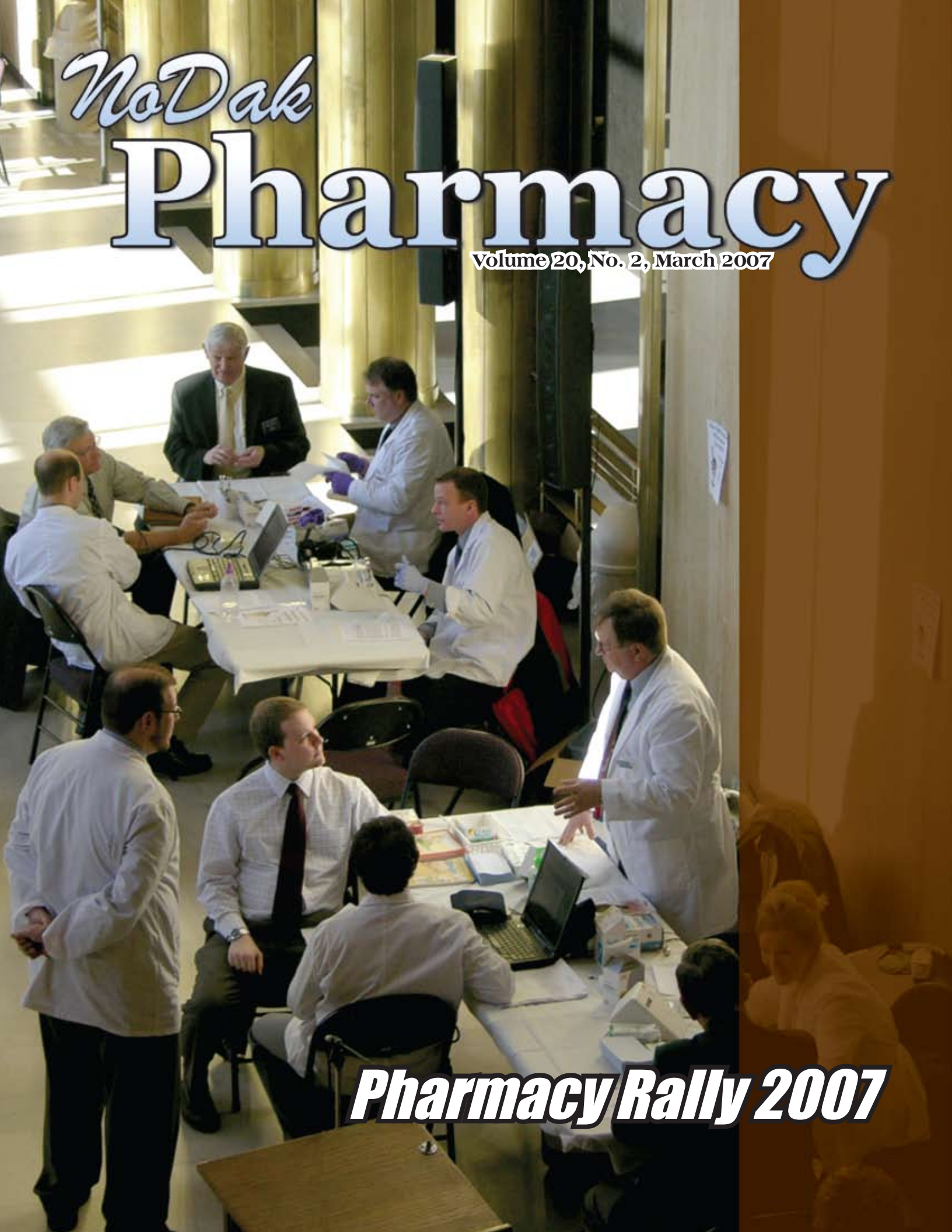


# *NoDak* Pharmacy

Volume 20, No. 2, March 2007



***Pharmacy Rally 2007***

# Our Company Makes the Promise. Our People Stand Behind It.



What does this mean for you?

It means Pharmacists Mutual Insurance Company promises "To help our customers attain financial peace of mind."

It means our employees stand behind that promise each and every day.

It means our President, our pharmacist/attorneys, our home office staff, and our sales representatives are focused on helping you achieve financial security.

It means we are the only insurance company devoted to pharmacists.

It means value that we believe you can't get anywhere else.

Call us at 800-247-5930 or visit [www.phmic.com](http://www.phmic.com) today to see what it means to have our people stand behind you.

**Pharmacists  
Mutual** Companies

One Pharmacists Way, Highway 18 West  
P.O. Box 370 • Algona, IA 50511-0370

Pharmacists Mutual Insurance Company  
Pharmacists Life Insurance Company  
Pharmacists National® Insurance Corporation  
Pro Advantage Services, Inc.  
PMC Quality Commitment, Inc.



**Sheila Welle, LUTCF**  
P.O. Box 985  
Hawley, MN 56549-0985  
218-483-4338  
[sheila.welle@phmic.com](mailto:sheila.welle@phmic.com)

Pharmacists Mutual is endorsed by the North Dakota Pharmaceutical Association (compensated endorsement).



# Table of Contents

Directors Listing.....	4
Legislative Rally Day Photos.....	5
Legislative Update.....	6
PhAC Auction Donation .....	9
Rx and the Law.....	10
Economic Impact Study.....	12
CE: Varicella-zoster Infection .....	15
CE quiz.....	19
NDSHP President's Message .....	20
NAPT President's Message .....	22
NAPT Officer Ballot .....	23
NDPhA Convention.....	25
NDSU College of Pharmacy .....	29
Prescription Connection.....	30

## Support our Advertisers

Pharmacists.....	Inside Front Cover
Mutual Company	
Dakota Drug, Inc.....	11
McKesson.....	14
IPC .....	24
Pace Alliance .....	31

*NoDak Pharmacy is published bi-monthly by the North Dakota Pharmacists Association, 1661 Capitol Way, Bismarck, ND 58501. POSTMASTER: Send address changes to: NoDak Pharmacy 1661 Capitol Way, Bismarck, ND 58501. Published bi-monthly, the journal is distributed to members as a regular membership service paid for through allocation of membership dues. Subscription rates are \$35 per year. For advertising rates or other information, contact the Editor at the address listed above. Opinions expressed by contributors do not necessarily reflect the position of the Editor or the Association.*

# Mark Your Calendar

## March Calendar Events

**March 16-19, 2007**

APhA Annual Meeting, Atlanta GA

## April Calendar Events

**April 20-22, 2007**

NDPhA Annual Convention, Fargo ND

## May Calendar Events

**May 14, 2007**

NCPA National Legislation & Government Affairs Conference, Washington DC

## June Calendar Events

**June 24-27, 2007**

ASHP 2007 Summer Meeting & Exhibition, San Francisco CA

## September Calendar Events

**September 28-29, 2007**

NAPT 2007 Fall Conference, Williston ND

## October Calendar Events

**October 13, 2007**

NCPA 109th Annual Convention & Trade Exposition, Anaheim CA



The journal is supported by contributions from the Independent Pharmacy Cooperative (IPC) Community Pharmacy Commitment Program, Dakota Drug, Inc. and by McKesson Pharmaceutical.

# OFFICERS

## NDPHA Officers

### President Dennis Johnson

Wall's Medicine Center  
Work Ph: (701) 746-0497  
Fax: (701) 746-7908  
E-Mail: dennis.johnson@nodakpharmacy.net  
walls@wallsrx.com

### President Elect Jerome Wahl

St Joseph's Hospital & HealthCenter Pharmacy  
Work Ph: (701) 456-4388  
Fax: (701) 456-4807  
E-Mail: jerome.wahl@nodakpharmacy.net  
JerryWahl@catholichealth.net

### Vice President Lance Mohl

KeyCare Pharmacy  
Work Ph: (701) 857-7900  
Fax: (701) 857-783  
E-Mail: lance.mohl@nodakpharmacy.net  
Lance.Mohl@trinityhealth.org

### Chairman of the Board Timothy Carlson

White Drug #17  
Work Ph: (701) 852-4181  
Fax: (701) 839-6019  
E-Mail: timothy.carlson@nodakpharmacy.net  
P017@thriftywhite.com  
tcarr@min.midco.net

## NAPT Board Members

### President Danika Braaten

Northland Community & Technical College  
Work Ph: (218) 773-4528  
Altru Health System Pharmacy  
Work: (701) 780-5151  
Fax: (701) 780-1486  
E-Mail: danika.bratten@nodakpharmacy.net  
danikaj@hotmail.com

### Vice-President Brittany Muchow

MeritCare Hospital Pharmacy  
Work Ph: (701) 234-5603  
Fax: (701) 234-5090

## NDSHP Officers

### President Joel Aukes

SCCI Hospital – Fargo  
Work Ph: (701) 241-9099  
Fax: (701) 241-4351  
E-Mail: joel.aukes@nodakpharmacy.net  
JAukes@triumph-healthcare.com

### President Elect John Savageau

Medcenter One Hospital Pharmacy  
Work Ph: (701) 323-6186  
Fax: (701) 323-6988  
E-Mail: john.savageau@nodakpharmacy.net  
jsavageau@mohs.org

### Secretary/Treasurer Melanie Cairns

Altru Health System Pharmacy  
Work Ph: (701) 780-5150  
Fax: (701) 780-1486  
E-mail: melaine.cairns@nodakpharmacy.net  
mcairns@altru.org

