the South Dakota Association of Pharmacy Technicians only. Please do not confuse this form with the SD State Technician registration form that is required by the South Dakota Board of Pharmacy.

PTCB Certification Eligibility Requirements to Change in 2020

Education/training programs can apply now for PTCB recognition

WASHINGTON, DC – Starting in 2020, PTCB, the nation's leading certifying organization for pharmacy technicians, will change its eligibility requirements for the Certified Pharmacy Technician (CPhT) Program and update its Pharmacy Technician Certification Exam (PTCE). PTCB will offer two eligibility pathways for technicians submitting certification applications beginning January 1, 2020. One will be completion of a PTCB-recognized education/training program, and the other will be equivalent work experience.

Announced in January 2018, these changes are based on data PTCB collected via Job Task Analysis survey responses from more than 40,000 pharmacy technicians and comments from the pharmacy community, including technician employers and educators, state and national pharmacy associations, and state boards of pharmacy.

PTCB relies on data and pharmacy stakeholder conversations in all we do with the goal of advancing medication safety, said William Schimmel, PTCB Executive Director and CEO. The new eligibility requirements are based on input from pharmacy professionals that certain knowledge, skills, and abilities are acquired most effectively through education/training or work experience. Pharmacy employers can be confident that PTCB-certified pharmacy technicians have demonstrated they have the knowledge to advance patient care in today's pharmacy, Schimmel said.

EDUCATION/TRAINING PROGRAM RECOGNITION

In preparation for 2020, PTCB has launched an application process for education/training programs to become PTCB-recognized by attesting that their curriculum meets specified knowledge requirements. The process requires directors of education/training programs not accredited by the American Society of Health-System Pharmacists/Accreditation Council for Pharmacy Education (ASHP/ACPE) and/or by the Accrediting Bureau of Health Education Schools (ABHES) to submit attestation.

Programs that are ASHP/ACPE and ABHES-accredited are recognized as fulfilling PTCB's curriculum requirements and are not required to attest. More than 600 programs have become recognized to date. *Our recognition process for education/training programs lays the foundation for implementing significant changes in CPhT eligibility requirements along with updates to the PTCE, said Schimmel.*

NEW ELIGIBILITY REQUIREMENTS

Students who complete a PTCB-recognized education/training program will be eligible to apply for, and earn, their CPhT credential starting in 2020. As an alternative, PTCB will offer a second eligibility pathway based on work experience for technicians who have completed 500 work hours and attest to fulfilling specified

knowledge requirements. *While PTCB values education as a key component to earning certification, we also recognize the merit of work experience, Schimmel said. This pathway means technicians who've worked extensively in the field, but haven't been in a position to complete PTCB-recognized education can still pursue our national certification.*

Aspiring CPhTs must show they have the necessary knowledge and skills to do their jobs safely and effectively, said PTCB Certification Council President Kilee Yarosh, RPh, Market Director of Pharmacy Steward Healthcare, Warren OH. PTCB's eligibility requirements in 2020 go beyond high school and ensure those seeking to earn their certification are qualified and can successfully demonstrate competence.

EXAM (PTCE) UPDATES

Beginning January 1, 2020, PTCE content will be organized into four knowledge areas rather than the current nine, and will focus only on essential knowledge that applies across practice settings. Consistent with industry best practices and accreditation standards, PTCB periodically conducts a Job Task Analysis study approximately every 5 years as the foundation for its national certification program. *The data from PTCB's study in 2016 informed the updates to be made in 2020, and reflect technician responsibilities in current pharmacy practice, said Levi Boren, PhD, PTCB Senior Director of Certification Programs. PTCB also received more than 500 individual comments during a 90-day comment period on implementation of the education/training eligibility pathway. PTCB listens to the pharmacy community. Our comment period allowed us to collect valuable feedback, Boren added.*

PTCB's research-based changes are critical for keeping PTCB's CPhT Program up to date on pharmacy practice and the vital role of pharmacy technicians, added Barbara Limburg, PharmD, PTCE Exam Development Committee Chair and former sterile compounding professor of pharmacy technicians at South Suburban College and Associate Professor at Chicago State University College of Pharmacy.

More information is available on PTCB's website, including the listing of PTCB-recognized education/training programs, program recognition attestation form, and updated PTCE content blueprint.

ABOUT THE PHARMACY TECHNICIAN CERTIFICATION BOARD (PTCB)

As the nation's leading certifying body for pharmacy technicians, PTCB has granted more than 645,000 Certified Pharmacy Technician (CPhT) Certifications since its founding in 1995. PTCB began offering its Compounded Sterile Preparation Technician™ (CSPT™) Certification Program, the organization's first advanced certification, in December 2017. PTCB was established by the American Pharmacists Association; American Society of Health-System Pharmacists; Illinois Council of Health-System Pharmacists; and Michigan Pharmacists Association; and joined in 2001 by the National Association of Boards of Pharmacy. PTCB services more than 285,000 active CPhTs nationwide. PTCB's mission is to advance medication safety by certifying technicians who are qualified to support pharmacists and patient care teams in all practice settings.



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pharmacy technicians university



Today, pharmacy technicians are increasingly important members of the pharmacy team. Skilled pharmacy technicians are critical for the economic and efficient function of a pharmacy. However, training requirements for pharmacy technicians change often and are becoming more complex, creating a shortage of qualified pharmacy technicians.

