Winter Edition 2015 Vol. 29 No. 1

South Dakota Pharmacist

In This Issue:

- Legislative Days Registration
- Influenza Update
- SDPhA Convention Agenda

SOUTH DAKOTA
PHARMACIST

Volume 29 Number 1

South Dakota Pharmacists Association
320 East Capitol
Pierre, SD 57501
(605)224-2338 phone
(605)224-1280 fax
www.sdpha.org

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

SDPhA CALENDAR

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: *http://www.sdpha.org*.

JANUARY

1 New Years Day
13 Legislative Session Begins
19 Martin Luther King, Jr. Day
27-28 SDPhA Legislative Days, Pierre, SD

FEBRUARY

16 Presidents' Day

MARCH

District Meetings
8 Daylight Savings Time Begins
27-30 American Pharmacists Association (APhA) Annual Meeting
San Diego, CA
30 Last Day of Legislative Session

APRIL

District Meetings
5 Easter Sunday
17-18 SD Society of Health-Systems Pharmacists (SDSHP)
Annual Conference, Sioux Falls, SD

Cover: Black Hills, Photo by Sue Schaefer, Pierre, SD

SOUTH DAKOTA PHARMACIST
The *SD PHARMACIST* is published quarterly (Jan, April, July & Oct). *Opinions expressed do not necessarily reflect the official positions or views of the South Dakota Pharmacists Association.*

FIRST QUARTER 2015
Volume 29
Number 1

CONTENTS

FEATURES

PHARMACY TOPICS

CONTINUING EDUCATION

ADVERTISERS

Support of our advertisers makes it possible to bring you news in the form of a Journal. When making purchases and other equal factors, please give our advertisers the support they deserve.

DIRECTOR'S COMMENTS

Sue Schaefer | Executive Director

2015 – A Year for Action!

South Dakota's 90th Legislative Session will soon be upon us. Although the South Dakota Pharmacists Association doesn't have plans to introduce a bill this year, we anticipate 2015 will provide some legislation that will bear watching. It's too early to know exactly how many bills will be introduced that may impact pharmacy, but we'll do our best to keep you apprised via our weekly legislative update. We'll update you via Constant Contact (email) and Facebook, and the update will also be available on our website at www.sdpha.org.

Governor Daugaard is once again proposing a 3% increase for pharmacy, which is encouraging when other states are still staring at possible cuts. **Legislative Days is scheduled for January 27th and 28th. Our Tuesday evening legislative update will be held at the RedRossa Restaurant in Pierre, and rooms have been reserved at the ClubHouse Inn and & Suites next door. Please call SOON to reserve your room and join us for Legislative Days! It's important to identify SDPhA when you book your room.** We're really hoping to have a good number of pharmacists, students and technicians in attendance and hope we can count on you to attend this important event. We're hoping the SDSU College of Pharmacy "fills the bus" again this year! It's always wonderful to have such great representation and the student pharmacists do an amazing job of putting on a health screening. It's also good to gather so pharmacists, faculty and students can learn about the Legislative process. I know I say it every year, but it's critical that pharmacy maintains a strong presence at the Capitol. ***To borrow a bit of wisdom from Wyoming Senator Mike Enzi, "If you're not at the table, you're on the menu."***

To register for Legislative Days, just send me an email at sue@sdpha.org or call 605-224-2338 and we'll get you set up. We've also included a registration form located within the pages of this issue for your convenience. We hope to see you in Pierre as we work for pharmacy! **We're also encouraging you to remember to support your Commercial & Legislative Branch (C&L) so Bob Riter and I can continue to represent you during Legislative Session.**

Work continues on the national level regarding provider status, increased access to preferred networks, and timely MAC pricing updates. According to APhA's Tom Menighan, over 9,000 pharmacists have signed on to support the provider status initiative in 2014. Put that together with 123 co-sponsors of HR 4190 and you have a solid indication that there is growing support and a unified pharmacy voice that won't be denied. If you have not already joined the campaign, please visit PharmacistsProvideCare.com and sign up. If you've already signed up, please ask a colleague, or fellow student pharmacist to sign up. We need as many pharmacy voices as possible letting Congress know the value of pharmacy and improved patient care. Increased patient access has proven time and time again to help patients and provide savings.

I love this bit of trivia: **95% of pharmacists polled said the issue of provider status is important to them, and nearly eight in ten pharmacists suggest they are likely to become involved in the Pharmacists Provide Care campaign.** Time to roar as a profession, pharmacists! I've placed information within this journal on how to contact your congressional delegation. Specifically Representative Kristi Noem needs to hear from you so she continues to advocate for us in the House.

Influenza has now been upgraded to the "widespread" status in South Dakota, which indicated the flu season seems to be peaking a bit earlier than in past years. We hope you're all encouraging your patients to receive the flu shot. We all know that some of the vaccine "drifted" a bit this year, but the shot still affords some protection and we need to encourage folks to get vaccinated. For additional information on statistics or to stay updated, please visit: https://doh.sd.gov/diseases/infectious/flu/surveillance.aspx.

Along those lines, it seems the measles has crept back into South Dakota after 17 years of our state being free of that disease. Sadly, it seems none of those who have contracted measles were vaccinated. This is so unfortunate, and as heath care workers, you know what an outbreak can mean, and that measles can be deadly. At this time, the outbreak seems to be somewhat contained in the Davison County area within an extended family, but you should be mindful that measles has been diagnosed in South Dakota. We've included the latest information from the Department of Health in this issue of the *South Dakota Pharmacist*, and you're also encouraged to visit the Department of Health's website page at http://doh.sd.gov/

(continued on page 24)

PRESIDENT'S PERSPECTIVE

Lynn Greff | SDPhA President

Let me start off by saying I hope you have had a Merry Christmas and I hope this new year brings joy and prosperity to you all.

I wanted to bring you up to date on some of the activities your association has been doing and things we are involved with.

The first item is the fast approaching Legislative Days. The dates are January 27th and 28th. We will be visiting with our lobbyist, Robert Riter, to see what bills are being brought to the legislature that will affect pharmacy. We will have a good opportunity to visit with legislators about how pharmacy has a positive impact on the health of South Dakotans in the past but more importantly the role pharmacy can play in the delivery of health care in our state. We will have quite a number of pharmacy students present and we have always had a good response from legislators in attending this event. The more pharmacists we have available to talk to our legislators the deeper the impression we can make on them. I hope you can find time to attend.

This fall will be our 129th Annual Meeting of the S.D. Pharmacists Association. It will be in Deadwood on September 18th - 19th at The Lodge at Deadwood. We have reviewed all the comments made by last year's attendees. We are working on making this a jam packed educational opportunity with priority on the most requested types of CE. I am confident there will be CE that you will find important to your practice. We have also worked in some times to have fun and reacquaint with old friends. There are some activities that the town of Deadwood has going on at the same time. We've heard our convention could coincide with the Deadwood Jam so I would encourage you to make early reservations.

President elect Rob Loe is chairing a committee to see what pharmacists are doing in terms of immunizations in our surrounding states and bringing comments or recommendations on potential expansion of pharmacist involvement to improve vaccination rates for young people. Along these lines, we are working on partnering with IHS to present a cost effective APhA program to help pharmacists that are interested in becoming a certified immunizer.

Antibiotic stewardship is an important topic these days. There are a group of pharmacists in Redfield who are working in a collaborative arrangement with physicians and nurses to reduce the number of inappropriate antibiotic prescriptions. One of the outcome goals from this would be to develop a CE program that would share this model with other physicians and pharmacists.

Provider status for pharmacists is moving forward. Currently there are 123 members of congress who have signed on as co-sponsors of bill H.R 4190. The American Pharmacists Association (APhA) reported last month there were 5000 pharmacists who had signed up to demand provider status for pharmacists. This month there are over 9000 pharmacists who have signed up. If you would like to sign up, you can link up from there or go to www.PharmacistsProvideCare.com to add your voice to support pharmacy in this effort.

There are some important issues that pharmacy will be needing to address and be an important part of. These are important because they may ultimately determine how pharmacists will be paid. One of these issues is the STAR rating system. The more of pharmacy involvement the better our health care delivery will be. C. Everett Koop once said, "Drugs don't work in people who don't take them." Pharmacists have been shown to improve patient compliance and we need to build on this foundation. The delivery of health care payer models is also changing. We are moving from a fee for service system to an ACO (Accountable Care Organization) and this model will progress further to a Global Risk Budget. The key to reducing costs lies in the appropriate use of medication. There is no profession more valuable in this aspect of health care than the pharmacist. If pharmacists are going to be fairly compensated for their knowledge and work, there is no doubt we need to have a seat at the table when these discussions are occurring. Your association is working on your behalf to keep up with changes in health care and will continue to represent pharmacists on these important issues and be a knowledge resource for you.

SOUTH DAKOTA BOARD OF PHARMACY

Randy Jones | Executive Director

NEW REGISTERED PHARMACISTS

The following candidates recently met licensure requirements and were registered as pharmacists in South Dakota: Michelle Faber, Daniel Asarch, Gail Boehne, Jeremy Gieseke, Michael Dosch, Nicholas Novotny, Mitchell Schultz, Chintal Patel, Hong Yen Thi Vi, Craig Spangler, Jennifer O'Callaghan, Anthony Changelo, Taryn Cunningham, Glenn Hanson, Jada Le, Eric Mathiowetz, Jennifer Wagner, Chad Forinash, Alex Middendorf, Jean Silverman, Philip Song, Vindha Prasad, Tamara Squier.

RULES FOR NARCOTIC DEPENDANT MAINTENANCE OR DETOXIFICATION

There can be some misinterpretations on the prescribing and dispensing rules for the purpose of narcotic dependent patients for the purpose of maintenance or detoxification. The DEA cites in **21 CFR §1306.07 *"Administering of narcotic drugs"***.

(a) A practitioner may administer or dispense directly (but not prescribe) a narcotic (opioid) drug listed in Schedule II if the practitioner meets both of the following conditions:
(1) The practitioner is separately registered with the DEA as a narcotic treatment program.
(2) The practitioner is a qualifying physician under §1301.27 of this chapter and in compliance with DEA regulations regarding security, and records.

The chapter goes on to state:

(d) a practitioner may administer or dispense (including prescribe) any schedule III, IV, or V narcotic (opioid) drug specifically approved by the Food and Drug Administration for use in maintenance or detoxification treatment to a narcotic (opioid) dependent person if the practitioner complies with the requirements of §1301.27 of this chapter.

Therefore, if you receive a prescription for a Schedule II opioid medication (example methadone) with a clinical indication of opioid dependence / withdrawal, the prescriptions is not validate, regardless of whether or not the prescriber has the "X" DEA designation. If you receive a prescription for a Schedule III opioid or above (example suboxone) with a clinical indication of opioid dependence / withdrawal, the prescription is valid as long as the prescriber provides the "X" DEA designation.
This and many other DEA tips can be found on the Question and Answer section of the DEA website at http://www.deadiversion.usdoj/faq/index.html.