### Immediate Past President Joan Johnson

St. Alexius Medical Center Pharmacy  
Work Ph: (701) 530-6924  
Fax: (701) 530-6940  
E-mail: joan.johnson@nodakpharmacy.net  
jjohnson@primecare.org

### Secretary Barb Kalloch

Mercy Hospital Pharmacy  
Work Ph: (701) 774-7433  
Fax: (701) 774-7688  
E-Mail: ljkall@wil.midco.net

### Treasurer Melissa Heley

Clinical Supplies Management Inc  
Work Ph: (701) 235-8002 ext. 207  
Fax: (701) 235-8014  
E-Mail: melissa.heley@nodakpharmacy.net  
mheley@csm-plus.com

### Parliamentarian Diane Halvorson

SCCI Fargo  
Work Ph: (701) 241-4145 Ext 310  
Fax: (701) 241-6641  
E-Mail: diane.halvorson@nodakpharmacy.net

### Member At Large Wendy Baisch

Mercy Hospital  
Work Ph: (701) 774-7733  
E-mail: wendy.baisch@nodakpharmacy.net  
wendyb@wil.midco.net

## NDPSC Officers

### President Dennis Johnson

Wall's Medicine Center  
Work Ph: (701) 746-0497  
Fax: (701) 746-7908  
E-Mail: dennis.johnson@nodakpharmacy.net  
walls@wallsrx.com

### Vice President David Olig

South Pointe Pharmacy  
Work Ph: (701) 234-9912  
Fax: (701) 297-0807  
E-Mail: dolig@aol.com

### Secretary/Treasurer Robert Treitline

ND Pharmacy  
Work Ph: (701) 225-4434  
Fax: (701) 225-0013  
E-Mail: robert.treitline@nodakpharmacy.net  
ndpharmacy@ndsupernet.com

halvorson@nodakpharmacy.net  
dhalvo1034@cableone.net

### Member-at-Large Colleen Brown

Family Practice Pharmacy  
Work Ph: (701) 777-6870  
CRBROWN@altru.org

### Member-at-Large Eileen Darkow

301 2nd Ave. NW  
Sawyer, ND 58781-4115  
701-852-1033

### Past President Jeanette Bleecker

Clinical Supplies Management Inc.  
Work Ph: (701) 235-8002  
Fax: (701) 235-8014  
E-mail: jeanette.bleecker@nodakpharmacy.net  
jbleecker@csm-plus.com



# Pharmacy Rally Day at the Legislature





# Legislative Update

***Crossover day at the 60th Legislative Assembly was Feb. 16. This comes after reaching the midpoint of the 2007 Legislative Session. The Senate has introduced 417 bills and 33 resolutions and the House has introduced 521 bills and 64 resolutions. All legislation that passed the house of origin is now before the other body for consideration. Lawmakers have until April 26 to wrap up their work. Here is the current status of bills on pharmacy issues the ND Pharmacy Association is monitoring:***

## **HB 1054**

House Bill 1054 is an operational bill that provides guidelines for pharmacy closings and reporting requirements, as well as to raise the legislative cap on the license renewal fee, which includes North Dakota

By Tessa Sandstrom  
Clearwater Communications

Pharmacy Association dues, from \$200 to \$400. The bill was heard by the House Human Services Committee. Amendments were made to strike out the cap increase. The bill with the amendment was passed by the Committee and was carried to the House floor where it passed with a vote of 91-1. The bill has been introduced in the Senate and was referred to the Senate Human Services Committee.

## **HB 1055**

House Bill 1055 relates to the scheduling of controlled substances and loss or theft of controlled substances. The act provides a new section for the process and criteria for deciding if the loss of controlled substances is significant and provides language stating that a Schedule II controlled substance prescription cannot be filled more than six months after the date it was written. It eliminates the seven day signature requirement on phoned in III, IV and V prescriptions. The House Human Services Committee



passed the bill. The House floor unanimously voted in favor of the bill. The bill was introduced in the Senate and referred to the Senate Judiciary Committee.

### **HB 1148**

House Bill 1148 provides language stating the State Board of Pharmacy may not require a pharmacist to be a member of a professional association as a requirement for licensure, nor could it use licensure fees to pay membership dues for a professional association. The bill passed the House Human Services Committee, but failed in the House by a 46 to 47 vote. The motion to reconsider failed.

### **HB 1256**

House Bill 1256 provides \$22,000 appropriation for the State Board of Pharmacy to establish and administer a Web Site for a legend prescription drug and device donation and repository program. The Human Services Committee provided amendments that better clarified some of the language in the bill. The bill passed the House by a unanimous vote, and has been introduced in the Senate and assigned to the Senate Human Services Committee.

### **HB 1299**

House Bill 1299 expands pharmacy ownership to allow hospitals and nursing homes to have pharmacies anywhere they provide medical services. This bill has been amended to apply only to rural communities where there is one pharmacy, and would allow the hospital to purchase and operate that pharmacy. A provision to study pharmacy ownership and the interaction between the Pharmacy Board and the association was also added. The bill was passed the House by a vote of 78 to 14.

### **HB 1333**

HB 1333 provides that expressions of empathy by health care providers are inadmissible in civil actions. The bill was passed by the House, 74 to 17, with minor language amendments. The bill has passed to the Senate and was heard before the Senate Judiciary Committee on Feb.

12. The Committee passed the bill by a unanimous vote.

### **HB 1350**

House Bill 1350 allows the State Board of Pharmacy to give a license to someone who offers an accredited postgraduate medical residency training program. The bill received unanimous support in the House. The bill was introduced in the Senate and referred to the Senate Human Services Committee.

### **HB 1366**

House Bill 1366 would prohibit a pharmacy benefit manager from imposing any condition or limitation on pharmacists licensed in North Dakota that the manager does not require of any other pharmacists. Despite a “do not pass” recommendation from the House Human Services Committee, the House did pass the bill 63-28. The bill was introduced in the Senate and will be heard by the Senate Human Services Committee.

### **HB 1431**

House Bill 1431 states that a pharmacist may not dispense a generic drug or interchange one generic for another for epilepsy or convulsions without the consent of the patient and the practitioner who issued the prescription. The bill would also restrict insurance companies, a





nonprofit health service corporation, or health maintenance organization from penalizing a practitioner for issuing, a pharmacist for dispensing, or patient requesting a specific drug for the treatment of epilepsy or convulsions. The bill passed the House with an amendment that provided definitions and language clarification by a vote of 77 to 15.

### **HB 1432**

House Bill 1432 would allow the Board of the Public Employees' Retirement System to establish a collaborative drug therapy program that would be available to individuals in the medical and hospital benefits coverage group for the purpose of improving the health of individuals in identified health populations and to manage health care expenditures. The bill speaks specifically about assistance from the ND Pharmacists Association. The bill received unanimous support from the House.

### **HB 1433**

House Bill 1433 also relates to the establishment of a collaborative drug therapy program, but is targeted to individuals with diabetes. The bill specifies that the ND Pharmacists Association shall work with the Public Employees' Retirement System board to establish a standardized patient self management program, etc. An amendment made to the bill removed a provision that allowed the board to contract for insurance for the collaborative drug therapy program. Rather, the funds would be raised from a two-dollar-per-month charge on the policy premium for medical and hospital benefits coverage. The House passed the bill as amended.

### **HB 1455**

House Bill 1455 requires wholesalers to keep a

pedigree. The bill also provides language relating to criminal history background checks for the managing person. An amendment was made to the bill to exempt manufacturers licensed with the US Food and Drug Administration from bonding, pedigree, inspection and background checks, but not the licensing requirement. The bill passed the House by a unanimous vote.

### **SB 2134**

Senate Bill 2134 allows the State Board of Pharmacy to establish and maintain a prescription drug monitoring program that will track the prescribing and dispensing of all controlled substances. The bill was amended to give the board authority to monitor the program for misuse or misbehavior. An advisory council to advise the State Board of Pharmacy was also created through the amendment. The bill passed the Senate by a vote of 46 to 0. The bill was introduced in the House and was heard before the House Human Services Committee on Feb. 12 where it was rereferred to the House Appropriations Committee.

### **SB 2192**

Senate Bill 2192 mandates the legal recognition of electronic records and signatures. The bill unanimously passed the Senate and was introduced in the House.

### **SB 2260**

Senate Bill 2260 allows state boards and agencies, including the State Board of Pharmacy, to perform statewide and nationwide criminal history checks and lays the guidelines for conducting checks. This bill passed the Senate floor by a unanimous vote.

### **SB 2387**

Senate Bill 2387 contains the same language as HB 1148, relating to pharmacists being a member of a professional organization. SB 2387 received a do not pass recommendation from the Senate Appropriations Committee. There was an attempt to amend the bill on the Senate floor, but the amendment failed and the Senate voted to fail the bill by a vote of 31 to 15.