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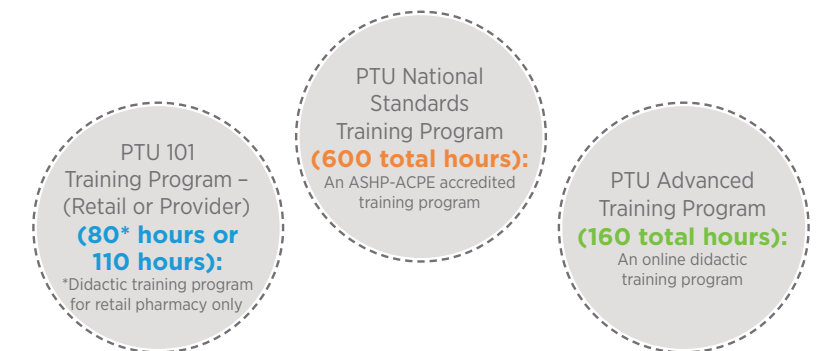
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2018 Recipients of the Bowl of Hygeia Award



The Bowl of Hygeia award program was originally developed by the A. H. Robins Company to recognize pharmacists across the nation for outstanding service to their communities. Selected through their respective professional pharmacy associations, each of these dedicated individuals has made uniquely personal contributions to a strong, healthy community. We offer our congratulations and thanks for their high example. The American Pharmacists Association Foundation, the National Alliance of State Pharmacy Associations and the state pharmacy associations have assumed responsibility for continuing this prestigious recognition program. All former recipients are encouraged to maintain their linkage to the Bowl of Hygeia by emailing current contact information to awards@naspa.us. The Bowl of Hygeia is on display in the APHA History Hall located in Washington, DC.

Boehringer Ingelheim is proud to be the Premier Supporter of the Bowl of Hygeia program.

2019 Biography for the Bowl of Hygeia Nominee

1. The recipient must be a pharmacist licensed within the jurisdiction in which the Award is made.
2. The recipient must be living. Awards are **not** presented posthumously.
3. The recipient has not been a previous recipient of the Award.
4. The recipient has compiled an outstanding record of community service, which apart from his/her specific identification as a pharmacist reflects well on the profession.

Nominees Full Name: _____

Nominees Mailing Address: _____

College of Pharmacy from Which Graduated: _____

Year Graduated from College of Pharmacy: _____

List pharmacy jobs held through the years:

List positions or honors in pharmacy organizations:

List all community service of the nominee. This can include any elective or appointive position in local, county or state government; membership in and past and present positions in various community and charitable organizations.

Name of spouse and any other family information:

This individual was nominated by _____ District of SDPhA.

Signed by District Officer or Nominee

President – Erica Bukovich | President Elect – Lori Ollerich | Vice President – Dana Darger | Secretary/Treasurer – Kristen Carter | Board Member – Bernie Hendricks | Board Member – Melissa Gorecki | Executive Director – Amanda Bacon

2019 Distinguished Young Pharmacist Award

Sponsored by Pharmacists Mutual

Minimum Selection Criteria:

1. Entry degree in pharmacy received less than ten (10) years ago.
2. Licensed to practice in state in which selected.
3. Member of the state association in the year selected.
4. Practiced, community, institutional, or consulting pharmacy in the year selected.
5. Participated in national pharmacy association, professional programs, state association activities and/or community service.

Recipient's Full Name: _____
(Nickname)

Address: _____

City/State/Zip: _____

Practice Site: _____

City/State/Zip: _____

College from which entry degree was received and **YEAR:** _____

Recipient has participated in (please list national pharmacy association affiliations, community/church activities, state pharmacy association activities or other professional programs, etc.)

2019 Biography for the Husted Award

Criteria for the award are:

1. The award shall be presented annually.
2. The recipient must be a pharmacist licensed in the State of South Dakota.
3. The recipient has not previously received the award.
4. The recipient shall have made a significant contribution or contributions to the profession.
5. The recipient should demonstrate the dedication, resourcefulness, service and caring that has made pharmacy one of the most respected professions in our country.
6. The award is **NOT** to be based solely on community service.

Nominees Full Name: _____

Nominees Mailing Address: _____

College of pharmacy from which graduated: _____

List pharmacy jobs held through the years:

List positions or honors in pharmacy organizations:

Significant professional contribution:

List all community service of the nominee:

Name of spouse and any other family information:

This individual was nominated by _____ District of SDPhA.

Signed by District Officer or Nominee

2019 Pharmacy Technician of the Year Award

Minimum Selection Criteria:

1. Registered Pharmacy Technician working in South Dakota
2. Outstanding Service Record, Demonstrating Excellent Pharmacy Technician Skills
3. Practiced, community, institutional, or consulting pharmacy in the year selected.

Recipient's Full Name: _____

Address: _____

City/State/Zip: _____

Practice Site: _____

City/State/Zip: _____

Why Technician should receive this award: (to be completed by person nominating the Technician) _____

2019 Salesperson of the Year Award

Minimum Selection Criteria:

1. Salesperson operating in the State of South Dakota
2. Individual and/or Company has shown outstanding support of Pharmacy in South Dakota

Recipient's Full Name: _____

Address: _____

City/State/Zip: _____

Practice Site: _____

City/State/Zip: _____

Please identify why this representative should receive this award (to be completed by nominating individual)

Pharmacist Consult – Commonly Encountered Pediatric Infections, Part 2: Recommendations for Appropriate Antibiotic Selection and Avoiding Treatment Failure due to Under-Dosing Regimens.