JANUARY DEADLINE IS HERE

With the signing of the Drug Quality and Security Act (DSCSA) in November of 2013, Title II of the "Act" entitled Drug Supply Chain Security Act is a 10 year plan to put the industry on fully interoperable electronic drug product track and trace system. However, by January 2015 pharmacies and dispensers must be compliant with the first wave of the track and trace requirements in paper or electronic formats. A recordable transaction can be defined as transfers of products between person or agencies that constitute a change of ownership. Distributions that are not considered recordable transaction include (but not limited to): intracompany distributions, distributions among hospitals or other health care entities under common ownership, distributions for emergency medical reasons including public health emergencies (a drug shortage is not declared a medical emergency) dispensing a product pursuant to a prescription, distribution of minimal quantitates of product by a licensed pharmacy to a licensed practitioner for office use. Transaction information that is required includes: proprietary or established name of the product, strength & dosage form, NDC number, container size, number of containers, lot number, transaction date, date of shipment if more than 24 hours after the date of the transaction, business name and address of the person from whom ownership is being transferred, and business name and address of the person to whom the ownership is being transferred. For more complete information on the DSCSA, please review the FDA website at:
http://google2.fda.gov/search?q=dscsa+guidance&client=FDAgov&site=FDAgov&lr=&proxystylesheet=FDAgov&requiredfields=-archive%3AYes&output=xml_no_dtd&getfields=*

SINGLE DOSE VIALS / AMPULES

The Centers for Disease Control and Prevention's guidelines call for medications labeled as "single dose" or "single use" to be used for only one patient. This practice protects patients from life-threatening infections that occur when medications get contaminated from unsafe use. Concerns have been raised about whether these guidelines and related policies contribute to drug shortages and increased medical costs to healthcare providers. CDC recognizes the problem of drug shortages; however, such shortages are a result of manufacturing, shipping, and other issues unrelated to the above guidelines.

(continued on page 7)

SOUTH DAKOTA BOARD OF PHARMACY

(continued from page 6)

USP CHAPTER <800> HAZARDOUS DRUGS UPDATE

Based on the nature and significance of the public comments received on General Chapter <800>, the chapter is currently being revised and will be re-published for public comment. For more information, please visit http://www.usp.org/usp-nf/notices/general-chapter-hazardous-drugs-handling-healthcare-settings. The revised general chapter is targeted to be published in PF 41(2) [Mar.–Apr. 2015], however, USP is currently working to post it on the USP website at an earlier time. Once it is published, it will be available for access on the USP compounding webpage: http://www.usp.org/usp-healthcare-professionals/compounding.

BOARD MEETING DATES

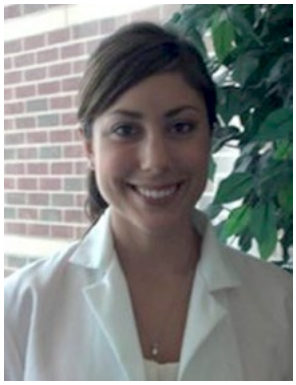
Please check our website for the time, location and agenda for future Board meetings.

BOARD OF PHARMACY STAFF DIRECTORY

Office ... Phone 605-362-2737 ..... FAX 605-362-2738
Randy Jones, Executive Director ... randy.jones@state.sd.us
Kari Shanard-Koenders, PDMP Director
.....kari.shanard-koenders@state.sd.us
Gary Karel, Pharmacy Inspector.... gary.karel@state.sd.us
Paula Stotz, Pharmacy Inspector ... paula.stotz@state.sd.us
Rita Schulz, Sr. Secretary ..... rita.schulz@state.sd.us
Melanie Houg, Secretary ..... melanie.houg@state.sd.us
Board of Pharmacy Website..... www.pharmacy.sd.gov

SD SOCIETY OF HEALTH-SYSTEM PHARMACISTS

Andrea Aylward, Pharm.D., BCPS | SDSHP President



Happy Holidays from the South Dakota Society of Health-System Pharmacists!

ASHP Midyear Clinical Meeting

I recently had the opportunity to attend the 49th ASHP Midyear Clinical Meeting in Anaheim, California. This meeting draws thousands of students, residents and health-system pharmacists from across the country. The meeting was full of CE and networking opportunities. In cooperation with SDSU College of Pharmacy, NDSU College of Pharmacy, North Dakota Society of Health-System Pharmacists, and North Dakota Board of Pharmacy we sponsored another very successful "Dakota Night" reception.

Continuing Education

The South Dakota pharmacy residents will be presenting several upcoming CE programs. Please take advantage of these opportunities for free CE and to support the residents of South Dakota. Visit our website at www.sdshp.com for more information and registration details.

January 31, 2015	Brookings
February 21, 2015	Sioux Falls
February 21, 2015	Rapid City

39th Annual SDSHP Conference

The 39th Annual SDSHP Conference will be held on April 17-18, 2015 at the Ramkota Hotel and Convention Center in Sioux Falls. The conference planning committee has been working diligently to provide excellent programming. A variety of topics will be presented including: emotional intelligence, pharmacogenomics, new antimicrobials in skin/skin structure infections, oral anti-diabetic treatment options, tPA use in stroke, clinical pearls, preceptor development, and an ASHP update. The poster presentations and exhibit theatre are scheduled to take place on Friday. Again, please visit www.sdshp.com for further details and registration.

ASHP House of Delegates

Elections were recently held for our South Dakota representatives to the ASHP House of Delegates. Katie Hayes (Rapid City Regional) and Tadd Hellwig (Sanford Health) will represent South Dakota at the ASHP Summer Meeting in Denver, Colorado from June 6-10, 2015. Our senior alternate is Erin Christensen (Sioux Falls VA) and junior alternate is Rhonda Hammerquist (Sanford Health). Congratulations to our delegates and thank you for representing our state and being at the forefront to review policy proposals on important issues related to health-system pharmacy practice and medication use.

SOUTH DAKOTA STATE UNIVERSITY

College of Pharmacy

Dennis Hedge | Dean

Greetings from the South Dakota State University College of Pharmacy! The College has had a very busy and productive Fall Semester. In the lines below, I would like to update you on some significant events and achievements since the start of this academic year.

As mentioned in my last column, the SDSU College of Pharmacy hosted an ACPE accreditation site team October 28-30, 2014. The visit went very well and the site team was quite complimentary of the College's students, faculty, and preceptors. Mr. Randy Jones, Executive Director of the SD Board of Pharmacy, served as an "observer" with the site team throughout the visit. Although the final Evaluation Team Report from ACPE has been received, the report serves as advisory to the ACPE Board of Directors who makes the final determination of accreditation status. The ACPE Board of Directors will next meet in January at which time the SDSU pharmacy program will be considered.

This past Fall Semester has been noteworthy for student achievement. The SDSU American College of Clinical Pharmacy (ACCP) Clinical Pharmacy Challenge team of Alex Olinger, April Pottebaum, and Keely Hamann (P4 students) finished as national runner-up in the annual competition. Teams from 104 schools nationwide participated in the challenge. We were also quite pleased to learn that P3 student Haylee Brodersen was named recipient of the prestigious Reisetter/MME Kappa Psi Foundation Scholarship.

The College received very good news regarding NAPLEX and MPJE results in October. During the summer testing window, SDSU had 73 first-time candidates take the NAPLEX with a 100% pass rate. The national pass rate for this exam window was 95.61%. The SDSU mean scaled score was 112.86, which was well above the national mean of 102.80. In addition, all Class of 2014 members taking the Multistate Pharmacy Jurisprudence Examination (MPJE) during this test window passed.

Another major milestone was achieved this past semester with Dr. Wenfeng An joining the College of Pharmacy as the first Markl Scholar in Cancer Research. Dr. An obtained a Bachelor of Medicine and a Master of Public Health degree from Peking University. He then completed his Ph.D. in Microbiology and Immunology from the University of Michigan. After graduation, Dr. An conducted postdoctoral work in the Department of Molecular Biology and Genetics at the Johns Hopkins University School of Medicine. As a Life Sciences Research Foundation postdoctoral fellow, Dr. An established novel transgenic mouse models and used them to characterize the regulatory mechanisms and functional consequences of a specific class of "jumping genes" in the human genome. In 2008, he continued these studies in the School of Molecular Biosciences at Washington State University. At Washington State, his group developed new cell and animal models for studying the role of genetic changes in cancer development. At SDSU, Dr. An's research will focus on the regulation, impact, and potential therapeutic intervention of genetic changes during cancer progression. In addition to bringing research expertise to SDSU, Dr. An's background in genomics and public health will strengthen the Pharm.D., Ph.D. and MPH programs in the College.

Please stop by to say "hello" if you are in the Brookings area. I would enjoy visiting with you.

Best wishes for the New Year!

SDSU Pharmacy Days

Bernie Hendricks, SDSU College of Pharmacy and SDPhA Board Member (pictured far right), represented the South Dakota Pharmacists Association at SDSU's Pharmacy Days in October. Shown with student pharmacists.

ACADEMY OF STUDENT PHARMACISTS

Leah Eckstein | APhA-ASP SDSU Chapter President

Greetings from our APhA-ASP Chapter at SDSU!

As we wrapped up our fall semester and move into the spring, our chapter reflects upon a successful and eventful fall semester. We wanted to share some of our activities and initiatives within our chapter.

Patient Care Updates

Throughout the semester, we continued to focus our patient care efforts on the underserved patients through screenings and educational booths. Our patient care efforts focus on diabetes mellitus, hypertension, dyslipidemia, immunizations, and OTC medication use.

We held screenings at the Harvest Table in Brookings, The Banquet in Sioux Falls, various screenings at local pharmacies, and in the SDSU Student Union. To prepare the student pharmacists for the screenings, we provided Patient Care Training. At this training, we invited College of Pharmacy faculty to review with the students how to interpret the results from the screenings and how to relay this information along to the patients. We continue to develop the way this material is presented to ensure we, as student pharmacist, are providing high quality patient care.

Our immunization efforts have expanded again this past semester. We collaborated with the SDSU Student Health Clinic nurses, the SDSU College of Pharmacy, and the SDSU College of Nursing for our mass student pharmacist immunization clinic to immunize and complete TB screenings for student pharmacists. We continued to assist with the Residential Hall Influenza immunization clinics on campus this falls as well. Our P3 students had the opportunity to immunize employees from Health Connect of South Dakota and we hope to continue developing our immunization efforts as we move forward.

The APhA-ASP Region 5 Midyear Regional Meeting

At the end of October, ten of our chapter members traveled down to Omaha for the 2014 APhA-ASP Region 5 Midyear Regional Meeting (MRM) hosted by University of Nebraska Medical Center. This meeting was filled with professional development, social events, and networking opportunities.

Two of our chapter members, Sara Menning (P2) and Alyson Schwebach (P3), were recognized with the APhA-ASP MRM Student Recognition Certificates for their dedication to APhA-ASP and our SDSU chapter.