# Pharmacy Advancement Corp

## STUDENT AUCTION DONATION FORM

PLEASE PRINT

PLEASE PRINT THE INFORMATION REQUESTED BELOW AND RETURN TO:  
**AUCTION, NDPhA, 1661 Capitol Way, Suite 102, Bismarck, ND 58101-5600 or  
NDSU College of PN & AS, Cynthia Hanson 123 Sudro Hall, Fargo, ND 58105, fax: 701-231-7606  
or Cynthia.Hanson@ndsu.edu. Questions? Cynthia @ 701-231-6461.**

DONOR \_\_\_\_\_ EMAIL ADDRESS \_\_\_\_\_

ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

ITEM \_\_\_\_\_ QUANTITY \_\_\_\_\_ DOLLAR VALUE \_\_\_\_\_

ITEM \_\_\_\_\_ QUANTITY \_\_\_\_\_ DOLLAR VALUE \_\_\_\_\_

ITEM \_\_\_\_\_ QUANTITY \_\_\_\_\_ DOLLAR VALUE \_\_\_\_\_

ITEM \_\_\_\_\_ QUANTITY \_\_\_\_\_ DOLLAR VALUE \_\_\_\_\_

ITEM \_\_\_\_\_ QUANTITY \_\_\_\_\_ DOLLAR VALUE \_\_\_\_\_

### **DELIVERY IS THE RESPONSIBILITY OF THE DONOR.**

Items are appreciated by 10:00 AM-Saturday, April 21.

The auction will be held on **Saturday, April 21, 2007**  
**Ramada Plaza Suites, Fargo, North Dakota.**

### OFFICE INFORMATION

Solicitor: \_\_\_\_\_

Received \_\_\_\_\_ By \_\_\_\_\_

Date



## And The Law

*By Karen E. Peterson, R.Ph., J.D.*

This series, **Financial Forum**, is presented by Pro Advantage Services, Inc., a subsidiary of 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.

### *When Is The Best Time To Invest?*

Sir John Templeton is one of the founders of Franklin Templeton Investments. When he speaks, listeners often ask, "When is the best time to invest?" He invariably replies, "Whenever you have the money." While past performance is not a guarantee of future results, history has borne him out so far.

Here are some of the reasons why many investors have avoided the stock market over the past 75 years:

- Great Depression
- Pearl Harbor
- Assassination of President Kennedy
- Vietnam War
- All-time-high interest rates in early 1980s
- Terrorist events of 9/11 and the war on terrorism
- High energy prices

You can always find a reason to stay away from stocks, if that's what you're looking for.

However, we believe an intelligent investor gives more weight to long-term trends than to the daily events that make headlines.

When you invest in any kind of security, you do face risks. The most obvious is loss of money. But there are other kinds of risk as well -- risks that affect all investors and all non-investors -- like the loss of purchasing power.

Obviously, putting your money under a mattress, or in a CD may not even keep up with inflation -- to say nothing of the additional erosion of taxes<sup>1</sup>.

Why do most investors fail to meet their investment goals? We believe there are three main reasons:

- They have no plan.
- They select the wrong funding vehicles -- investments that don't outpace inflation and taxes over long periods.
- They let their emotions influence their decisions.

In our view, the secret to investing is not timing the market, but time in the market.

By investing the same amount of money at regular intervals, you can avoid the temptation to time the market. This powerful long-term investment technique is called dollar-cost averaging. It helps you buy more shares when prices are low, fewer when prices are high.

Dollar-cost averaging in itself doesn't ensure a profit. If you have to sell your shares at a time when their price is lower than the average price you paid for them, you'll have a loss. Before starting such a program, you should consider your ability to continue buying at periods of low prices. But dollar-cost averaging can reduce the price you have to get to break even.

As mentioned earlier, you can always find a reason to stay away from stocks. Again, past performance does not guarantee future results. But over the long term, the stock market has risen, and has preserved and enhanced investors' purchasing power. For more information on how investing in stocks and stock mutual funds may help you reach your financial goals, talk with your financial advisor.

Provided by courtesy of Pat Reding, CFP of Pro Advantage Services Inc., in Algona, Iowa. For more information, please call Pat Reding at 1-800-288-6669.

Registered representative of and securities offered through Berthel Fisher & Company Financial Services, Inc. Member NASD & SIPC

Pro Advantage Services, Inc./Pharmacists Mutual is independent of Berthel Fisher & Company Financial Services Inc. Berthel Fisher & Company Financial Services, Inc. does not provide legal or tax advice. Before taking any action that would have tax consequences, consult with your tax and legal professionals. This article is for informational purposes only. It is not meant to be a recommendation or solicitation of any securities or market strategy.





## *Personal Service*

***Pharmaceutical***

***Over-the-counter Products***

***Vitamins & Herbs***

***Dietary Supplement***

***Personal Care***

***Beauty Items***

***School Supplies***

***Gift Items***



1-800-437-2018

701-852-2141

Fax 701-857-1134

[www.dakdrug.com](http://www.dakdrug.com)

***Shipping from warehouses in  
Fargo and Minot***

While other companies combine and merge, moving further away from their customers Dakota Drug is here to serve you, person to person. As the midwest's only independent wholesaler, Dakota Drug is dedicated to providing the best possible service in a friendly, personal manner.

Our years of being in the distributing business has provided us with the knowledge and experience to provide excellent service. It is our goal to relate effectively with our customer to full-fill their needs and provide successful solutions.

As a full service wholesaler, we offer full delivery service and an expanding variety of programs and services to meet your needs.

Serving pharmacies in the upper midwest, Dakota Drug has the ability to provide local, personal service that you can trust.





# The Contribution of North Dakota's Pharmacies to the State's Economy

*By Nancy M. Hodur and F. Larry Leistritz*

The pharmacy's role in the delivery of prescription drugs is fairly straight forward. However, the community pharmacy does more than just put pills in bottles. Community pharmacies provide patient care not only at their community pharmacy, but also at local hospitals and longterm care facilities. Community pharmacies also play an important role in the state and local economies, especially in rural areas. Community pharmacies (drug stores) consistently have been classified as a business that provides "essential services." Businesses that provide essential services are critical for communities that desire to maintain a viable business and service sector. Because of the issues and challenges facing community pharmacies and their role as an essential service, this study was undertaken to quantify the economic contribution North Dakota's community pharmacies make to the state's economy and to examine community pharmacies' business characteristics, services provided, and other issues. An economic contribution study estimates all relevant expenditures and returns, both direct and secondary associated with an industry. Direct impacts represent the initial or direct expenditures of independent community pharmacies to entities within the state. Examples include cost of goods sold, payroll, and other business expenses. Expenditures made to entities outside North Dakota represent leakages and are not included in the estimate. Secondary impacts are the result of the multiplier effect from initial expenditures being spent and re-spent in the regional economy. Input-output analysis was used to estimate secondary (indirect and induced) economic impacts and secondary employment. A written questionnaire was developed to collect expenditure data and was mailed to North Dakota's 128 community pharmacies. Respondents were asked to estimate their total expenditures for each expenditure category in 2005 or their most recently completed fiscal year. Respondents were also asked to estimate what percentage of those expenditures were made instate and what percentage were made to out-of state firms. Because expenditures made to outof- state firms represent leakages, only in-state expenditures were

used to estimate the overall contribution of community pharmacies to the state's economy. Sixty-eight pharmacies returned the questionnaire for a response rate of 53 percent.

North Dakota community pharmacists are predominately male, North Dakota natives, with a B.S. in pharmacy from North Dakota State University. They are longtime operators (average years of operation were 17) with over half (58 percent) that plan to sell their pharmacy in the next 10 years. Community pharmacies employ over 900 full-time equivalent jobs with slightly more full-time equivalent jobs in rural community pharmacies than urban, even though on average urban pharmacies have more full-time equivalent jobs per pharmacy. For nearly every category of information, urban pharmacies' average numbers were greater than for rural pharmacies. However, because there were more rural pharmacies than urban, total contributions were roughly equally divided and in some cases greater for rural pharmacies than for urban.

An average of 793 prescriptions were filled per week per pharmacy for a total of over 107,000 prescriptions filled per week. Prescription sales make up the majority of gross sales for both rural and urban pharmacies (88 and 94 percent, respectively); however, a greater portion of gross sales was from non-Rx sales in rural pharmacies than urban. This is likely attributable to relatively few retail outlets in many rural communities and the rural community pharmacy expanding its services to meet customer demand.

Community pharmacies provide services in addition to filling prescriptions, especially in rural areas. Ninety percent of rural pharmacies provide services for long-term health care facilities and 27 percent provide service to the local hospital. Only 36 percent of urban pharmacies provide services to a long-term health care facility and none provide service to the local hospital. Both were significant differences. On-call services were also more prevalent in rural areas. More rural pharmacies provide emergency on-call services for a long-term health care facility or hospital than in urban areas. Again, the differences were significant.



Average direct expenditures per pharmacy were estimated to be roughly \$2.3 million annually. Average expenditures for rural pharmacies were \$1.8 million compared to \$3.3 million for urban pharmacies. The total contributions of the two groups were roughly equal. Total direct expenditures for rural pharmacies were \$118 million compared to \$107 million for urban pharmacies. Total direct expenditures for all community pharmacies was \$224 million. Total direct expenditures were applied to the coefficients of the North Dakota Input-Output Model to estimate annual gross business volume of nearly \$907 million annually. The levels of economic activity generated by community pharmacies would be expected to support about 10,158 full-time equivalent jobs in various sectors of the state economy.