Knowledge-based CPE

Course Author: Nicole Carr, Pharm.D.
Community Practice Pharmacist, Minneapolis, MN

Course Development: This course was developed under the guidance and review protocols of the Office of Continuing Education, South Dakota State University College of Pharmacy and Allied Health Professions.

LEARNING OBJECTIVES

1. Identify one commonly encountered antibiotic under-dosing issue that can lead to therapy failure in children;
2. Select appropriate antibiotic treatment regimens for acute bacterial rhinosinusitis, group A streptococcal pharyngitis, and acute otitis media in pediatric patients;
3. Determine appropriate duration of antibiotic therapy for three common pediatric infections;
4. Counsel patients on the appropriate use of the selected antibiotic and the importance of complete adherence.

UNDER-DOSING ANTIBIOTICS AND THE RISK OF TREATMENT FAILURE

Upper respiratory infections, including rhinosinusitis, pharyngitis, and otitis media, are the most common infectious diseases that lead to office and emergency department visits.¹

Antibiotics are commonly prescribed inappropriately or dosed incorrectly for these medical conditions.² The use of antibiotics to treat infections most commonly caused by

viruses increases the development of antibiotic resistance and leads to unnecessary adverse effects. Broad spectrum antibiotics are often prescribed when antibiotics with a narrow spectrum would be adequate. Under-dosing of antibiotics can lead to treatment failure and the further development of antibiotic resistance.

Several studies suggest that under-dosing antibiotics in pediatric patients may occur more frequently than over-dosing.^{3,4} One study found that dosing errors were more likely to occur in children that were overweight or obese compared to children of normal weight, and the most common error was prescribing a dose below what treatment guidelines recommend.⁴

Most references recommend using weight-based pediatric dosing for children until their weight causes them to reach the maximum dose or the suggested adult dose.⁵ One retrospective observational study in Scotland found that children ages five to eleven who received a lower-than-recommended antibiotic dose had significantly more total antibiotic courses prescribed during the following year than children within that age group who received the recommended dose.⁶

Due to the increasing prevalence of penicillin resistance among organisms that commonly cause pediatric upper respiratory infections, it is imperative for pharmacists to critically evaluate each pediatric antibiotic prescription to ensure that each patient is receiving the right antibiotic dose for the right indication, prevent treatment failure, and lessen the possibilities for the development of resistant organisms.

Pharmacists should check the weight-based dose order to ensure that it is appropriate for the child. They should also assess risk factors that may require the child to receive a high-dose amoxicillin regimen. The pharmacist should double check a child's weight with the provider's office or parent before dispensing an antibiotic. Pharmacists may reference the CDC growth chart to estimate the normal weight of a child at a specific age.

Pharmacists must also counsel patients and parents on correct administration, including accurate measurement of liquid antibiotics, and the importance of completing the entire course of treatment even after the resolution of symptoms.

RHINOSINUSITIS TREATMENT

First-line treatment: According to the 2012 Infectious Diseases Society of America (IDSA) guidelines on acute bacterial rhinosinusitis, low-dose amoxicillin-clavulanate (45 mg/kg/day divided twice daily) is first-line therapy for acute bacterial sinusitis in children.⁷

Amoxicillin-clavulanate is preferred over amoxicillin due to the increasing prevalence of β -lactamase producing organisms causing acute bacterial sinusitis, such as *H. influenzae* and *M. catarrhalis*.^{1,7} Penicillin susceptibility of *S. pneumoniae* varies by location and ranges from 10 to 60% of isolates being classified as non-susceptible.¹ Nearly 100% *M. catarrhalis* and 10 to 42% of *H. influenzae* produce β -lactamases that cause resistance to amoxicillin.

There are several disadvantages to treating patients with amoxicillin-clavulanate rather than amoxicillin, to include increased cost and an increased risk of adverse effects, especially diarrhea.⁷

The American Academy of Pediatrics (AAP) 2013 guidelines on acute bacterial sinusitis in children recommend the use of either amoxicillin or amoxicillin-clavulanate as first-line therapy for uncomplicated infections where resistance is not suspected.⁸ Low-dose amoxicillin is recommended for children at least two years old who do not attend daycare and have not had antibiotics in the last month.

AAP guidelines suggest that low-dose amoxicillin-clavulanate may be more appropriate than amoxicillin alone if infection rates of *S. pneumoniae* continue to decrease and rates *H. influenzae* continue to increase due to pneumococcal vaccination.⁸

Allergies: If the patient has a non-severe penicillin allergy (not anaphylaxis), clindamycin plus either cefixime or cefpodoxime is an appropriate option according to IDSA guidelines.⁷

Due to high resistance rates among *S. pneumoniae* isolates, cephalosporins are no longer recommended as monotherapy by IDSA.⁷ Clindamycin has good activity against *S. pneumoniae*, including isolates that are penicillin-intermediate or resistant. Third generation cephalosporins provide a base of coverage that includes *H. influenzae* and *M. ca-tarrhalis*. Therefore, the combination of clindamycin and a third generation cephalosporin is appropriate.