General Chapter Activities

Our chapter has been busy with a variety of activities this semester. Our Medication Education committee focuses on educating children and the public about medication safety. They visited the Sioux Valley Elementary School and Flandreau Public School to educate the elementary school children. The Pre-Pharmacy Committee has been busy helping pre-pharmacy students prepare for the application and interview process to pharmacy school. This committee also hosted social events through the Big and Little Sibling Program in which pre-pharmacy students are partnered with profession students as mentors.

The IPSF Committee and Service Committee have been partnering with Christophina Lynch, a Pharmaceutical Sciences PhD student at SDSU, in her efforts to raise money to combat the fight against Ebola in her home country of Sierra Leone. They hosted an “Ice Skating to Eradicate Ebola” fundraiser and raised over $600 to send personal protective equipment to Sierra Leone.

Our Sioux Falls Committee and our Health-Systems Committee have been active through bringing programming and clinical activities to our Sioux Falls members. They hosted the Residency Showcase and have brought in speakers on various career options, including emergency medicine and industry. They have also held Journal Club for P3 students to help develop their skills analyzing and presenting journal articles.

As a chapter, we are excited about the past semester and are looking forward to the next semester. We would like to thank SDPhA for all of the continued support and we look forward to seeing you at Legislative Days in January!

SDPhA Legislative Days
January 27-28, 2015

Legislative Days provides you with an opportunity to visit face-to-face with your state legislators, express your opinions, and observe the legislative process.

Tuesday, January 27

- Networking Social and Dinner at 6 p.m. at the ClubHouse Hotel & Suites/ RedRossa in Pierre for student pharmacists, pharmacists, and pharmacy technicians
- Legislative Update

Wednesday, January 28

- SDSU College of Pharmacy student pharmacists will provide healthcare screenings in the President's and Speaker's lobbies (third floor of the Capitol) starting at 7 a.m.
- Pharmacists may visit with legislators.
- A light breakfast will be provided.

Registration Deadline: January 20, 2015

Hotel Reservations:
ClubHouse Hotel & Suites
808 W. Sioux Ave.
Pierre, SD 57501
605-494-2582

Capitol Photo Courtesy of SD Department of Tourism

Legislative Days 2015 Registration Form

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Email: _____

Pharmacy/Organization: _____

Registration Deadline: January 20, 2015

Please send registration form to:

SDPhA
PO Box 518
Pierre, SD 57501

OR Phone: (605) 224-2338
Fax: (605) 224-1280
Email: sdpha@sdpha.org

We hope to see you in Pierre as we address important pharmacy issues!

2014 Commercial & Legislative Fund Contributors

Business and Corporate Contributors

County Drug - Jeff Bertsch
Lewis Drug - William Ladwig
Medicap Specialty Services - Jo Prang
Miller Rexall - Trent Merkwan
Martin Drug - Kirk Wilson
Parker Pharmacy - Chris Poncelet
Pharmacy Specialties - Cheri Kramer
Pioneer Drug - Kevin Wurtz
Salem Drug - Eric Grocott

Individual Contributors

Robbie Aamot
Steve Aamot
Rebecca Baer
Dawn Bargmann
Jennifer Bergan
Elizabeth Bohls
Jim Bregel
Marlin Brozik
Erica Bukovich
Tara Butler
Terry Casey
Erin Christensen
Julie Cook
Bob Coolidge
Susan Lloyd Davies
Kendall Goetz
Lynn Greff
Eric Grocott
Shannon Gutzmer
Trisha Hadrick
Alvin Haugen
Katie Hayes
Dave Helgeland
Tadd Hellwig
Bernie Hendricks
Jon Hilton
Earl & Melanie Hinricher
Sheila Hoffman
Jerry Hutchison
Michelle Jennings
Kelly Jerred
Rebecca Johnson
Thomas Johnson
Dennis Jones
Randy Jones
Ann Jordre
Galen Jordre
Gary Karel
Susan Kollars
Bill Ladwig
Steve Lee
Veronica Lesselyoung
Pat Lieschner
Michelle Litzen
Rob Loe
Dave Lower
Jennifer Mayforth
David Mentele
Kim Messerschmidt
Earl R. McKinstry
Theresa McRae
Julie Meintsma
Rebecca Moore
Anne Morstad
Jennifer O'Callaghan
Lenny Petrik
Linda Pierson
Sue Schaefer
Ron & Marilyn Schwans
Steve Statz
Melissa Steger
Rehme Sutton
Renee Sutton
Kristen Tate
Matthew Toennies
Dorothy Vershure
Adam Waage
Judy Waldman
Robert Wik
Echo Zickrick

Thank You

Thank You 2014 Contributors!

Contribute to the 2015-16 South Dakota Pharmacists Association District Dues and SDPhA Commercial & Legislative Fund! Visit our website at www.sdpha.org. Thank you for your support.

90th SOUTH DAKOTA LEGISLATIVE SESSION CALENDAR

2015 ◇◇ 39 Legislative Days

Please refer to the Joint Rules, Chapter 17 for complete information on page 2

	Sun	Monday	Tuesday	Wednesday	Thursday	Friday	Sat
January 2015	4	5	6	7	8	9	10
	11	12	13 Session Opens 12 Noon (CST) L.D. 1	14 *State of the Judiciary Message* L.D. 2	15 L.D. 3	16 L.D. 4	17
	18	19 *Martin Luther King Jr. Day*	20 Executive orders filed (Constitution, Art. IV, Sec. 8) L.D. 5	21 L.D. 6	22 *Tentative 3:00 Jt. Memorial Service* L.D. 7	23 Concurrent Resolution limited introduction deadline (J.R. 6B-3) L.D. 8	24
	25	26 L.D. 9	27 L.D. 10	28 Last day for unlimited bill & joint resolution introduction (J.R. 6B-3) Must be at the front desk TWO HOURS prior to session. L.D. 11	29 L.D. 12	30 All bill drafts with sponsors due back in LRC by 5 PM L.D. 13	31
February 2015	1	2	3 Final day to introduce individual bills and joint resolutions Must be at the front desk TWO HOURS prior to session. L.D. 14	4 Final day to introduce committee bills and joint resolutions Must be at the front desk TWO HOURS prior to session. L.D. 15	5 L.D. 16	6 L.D. 17	7
	8	9 L.D. 18	10 L.D. 19	11 L.D. 20	12 L.D. 21	13	14
	15	16 *Presidents Day*	17 L.D. 22	18 L.D. 23	19 L.D. 24	20 Last day to use J.R. 5-17 L.D. 25	21
	22	23	24 Last day to move required delivery of bills or joint resolutions in the house of origin L.D. 26	25 Last day for a bill or joint resolution to pass the house of origin Last day for introduction of concurrent resolutions and commemorations L.D. 27	26 L.D. 28	27 L.D. 29	28
March 2015	1	2	3 L.D. 30	4 L.D. 31	5 L.D. 32	6 J.R. 5-13 in effect L.D. 33	7
	8	9 Last day to move required delivery of bills or resolutions in the second house L.D. 34	10 Last day for a bill or joint resolution to pass both houses L.D. 35	11 Reserved for concurrences or conference committees L.D. 36	12 Reserved for concurrences or conference committees L.D. 37	13 Reserved for concurrences or conference committees L.D. 38	14
	15	16 ←	17	18 Recess	19	20 →	21
	22	23 ←	24	25 Recess	26	27 →	28
	29	30 Reserved for consideration of gubernatorial vetoes L.D. 39	31				

90th LEGISLATIVE SESSION DEADLINES

2015 ◈ 39 Legislative Days

Legislative day	Calendar Date	Deadline
L.D. 1	January 13	Session Opens—12 Noon (CST)
L.D. 5	January 20	Executive orders filed (Constitution, Art. IV, Sec. 8)
L.D. 8	January 23	Concurrent Resolution limited introduction deadline (J.R. 6B-3)
L.D. 11	January 28	Last day for unlimited bill & joint resolution introduction (J.R. 6B-3) *Must be at the front desk TWO HOURS prior to session*
L.D. 13	January 30	All bill drafts with sponsors due back in LRC by 5 PM
L.D. 14	February 3	Final day to introduce individual bills and joint resolutions (Chapter 17) *Must be at the front desk TWO HOURS prior to session*
L.D. 15	February 4	Final day to introduce committee bills and joint resolutions (Chapter 17) *Must be at the front desk TWO HOURS prior to session*
L.D. 25	February 20	Last day to use J.R. 5-17 (Chapter 17)
L.D. 26	February 24	Last day to move required delivery of bills or joint resolutions in the house of origin (Chapter 17)
L.D. 27	February 25	Last day for a bill or joint resolution to pass the house of origin Last day for introduction of concurrent resolutions and commemorations (Chapter 17)
L.D. 33	March 6	J.R. 5-13 in effect (Chapter 17)
L.D. 34	March 9	Last day to move required delivery of bills or resolutions in the second house (Chapter 17)
L.D. 35	March 10	Last day for a bill or joint resolution to pass both houses (Chapter 17)
L.D. 36	March 11	Reserved for concurrences or conference committees (Chapter 17)
L.D. 37	March 12	Reserved for concurrences or conference committees (Chapter 17)
L.D. 38	March 13	Reserved for concurrences or conference committees (Chapter 17)
L.D. 39	March 30	Reserved for consideration of gubernatorial vetoes (Chapter 17)

Manual of the Legislature, Joint Rules

Chapter 17. Legislative Deadlines

NOTE: This 2015 Session Calendar is based on the 2014 Joint Rules. The calendar is subject to change pending adoption of the 2015 Joint Rules.

Legislative Action	40 Day Session	35 Day Session
Final day for introduction of individual bills and joint resolutions	15th Day	10th Day
Final day for introduction of committee bills and joint resolutions*	16th Day	11th Day
Last day upon which Joint Rule 5-17 can be invoked on a bill or resolution in either house	26th Day	21st Day
Last day to move required delivery of bills or resolutions by a committee to the house of origin*	27th Day	22nd Day
Last day to pass bills or joint resolutions by the house of origin*	28th Day	23rd Day
Final day for introduction of concurrent resolutions and commemorations	28th Day	23rd Day
During the seven final legislative days motions to reconsider and reconsideration being made upon the same day (any time before adjournment)	34th Day on	29th Day on
Last day to move required delivery of bills or resolutions by a committee to the second house*	35th Day	30th Day
Last day for a bill or joint resolution to pass both houses*	36th Day	31st Day
Two days preceding the final two days of a legislative session shall be reserved for concurrences or action upon conference committee reports	37th Day 38th Day	32nd Day 33rd Day
The final day of a legislative session is reserved for the consideration of vetoes	40th Day	35th Day

* This deadline does not apply to the general appropriations bill.

17-1. Calendar less than 40 days. If a Session Calendar is adopted for a period of thirty-six (36) days to thirty-nine (39) days, inclusive, the legislative deadlines set forth in Chapter 17 of the Joint Rules for a thirty-five (35) day session shall be increased by the same number of days by which the length of the adopted calendar exceeds thirty-five (35) days.