North Dakota community pharmacies clearly have a critical role in the health care delivery system. Community pharmacies dispense thousands of prescriptions weekly and provide services not only to their clientele but to other health care providers, such as hospitals and long-term and assisted living facilities, especially in rural North Dakota. This report highlights community pharmacies' critical economic role. Community pharmacies directly contribute nearly \$224 million annually to the state's economy. Direct and secondary impacts total \$907 million annually. Community pharmacies directly employ over

1,000 individuals, and the economic activity generated by pharmacies supports secondary employment of over 10,000 jobs. Clearly, if the challenges that community pharmacies face today lead to numerous business closures or substantive modifications in how prescription drugs are dispensed, not only would there be ramifications for the health care system, but also for the state and local economies. Loss of essential services businesses in rural communities would be especially disruptive. To what degree the challenges faced by the industry today will affect North Dakota's community pharmacies and the health care system is beyond the scope of this study. This study does, however, highlight the economic contributions of community pharmacies. Those contributions and the potential impacts of the loss of those economic contributions are important considerations and should be part of any discussion related to current issues and challenges that face North Dakota's community pharmacies.

The complete report is available electronically at: <http://agecon.lib.umn.edu/> or a single copy is available free of charge. Address your inquiry to: Carol Jensen, Department of Agribusiness and Applied Economics, North Dakota State University, P.O. Box 5636, Fargo, ND, 58105-5636, Ph. 701-231-7441, Fax 701-231-7400, e-mail [carol.jensen@ndsu.edu](mailto:carol.jensen@ndsu.edu).

---

## Note from the Board of Pharmacy on Pharmacist and Technicians Renewals

All pharmacist and technician renewals were sent on December 11, 2006. If you or a member of your staff have not received a renewal notice you can be sure that it is because they are not at the address we have for them. They can go online and update their information and renew their licenses.

No, we are not sending out another renewal notice – it is their responsibility to make sure the board has their address and if they move they must change it on our website before they move. Not six months later or never just because they filed a change of address card at the post

office they must notify us, their licensing board, if they expect to continue in their profession.

---

### FOR SALE

**HIX mini 400 Heatsealer**

Model M-400, Amps 10.5, Volts 120 V AC

**\$425** *Very good condition*

**Contact:**

**Clinic Pharmacy, Devils Lake**

**1-800-344-3109**

**McKESSON**

*Empowering Healthcare*

# DEPEND ON McKESSON.

## *Because Your Customers Depend On You.*

Your customers look to you as a long-time trusted advisor who provides quality care and personalized customer service. Get that same piece of mind from McKesson. For more than 165 years we've been serving the needs of America's independent pharmacists.

**Minneapolis  
Distribution  
Center**

**Larry Secrest**  
*Vice President  
Sales*

**Lynn Swedberg**  
*Retail Sales  
Manager*

**Dean Pansch**  
*Retail Sales  
Manager*

**Mark Urness**  
*Retail Sales  
Manager*

**Karl Lindgren**  
*Retail Sales  
Manager*

## *Experience You Can Count On*

McKesson Sales Representatives know your business — and your community. We're ready to help you identify growth opportunities, and bring you services to help you profit.

## *Services To Help You Succeed*

- Accurate, timely delivery with convenient ordering options
- Productivity tools that drive your profits
- Merchandising support to help you boost front-end sales

**Give Us A Call Today 1-800-482-3784**

Let us show you why it pays to

**depend on McKesson.**



# Continuing Education for Pharmacists

Volume XXIV, No. 12

## Varicella-zoster Virus Infection: the Diseases and Vaccines for Prevention

**Thomas A. Gossel, R.Ph., Ph.D.**  
Professor Emeritus  
Ohio Northern University  
Ada, Ohio

and

**J. Richard Wuest, R.Ph.,  
PharmD**  
Professor Emeritus  
University of Cincinnati  
Cincinnati, Ohio

**Goals.** The goals of this lesson are to discuss chickenpox and shingles, and describe the vaccines used to prevent them.

**Objectives.** At the conclusion of this lesson, successful participants should be able to:

1. identify the pathological responses to infection by the *Varicella zoster* virus;
2. choose key points relative to the etiology, pathogenesis, and clinical features of chickenpox and shingles;
3. recognize the vaccines for prevention of *Varicella zoster* infection in terms of their physiological and clinical characteristics; and
4. select important points to convey to patients relative to varicella infection and its prevention.



Gossel



Wuest

### Introduction

*Varicella zoster* virus (VZV) causes two distinct clinical entities: varicella (chickenpox) and herpes zoster (shingles). Chickenpox is a widespread and extremely contagious infection of childhood. Latent VZV may reactivate later as shingles.

### Etiology, Pathogenesis and Pathology

The association between chickenpox and shingles has been known for nearly 100 years. Viral isolates obtained from patients with chickenpox and shingles produce similar changes in tissue culture, suggesting that the viruses are biologically similar. VZV is a member of the family *Herpesviridae*.

**Primary Infection.** VZV enters the host via the respiratory route and conjunctiva. The virus is believed to replicate within the nasopharynx and regional lymph nodes, which results in infiltration of the reticuloendothelial system with eventual appearance in the blood and development of primary viremia. The virus is then disseminated to other tissues including the liver, spleen, and sensory ganglia. Further replication occurs in the viscera, followed by viral infection of the skin. Viremia in patients with chickenpox manifests as diffuse and scattered lesions involving the

dermis and epidermis. The vesicles, which contain infectious virus, ultimately rupture and release fluid, or will be reabsorbed slowly.

**Recurrent Infection.** Once the primary (initial) outbreak has subsided, the virus presumably retreats into the dorsal root ganglia where it can remain dormant for years until some excitatory factor reactivates it. The mechanism of reactivation that results in herpes zoster remains unknown. Examination of representative dorsal root ganglia during active herpes zoster reveals hemorrhage, edema, and lymphocytic infiltration.

In the immunocompetent host, active replication of VZV in other organs, such as the lung or brain, can occur during either chickenpox or herpes zoster, but is uncommon. Pulmonary involvement is characterized by interstitial pneumonitis and pulmonary hemorrhage. Central nervous system involvement results in histopathologic changes in the brain similar to those encountered in measles and other virus-induced inflammatory responses. Hemorrhagic necrosis of the brain, as is typical with herpes simplex virus encephalitis, is uncommon in VZV infection.

### Epidemiology and Clinical Manifestations

**Chickenpox.** Humans are the only host for VZV. With an attack rate of 90 percent or more of susceptible individuals, chickenpox is highly contagious. Males and females of all races are infected equally. Normally endemic in the population at large, the virus becomes epidemic in susceptible individuals during seasonal peaks (late winter and early spring in

temperate climates). In the U.S., the incidence is highest between March and May, and lowest between September and November. Children between ages five and nine years are most commonly affected, and account for half of all infections. The majority of other cases involve young people one to four years and 10 to 14 years of age. Since introduction of the varicella vaccine for children, varicella cases have been reduced by 90 percent.

The incubation period for varicella ranges from 10 to 21 days; the usual period is 14 to 16 days. Secondary attack rates between 70 and 90 percent are reported in susceptible siblings within a household. Infected persons remain infectious for approximately 48 hours prior to onset of the vesicular rash, throughout the period of vesicle formation (usually four to five days), and until all vesicles become crusted. Once all skin lesions have crusted, an individual no longer transmits VZV. Indirect transmission via an immunized third person is not believed to occur.

The patient with chickenpox may have a mild prodrome (warning signs) of low-grade fever and malaise occurring one to two days before onset of rash. Oftentimes in children, the rash is the first sign of disease. Immunocompetent patients usually develop a benign illness that is associated with weakness and exhaustion, and temperatures of 100° to 103° F that last three to five days. Skin lesions, which are the hallmark of infection, usually appear first on the face and scalp, then on the trunk, and then on the extremities. The rash is generalized and causes itching. It progresses rapidly from discolored spots of skin that are not elevated (macules) to small circumscribed, solid elevations of skin (papules) to vesicular lesions before crusting. A typical case includes each form of lesion and scabs, all in various stages of progression. Most lesions are small (5 to 10 mm), have a red base, and appear over two to four days. Lesions can also appear on the

mucous membranes of the oropharynx, respiratory tract, vagina, conjunctiva, and cornea. Healthy children usually have 200 to 500 lesions. Recovery by an immunocompetent person usually results in lifetime immunity from another attack of chickenpox. A repeat infection of chickenpox may occur in immunocompromised persons. As is also true of other viral infections, re-exposure to natural varicella may lead to reinfection that, fortunately, boosts the person's antibody titres without causing clinical illness.

**Complications of Chickenpox.** Secondary bacterial infection of skin lesions can follow, usually caused by *Streptococcus pyogenes* or *Staphylococcus aureus*, and is the most common infectious complication of varicella. Secondary infection is the most frequent cause of hospitalization and outpatient medical visits. Viral shedding from skin lesions after scratching may result in infection. Varicella pneumonia is the most serious complication in chickenpox, appearing more often in adults (up to 20 percent of all cases) than in children. The complication usually begins three to five days into the illness. Patients experience rapid respirations (tachypnea), cough, dyspnea, and fever most frequently; and cyanosis, pleuritic chest pain, and expectoration of blood or blood-stained sputum (hemoptysis) less frequently. Pneumonia following chicken pox is usually viral but may be bacterial. Secondary bacterial pneumonia is more likely to occur in children under the age of one, rather than in older children. About 12,000 people are hospitalized with chickenpox each year in the U.S., with about 100 deaths reported.