If a patient has had a previous severe allergic reaction to penicillin (anaphylaxis), levofloxacin would be an appropriate alternative to amoxicillin-clavulanate.^{1,7}

Levofloxacin use in children should be reserved for patients with severe penicillin allergies due to the increased risk of tendinopathy, arthritis, and arthralgia during and after treatment with a fluoroquinolone.

Macrolides are no longer recommended due to *S. pneumoniae* resistance rates of about 30%.^{7,8} Sulfamethoxazole-trimethoprim is also no longer recommended due to the development of *S. pneumoniae* and *H. influenzae* resistance rates of 30 to 40%.

Per AAP guidelines, cefdinir, cefuroxime, or cefpodoxime are each appropriate alternatives for patients with both severe and non-severe penicillin allergies, according to recent studies that indicate that the risk for cross-sensitivity between penicillin and second-and third-generation cephalosporins is very small.⁸

In severe cases of sinusitis, treatment with clindamycin and cefixime is recommended to broaden coverage to include resistant organisms.⁸ High-dose amoxicillin-clavulanate is preferred for patients in areas where at least 10% of *S. pneumoniae* isolates are penicillin-resistant and for patients with severe infections.

Treatment duration: Treatment duration of 10 to 14 days is appropriate for children with acute bacterial sinusitis.⁷ AAP recommends a treatment duration of seven days after symptoms resolve or at least ten days.⁸ If symptoms worsen within two to three days or fail to improve within three to five days of antibiotic therapy, the patient should be reevaluated and the antibiotic therapy should be escalated.^{7,8}

Treatment failure or risks for resistance: If the patient has failed initial treatment or is at risk for infection with resistant organisms, the patient should be treated with high-dose amoxicillin-clavulanate (90 mg/kg/day divided twice daily) per IDSA and AAP guidelines.^{7,8} Levofloxacin or clindamycin plus cefixime or cefpodoxime would be an appropriate alternative regimen for patients with allergies.¹

The primary factors putting patients at risk of infection with resistant organisms include daycare attendance, age younger than two years, recent hospitalization, treatment with antibiotics within the last 30 days, or immunocompromising conditions.^{7,8}

TABLE 1: Antibiotics for acute bacterial rhinosinusitis in children. Adapted from DiPiro.¹

ANTIBIOTIC	DOSE	PLACE IN THERAPY
INITIAL EMPIRICAL THERAPY		
IDSA Recommendations		
amoxicillin-clavulanate	45 mg/kg/day po divided twice daily	first line
amoxicillin-clavulanate	90 mg/kg/day po divided twice daily	second line
AAP Recommendation		
amoxicillin	45 mg/kg/day po divided twice daily	first line
amoxicillin-clavulanate	45 mg/kg/day po divided twice daily	second line
β-LACTAM ALLERGY		
IDSA Recommendations		
clindamycin plus cefixime or cefpodoxime	clindamycin 30-40 mg/kg/day po divided three times daily cefixime 8 mg/kg/day po divided twice daily cefpodoxime 10 mg/kg/day po divided twice daily	non-severe allergy
levofloxacin	6 mo. - 5 years: 8-10 mg/kg/dose twice daily ≥5 years: 10 mg/kg/dose once daily	severe allergy
AAP Recommendation		
cefdinir	14 mg/kg/day po divided q12-24h	non-severe or severe allergy
cefuroxime	15 mg/kg/dose po twice daily	non-severe or severe allergy
cefpodoxime	5 mg/kg/dose po q12h	non-severe or severe allergy
clindamycin plus cefixime	clindamycin 30-40 mg/kg/day po divided three times daily cefixime 8 mg/kg/day po divided twice daily	allergy and severe infection
RISK OF ANTIBIOTIC RESISTANCE OR FAILED INITIAL THERAPY		
amoxicillin-clavulanate	90 mg/kg/day po divided twice daily	first line
clindamycin plus cefixime or cefpodoxime	clindamycin 30-40 mg/kg/day po divided three times daily cefixime 8 mg/kg/day po divided twice daily cefpodoxime 10 mg/kg/day po divided twice daily	non-severe allergy
levofloxacin	6 mo. - 5 years: 8-10 mg/kg/dose twice daily ≥5 years: 10 mg/kg/dose once daily	severe allergy

Group A Strep Pharyngitis Treatment First-line treatment: Antibiotics should only be prescribed to patients with positive rapid antigen detection tests (RADT) or cultures.^{1,9} According to the IDSA guidelines for the management of group A streptococcal pharyngitis, empiric treatment with antibiotics while labs are pending is not recommended.

The treatment of choice for group A streptococcal (GAS) pharyngitis is oral penicillin or amoxicillin for 10 days.⁹ These antibiotics are attractive choices because they are inexpensive, have a relatively narrow spectrum, and cause limited adverse effects. Amoxicillin may be preferred in pediatric patients because the amoxicillin suspension tastes better than the penicillin suspension.

Intramuscular benzathine penicillin G is a treatment option for patients unlikely to be compliant or unable to tolerate oral therapy; however, the injection is painful.^{1,9}

Once-daily amoxicillin has been shown in several clinical trials to be effective for GAS pharyngitis despite amoxicillin's one-hour half-life and time-dependent killing effect.^{9,10} Penicillin resistance of GAS is not currently a concern.

Allergies: If the patient has a non-severe penicillin allergy, cefadroxil or cephalexin for 10 days is an appropriate alternative.^{1,9} If the patient has a severe penicillin allergy, azithromycin for five days or clarithromycin or clindamycin for 10 days should be prescribed.