129th Annual South Dakota Pharmacists Association Convention
The Lodge at Deadwood • Deadwood, SD
September 18-19, 2015

Line-up (Tentative)

Friday, September 18

8:00 a.m. – 9:30 a.m.	**Disease Management** James Keegan, MD
9:30 a.m. – 10:30 a.m.	**Advancing Pharmacy Practice through Collaborative Agreements** Deidre Van Gilder, PharmD
10:30 a.m. – 11:30 a.m.	**Business Meeting**
11:30 a.m. – 1:00 p.m.	**Vendor Time/Luncheon/Awards Presentations**
1:00 p.m. - 2:30 p.m.	**Complementary Medicine – Alternative Therapies**
2:30 p.m. – 3:00 p.m.	**SDSU Ice Cream Social**
3:00 p.m. – 4:30 p.m.	**Pharmacy Law**
4:30 p.m. – 5:30 p.m.	**Medicare Quality Measurements** Erica Bukovich, PharmD

Evening Event - TBA

Saturday, September 19

8:00 a.m. – 8:30 a.m.	**Light Breakfast/Second Business Meeting**
8:30 a.m. – 10:00 a.m.	**New Drug Update**
10:00 a.m. – 11:00 a.m.	**Unique Case Reports & Old West Medicine** Preceptor Education
11:00 a.m. – 1:00 p.m.	**Immunizations – What's New?** Kelley Oehlke, PharmD

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Business Name: _____

Business Address: _____

City: _____ State: _____ Zip: _____

Business Phone: _____

Home Phone: _____

Email: _____

Spouse/Guest Name:

_____

eProfile ID:

For Hotel Reservations Call:
The Lodge at Deadwood
100 Pine Crest • Deadwood, SD 57732
1-888-DWD-LODG (1-877-393-5634)

Convention Registration Cancellation Policy:
Cancellations will be accepted without penalty prior to September 7, 2015.
A $25 cancellation fee will be applied to all cancellations after September 7, 2015.
Refunds will be issued after October 1, 2015.

*Full Registration includes all educational sessions, exhibits, meals and evening events.

**One-Day Registration includes educational sessions, exhibits, meals, and evening event, if applicable.

129th Annual South Dakota Pharmacists Association Convention

Registration Form

The Lodge at Deadwood | Deadwood, SD | September 18-19, 2015

All SDSU Student Registrations are FREE!
(Hotel Not Included)
Registration must be submitted prior to August 20, 2015.

	SDPhA Member	Spouse or Guest	Children	SDAPT Member	Pharmacy Technician	Pharmacy Student	Non-SDPhA Member	
Full Registration*								
Before August 20, 2015	$150	$75	$20	$75	$125	Free	$225	_____
After August 20, 2015	$175	$100	$20	$100	$140	Free	$250	_____
One-Day Registration**								
Fri., Sept. 18, 2015	$100	$50	$10	$50	$90	Free	$150	_____
Sat., Sept. 19, 2015	$50	$50	$10	$50	$50	Free	$75	_____
Extra Tickets								
Friday Lunch	$15	$15	$10	$15	$15	Free	$15	_____
Friday Supper	$15	$15	$10	$15	$15	Free	$15	_____
Saturday Breakfast	$15	$15	$10	$15	$15	Free	$15	_____

I would like to sponsor a student. I have included an additional gift of ..... _____

I would like to contribute to the SDPhA Commercial & Legislative Fund.
I have included an additional amount of ..... _____

Total Due $ _____

Please send payment and registration to:
South Dakota Pharmacists Association
PO Box 518 Pierre, SD 57501
Tax ID#: 46-019-1834

Register Online at www.sdpha.org

2015 AWARD NOMINATIONS

The SDPhA is accepting nominations for awards to be presented at the 2015 Convention in Deadwood. Nominations should be submitted along with biographical and contact information. The following awards will be presented:

Bowl of Hygeia

The recipient must be a pharmacist licensed in South Dakota; be living (not presented posthumously); not be a previous recipient of the award and not served as an SDPhA officer for the past two years. 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.

Nominee:_____

Distinguished Young Pharmacist

The nominee must hold an entry degree in pharmacy received less then ten years ago, licensed in South Dakota, member of SDPhA, practiced in retail, institutional, consulting pharmacy in the year selected, involvement in a national pharmacy association, professional programs, state association activities and/ or community service.

Nominee:_____

Hustead Award

Nominee must be a pharmacist licensed in South Dakota, who has not previously received the award. The nominee shall have made a significant contribution or contributions to the profession, and should have demonstrated dedication, resourcefulness, service, and caring.

Nominee:_____

Distinguished Service Award

The nominee must be a non-pharmacist who has contributed significantly to the profession. The award is not routinely given each year, but reserved for outstanding individuals. Persons making the nomination should complete the form providing reasons why the nominee should be selected. The nomination should clearly outline why the nominee is worthy of the award. If a recipient is selected, the Association will then contact the individual to notify them of the selection and obtain biographical data.

Nominee:_____

Salesperson of the Year Award

Nominee must have made an outstanding contribution to the profession of pharmacy through outside support of the profession.

Nominee:_____

District Technician of the Year Award

Nominee has demonstrated an excellent work ethic, is reliable, consistent, and works well with other. Technician provides a valuable service to the pharmacy profession.

Nominee:_____

Fax nominations by **June 1, 2015** to (605) 224-1280 or e-mail to sue@sdpha.org. Using the criteria for each award listed, please describe in detail the reason for the SDPhA Board of Directors to consider your nominee. Include specific examples and/or details.

Name of Individual Nominating:_____

Address:_____

City:_____ State:_____ Zip:_____

Phone:_____ Fax:_____ E-Mail:_____

Pharmacy/Organization:_____

South Dakota Influenza Summary

Week Ending December 27, 2014

Influenza activity was high at "Widespread"-level in South Dakota during the past week.

- 106 new confirmed* cases of influenza were reported last week, 144 confirmed cases cumulative so far this season: 95% Influenza A[H3 predominate] and 5% Influenza B). [*Lab confirmed: PCR, culture or DFA]
- 26.2% positive rapid antigen tests reported statewide (922 positives out of 3,160 individuals tested last week).
- 61 new influenza-associated hospitalizations reported last week. 121 hospitalizations this season.
- 2 influenza-associated deaths reported last week. Three deaths reported this season.
- 3.6% of clinic visits were for influenza-like illness (ILI), 22% of ILI clinic visits were children 4 years of age and younger.
- No school absenteeism report due to Christmas holiday school vacations.

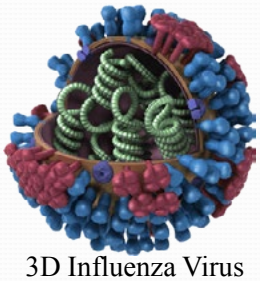
Influenza Antiviral Medications: www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm
"Is it flu or Ebola?" CDC infographic: www.cdc.gov/vhf/ebola/pdf/is-it-flu-or-ebola.pdf
Influenza Surveillance Website: http://flu.sd.gov
SD Department of Health on Facebook: https://www.facebook.com/SDHealthDepartment

SD 2014/2015 Influenza Weekly Summary
Week Ending December 27 (Week 52)

Lab Confirmed Cases	Dec 21-27	Season to Date
Type A, H1	0	0
Type A, H3	73	158
Type A, Unspecified	27	110
Type B Unspecified	6	12
B Yamagata	0	1
B Victoria	0	0
Total	106	281

Rapid Antigen Tests (82 sites reporting)	Dec 21-27	Season to Date
Total Tested	3160	8483
Total Positive	922 (891A/31B)	1882 (1791A/91B)
% Rapid Antigen Tests Positive	29.2%	22.2%

	Dec 21-27	Season to Date
Hospitalizations	61	121
Deaths	2	3



3D Influenza Virus

SD Influenza Geographic Spread: Widespread
SD Influenza Severity : High

US Influenza Activity:
http://www.cdc.gov/flu/weekly/fluactivitysurv.htm

International Flu Activity: http://www.cdc.gov/flu/weekly/intsurv.htm

South Dakota Influenza information: http://doh.sd.gov/Flu/

South Dakota Measles Update

As of January 7, 2015

- 12 confirmed cases
  - age range: 19 months - 41years
  - 5 males, 4 females
  - cases are an extended family group - 8 Mitchell residents; 4 out-of-state residents (3 cases reported 1/7/2015 by another state; all members of the extended family group with December travel to Mitchell)
  - all were unvaccinated
  - no children in public school or day care
- There are no additional samples pending test results.

Pharmacy Quality *Measurement*

Medicare Part D star ratings —a practitioner's Q & A

by Lisa Schwartz, PharmD

The Medicare Part D Star Ratings program has generated a lot of buzz in the past year, and pharmacy owners are asking questions about quality measurement, the ratings, and what effect they will have on their pharmacy. NCPA is running a series of short articles that discusses each of the measures published by the Pharmacy Quality Alliance, beginning with the five that are part of the Medicare Part D Star Ratings program. The first article appeared in the June 2014 issue; this and all subsequent articles will be available at www.americaspharmacist.net.

HOW DO I FIND OUT MY PHARMACY'S STAR RATING?
At this time, Medicare does not give individual pharmacies a star rating. Pharmacy claims data is analyzed in the aggregate to assign a star rating to a Medicare Part D Prescription Drug Plan (PDP) or Medicare Advantage Plans with prescription drug benefits (MA-PD).

HOW DO I FIND OUT IF MY PHARMACY IS HELPING OR HURTING THE PLANS' RATINGS?
The first company to market a tool for the management of pharmacy quality measure reporting is Pharmacy Quality Solutions. PQS accesses claims data to determine pharmacy performance on key areas that influence Part D Star Ratings, and creates a pharmacy-specific scorecard or dashboard to track performance.

Several wholesalers, pharmacy services administration organizations, franchises, and other groups have announced that their customers have access to PQS's EQuIPP dashboard. A list of these groups is available on the News page of www.pharmacyquality.com.

WHAT ARE THE PHARMACY QUALITY MEASURES THAT FACTOR INTO PLANS' STAR RATINGS?
They are high-risk medication use, diabetes treatment, medication adherence for oral diabetes medications, medication adherence for hypertension (in patients with diabetes), and medication adherence for cholesterol.

Technical definitions for calculating these scores is available in the technical notes for the 2013 plan year.

WHY IS THERE A SUDDEN INTEREST IN MEASURING PHARMACY PERFORMANCE?
Recent changes to health care laws have put a greater emphasis on paying for health care that creates improved patient outcomes and reducing spending that does not. Health plans want healthy members and want to avoid spending money on services, tests, and treatments that do not improve patient health outcomes. Medicare Part D plans with five stars are allowed to market the plan year-

Reprinted with Permission from the National Community Pharmacists Association

PQA Published Measures

High Risk Medications

Pharmacy Quality Measures Explained

By Sarah Squires, MBA, PharmD

(Editor's Note: This is another in a continuing series of information articles for independent pharmacists on the Star Ratings program and pharmacy performance measurement.)