**Herpes Zoster.** Herpes zoster is more commonly called shingles, from the Latin *cingulum*, meaning "girdle." Similarly, the descriptor *zoster* is derived from the classical Greek, referring to a "belt-like binding" (i.e., a zoster) used by warriors to secure their armor.

Herpes zoster is a sporadic disease. It is the reactivated form of

the VZV from the dorsal root ganglia; most patients who develop shingles have not had a recent exposure to another individual with VZV infection. It is estimated that 500,000 to 1 million people in the U.S. experience an outbreak of shingles each year. A recently released FDA report stated that shingles is estimated to affect two in every 10 people in their lifetime. Unlike chickenpox, shingles occurs throughout the year. Herpes zoster is contagious to those who have not had varicella, or have not received the varicella vaccine. Individuals can contract chickenpox from close contact with a person who has shingles. However, a person cannot catch shingles from someone else.

More than 90 percent of patients with shingles have serological evidence of a previous VZV infection. It is not possible to predict who will develop the condition or what triggers its reactivation. It may occur at any age, but its incidence is greatest during the sixth decade of life and beyond, and in those with a compromised immune system.

The classic presentation of shingles begins as a prodrome of fever, tiredness, and headaches that may precede eruption of vesicles by several days. Lesions are usually localized to a single dermatome (the area of skin supplied with afferent nerve fibers by a single posterior spinal root). Mild-to-moderate burning or tingling occurs within the affected dermatome. Dermatomes from T3 to L3 are most commonly involved and often associated with severe pain that may be misdiagnosed as myocardial infarction or renal colic. Zoster ophthalmicus is a form of herpes zoster involving the ophthalmic ganglion of the trigeminal nerve. It results in painful eye inflammation with impaired vision. Without treatment, it can lead to blindness. Zoster ophthalmicus accounts for approximately 10 to 25 percent of herpes zoster cases.

As stated earlier, the factors that lead to the reactivation of VZV are not well understood. Known



physiologic factors include increasing age, immunosuppression, intra-uterine exposure to varicella, and outbreak of varicella at younger than 18 months of age. Reactivation is usually benign in children. Often preceding the appearance of lesions by 48 to 72 hours, a red maculopapular (lesions with a flat base surrounding a solid elevation in the center) rash forms unilaterally along the dermatome, and changes rapidly into vesicular lesions reminiscent of the original chickenpox outbreak. Lesions may cover more than one dermatome and occasionally cross the midline to the other side of the body. They may remain few in number and continue to form for up to three to five days. The lesions usually begin to dry and scab three to five days after appearance. The vesicular fluid becomes cloudy with pus. The duration of illness generally lasts seven to 10 days, but it may take two to four weeks before the skin returns to normal. The rash may leave scarring and changes in pigmentation. Seronegative individuals (persons without antibodies to an earlier varicella infection) may become infected with chickenpox. On rare occasion, pain localized to a dermatome will be felt in the absence of skin lesions. When branches of the trigeminal nerve are involved, lesions may appear on the face, in the eyes, or in the mouth or on the tongue.

**Herpes Zoster Complications.** Pain associated with acute neuritis that leads to development of postherpetic neuralgia (PHN) is the most debilitating complication of herpes zoster, in both the normal and immunocompromised host. PHN is a condition where pain accompanying the rash persists long after the lesions have disappeared, commonly more than 30 days after the lesions have healed. It is best characterized as unrelenting sharp, burning, and stabbing pain that makes daily activities such as dressing and bathing almost unbearable. PHN is rare in young patients. At least half of patients

over age 50 with shingles report pain of some extent months after the cutaneous manifestations have resolved. Altered sensation in the dermatome, resulting in abnormally reduced or greater sensitivity to touch is common. Other complications include inflammation of the brain or spinal cord, and paralysis of peripheral nerves.

Symptoms of shingles will be more severe in the immunocompromised host. Lesions continue to appear for over a week, and scab formation is usually incomplete until three weeks into the illness. Cutaneous dissemination develops in approximately 40 percent of patients with Hodgkin's disease and non-Hodgkin's lymphoma. In these patients, the risk of pneumonitis, meningoencephalitis, hepatitis, and other serious complications increase. Even in immunocompromised patients, however, disseminated zoster is rarely fatal.

## Prevention

**Chickenpox.** Varicella vaccine (Varivax) is a live, attenuated viral vaccine (Table 1). Isolated in the early 1970s from vesicular fluid obtained from an otherwise healthy child with varicella disease, varicella vaccine was licensed in the U.S. in 1995.

The vaccine is estimated to be 70 to 90 percent effective against infection, and 85 to 95 percent effective against moderate or severe disease. More than 90 percent of vaccine responders will maintain antibody levels for at least six years. Among healthy adolescents and

adults, 78 percent of vaccine recipients develop antibodies after one dose, with 99 percent developing them after a second dose administered four to eight weeks later.

Immunity appears to be long-lasting and is probably permanent in the majority of recipients. Breakthrough infection (i.e., varicella disease in a vaccinated person) will be significantly milder, with fewer lesions, many of which will be maculopapular rather than vesicular; most patients will not have fever.

Most clinical investigations have not identified time since vaccination as a risk factor for breakthrough varicella. The presence of asthma, use of steroids, and younger age (i.e., younger than 15 months) have been suggested as being risk factors for breakthrough varicella.

Varivax is recommended for all children without contraindications at 12 to 18 months of age. It may be given regardless of prior history of varicella; however, vaccination is not necessary for children with a reliable history of chickenpox. The vaccine is also recommended for all children without evidence of varicella immunity by their thirteenth birthday. Children who have not been vaccinated previously and who do not have a reliable history of chickenpox are considered to be susceptible for chickenpox. Efforts should be made to ensure varicella immunity by this age, because varicella disease is more severe, complications more frequent, and two doses of vaccine are required

**Table 1**  
**Comparison of Vaccines**

Vaccine	Contents	Use	Administration
Varicella (Varivax)*	Live, attenuated vaccine	Vaccination against <i>chickenpox</i> in persons 12 months of age & older	12 mo-12 yr: 0.5 ml sc; ≥13 yr: 0.5 mL sc with second dose 4-8 weeks later
Zoster (Zostavax)*	Live, attenuated varicella-zoster virus	Prevention of <i>shingles</i> in persons 60 years of age and older	≥60 yr: single dose administered sc

\*For more information visit: [www.Varivax.com](http://www.Varivax.com) or [www.Zostavax.com](http://www.Zostavax.com)

**Table 2**  
**Patient Advice for the**  
**Zoster Vaccine**

- This vaccine is to be used for adults 60 years of age and older to prevent shingles (also known as zoster). Only your healthcare provider can decide if the vaccine is right for you.
- This vaccine works by helping your immune system protect you from getting shingles and the pain and other complications that come with shingles. If you do get shingles even though you have been vaccinated, the vaccine may help prevent the severe nerve pain that can follow shingles.
- As with any vaccine, this one may not protect everyone who receives it.
- This vaccine should not be used to treat shingles once you have it. If you do get shingles, contact your healthcare provider within the first few days of getting the rash.
- You should not receive the vaccine if you: 1) are allergic to any of its ingredients, including allergies to gelatin or neomycin; 2) have a weakened immune system; 3) have active tuberculosis that is not being treated; or 4) are pregnant or may be pregnant.
- Be sure to tell your healthcare provider before receiving the vaccine if you: 1) have or have had any medical problems; 2) are taking any medications, including those that might weaken your immune system; 3) are breastfeeding; 4) have had shingles in the past; or 5) may be in close contact with someone who may be pregnant and has not had chickenpox or been vaccinated against chickenpox, or someone who has problems with their immune system.
- Contact your healthcare provider right away if any medical condition you have gets worse or you develop any new or unusual symptoms after you receive this vaccine.

after 13 years of age. The Advisory Committee on Immunization Practices has provisionally recommended two doses for individuals under 13 years of age. This change in vaccine schedule is expected to be adopted in January of 2007. (<http://www.cdc.gov/nip/publications/acip-list.htm>)

The vaccine should be administered subcutaneously in the deltoid muscle. It is safe and effective in

children when administered concomitantly with measles-mumps-rubella (MMR) vaccine at different sites with separate syringes. A combined live attenuated measles-mumps-rubella-varicella (MMRV) vaccine (ProQuad®) is licensed for persons 12 months to 12 years of age.

**Shingles.** Zostavax is a recently licensed (May 2006) product that reduces the risk of acquiring shingles in persons 60 years of age and older (Table 1). It is the only vaccine licensed in the U.S. that reduces the risk of reactivation of the varicella zoster virus. It should not be used to treat established shingles. The vaccine is not a substitute for varicella virus vaccine, and should not be used to immunize children against chickenpox. Likewise, Varivax is not a substitute for Zostavax. Potency of Varivax is considerably lower than that of Zostavax. The higher dose of the zoster vaccine seems to be necessary to overcome the immunosenescence (i.e., reduced response of the immune system) associated with aging. For this reason, the vaccine intended to protect against chickenpox is not to be used for shingles prevention in adults.