The FDA has approved five-day courses of cefdinir, cefpodoxime, and azithromycin for GAS pharyngitis; however, the IDSA guidelines do not recommend these regimens due to flaws in study designs to achieve this approval, along with the broader spectrum of these agents and their increased cost versus penicillin.⁹

Tetracyclines and sulfamethoxazole-trimethoprim are not recommended for treatment due to an increasing rate of resistance.⁹ Fluoroquinolones are not recommended due to their cost and broad spectrum of activity.

TABLE 2: Antibiotics for the management of GAS pharyngitis in children. Adapted from DiPiro.¹

ANTIBIOTIC	DOSE	DURATION
PREFERRED ANTIBIOTICS		
penicillin V	250 mg po twice or three times daily	10 days
penicillin G	<27 kg: 0.6 million units IM	1 dose
benzathine	≥27 kg: 1.2 million units IM	
amoxicillin	50 mg/kg po once daily (max 1,000 mg) 25 mg/kg po twice daily (max 500 mg)	10 days
PENICILLIN ALLERGY		
cephalexin	20 mg/kg/dose po twice daily (max 500 mg/dose)	10 days
cefadroxil	30 mg/kg po once daily (max 1,000 mg)	10 days
clindamycin	7 mg/kg/dose po three times daily (max 300 mg/dose)	10 days
azithromycin	12 mg/kg po once on day 1 (max 500 mg), 6 mg/kg po once on days 2-5 (max 250 mg)	5 days
clarithromycin	15 mg/kg/day po divided twice daily (max 250 mg bid)	10 days

Acute Otitis Media Treatment First-line treatment non-severe AOM: According to AAP guidelines, first-line therapy for non-severe acute otitis media (AOM) is high dose amoxicillin if the patient has not received amoxicillin in the past thirty days and does not have purulent conjunctivitis.¹¹ If the patient has received amoxicillin in the last thirty days, has conjunctivitis, has a history of AOM that does not respond to amoxicillin, or has risk factors for amoxicillin-resistant organisms, high-dose amoxicillin-clavulanate should be used.

Resistance to β-lactams is common among pathogens that cause AOM.¹ Forty percent of *Streptococcus pneumoniae* isolates are penicillin non-susceptible, due to alterations in penicillin-binding proteins. β-lactamase enzymes are produced by 30 to 40% of *H. influenzae* and 90% of *M. catarrhalis* isolates.

Risk factors for amoxicillin-resistance include attending a childcare center, receiving antibiotics within the past 30 days, and being younger than two years old.¹¹

Penicillin resistance can be overcome with high-dose amoxicillin. Amoxicillin has several advantages over other antibiotics including its relatively narrow spectrum, high

middle ear concentration achieved, low cost, safety, and appealing taste.^{1,11} Amoxicillin is more effective against *S. pneumoniae* than *H. influenzae* and *M. catarrhalis*; however, it is still recommended as first-line therapy because infections caused by *H. influenzae* and *M. catarrhalis* are more likely to resolve spontaneously than infections caused by *S. pneumoniae*.¹

If the patient has a non-severe penicillin allergy, a second or third generation cephalosporin, such as cefdinir, cefuroxime, or cefpodoxime, is appropriate.¹¹ Cephalosporins are more expensive than amoxicillin, may have a higher incidence of adverse effects, and often do not achieve the high middle ear fluid concentrations that may be required for AOM infections.

If the patient has a severe penicillin allergy, either azithromycin or clarithromycin would be a preferred agent and should be prescribed.¹¹

First-line treatment severe AOM: First-line therapy for severe AOM is high-dose amoxicillin-clavulanate.¹ Severe AOM is defined as fever of at least 39° C or severe ear pain. If the patient is allergic to penicillin, intramuscular ceftriaxone for one to three days is an appropriate alternative.

Treatment failure: If treatment failure at 48 to 72 hours occurs, antibiotic therapy should be escalated.^{1,11}

If treatment for non-severe AOM fails, therapy should be changed to amoxicillin/clavulanate, ceftriaxone, or clindamycin. In severe AOM, ceftriaxone or clindamycin are appropriate second-line options.

Treatment duration: Length of therapy depends on age.¹

- <2 years old - 10 days¹¹
- 2-5 years old - 7 days
- ≥6 years old - 5-7 days

Follow-up should occur in three days, and clinical improvement in pain, fever, and bulging of the tympanic membrane should be seen.

If clinical improvement is not evident, antibiotics should be started if they were withheld or escalated if they were prescribed. Symptoms typically resolve completely in seven days.¹

Clinical Pearl: amoxicillin-clavulanate suspension: Ensure the appropriate dosage form for high-dose amoxicillin-clavulanate. Only the 600 mg/5 mL suspension (about 14 mg amoxicillin/1 mg clavulanate) will not overdose the patient on clavulanate, if high-dose amoxicillin (90 mg/kg/day) is prescribed. Overdosing clavulanate causes diarrhea, potentially leading to decreased adherence and parental concern for using amoxicillin-clavulanate in the future.