Where does this measure fit into the overall Medicare Part D Star Ratings?
This measure is classified under "Drug Pricing and Patient Safety" in the Part D Domain and specifically targets patient safety.

What does this measure analyze?
This measure compares the number of patients who received at least two prescription fills for the same high-risk medication during the measurement period with the number of people in the eligible population. The eligible population is defined by patients who are 66 years or older on the last day of the measurement year (typically 12 months), continuously enrolled, and have at least two prescription fills for any medication over the course of the measurement period.*

What impact can this have on my pharmacy?
This measure, related to the number of patients in your pharmacy that fit the eligible population criteria regarding high risk medications, can affect the star rating of plans that include your business in their network. Should your population of patients on high risk medications reduce the plan's star rating rather than improving it, your pharmacy may not be included in their network in the future.

What impact does this have on patient safety?
High risk medications in patients over 65 have everything to do with patient safety. The Beers' list, updated in 2012 by the American Geriatrics Society, is referenced for this Medicare Part D Star Rating measure. Patients who fit criteria of this measure are deemed to be at a higher risk for an adverse drug event (ADE) than they would be if they were on a medication not recognized as "high risk." If patients who fit the criteria remain on high risk medications and have an ADE due to that medication, the star rating of the plan and the patient's health and safety would suffer.

What can I do improve performance in my pharmacy?
Patients who are age 65 or older and are on at least one high risk medication that has been filled at least two times over the measurement period could be compiled into a list for reference purposes to reconcile these problems. Medication therapy management (MTM) sessions could be conducted in the pharmacy to evaluate the status of these patients' regimen. It would be beneficial to describe to patients what adverse drug events could take place with the high risk medication and for what signs or symptoms they are looking. With the consent of the patient and physician, therapy changes may be made to switch the high risk medication to an alternative not found on the Beers' list. ■

Sarah Squires, MBA, PharmD, is a 2014 graduate of the Harding University College of Pharmacy.

**Additional Resources:*

- *Use of High-Risk Medications in the Elderly (HRM): http://pqaalliance.org/images/uploads/files/HRM%20Measure%202013website.pdf*
- *Pharmacy Quality Alliance: http://pqaalliance.org/measures/cms.asp*
- *Beers' list: http://www.americangeriatrics.org/files/documents/beers/PrintableBeersPocketCard.pdf*

round and beneficiaries may make a one-time switch into a five-star plan. Plans that have lower than a three-star rating may be terminated after three years.

HOW DO I IMPROVE MY PERFORMANCE ON THE FIVE QUALITY MEASURES TRACKED BY MEDICARE?

Three of the five measures are adherence-related. There many resources and tools available to help improve patient adherence to prescription drugs. Coordinated refills and regular contact with a local pharmacy have been shown to improve adherence. Many pharmacy software systems have programs that help pharmacies identify maintenance medications due for refill, but automatic refills fall short when communication with the patient is not part of the picture. Contact NCPA for information about the Simplify My Meds® coordinated refill adherence program (www.ncpanet.org/smm).

I UNDERSTAND THAT NETWORK PHARMACIES CONTRIBUTE TO THE PLAN'S STAR RATING, BUT WHAT ELSE FIGURES INTO THE RATING?

In total, there are 18 measures for PDPs and 51 for MA-PDs. Plans are rated on customer services (such as call center hold times, timely enrollment, complaints, and members leaving the plan), pharmacy hold time at the call center, the appeals process, patient safety, and, specific to MA-PDs: health screenings, vaccination, and managing chronic conditions (such as diabetes, osteoporosis, blood pressure, and fall risk). Patient safety measures are more heavily weighted and the pharmacy measures fall into this category.

DO NON-PART D PLANS HAVE STAR RATINGS?

No and yes. The Star Ratings program belongs to the Centers for Medicare & Medicaid Services and Medicare Part D (there is also a Star Ratings program for nursing homes). That said, the pharmacy quality measures that CMS uses are published by the Pharmacy Quality Alliance (PQA) and it is likely they will be used by plans and pharmacy benefits managers to build networks if they are not already doing so. PQA has published 11 pharmacy quality measures (see box), though only five are used by CMS. For more information about PQA's published measurements and measurements under development, visit http://pqaalliance.org/measures/.

HOW SOON WILL THE STAR RATINGS PROGRAM AFFECT MY PHARMACY?

The Star Ratings Program affects your pharmacy right now. Medicare Part D plans have been given Star Ratings since the 2012 plan year, which means data as far back as 2010 was analyzed to rate the plans before open enrollment in October 2011. While the preferred networks that popped up in the 2012 plan year appear to be based on business negotiations instead of performance, CMS has released reports of claims data analysis that show preferred networks did not always lead to savings over pharmacies not in the preferred network. Legislation (H.R. 4577) has been introduced that would allow any pharmacy located in a medically underserved area to participate in all Medicare Part D Plan networks, including the plan's discounted or "preferred" network.

PQA Published Measures

1. Proportion of days covered
2. Antipsychotic use in children under 5 years old
3. Adherence to non-warfarin oral anticoagulants
4. Diabetes medication dosing
5. Diabetes: appropriate treatment of hypertension
6. Medication therapy for persons with asthma
7. Use of high-risk medications in the elderly
8. Drug-drug interactions
9. Cholesterol management in coronary artery disease
10. Completion rate for comprehensive medication review
11. Antipsychotic use in persons with dementia

WHAT HAPPENS IF I DO NOTHING?

If you are already meeting performance goals, the answer might be nothing. Keep in mind that the Star Ratings program may add additional pharmacy quality measurements or change the goals. The hope early was that high-performing pharmacies could negotiate higher reimbursement, but it's more likely that high-performing pharmacies will be allowed to stay in the network.

If you are not meeting performance goals, it is possible that the patients of your pharmacy are not meeting drug therapy goals or are taking inappropriate medications. A Medicare Part D Plan could exclude you from its network to improve its Star Ratings. By dropping underperformers, the plan can steer patients to a pharmacy that is meeting performance goals. ■

Lisa Schwartz, PharmD, is NCPA senior director, management affairs.

JOIN YOUR COLLEAGUES
FEBRUARY 13-15, 2015 IN DES MOINES, IOWA
MIDWEST PHARMACY expo

Schedule At A Glance

www.midwestpharmacyexpo.com

FRIDAY, FEBRUARY 13, 2015

7:00 AM	Registration
9:00 AM	Palliative Care Conference - Interprofessional Education

SATURDAY, FEBRUARY 14, 2015

6:30-8:30 AM	Registration
7:00-8:15 AM	Pharmacy Political Leadership Breakfast (ticketed event)
7:00-8:00 AM	Product Theater Breakfasts
9:00-10:00 AM	Keynote: A Never Event: Exposing the Largest Outbreak of Hepatitis C in American Healthcare History
10:15 AM-12:30 PM	CPE Programming for Pharmacists, Pharmacy Technicians & Student Pharmacists
12:30-2:00 PM	Lunch & Exhibits Program
2:00-5:30 PM	CPE Programming for Pharmacists, Pharmacy Technicians & Student Pharmacists

SUNDAY, FEBRUARY 15, 2015

7:00-7:30 AM	Registration
7:30-8:30 AM	Federal Law-From the Lens of ASHP's CEO
8:45-10:15 AM	New Drugs
10:30 AM-12:30 PM	Gamechangers in Pharmacy: 2014
12:30 PM-2:00 PM	State Law Outreach Session

Partners

IPhA Illinois Pharmacists Association — The Voice for Pharmacy in Illinois

IPA Iowa Pharmacy Association

MPA Missouri Pharmacy Association

South Dakota Pharmacists Association

NDPhA North Dakota Pharmacists Association

NPA Nebraska Pharmacists Association

RxMPhA Minnesota Pharmacists Association

PSW Pharmacy Society of Wisconsin

AND 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.

Law vs. Ethics

I recently attended a conference[1] which had some very thought-provoking sessions. While the conference was billed as a pharmacy law conference, ethical issues kept percolating to the surface. What is the difference between law and ethics? Why should I care? What impact can ethics have on pharmacy practice?

We should care because law and ethics work together to maintain our society. Law is a rule of conduct that is formally recognized by a society as binding and is enforced by that society. Ethics on the other hand is less structured and less formal. As a professional, pharmacists must use their professional skills for the benefit of their patients. Ethics involves the decision-making process required to treat patients. Many times the choices faced are not dealt with directly by laws.

Some commentators view laws as the baseline for professional conduct. This must mean that there is some advanced mode of practice that exceeds the requirements of the law. For example, if a pharmacist is required to undergo an annual skills assessment, there would be nothing to prevent the assessment being done every six months if it was thought that it provided better care for the patient. It still complies with the requirement set by law. The cost/benefit analysis and the decision-making process that ensues to decide if every six months is warranted is where ethics comes into play.

Some pharmacists don't believe that ethical questions will affect them. They follow the law every day and that will suffice. However, there is a limitation on the effectiveness of the law. Law tends to be reactionary, not proactive. Law deals with yesterday's problems, not tomorrow's. Also, law is limited. There are not laws to address every single issue that comes up in today's society. If there were, our code books would be enormous. This is why lawyers are always talking about the "reasonable person". What would a reasonably prudent pharmacist have done in your situation? This is the measuring stick for situations where black and white laws don't exist, which is most of the time. These situations make pharmacists nervous because there may not be one "right" answer. Most likely there will be a best answer. Many people wish that more laws were simple right or wrong choices, but the reality is that our society is too complicated for such laws. Changing one little factor in a scenario may drastically change your conclusion.

Look at this list of issues if you think that pharmacists aren't faced with ethical decisions;

- Should pharmacists be involved in the dispensing of Medical Marijuana?
- Should pharmacies sell alcohol or tobacco products?
- Should pharmacists take part in executions by lethal injection?
- Should pharmacists have the right to refuse to dispense drugs based on their personal morals?
- Should pharmacists dispense drugs for assisted suicide?

Depending on your state, most of these activities are legal. If following the law is your only criteria, then there is little to debate here. But, ethical questions can arise because of a number of different reasons. It could be a conflict between the pharmacist's moral values and the law. It could be competing laws that don't coincide leaving the individual to try to reconcile the two different laws. They might also arise when there is no applicable law at all. Ethical questions might also arise when a patient's needs cannot be met within the legal guidelines.

Chances are that we are all going to be faced with these types of choices at some point in our professional lives. Take time to prepare before you are faced with an urgent decision. There are plenty of references available that explain the principles of ethics and the decision-making process. When you are better prepared, the challenges are easier to handle. The ostrich approach is not

(continued on page 24)

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.

IRA Rollovers for Lump Sum Pension Payouts

Give those dollars the opportunity for further tax-deferred growth.