Prevention of shingles with the zoster vaccine should eventually result in fewer cases of shingles along with the multiple health benefits that will follow. A double-blind, placebo-controlled pre-marketing study of the vaccine was conducted in approximately 38,000 individuals. Overall, the vaccine reduced the occurrence of shingles by 64 percent in persons aged 60 to 69 years. Effectiveness declined with increasing age: 41 percent for the 70 to 79 age group; 18 percent for those 80 years of age and older. Additionally, duration of pain following onset of shingles was reduced slightly in those who developed shingles despite being vaccinated. Specifically, pain in the vaccine group lasted an average of 20 days, versus 22 days in the placebo group. Pain severity did not differ among the two groups.

In this study, serious adverse events in persons receiving the vaccine were noted in 1.9 percent of recipients, versus 1.3 percent of persons who received placebo. The number of deaths in both groups was equal. FDA concluded that the study results were inconclusive; the manufacturer continues to investigate safety.

The most common adverse reactions in persons who received the vaccine included redness, pain, itching, tenderness, and swelling at the injection site. Headache was also reported.

Zostavax should be administered subcutaneously in the upper arm (deltoid muscle). The entire contents of a vial should be given. Advice to convey to persons vaccinated with Zostavax or their caregivers is provided in Table 2.

### Overview and Summary

Chickenpox and shingles are both caused by *Varicella zoster*. Whereas chickenpox results from acute infection, shingles follows when the dormant virus is reactivated. Vaccination of individuals  $\geq 12$  months of age with the varicella vaccine effectively prevents chickenpox; vaccination of adults  $\geq 60$  years with the zoster vaccine may prevent shingles outbreaks. The two vaccines are not interchangeable and should only be used for their approved indication.

# Continuing Education Quiz

## Varicella-zoster Virus Infection: the Diseases and Vaccines for Prevention

- Once the primary outbreak of Varicella zoster infection has subsided, the virus presumably retreats to the:
  - posterior root ganglia.
  - anterior root ganglia.
  - proximal root ganglia.
  - dorsal root ganglia.
- Central nervous system involvement in a VZV infection results in histopathologic changes similar to:
  - measles.
  - smallpox.
  - mumps.
  - influenza.
- In the U.S., the incidence of chickenpox is highest from:
  - December to February.
  - March to May.
  - June to August.
  - September to November.
- For varicella, persons remain infectious from how long prior to onset of the vesicular rash until the time all vesicles have crusted?
  - 12 hours
  - 24 hours
  - 48 hours
  - 96 hours
- Secondary bacterial infections of chickenpox lesions are usually caused by:
  - E. coli.
  - H. influenzae.
  - P. aeruginosa.
  - S. aureus.
- Which of the following statements is FALSE?
  - Shingles mainly occur March to May.
  - Herpes zoster is a common name for shingles.
  - Shingles is more prevalent after age 60.
  - A person cannot catch shingles from someone else.
- A lesion with a flat base surrounding a solid elevation in the center can be described as:
  - dermatomal.
  - maculopapular.
  - pustular.
  - vesicular.
- The most debilitating complication of Herpes zoster is:
  - arthralgia.
  - myalgia.
  - neuralgia.
- When Varivax is given to a patient older than 13 years of age, the number of doses required is (are):
  - one.
  - two.
  - three.
  - four.
- Varivax and Zostavax are:
  - not interchangeable.
  - interchangeable.

## Varicella-zoster Virus Infection: the Diseases and Vaccines for Prevention

March 2007 ACPE #129-047-06-012-H01

The Ohio Pharmacists Foundation Inc and NDSU College of Pharmacy are approved by ACPE as providers of continuing pharmaceutical education. To receive 1 1/2 hours (0.15 CEUs) of continuing education credit, complete the following and mail with \$10.00 to:

Continuing Pharmacy Education Office

Department of Pharmacy Practice  
North Dakota State University  
123 Sudro Hall - P.O. Box 5055  
Fargo ND 58105-5055

*Note: Answer sheet may be copied as needed but original answers are required on each.*

Name \_\_\_\_\_

Social Security Number (SSN) XXX-XX-\_\_ \_\_ \_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Zip \_\_\_\_\_

Your SSN will be used to maintain a permanent record of the courses you have taken. Your SSN will be kept confidential and will be used ONLY to identify you at NDSU.

### COURSE EVALUATION

**Evaluation Must Be Completed To Obtain Credit**

How much time did this lesson require? \_\_\_\_\_

Today's Date \_\_\_\_\_

**EXPIRATION DATE: 12-15-09**

Learning objectives on first page were addressed.

**1 Disagree - 5 Agree**

Objective 1	1	2	3	4	5
Objective 2	1	2	3	4	5
Objective 3	1	2	3	4	5

Material was well organized and clear. 1 2 3 4 5

Content sufficiently covered the topic. 1 2 3 4 5

Material was non-commercial in nature. 1 2 3 4 5

#### Answer Sheet:

- |            |            |
|------------|------------|
| 1. a b c d | 6. a b c d |
| 2. a b c d | 7. a b c d |
| 3. a b c d | 8. a b c   |
| 4. a b c d | 9. a b c d |
| 5. a b c d | 10. a b    |





---

*Joel Aukes, RPh*  
*President, NDSHP*

---

# How a Bill Becomes a Law in North Dakota

Now that our states legislative year is in full swing I thought it may be interesting to review how a bill goes from an idea to an enacted law for North Dakota citizens. This information was adapted from the Legislature's web site (<http://www.legis.nd.gov/information/general/bill-law.html>). This website is also a good resource for more in-depth information and the contact information for all the Senators and Representatives in the North Dakota Legislature.

## Introduction of a bill

A legislator wishing to introduce a bill profiles it with the Legislative Council, between December 10 and December 24. The Legislative Council staff numbers the bill and has the bill printed so that copies are available when the Legislative Assembly convenes in regular session. These prefiled bills are technically introduced on the first day of the regular session, even though they have already received their number, have been printed, and have been referred to the appropriate standing committees by the Lieutenant Governor (for Senate measures) or the Speaker of the House (for House measures).

During a legislative session, a legislator can deliver a bill to the bill clerk of the appropriate house any time during the day. If the bill has not been prepared by the Legislative Council staff, it is delivered to the Legislative Council staff for a review to determine if the bill complies with the form and style requirements for bills. If the bill doesn't comply, the Legislative Council staff prepares the bill and returns the bill to the bill clerk. Every bill

received by the bill clerk is numbered by the clerk and introduced. Upon introduction, the bill's title is read by the Secretary of the Senate or Chief Clerk of the House. This is known as the First Reading.

## Referring the bill to committee

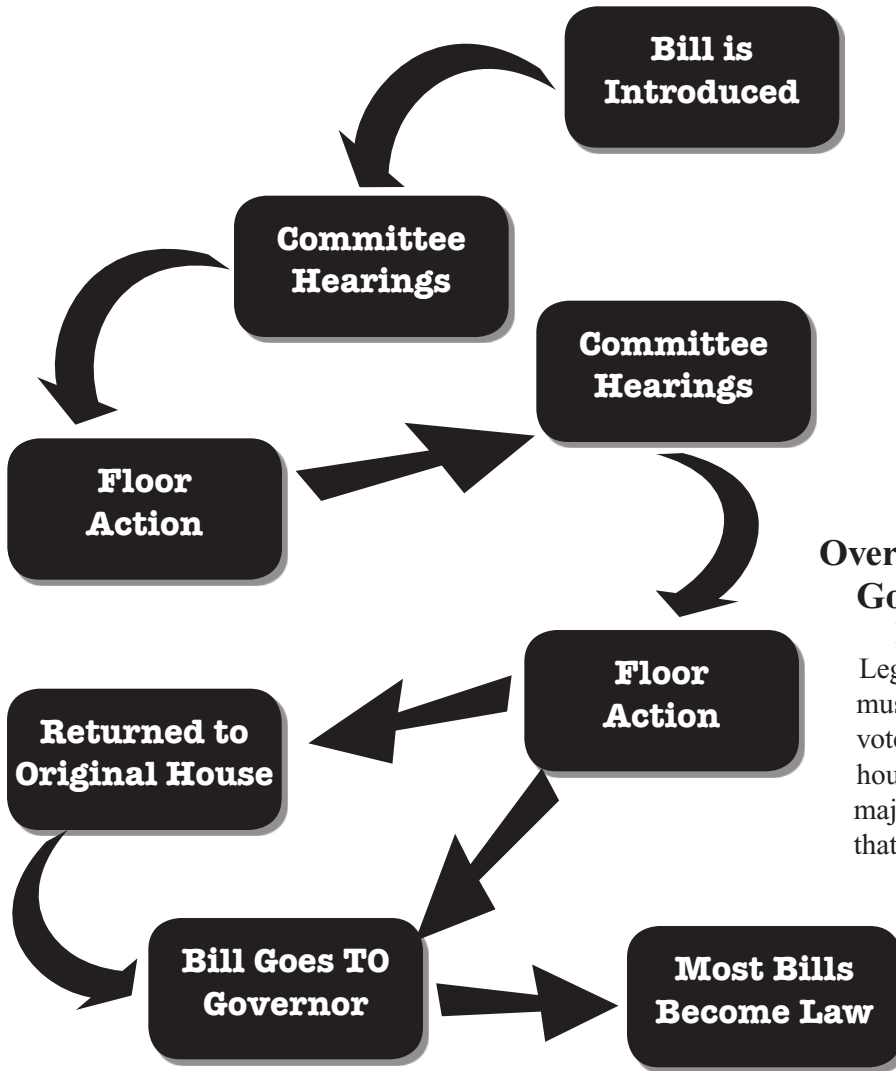
The presiding officer refers the bill to a standing committee with the appropriate authority over the bill, e.g., a bill relating to game and fish licenses would be referred to the Natural Resources Committee. The committee chairman schedules a public hearing on the bill. By custom, every bill referred to committee is scheduled for public hearing.