TABLE 3: Antibiotics in the management of acute otitis media. Adapted from DiPrio.¹

ANTIBIOTIC	DOSE	PLACE IN THERAPY
INITIAL DIAGNOSIS		
amoxicillin	80-90 mg/kg/day divided twice daily	first-line (non-severe AOM)
amoxicillin-clavulanate	90 mg/kg/day amoxicillin, 6.4 mg/kg/day clavulanate divided twice daily	first-line (severe AOM)
cefdinir	30 mg/kg/day divided twice daily	non-severe allergy (non-severe AOM)
cefuroxime	14 mg/kg/day once or twice daily	non-severe allergy (non-severe AOM)
cefepodoxime	10 mg/kg/day divided twice daily	non-severe allergy (severe AOM)
ceftriaxone (1-3 days)	50 mg/kg/day once daily	non-severe allergy (severe AOM)
azithromycin	10 mg/kg/day for 3 days	severe allergy (non-severe AOM)
clarithromycin	10 mg/kg/day on day 1, then 5 mg/kg/day on days 2-5	
	15 mg/kg/day divided twice daily	severe allergy (non-severe AOM)
FAILURE AT 48-72 HOURS		
amoxicillin-clavulanate	90 mg/kg/day amoxicillin, 6.4 mg/kg/day clavulanate divided twice daily	first-line (non-severe AOM)
ceftriaxone (1-3 days)	50 mg/kg/day once daily	first-line (severe AOM) and non-severe allergy (non-severe AOM)
clindamycin	30-40 mg/kg/day three times daily	non-severe allergy (severe AOM) and severe allergy (non-severe and severe AOM)

Financial Disclaimer: The author and planners/reviewers of this course have no financial relationships to declare.

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Pharmacist Consult – Commonly Encountered Pediatric Infections, Part 2: Recommendations for Appropriate Antibiotic Selection and Avoiding Treatment Failure due to Under-Dosing Regimens

Learning Assessment – Post Test

- Antibiotics are commonly under-dosed in children that are overweight or obese.
 - True
 - False
- When reviewing an antibiotic prescription for appropriateness, the pharmacist should do which of the following?
 - Determine the indication for the antibiotic and the appropriate pediatric dose for that indication
 - Calculate the weight-based dose of the antibiotic
 - Assess the patient for risk factors for antibiotic-resistant organisms
 - All of the above
- A 4-year-old patient who has been diagnosed with bacterial rhinosinusitis presents to the pharmacy with his mother. While reviewing the patient's profile, you notice he was treated with amoxicillin three weeks ago. He weighs 16 kg and has no known drug allergies. Select the appropriate treatment regimen for this patient.
 - Amoxicillin 720 mg po bid
 - Amoxicillin-clavulanate 360 mg po bid
 - Amoxicillin-clavulanate 720 mg bid
 - Levofloxacin 160 mg po q12h
- How long should the patient in the previous question receive antibiotic therapy? *Select all appropriate answers.*
 - 5 days
 - 7 days
 - 10 days
 - 14 days
 - 7 days after symptoms resolve (at least 10 days total)
- In a patient with a non-severe penicillin allergy, which of the following bacterial rhinosinusitis treatment regimens is recommended by IDSA?
 - Amoxicillin-clavulanate 45 mg/kg/day po divided twice daily
 - Clindamycin 30-40 mg/kg/day po divided three times daily
 - Levofloxacin 10-20 mg/kg/day po q12-24h
 - Clindamycin 30-40 mg/kg/day po divided three times daily PLUS cefixime 8 mg/kg/day po divided twice daily
- A patient presents to the pharmacy with a diagnosis of GAS pharyngitis and a prescription for amoxicillin 50 mg/kg po once daily for 10 days. Is this an appropriate treatment regimen?
 - Yes, this is appropriate
 - No, the dose MUST be divided twice daily
 - No, treatment duration should be 5-7 days
 - No, amoxicillin is not an appropriate antibiotic choice
- IDSA recommends a five-day course of therapy with cefdinir or cefpodoxime for GAS pharyngitis in pediatric patients.
 - True
 - False
- A three-year-old female patient has been diagnosed with severe AOM. The patient weighs 14 kg and has no known drug allergies. What is appropriate first-line therapy?
 - True
 - False
- What is the appropriate duration of antibiotic therapy for the patient in question 8?
 - 10 days
 - 7 days
 - 5-7 days
- The patient in the question 8 has not clinically improved after three days of first-line therapy, what is the appropriate antibiotic to escalate therapy to?
 - Amoxicillin 630 mg po twice daily
 - Amoxicillin-clavulanate 630 mg po twice daily
 - Ceftriaxone 700 mg IM once daily
 - Azithromycin 140 mg po once daily

Pharmacist Consult – Commonly Encountered Pediatric Infections, Part 2: Recommendations for Appropriate Antibiotic Selection and Avoiding Treatment Failure due to Under-Dosing Regimens.

Knowledge-based CPE

To receive 1.5 Contact Hours (0.15 CEUs) of continuing education credit, preview and study the attached article and answer the 10-question post-test by circling the appropriate letter on the answer form below and completing the evaluation. A test score of at least 70% is required to earn credit for this course. If a score of 70% (7/10) is not achieved on the first attempt, another answer sheet will be sent for one retest at no additional charge.

Participants should verify credit upload to their NABP accounts within two weeks of submission of this answer sheet to insure appropriate credit award.



The South Dakota State University College of Pharmacy is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education. The Universal Program Identification number for this program is: **#0063-0000-18-034-H01-P**.