A big payout leads to a big question. If you are taking a lump sum pension payout from your former employer, what is the next step for that money? It will be integral to your retirement; how can you make it work harder for you?

Rolling it over might be the right thing to do. If you don't have substantial retirement savings, that lump sum may be just what you need. The key is to plan to keep it growing. That money shouldn't just sit there.

Even tame inflation whittles away at the value of money over time. Most corporate pension payments aren't inflation-indexed, so those monthly payments eventually purchase less and less. Lump sums are just as susceptible: if you receive $100,000 today, that $100,000 will buy 50% less by 2028 assuming consistent 3% inflation (and that is quite an optimistic assumption).[1,2]

Putting it in the bank might cause you some financial pain. If you just take your lump sum payout and deposit it, all that money will be considered taxable income by the IRS. (There are very few exceptions to that rule.) Moreover, you won't get the whole amount that way: per IRS regulations, your employer must withhold 20% of it.[2,3]

Don't you want to postpone paying taxes on those assets? By arranging a rollover of your lump sum distribution to a traditional IRA, you may defer tax on those dollars. You can even defer tax on a distribution already paid to you if you roll over the taxable amount to an IRA within 60 days after receipt of the payout.[3]

In doing so, you are keeping those assets in a tax-deferred account. They can be invested as you like, and that money will not be taxed until it is withdrawn. (You may only transfer a lump sum distribution from a company pension plan into a traditional IRA – you may not transfer it to a Roth IRA.)[4]

If you are considering taking a lump sum payout, make sure you position that money for additional tax-deferred growth. Talk to a financial professional who can help you with the paperwork and get your IRA rollover going.

Pat Reding and Bo Schnurr may be reached at 800-288-6669 or pbh@berthelrep.com.
Registered Representative of and securities and investment advisory services offered through Berthel Fisher & Company Financial Services, Inc. Member FINRA/SIPC. ***PRISM Wealth Advisors LLC is independent of Berthel Fisher & Company Financial Services Inc.***

Citations..
1 - money.cnn.com/2012/09/01/pf/expert/pension-payments.moneymag/index.html [9/1/12]
2 - www.kiplinger.com/article/retirement/T037-C000-S002-pensions-take-a-lump-sum-or-not.html [9/11]
3 - www.irs.gov/taxtopics/tc412.html [1/4/13]
4 - www.fool.com/retirement/manageretirement/manageretirement2.htm [1/21/13]

DIRECTOR'S COMMENTS

(continued from page 4)

diseases/measles.aspx. If any additional notification or warning is necessary, we will be emailing all of you.

AND finally, the agenda is currently being finalized by the Executive Board for our Annual Convention, September 18th and 19th at the Lodge at Deadwood! You can view the tentative lineup in this issue of the South Dakota Pharmacist. You won't want to miss it. A great line up of CE in the Hills in the fall of the year. A perfect combination of fun and education! As Lynn indicated in his column, you'll want to book your room very early, as it looks like the weekend will be very busy in the Deadwood area that weekend.

Warmest Regards,

Sue

Law vs. Ethics

(continued from page 22)

going to prepare you well. Pharmacists are required to study the applicable laws. They should also study ethics because law and ethics work hand in hand. Neither alone is sufficient for pharmacists' practices in the 21st Century.

---

1. American Society for Pharmacy Law's Developments in Pharmacy Law XXV. Thanks to Ken Baker and Bruce White for planting the seeds of this article.

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.

South Dakota Congressional Delegation Contact Information

Senator John Thune

United States Senate SD-511
Washington, DC 20510
Phone: (202) 224-2321
Fax: (202) 228-5429
Toll-Free: 1-866-850-3855
http://thune.senate.gov/public

Representative Kristi Noem

U.S. House of Representatives
2422 Rayburn House Office Building
Washington, DC 20515
Toll-Free Phone: (855) 225-2801
Phone: (202) 225-2801
Fax: (202) 225-5823
http://noem.house.gov

Senator Mike Rounds

Senate Russell Courtyard #4
Washington, DC 20510
202-224-7464

Continuing Education for Pharmacists

"Managing Parkinson's Disease" -*Knowledge-based CPE*

Authors:
Sara Keller, **Pharm.D. Candidate 2015**,
South Dakota State University
College of Pharmacy

Taylor Ramsdell, Pharm.D. Candidate 2015,
South Dakota State University
College of Pharmacy

Jaclynn Chin, Pharm.D., BCPS
Clinical Pharmacy Specialist, Ambulatory Care, Sioux Falls VA Health Care System

Kathryn Schartz, Pharm.D., BCACP
Clinical Pharmacy Specialist, Ambulatory Care, Sioux Falls VA Health Care System

Goal: To enhance pharmacists' knowledge in managing Parkinson's disease and improving patient outcomes.

Pharmacist Learning Objectives:

1. Describe the pathophysiology and etiology of Parkinson's disease;
2. Identify the primary medications used to manage Parkinson's disease;
3. List the common adverse effects associated with Parkinson's disease medications;
4. Evaluate the role of non-pharmacological treatments in Parkinson's disease;
5. Summarize the pharmacist's role in the management of Parkinson's disease.

Background

Parkinson's disease (PD) is a progressive neurological disorder that affects approximately one million people in the United States, and the worldwide prevalence is expected to increase.[1] This disease can cause significant disability and lead to increased mortality.

The incidence and prevalence of PD increases with age and affects approximately 1% of people 65 years and older and between 4 to 5% of people 85 years and older. Most patients are diagnosed between the ages of 55 and 65 years.[2] Onset is rare before age 40. The disease occurs in all ethnic groups and appears to be slightly more common in males.[3]

Parkinsonism is a syndrome that involves bradykinesia, tremor, and muscle rigidity. Idiopathic PD accounts for the majority of parkinsonism cases, followed by drug-induced parkinsonism. Table 1 lists examples of agents that have been associated with drug-induced parkinsonism or exacerbation of existing PD.

Recent exposure to these medications should be considered in patients presenting with parkinsonism. Symptoms generally improve slowly (over weeks to months) once the offending agent is discontinued. However, some features may be irreversible.[4]

***Key Point*:** Parkinson's disease is a progressive neurological disorder featuring bradykinesia, tremor, and muscle rigidity. These symptoms can be exacerbated by certain medications.

Table 1. Medications Associated with Drug-Induced Parkinsonism

Typical (First Generation) Antipsychotics
Chlorpromazine
Haloperidol
Pimozide
Thiothixene
Atypical (Second Generation) Antipsychotics
Aripiprazole
Olanzapine
Risperidone
Ziprasidone
Antiemetics
Metoclopramide
Prochlorperazine
Antihypertensives
Methyldopa
Reserpine

Adapted from Thanvi B. *Postgrad Med J.* 2009.

Etiology and Pathophysiology

The true etiology of PD is unknown, but it is likely due to a complex, multifactorial interaction between aging, genetics, and environmental factors. For example, chronic pesticide and heavy metal exposure, rural living, and drinking well water have all been linked to the development of PD.

The key features of PD are the degeneration of dopaminergic neurons in the substantia nigra that projects to the nigrostriatal pathway, and the presence of Lewy bodies. The depletion of connections to the thalamus and motor cortex, which impairs both voluntary and involuntary movements.[2] Neurons in the autonomic ganglia, spinal cord, and neocortex may also be affected.

A positive correlation exists between the loss of dopamine and the severity of motor symptoms. Patients will be relatively asymptomatic until a substantial depletion of neurons occurs, usually between 70 to 80%. The presence of Lewy bodies is seen with advanced disease and may be the cause of the cognitive and behavioral changes seen in this stage.[5]

Clinical Presentation

Parkinson's disease develops and progresses gradually and can be difficult to diagnose in early stages. The classic motor features of idiopathic PD include resting tremor, bradykinesia, postural instability, and rigidity.[6]

Resting tremor is often the sole complaint, with hand tremor being the most common, and may involve a characteristic "pill-rolling" action. This tremor generally disappears with voluntary movement and is absent during sleep.

Bradykinesia typically presents as a feeling of weakness in a hand or leg, although strength testing results will be normal. This tends to have a larger impact on fine and repetitive movements. Thus, normal daily tasks like buttoning a shirt may be challenging.

Muscular rigidity is due to an increased muscular resistance to passive motion and may be cogwheel in nature. Muscular rigidity will commonly affect upper and lower extremities and possibly the facial muscles.[3] Additionally, the patient may experience freezing of the gait, microphagia, dysphagia, reduced eye blinking, and hypophonia.

Many non-motor symptoms may also be seen with PD and can include depression, anxiety, orthostatic hypotension, sleep disturbances, sensory disturbances, autonomic disturbances, and cognitive impairment. These non-motor features are also referred to as non-dopaminergic features since they will not fully respond to dopaminergic therapies.[2]

Pharmacological Management of Motor Symptoms

The goals of treatment are to minimize symptoms, disability, and side effects while still maintaining the patient's quality of life. While there is currently no cure or definitive disease-modifying therapy available, pharmacologic treatments may provide relief for many of the primary symptoms.[2] Thus, medication therapy is typically initiated when symptoms become bothersome to the patient.[3]

The current gold standard treatment for symptomatic management is levodopa/carbidopa. Unfortunately, dyskinesia becomes common after approximately five years of levodopa/carbidopa treatment and may occur sooner in patients with younger onset of PD.

Other agents may then be added to help treat these involuntary movements, which may include dopamine agonists (DA), monoamine oxidase-B (MAO-B) inhibitors, and catechol-O-methyltransferase (COMT) inhibitors. These other medications are sometimes initiated as monotherapy early on in the disease to delay the initiation of levodopa/carbidopa treatment. This is done in attempt to prolong the time for effective symptom management without the risk of developing levodopa-associated motor fluctuations.[5]

All medications used to treat PD require a gradual dose titration to reduce the likelihood of adverse effects. These medications are also slowly withdrawn on discontinuation to prevent an exacerbation of PD symptoms.[3]

Levodopa/Carbidopa

Levodopa is the most effective treatment of symptomatic PD. It is a precursor to dopamine that can cross the blood brain barrier. Once in the brain, levodopa is metabolized to dopamine and activates dopamine receptors in the substantia nigra.[5]

Carbidopa is a peripheral aromatic amino acid decarboxylase inhibitor which decreases the amount of levodopa that is metabolized before it reaches the brain.[3] The number of hours that each dose of levodopa/carbidopa can effectively suppress motor symptoms may decrease over time. This is known as the wearing-off phenomenon, and it typically occurs after several years of use.[5]

The common motor complications (end of dose wearing-off and peak dose dyskinesia) of levodopa/carbidoba are seen with both the immediate release and controlled release formulations.[5] Of note, controlled release levodopa/carbidopa has not been proven to be more efficacious than the immediate release formulation.[3]

Side effects associated with levodopa/carbidopa are nausea, orthostatic hypotension, and sedation.[5] Dopamine replacement therapies, including levodopa/carbidopa, can cause impulse-control disorders. These impulses can include gambling, sexual urges, shopping, or binge eating and are often difficult to control.[8]

A trial of levodopa/carbidopa should last at least three months. Response failure to

levodopa/carbidopa therapy is rare, but when it occurs it may be due to inadequate dosing, inadequate duration of treatment, or misdiagnosis of the patient's symptoms.[3]

Foods that are high in protein can delay and reduce the amount absorbed because levodopa and amino acids compete for uptake.[9] Taking levodopa/carbidopa with a high protein meal may cause patients to experience a longer off time.[10]

***Key Point*:** Levodopa/carbidopa is the gold standard treatment for Parkinson's disease. As the disease progresses, other medications such as dopamine agonists and MAO-B inhibitors may need to be added.