The legislative rules require every bill referred to committee to be reported back to the floor for a vote, therefore no bill can "die in committee". After the public hearing the committee reports the bill back to the floor with a recommendation for a vote. A committee must make one or more of the following recommendations with respect to the bill: do pass, do not pass, be amended, be referred to another committee, or be placed on the calendar without recommendation.

## Final voting on a bill

Every bill reported from committee is placed on the calendar for its Second Reading, to then be voted on for final passage. If the recommendation is for amendment, the amendment is voted on first then the amended bill is voted for final passage. If the bill passes, it is delivered to the other house where a similar procedure is followed.

# How a Bill Becomes a Law



Legislative Assembly is not in session, a bill becomes law if the Governor neither signs nor vetoes it within 15 days, Saturdays and Sundays excepted, after its delivery to the Governor.

## Overriding a bill vetoed by the Governor

If the Governor vetoes a bill while the Legislative Assembly is in session, the Governor must return the bill to the house of origin for a vote on whether to agree with the veto. If the house of origin passes the bill by a two-thirds majority, the bill is sent to the other house and if that house passes the bill by a two-thirds majority, the veto is overridden and the bill is delivered to the Secretary of State.

## Enactment as state law

A law usually takes effect on August 1st after its filing with the Secretary of State. An appropriation measure for the support and maintenance of state

departments and institutions or a tax measure that changes tax rates takes effect on July 1st after its filing with the Secretary of State. Later effective dates may also be specified in a bill. Additionally, a law that is declared an emergency measure and passes each house by a two-thirds majority can take effect upon its filing with the Secretary of State.

## ASHP Affiliation Update

ASHP's Commission on Affiliate Relations reviewed NDSHP's petition for affiliation at their January meeting. After review of NDSHP's petition for affiliation, the Commission on Affiliate Relations deemed NDSHP to be an organization that reflected a mission, vision, and membership focus consistent and congruent with the purposes and mission of ASHP. Therefore, the ASHP Board of Directors voted to grant NDSHP full affiliation status with ASHP.

If the bill is amended in the other house, it is returned to the house of origin for concurrence. If the house of origin does not concur, the presiding officer of each house appoints three members to a six-member conference committee to resolve the differences. The house of origin votes on the conference committee report first, and then the other house votes on the report.

Once a bill has passed both houses in exactly the same form, it is retyped with all amendments in place by the Legislative Council staff, signed by the presiding officer of each house, and delivered to the Governor for approval.

Referring a ratified bill to the Governor

The Governor may sign a bill and forward it to the Secretary of State, forward a bill to the Secretary of State without signature, or veto a bill or items in a bill. While the Legislative Assembly is in session, a bill becomes law if the Governor neither signs nor vetoes it within three legislative days after its delivery to the Governor. If the

## NAPT News

By *Danika Braaten - NAPT President*

• NAPT will be offering traveling meetings this spring. There will be a CE offered and a chance for you to voice any comments, questions, or concerns to the NAPT Board. The meetings are as follows:

Grand Forks - March 13 at 8:30am Altru Hospital room G

Devils Lake - March 14 at 7:30am at Mercy Hospital

Fargo - March 14 at 7pm at the Holiday Inn

Minot - March 16 at 6pm at Health Center West

Bismarck - March 21 at 5pm at the Expressway Suites

Dickinson - March 22 at 5pm at the Dickinson Inn

Williston - March 23 at 5pm at the Airport International Inn

• 122nd Annual NDPhA Convention will be held on April 20- 22, 2007 at the Ramada Plaza Suites & Conference Center. Mark your calendars!

• Based on the January 7, 2007 Advisory Council meeting, there was a discussion on what the NDPhA

structure could look like. We would like to encourage all pharmacy technicians to attend the open forum and NAPT General Business Meeting at the NDPhA April convention.

• The NAPT Executive Board meeting minutes are posted on the NDPhA website.

o [www.nodakpharmacy.net](http://www.nodakpharmacy.net)

o Select "Connect Rx" from the menu bar

o Enter your username and password

Note: If you have trouble accessing this site, please contact Lorri Giddings at the NDPhA office.

• Mark your calendars for the Fall Conference on September 28 & 29, 2007 in Williston. Watch your Nodak publications for further details.

• In the Nodak there are bios for candidates running for Vice president and Secretary. Please fill out the ballot and sent to Lorri Giddings at the NDPhA office. The votes will be counted there.



## MEET THE CANDIDATES

### *Nicole Gerjets*

Place of Employment: St. Alexius Hospital, Inpatient Pharmacy

Running for: Secretary

Why: I want to be more involved with the organization and help get out important information to other Technicians. I feel that I can offer a lot to this organization because of my experience in both retail and hospital settings.

Personal Info: I have a 3 (almost 4) year old daughter. I have been in Bismarck for 2 years, prior to that I was with Thrifty White Drug in Minot for 12 1/2 years. I have my BA from Minot State University. I have been certified since July of 1999.

### *Jodi Hart*

Hello! My name is Jodi Hart and I am running for Vice President of NAPT. I am currently an IV technician at St. Alexius Medical Center's Inpatient Pharmacy in Bismarck. I decided that I wanted to become more involved in our organization and after helping to chair the fall conference committee, I thought that now would be the perfect time. I hope that my involvement may help more technicians become more aware and more involved in our organization. I am a 2001 graduate of the pharmacy technician program at NDSCS and I also have an AA and AS from Bismarck State College. I have been a certified technician since 2001. I would really appreciate my fellow technicians' support in my endeavor in promoting our professional organization. Thank you!





## Northland Association of Pharmacy Technicians

### NAPT Executive Officer Ballot

*\*\*\*Vote once for each position\*\*\**

#### Vice President/President Elect

\_\_\_\_\_ Jodi Hart

\_\_\_\_\_ Write-in \_\_\_\_\_ (Name)

#### Secretary

\_\_\_\_\_ Nicole Gerjets

\_\_\_\_\_ Write-in \_\_\_\_\_ (Name)

Please complete this form and return to:

Lorri Giddings

1661 Capitol Way Suite 102

Bismarck, ND 58501-5600

**MUST BE POSTMARKED BY MARCH 25, 2007**

# Sometimes it's OK



## to Follow the Crowd

### **You don't have to be alone to be independent.**

6,000 independent pharmacies have discovered the multitude of reasons to take advantage of Independent Pharmacy Cooperative (IPC) and our value-loaded programs. Our competitive pricing, top quality and superb service have made us one of the fastest growing alternative source vendors for independent pharmacy in the nation.

When you buy from us, you get the best of both worlds. You retain your independence and make all decisions affecting your direction and bottom line. Plus, you can take advantage of low volume-based pricing and vast selection with daily access to our 75,000 square-foot distribution facility.

See why so many independents choose IPC: daily free delivery on Rx; significant savings and great selection of OTC and General Merchandise items; over 30 categories of traffic boosters through IPC negotiated contracts; plus, a super variety of promotional or seasonal products.

### **Don't stand alone and watch.**

**Be independent AND part of the winning crowd with IPC.**



To find out more call 1.800.755.1531. Or check us out online at [www.ipcrx.com](http://www.ipcrx.com)

# Reaching for Excellence

## 122<sup>nd</sup> Annual NDPHA Convention NDSHP Annual Meeting

**When:** April 20 – 22, 2007

**Where:** Ramada Plaza Suites & Conference Center  
1635 42nd St S  
Fargo, ND 58103

A block of 50 rooms and 54 suites have been reserved at a price of \$89 and \$99/night, respectively. These rooms will be released after March 29, 2007. Contact the Ramada at (701) 277-9000 to reserve a room. The block is listed as North Dakota Pharmacists Association.

**Activities:** Exhibit Hall  
Saturday Evening – *“Dancing with the Pharmacy Stars Competition”*  
Annual Scholarship Auction

**Other Hotels:** C'mon Inn 701-277-9944 Wingate Inn 701-281-9133  
Kelly Inn 701-277-8821 Sleep Inn 701-281-8240  
Mainstay Suites 701-277-4627 Holiday Inn 701-282-2700



Check out [www.nodakpharmacy.net](http://www.nodakpharmacy.net) for registration forms and additional CE topics. College of Pharmacy, Nursing, and Allied Science, North Dakota State University, is accredited by the Accreditation Council of Pharmacy Education as a provider of continuing pharmacy education.

## Scholarship Auction

The annual Pharmacy Advancement Corporation Scholarship Auction will be held Saturday April 21, 2007 during the NDPHA convention at the Radisson Crystal Ballroom in Fargo. The auction committee would like to invite you all to participate by donating items. Woodcrafters, quilters, and other artisans are always appreciated. As in years past, several items will be placed on a silent auction with the highlight of the evening being the “live” auction.

You will notice some changes in the auction at this year's convention, beginning with your registration form.