Learning Objectives - Pharmacists: 1. Identify one commonly encountered antibiotic under-dosing issue that can lead to therapy failure in children; 2. Select appropriate antibiotic treatment regimens for acute bacterial rhinosinusitis, group A streptococcal pharyngitis, and acute otitis media in pediatric patients; 3. Determine appropriate duration of antibiotic therapy for three common pediatric infections; 4. Counsel patients on the appropriate use of selected antibiotic and the importance of full adherence.

Circle Correct Answer: 1. A B 2. A B C D 3. A B C D 4. A B C D E 5. A B C D
6. A B C D 7. A B 8. A B C D 9. A B C 10. A B C D

Course Evaluation: *must be completed for credit.*

	DISAGREE							AGREE						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Material was effectively organized for learning:														
Content was timely and applicable for re-licensing / recertification:														
Each of the stated learning objectives was satisfied:														
<i>List any learning objectives above not met in this course: _____</i>														
<i>List any important points that you believe remain unanswered: _____</i>														
Course material was evidence-based, balanced, noncommercial:														
<i>List any instance of perceived bias _____</i>														
Learning assessment questions appropriately measured comprehension														
Length of time to complete course was reasonable for credit assigned														
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<i>Comments: List any future CE topics of interest (and related skill needs): _____</i>														

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Course release date: April 30, 2018 / Expiration date: April 30, 2021 / Target audience: Pharmacists
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FINANCIAL FORUM

This series, Financial Forum, is presented by PRISM Wealth Advisors, LLC and your State Pharmacy Association through Pharmacy Marketing Group, Inc., a company dedicated to providing quality products and services to the pharmacy community.

Traditional vs. Roth IRAS

Perhaps both traditional and Roth IRAs can play a part in your retirement plans.

IRAs can be an important tool in your retirement savings belt, and whichever you choose to open could have a significant impact on how those accounts might grow.

IRAs, or Individual Retirement Accounts, are investment vehicles used to help save money for retirement. There are two different types of IRAs: traditional and Roth. Traditional IRAs, created in 1974, are owned by roughly 35.1 million U.S. households. And Roth IRAs, created as part of the Taxpayer Relief Act in 1997, are owned by nearly 24.9 million households.¹

Both kinds of IRAs share many similarities, and yet, each is quite different. Let's take a closer look.

Up to certain limits, traditional IRAs allow individuals to make tax-deductible contributions into the retirement account. Distributions from traditional IRAs are taxed as ordinary income, and if taken before age 59½, may be subject to a 10% federal income tax penalty. For individuals covered by a retirement plan at work, the deduction for a traditional IRA in 2019 has been phased out for incomes between \$103,000 and \$123,000 for married couples filing jointly and between \$64,000 and \$74,000 for single filers.^{2,3}

Also, within certain limits, individuals can make contributions to a Roth IRA with after-tax dollars. To qualify for a tax-free and penalty-free withdrawal of earnings, Roth IRA distributions must meet a five-year holding requirement and occur after age 59½. Like a traditional IRA, contributions to a Roth IRA are limited based on income. For 2019, contributions to a Roth IRA are phased out between \$193,000 and \$203,000 for married couples filing jointly and between \$122,000 and \$137,000 for single filers.^{2,3}

In addition to contribution and distribution rules, there are limits on how much can be contributed to either IRA. In fact, these limits apply to any combination of IRAs; that is, workers cannot put more than \$6,000 per year into their Roth and traditional IRAs combined. So, if a worker contributed \$3,500 in a given year into a traditional IRA, contributions to a Roth IRA would be limited to \$2,500 in that same year.⁴

Individuals who reach age 50 or older by the end of the tax year can qualify for annual *catch-up* contributions of up to \$1,000. So, for these IRA owners, the 2019 IRA contribution limit is \$7,000.⁴

If you meet the income requirements, both traditional and Roth IRAs can play a part in your retirement plans. And once you've figured out which will work better for you, only one task remains: opening an account.

CITATIONS:

- 1 - <https://www.ici.org/pdf/per23-10.pdf> [12/17]
- 2 - <https://www.marketwatch.com/story/gearing-up-for-retirement-make-sure-you-understand-your-tax-obligations-2018-06-14> [6/14/18]
- 3 - <https://money.usnews.com/money/retirement/articles/new-401-k-and-ira-limits> [11/12/18]
- 4 - <https://www.irs.gov/retirement-plans/plan-participant-employee/retirement-topics-ira-contribution-limits> [11/2/18]

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PHARMACY & THE LAW

By Don. R. McGuire Jr., R.Ph., J.D.

*This series, **Pharmacy and the Law**, is presented by Pharmacists Mutual Insurance Company and your State Pharmacy Association through Pharmacy Marketing Group, Inc., a company dedicated to providing quality products and services to the pharmacy community.*

Partial Fills

Partial filling of prescriptions has been going on for a long time in pharmacies. So long in fact that most pharmacists don't think about the legalities of doing so. When you search for laws or regulations about partial filling, you get few results addressing partial filling for non-controlled substances. One of the few that is found is in West Virginia.¹ This code section allows the partial filling of any prescription if the pharmacy is unable to supply the entire amount or if the patient requests a lesser amount. Many states just don't address partial filling for non-controlled substances in their laws or regulations.