Dopamine Agonists

Dopamine agonists, such as pramipexole and ropinirole, work by stimulating dopamine receptors in the striatum. These two agents can be used alone or as adjunctive therapy, and are alternative first line agents. Bromocriptine and apomorphine are also DA but are only used as adjunctive treatment.[1] Pramipexole, ropinirole and apomorphine can all reduce off time with levodopa/carbidopa therapy.[11]

The addition of a DA to levodopa/carbidopa therapy may either cause or exacerbate dyskinesia, and this can be managed with a reduction of the levodopa/carbidopa dose.[5] DAs have a lower risk of dyskinesia and motor fluctuations compared to levodopa/carbidopa, but are less effective. Levodopa/carbidopa therapy will commonly be added on to DA monotherapy as the disease progresses.[3]

Apomorphine is an injectable rescue medication for acute, severe off periods and produces effects within 10 to 15 minutes. Antiemetic medication is needed and should be started two to three days before the first dose of apomorphine.[10] However, serotonin receptor ($5\text{-}HT_3$) blockers such as ondansetron are contraindicated with apomorphine use.[1] The first dose of apomorphine should always be administered under medical supervision.[10]

Adverse effects that are commonly seen with DA therapy include nausea, somnolence, hallucinations, and orthostatic hypotension.[11] Excessive daytime somnolence is more common in DA therapy than with levodopa/carbidopa.[12] Similar to levodopa/carbidopa, impulse control disorders can occur with DA therapy.[8] Bromocriptine may induce retroperitoneal, pleural, and pericardial fibrosis, and therefore is rarely used.[3]

DA may be preferred in younger PD patients since they are at a higher risk of developing motor fluctuations with levodopa/carbidopa therapy. Elderly patients are more susceptible to the side effects of DA, including hallucinations and orthostatic hypotension, so levodopa/carbidopa may be a better option. Also, pramipexole and ropinirole require dosage adjustment in patients with renal impairment.[5]

MAO-B Inhibitors

MAO-B inhibitors impede dopamine degradation in the brain and result in a longer duration of action of dopamine. Both selegiline and rasagiline are selective inhibitors of MAO-B when given at therapeutic doses, and can be used as monotherapy or adjunctive therapy.[5] When used with levodopa/carbidopa, selegiline and rasagiline may reduce off time.[3]

Since both of these agents selectively inhibit MAO-B, the chance of a hypertensive

reaction occurring is rare when taken with dietary tyramine.[5] Adverse effects that can be seen with MAO-B inhibitors include nausea, dizziness, orthostatic hypotension, and hallucinations.[11]

MAO-B inhibitors should not be used with selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants (TCAs), meperidine, or other serotonergic medications due to the risk of serotonin syndrome. MAO-B inhibitors may also cause or exacerbate dyskinesia when used with levodopa/carbidopa. This may necessitate a dose reduction of levodopa/carbidopa.[5]

Minimal dose titration is needed when initiating therapy.[3] Selegiline is metabolized in the liver to amphetamine metabolites. These metabolites can increase wakefulness during the day, and they may cause insomnia if taken in the afternoon. Therefore, appropriate timing of administration is important.[10]

COMT Inhibitors

COMT inhibitors decrease the metabolism of dopamine, which increases dopamine levels and duration of action. These medications are used as adjunct therapy since they are not effective as monotherapy. Initiation of a COMT inhibitor may require a decrease in the levodopa/carbidopa dose.[5] Both entacapone and tolcapone can reduce off time with levodopa/carbidopa therapy.

These agents may cause or exacerbate nausea, somnolence, hallucinations, and orthostatic hypotension.[11] They are also commonly associated with delayed onset diarrhea.[5]

Entacapone should be used with caution in patients with hepatic impairment. While tolcapone is more effective than entacapone, it is only used if a patient does not respond to other adjunctive therapies due to the risk of acute liver failure.[10] Tolcapone is contraindicated in patients with liver disease and in patients who have experienced rhabdomyolysis that could have been caused by a medication. Regular monitoring of liver enzymes is needed while taking tolcapone. If no benefit is seen in three weeks, its use should be discontinued.[1]

Anticholinergics

Anticholinergic medications are used as an adjunct to levodopa/carbidopa if tremors are unresponsive to other therapies.[3] Neither trihexyphenidyl nor benztropine have been shown to reduce off time with levodopa/carbidopa therapy.[11] Due to their poor side effect profile, these agents are not commonly used.[3] Anticholinergic medications can cause nausea, blurred vision, constipation, dry mouth, sedation, urinary retention, and cognitive dysfunction.[5] These medications should not be used in patients with narrow angle glaucoma or dementia. Use is also generally avoided in patients older than 70 years, as these patients are less likely to tolerate anticholinergic side effects.[5]

Amantadine

Amantadine is thought to affect dopaminergic neurons and antagonize N-methyl-D-aspartate (NMDA) receptors, but its precise mechanism of action is unknown.[5] This agent can be used to reduce dyskinesia from levodopa/carbidopa therapy.[11] Dizziness, dry mouth, confusion, and insomnia are frequently reported with amantadine.[5] This medication can also induce psychosis and cause lower limb edema.[10] The dose of amantadine should be reduced in patients with renal impairment.[5]

Pharmacological Management of Non-motor Symptoms

The treatment of non-motor symptoms is best addressed by treating each individual symptom. Anxiety and depression are fairly common, and treatment is similar to that of the general population. For example, SSRIs, serotonin-norepinephrine reuptake inhibitors (SNRIs), and secondary amine TCAs have modest benefit in treating depression in patients with PD.

Cognitive problems can range from mild impairment to dementia. Rivastigmine is the only medication currently FDA-approved for the treatment of PD-associated dementia. However, the benefit with this drug is modest and tremor may be exacerbated. Donepezil has also been studied in patients with PD dementia and may be considered. Antiparkinson agents can worsen cognition and should be used with caution in patients with existing cognitive impairment.[13]

Constipation is a common complaint for PD patients, and the approach to treatment should be the same as that for the general population. Increasing fiber and water intake and using stool softeners or laxatives are appropriate.

Anticholinergics, such as oxybutynin, tolterodine, solifenacin, or darifenacin are effective for treating urinary incontinence. Due to their anticholinergic side effects, the use of these agents is often limited.

Sialorrhea can also be treated with anticholinergic medications if tolerated. The injection of botulinum toxin into the salivary glands is an effective and safe option that is often preferred over the use of anticholinergics.[12]

Fatigue, excessive daytime sleepiness (EDS), and insomnia are complications that can be difficult to manage since the etiology is often multifactorial. Methylphenidate can be considered for fatigue. Modafinil may improve a patient's subjective perception of EDS, although there is a lack of evidence supporting an improvement in objective measures.

Restless legs syndrome can be treated with levodopa/carbidopa or DA. Clonazepam is the most studied medication for the treatment of rapid eye movement (REM) sleep behavior disorder and has been shown to be effective with bedtime doses.[12]

Non-pharmacologic Treatments

Non-pharmacologic treatments are essential for optimal disease management and frequently include education, support services, exercise, and nutrition. The patient can be referred to a variety of clinical specialists, such as physical therapists, speech therapists, sleep therapists, psychiatrists or psychologists, and nutritionists.[9]

Exercise is an important adjunct to pharmacological therapy and can be beneficial for patients in all stages of the disease. While it has not been shown to directly improve the cardinal features of PD, exercise can help prevent the impairment in mobility or functional activities associated with them. A patient's constipation, gait, and balance may also be improved through exercise.

Gait training and the teaching of sensory cues, such as stepping over imaginary lines, singing a song, or marching in place, may aid in the management of freezing. Based on the results of a limited number of studies, speech therapy

may be helpful for patients with dysphagia and hypophonia for improving speech volume.[14]

Patients with PD, especially those who are elderly, are at an increased risk for poor nutrition and weight issues. No specific diet is recommended for PD. Patients who are unable to maintain proper nutrition through their diet alone may be candidates for supplementation with multivitamins.[9]

Deep brain stimulation (DBS) of the subthalamic nucleus or globus pallidus may be an option for those with advanced disease to reduce motor complications associated with levodopa/carbidopa treatment and may be more effective than medical management alone. This surgical procedure involves the implantation of a device that emits high frequency continuous electrical stimulation to the subthalamic nucleus to help improve tremors, dyskinesia, and off time.

Sleep quality may also be improved, however, postural instability, speech problems, depression, cognition, and most other non-motor symptoms will not be improved with DBS. Patients suffering from cognitive impairment are not good candidates for surgery. As with any surgical procedure, the risks and benefits for each patient need to be weighed carefully.[12]

***Key Point*:** Non-pharmacologic therapies, such as exercise and gait training, are an important addition to medications for PD management.

Pharmacists' Role

Pharmacists have a unique opportunity to help optimize medication therapy for the management of motor and non-motor symptoms associated with PD. They can help minimize drug-drug and drug-food interactions, as well as prevent and manage adverse effects.

A study evaluating the role of a clinical pharmacist in an outpatient PD and movement disorders clinic indicated that the pharmacist made a significant contribution in educating the patients about their medications and solving therapeutic issues. The pharmacist's involvement was well received by both the patients and the clinic providers.[15] This study helps illustrate how pharmacists can improve patient care and have a positive impact on this patient population.

Conclusion

Parkinson's disease is a progressive, debilitating disorder and the current treatment goal is primarily focused on symptom management. Treatment often requires combination medication therapy, which can potentially lead to significant drug interactions and adverse effects. Pharmacists can play a vital role in the treatment of PD by offering solutions for the management of adverse effects and optimizing medication regimens.

Continuing Pharmacy Education programs sponsored by the South Dakota State University College of Pharmacy are intended to be balanced and noncommercial in nature, not promoting any specific product or service.

The authors and planners of this CPE activity have had no financial relationship over the past 12 months with any party having a commercial interest in the content of this article.

References

References

1. Chen JJ, Nelson MV, Swope DM. Parkinson's disease. In: DiPiro JT, Ralber RL, Yee G, et al, eds. Pharmacotherapy: a pathophysiological approach. 8th ed. New York: McGraw-Hill; 2011:1033-44.