Almost all states have a regulation regarding the partial filling of controlled substances, particularly Schedule II. Many of them are worded similarly to the DEA regulation on this subject.² What is different about the DEA regulation is that it only allows partial filling in situations where the pharmacy is unable to supply the entire amount of the prescription. It doesn't permit the patient to request a partial fill of a Schedule II substance. One of the unforeseen results of these regulations has been its potential contribution to the opioid crisis. In response to the crisis, Congress passed the Comprehensive Addiction and Recovery Act of 2016 (CARA).³ One of the many provisions of the law allows the patient or the prescriber to request a partial fill of a prescription for Schedule II controlled substances. Although the DEA hasn't rewritten its regulations, the interpretation of the law has been that CARA supersedes the DEA regulations to allow the patient or the prescriber to request the partial fill.

For non-controlled substances, what is the legal status of partial filling in those states whose laws and regulations are silent on the issue? The answer depends on your view of how the law works. Some would say that there is nothing prohibiting it, so I can proceed to partially fill the prescription. The other view would say that there is nothing permitting it, so I can't do it. Given the history of partial filling, I would agree with the former view. It is such an ingrained part of pharmacy practice, with little apparent risk to the public, that regulators haven't felt the need to address it.

However, there are risks when partial filling a prescription. There have been claims reported when the remaining portion of the

prescription has been filled incorrectly. Partial filling is a deviation from the normal workflow, so there is an increased chance of error in that situation. Errors occur most often with look-alike, sound-alike pairs. There can also be interruptions in therapy if the remainder is overlooked or misplaced. There is also a risk that the patient will not come back to finish the course of their treatment. It is important to make sure that there is accurate documentation of what was dispensed and when.

On top of the treatment risks, there are also contractual issues. Partial filling may be addressed in your contracts with third party payers. These provisions may address when partial filling may occur, how it is to be documented, and how to charge for the prescription. Failure to follow the contractual requirements could result in an audit and recoupment of third party payments. It is especially important to follow the contractual requirements in cases of partial filling when the patient fails to pick up the remainder of the prescription. Failure to adjust billings in those cases could end up as cases of unjust enrichment or fraud.

At first glance, the issue of partially filling a prescription seems pretty benign. However, it does present some pitfalls for the unwary. The legal and/or contractual requirements may be contradictory to what is seen as good patient care. For example, the patient presents with a new prescription for an expensive medication. It may make sense to dispense a few days' supply to make sure that the patient can tolerate the new treatment. But this can be problematic if regulations or contractual requirements do not allow partial fills. Unfortunately the world is not always rational or logical. Because of these complexities, partial filling should be addressed in your pharmacy's policy and procedure manual.

© Don R. McGuire Jr., R.Ph., J.D., is General Counsel, Senior Vice President, Risk Management & Compliance at Pharmacists Mutual Insurance Company.

This article discusses general principles of law and risk management. It is not intended as legal advice. Pharmacists should consult their own attorneys and insurance companies for specific advice. Pharmacists should be familiar with policies and procedures of their employers and insurance companies, and act accordingly.

¹ West Virginia Code Section 30-5-27.

² Title 21 CFR Sections 1306.13. Section 1306.23 for Schedules III, IV, and V does not contain that limitation.

³ Public Law 114-198.

Pharmacy

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OBITUARY

JoAnn Long



JoAnn Long, age 90, of Huron, South Dakota, passed away Wednesday, March 13, 2019, at SunQuest Healthcare Center in Huron, SD surrounded by her loving family. Her memorial service was held Sat., March 16. In lieu of flowers, the family requests that memorials in her name be made to organizations of the donor's choice.

JoAnn Starksen, the daughter of Dr. Arthur and 'Babe' (Fredendael) Starksen was born on Sept. 29, 1928 in Gary, SD. They moved to Brookings in 1930. She graduated from Brookings High School. JoAnn went to college at South Dakota State University and graduated with a degree in pharmacy. She worked at Huron Clinic for 10 years and then part-time at Lewis Drug. She was the consulting pharmacist for both nursing homes in Huron for 24 years and did relief work for drug stores in Huron, Redfield, Woonsocket, Wessington Springs, Scotland, Britton and Lemmon.

JoAnn married James Long on June 17, 1950, in Brookings, SD. The couple lived in Britton and Ipswich before moving to Huron.

JoAnn was a member of First Presbyterian Church in Huron. She was a member of Chapter F PEO for 60 years. JoAnn was an avid bridge player, playing with many groups. She loved to cook and entertain. She enjoyed music, crossword puzzles and spending time with family and her many wonderful friends. After retirement, JoAnn and Jim loved to travel.

Grateful for having shared in JoAnn's life are her 2 sons, Randy (Jan) Long of Rapid City and Rick (Lisa) Long of Huron; 5 grandchildren, Rich (Jennifer) Long, Kelly Jo (Pablo) Mastroeni, Brandon (Wendy) Long, Matt (Lyndsey) Sather, and Jordan (Bridget) Long; and 8 great-grandchildren, Gianluca Mastroeni, Giuliana Mastroeni, Emma Long, Gabriel Long, Beau Long, Archer Sather, Nolan Roy and Ellis Long. JoAnn is also survived by niece Mary Jo Bibby and nephews Steve Bibby and Nate Bibby.

JoAnn was preceded in death by her parents; husband James in 2014; her sister and brother-in-law Jean and John Bibby, sister-in-law Mary Bibby, and nephew Jay Bibby.

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