2. Lew M. Overview of Parkinson's Disease. Pharmacotherapy 2007;27(12):155S-60S.

3. Nutt JG, Wooten GF. Diagnosis and initial management of Parkinson's disease. N Engl J Med 2005;353:1021 -7.

4. Thanvi B, Treadwell S. Drug induced parkinsonism: a common cause of parkinsonism in older people. Postgrad Med J 2009;85:322-6.

5. Chen JJ, Swope DM. Pharmacotherapy for Parkinson's disease. Pharmacotherapy 2007;27(12 Pt 2):161S-73S.

6. Olanow CW, Schapira AH. Parkinson's disease and other movement disorders. In: Longo DL, Fauci AS, Kasper DL, et al, eds. Harrison's principles of internal medicine. 18th ed. New York: McGraw-Hill; 2012.

7. Suchowersky O, Reich S, Perlmutter J, et al. Practice parameter: diagnosis and prognosis of new onset Parkinson disease (an evidence-based review): Report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2006;66:968-975.

8. Weintraub D, Koester J, Potenza MN, et al. Impulse control disorders in Parkinson disease. Arch Neurol 2010;67(5):589-95.

9. Olanow CW, Stern MB, Sethi K. The scientific and clinical basis for the treatment of Parkinson disease (2009). Neurology 2009;72(21 suppl 4):S1-S136.

10. Espay AJ. Management of motor complications in Parkinson disease: current and emerging therapies. Neurol Clin 2010;28:913-25.

11. Pahwa R, Factor SA, Lyons KE, et al. Quality Standards Subcommittee of the American Academy of Neurology. Practice parameter: treatment of Parkinson disease with motor fluctuations and dyskinesia: an evidence-based review. Report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2006;66(7):983-95.

12. Zesiewicz TA, Sullivan KL, Arnulf I, et al. Practice parameter: treatment of nonmotor symptoms of Parkinson disease: Report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2010;74:924-31.

13. Miyasaki JM, Shannon K, Voon V, et al. Practice parameter: evaluation and treatment of depression, psychosis, and dementia in Parkinson disease: an evidence-based review. Report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2006;66:996-1002.

14. Suchowersky O, Gronseth G, Perlmutter J, et al. Practice parameter: neuroprotective strategies and alternative therapies for Parkinson disease (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. Neurology 2006:66;976-82.

15. Poon LH, Lee AJ, Chiao TB, et al. Pharmacist's role in a Parkinson's disease and movement disorders clinic. Am J Health-Syst Pharm 2012:69;518-20.

"Managing Parkinson's Disease" - Learning Assessment

1. Which of the following statement(s) are TRUE regarding the pharmacist's role in managing PD?
   A) Pharmacists can help minimize drug-drug and drug-food interactions.
   B) Pharmacists can help prevent and manage adverse effects with PD medications.
   C) Pharmacists can help optimize medication therapy for the management of PD symptoms.
   D) All of the above
   E) A and B

2. The key pathologic features of PD are the degeneration of cholinergic neurons and the presence of Lewy bodies.
   A) True B) False

3. What is the current gold standard treatment for symptomatic PD?
   A) Levodopa/carbidopa C) Ropinirole
   B) Selegiline D) Amantadine

4. NR is a 75-year-old man with a past medical history of PD and dementia. He was diagnosed with depression today at the clinic. His current medications include levodopa/carbidopa and donepezil. Which of the following would be an appropriate option to treat this patient's depression?
   A) Citalopram C) Clonazepam
   B) Duloxetine D) A and B
   E) All of the above

5. Which of the following can be improved with deep brain stimulation (DBS) surgery?
   A) Tremors D) A and C
   B) Postural instability E) B and C
   C) Dyskinesia F) All of the above

6. The treatment of the non-motor symptoms of PD (depression, constipation, fatigue, etc.) involves treating each individual symptom.
   A) True B) False

7. Which of the following classes of medications has been associated with drug-induced parkinsonism?
   A) Antipsychotics C) Antiemetics
   B) Antihypertensives D) All of the above
   E) None of the above

8. Which of the following symptoms will fully respond to dopaminergic therapies?
   A) Orthostatic hypotension C) Bradykinesia
   B) Depression D) Sensory disturbances

(continued on next page)

"Management of Parkinson's Disease" - Learning Assessment *(continued)*

9. Reasons for response failure to levodopa/carbidopa therapy include:
    A) Inadequate dosing
    B) Inadequate duration of treatment
    C) Misdiagnosis
    D) A and B
    E) All of the above

10. How long should the trial period for levodopa/carbidopa last?
    A) 2 weeks
    B) 3 months
    C) 6 months
    D) 1 year

11. Which medication has NOT been shown to reduce off time with levodopa/carbidopa therapy?
    A) Pramipexole
    B) Selegiline
    C) Entacapone
    D) Benztropine

12. Which PD medication requires regular monitoring of liver enzymes since it can cause acute liver failure?
    A) Trihexyphenidyl
    B) Amantadine
    C) Tolcapone
    D) Selegiline

"Managing Parkinson's Disease"

(Knowledge-based CPE)

To receive 1.5 Contact Hours (0.15 CEUs of continuing education credit, read the attached article and answer the 12- question post-test by circling the appropriate letter on the answer form below and completing the evaluation. A test score of 75% or better is required to earn credit for this course. If a score of 75% (9/12) is not achieved on the first attempt, another answer sheet will be sent for one retest at no additional charge.
Credit will be uploaded to a participant's e-Profile Account within 2 weeks of successful completion of this CPE.

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: #0063-0000-14-033-H01-P

***Learning Objectives - Pharmacists**: 1. Describe the pathophysiology and etiology of Parkinson's disease; 2. Identify the primary medications used to manage Parkinson's disease; 3. List the common adverse effects associated with Parkinson's disease medications; 4. Evaluate the role of non-pharmacological treatments in Parkinson's disease; 5. Summarize the pharmacist's role in the management of Parkinson's disease.*

Circle the correct answer:

1. A B C D E	**6. A B**	**11. A B C D**
2. A B	**7. A B C D E**	**12. A B C D**
3. A B C D	**8. A B C D**	
4. A B C D E	**9. A B C D E**	
5. A B C D E F	**10. A B C D**	

***Course Evaluation** – must be completed for credit.*

	Disagree						**Agree**
The author effectively organized the course material for learning:	1	2	3	4	5	6	7
The content was applicable for professional pharmacy practice:	1	2	3	4	5	6	7
The learning objectives for this course were satisfactorily addressed:	1	2	3	4	5	6	7

*List any learning objectives above not met in this course (see above):*_____

*List any important points that you believe remain unanswered:*_____

Course material was balanced, noncommercial:	1	2	3	4	5	6	7
Learning assessment questions appropriately measured comprehension	1	2	3	4	5	6	7
Length of time to complete course was reasonable for credit assigned	1	2	3	4	5	6	7

(Approximate amount of time to preview, study, complete and review this 1.5 hour CE course: _____)

Comments:

List any future CE topics of interest (and related skill needs):

……..

Name:_____ Phone #: _____

Address: _____
Street City State ZIP

Email address:_____ **Interest in additional CE courses? Y / N**

e-Profile ID number (ePID):_____ **Date of Birth (MMDD):** _____

Course release date: 8-05-14 / Expiration date: 8-05-17 / Target audience: Pharmacists

*Please mail this **completed answer sheet** with your check of **$8.50** to:*
SDSU College of Pharmacy – C.E. Coord.
Box 2202C, Brookings, SD 57007

*Office Ph: 605-688-4242 / **Bernie.Hendricks@sdstate.edu***

IN MEMORIAM

Doug Becker

Douglas Joseph Becker, age 83, died Tuesday, Oct 21, 2014, at his home in Sisseton after a short battle with cancer.

Douglas Joseph Becker was born Nov 18, 1930 to George and Helen (Eppers)Becker in Adrian, MN. He attended St Adrian's Catholic School and graduated in the class of 1948. After high school he joined the U.S. Navy where he served as a radio operator on the destroyer USN Gurke. He honorably served from Nov 1948 to Oct 1952. He received the Good Conduct, Navy Unit Commendation, Korean and UN medals, China Service Medal, and Navy Occupation. He returned to Adrian and on June 2, 1953 married Patricia M. Forrette, also from Adrian.

Using his G.I. bill he enrolled at South Dakota State University in Brookings as pharmacy major. Doug graduated with a Bachelor of Science in Pharmacy in May 1957. He was hired by Calvin "Cab" Estwick, owner of Estwick's Red Cross Drug in Sisseton.

In 1969, he purchased the drug store and renamed it Becker's Red Cross Drug. During this time Doug was also employed by the Coteau Des Prairie hospital as their hospital pharmacist. A new Beckers Drug was built on the corner of Veteran's Ave and Maple Street and opened for business in the fall of 1976. His son, Larry, joined him in 1980 after graduating from the SDSU pharmacy program. Larry purchased the store in 1995 and Doug semi-retired. Doug did relief pharmacy work at Becker's Drug and Quarve Drug in Britton, owned and operated by his pharmacist daughter, Cindy. Doug fully retired in his early 70s.

Doug was an avid hunter and fisherman all his life. Most recently he shot a bull moose on a family hunting trip in Canada. He also enjoyed trapshooting and won numerous awards throughout his career. Doug was an active member of the community, belonging to the Sisseton American Legion for 43 years and the PTA where he served as president. He was also active member of St. Peter's Catholic Church serving as a lector, on the church counsel and the Knights of Columbus. Doug also liked square dancing and was a member of the Corner Squares.

He is preceded in death by his parents, George and Helen Becker and two grandsons, Richard Bremmon and Paul Meland. He is survived by his wife Patricia his seven children Jackie (Greg) Koch, Larry (Deb), Cheryl (Jim) Lyon, Cindy (Peter) Bremmon, Jim, Teresa (Tim) Meland, Mike (Fran), his 27 grandchildren - Elisha, Erin, Rachel, Laura, Nicole Koch; Miranda and Mark Becker; Steven, Kim, Nathan, Patrick, Jennifer Lyon; Kathryn, Douglas, Lydia, Claire, Raymond, Emily Bremmon; Chase, Weston, Randi Becker; Ben, Sarah, John, Anne Meland; Kelly and Jerime Becker, and 21 great-grandchildren- Kennedy, Lucas, Margret, Jordan, Greyson, Charlotte, Lola,Lillian, Aubree, Adrianna, Carissa, Zephyr, Liam, Emilia, Addison, MaKynlee, Tyler, Owen, Michael, Nolan, Marcus. In lieu of flowers please make a donation in his name to a charity of your choice or to St. Jude's Medical Hospital.

CLASSIFIEDS

To Place a Classified Ad in the Journal
Call, write, fax or email the ad to:

South Dakota Pharmacist Classified
P.O. Box 518, Pierre, SD 57501
e-mail: sdpha@sdpha.org
phone: (605)224-2338 fax: (605)224-1280

Classified Rates

Classified ads are $25.00 per five line ad/per issue. Additional lines will be billed at $1.00 per line.

Including your company logo will be an extra $5.00 charge.