We are asking that if you plan on attending the auction you complete the short registration for the auction that is at the bottom of your registration form. These forms will be available at the convention as well, be pre-registration means you will be in the registered as a participant and information will be in your packet. You will be assigned a number and provided with an “auction paddle” this year. The students have been busy designing not only forms but your personal paddle as well.

If you are making a donation to the auction you will find forms on the NDPHA website that the auction committee would like you to complete and turn in with your donation. These will enable us to enter items into our program making record keeping and providing receipts to you more efficiently.

Thank you all for your participation in the past and we are looking forward to another outstanding auction.



# Reaching for Excellence

## Goals:

The goal of this program is to provide the participants with continuing pharmacy education relating to their professional development. There are various presentations relating to patient care, drug literature review, interpersonal care, different pharmacy practices, financial management, medication therapy management, and methamphetamine use. There are a variety of topics to meet the interests of various pharmacy career professions.

## Target Audience:

The programs are intended for community, hospital, clinical, consultant, and research pharmacists, as well as pharmacy technicians. It is also appropriate for any health care professional/practitioner with an interest in topics presented.

## Objectives:

- Summarize the recent clinical trials demonstrating the benefits of lipid-lowering agents on overall CV risk reduction.
- Discuss the safety profile of statins in lowering cholesterol.
- Discuss recent guidelines that do not suggest the use of beta-blockers as first-line drugs in the management of uncomplicated hypertension.
- Assess issues in current antiplatelet therapy, especially in patients with drug eluting stents.
- List the strengths and weaknesses of different scientific study designs for studying public health
- Explain the meaning and application of epidemiological terms including relative risk, absolute risk, risk ratio, number needed to treat, and statistically significant
- Effectively discuss data on public health issues with other health professionals
- Explain the impact that your skills and behaviors have on the satisfaction levels of those with whom you interact
- Discuss the correlation between the effectiveness of your communications and the perception of your professionalism and quality of your work
- Explain why you talk to people the way that you do- and why people talk/respond to you the way that they do
- Discuss how you are perceived when you are in the Parent, Adult or Child ego state, and how each creates either cooperation or resistance
- List which words and phrases cause defensiveness and resistance, thus reducing cooperation
- Identify which words and phrases create cooperation, thus reducing resistance
- Discuss how utilizing effective communication skills create positive relationships with internal and external 'customers' (i.e. colleagues, staff, users of your product and services, etc.)
- Define stress and the stress reaction
- Assess levels of stress and burnout
- Recognize symptoms of stress in self as well as staff and patients
- Identify the causes of stress
- Practice stress reduction methods
- Obtain resources to use in stress management and reduction
- Explain the role medicine played regarding the overall success of the Lewis and Clark Expedition
- Discuss the pharmacology of the chemicals and botanicals Lewis and Clark administered to the men of the Corps. Of Discovery
- Compare the medicines and treatments we have today with what the captains had with the Lewis and Clark Expedition
- Identify the different roles of PRACS, CSM, and Coram Pharmaceuticals and the impact they have on pharmacy practice
- Demonstrate the value of a pharmacist as a member of the health care team
- Detect whether a compliance and persistency problem may exist with a patient
- Outline steps that can be taken for the patient/caregiver to overcome obstacles to compliance
- Utilize motivational interviewing techniques that fit within the "real-world" practice environment of community pharmacies
- Explain what MTM is
- Demonstrate what is needed to implement an MTM program in their pharmacy
- Explain how to deliver effective MTM
- List different ways to price and market MTM
- Identify the importance of quality improvement in healthcare
- Discuss the impact of medication errors on patient safety
- Define elements of a Continuous Quality Improvement (CQI) program
- Differentiate between types of Quality Related Events
- Describe the importance of CQI in community pharmacy practice settings
- Discuss current attitudes and experiences related to error reporting
- Identify ways to implement quality improvement processes in your pharmacy
- Discuss the prevalence and risk factors for Alzheimer's Disease.
- Identify the clinical features and differentiating clinical presentations of Alzheimer's and other dementias.
- Review the management of Alzheimer's Disease and discuss the benefits of various cognitive enhancing agents.
- Explain the rationale behind financial ration analysis
- Calculate and interpret key financial ratios that are commonly used in the management of a community pharmacy
- Classify the major operating costs that pharmacies incur to provide products and services to patients
- List and explain the reasons why a pharmacy manager might want to know their cost of dispensing a prescription or providing a professional service
- Describe how a community pharmacy owner or manager can quickly and accurately calculate the precise cost of dispensing a prescription or delivering a professional service from their pharmacy.
- Discuss the epidemics of diabetes and obesity globally and the US implications of this explosion to the health care system
- Discuss the role of the pharmacist on the team for integrating care
- Explain the several roles of peer to peer programs that can/may involve the pharmacist as the lead integrator with the patient
- Discuss different aspects affecting pharmacy technician practice and how to implement them into pharmacy practice
- Describe how methamphetamine and alcohol pose a risk for HIV
- List physical, psychological and behavioral ways in which methamphetamine impacts the user
- Identify the link between alcohol and HIV progression
- Explain why brief treatments for methamphetamine use may be ineffective

## FRIDAY, APRIL 20, 2007

ACPE Program Number: 047-999-07-100-L04

7am-6pm	Registration
7-8am	Breakfast
8-10am	<b>An Update in the Management of Cardiovascular Disease (0.2 CEU)</b> <i>Rick Clarens, Pharm.D., Lecturer, NDSU College of Pharmacy, Fargo, ND</i>
10am-1pm	<b>Exhibitor Theatre/Pharmacy students' poster presentations</b>
10-10:15am	Coffee Break
10:15-11:15am	<b>Understanding Epidemiology and Public Health Issues (Including Poster Review 0.2 CEU)</b> <i>Donald Miller, Pharm.D., FASHP, Professor, NDSU College of Pharmacy, Fargo, ND</i>
12-1pm	Lunch
1pm-3pm	<b>Effective Communication Skills (0.2 CEU)</b> <i>Jon Green, Executive Director, Altru Health Foundation, Grand Forks, ND</i>
	OR
	<b>Stress Management (0.2 CEU)</b> <i>Kimberly Halbur, Ed.D., Professor, NDSU College of Pharmacy, Fargo, ND</i>
3pm-4pm	<b>Lewis and Clark Medications (0.1 CEU)</b> <i>John Askew, B.S., R.Ph., Fargo, ND</i>
	OR
	<b>Non-traditional Pharmacy Practices (0.1 CEU)</b> <i>Anthony Godfrey, Pharm.D., Director of Clinical Research, PRACS, Fargo, ND</i> <i>Gerald Finken, B.Pharm., President/Founder, CSM, Fargo, ND</i> <i>Cathy Swart, Pharm.D., Branch Manager, Coram, Moorhead, MN</i>
4-4:30pm	<b>Ice Cream Social</b> <i>Sponsored by Dakota Drug</i>
4:30-6:30pm	<b>First NPhA Business Meeting</b>
6:30-7pm	Social
7pm	Dinner/Entertainment

## SATURDAY, APRIL 21, 2007

ACPE Program Number: 047-999-07-101-L04

7am-6pm	Registration
7-8am	Breakfast
8-9am	<b>PVA "Motivating Patients with Care" (0.1 CEU)</b> <i>Rod Shafer, R.Ph./C.E.O., Washington State Pharmacy Association, Renton, WA</i>
9-11am	<b>Medication Therapy Management (0.2 CEU)</b> <i>Paul Iverson, B.Pharm., Iverson Corner Drug, Bemidji, MN</i>
11am-12pm	<b>Second NPhA Business Meeting</b>
12-1:30pm	<b>NAPT Lunch and Meeting</b> <b>NPhA Lunch and Meeting</b> <b>NDSHP Lunch and Meeting</b>
1:30-2:30pm	<b>Pharmacy Quality Commitment (0.1 CEU)</b>

*Rod Shafer, R.Ph./CEO, Washington State Pharmacy Association, Renton, WA*

OR

**Alzheimers and Related Dementias (0.1 CEU)**

*Hari Kannan, M.D., Psychiatry, Sioux Falls, SD*

**Pharmacy Financial Management (0.2 CEU)**

*Michael Rupp, Ph.D., R.Ph., Professor/Executive Director, Midwestern University, Glendale, AZ*

OR

**Epidemics & Diabetes & Obesity: Integrating the Healthcare Professional and Patient for Better Outcomes (0.1 CEU)**

*Larry Ellingson, R.Ph./Former VP, Eli Lilly, Fountain Hills, AZ*

**Innovative Pharmacy Technician Practices (0.1 CEU)**

*Howard Anderson, R.Ph., Executive Director, ND Board of Pharmacy, Bismarck, ND*

**Town Hall meeting**

**Phun Run/Walk**

OR

**NPhA Past Presidents' Social (by invitation)**

**Registration for Scholarship Auction Social**

**President's Banquet Sponsored by Dakota Drug**

**Awards Ceremony**

**NDSU College of Pharmacy Scholarship Auction**

2:30-4:30pm

2:30-3:30pm

3:30-4:30pm

4:30-5:30pm

5:30-6:30pm

6-7pm

6:30-7pm

7pm

## SUNDAY, APRIL 22, 2007

ACPE Program Number: 047-999-07-102-L04

7:30-8am	Breakfast
8-8:45am	Memorial Service
8:45-10am	Third NPhA Business Meeting
10-10:15am	Coffee Break
10:15am-12pm	<b>Sex, Drugs, and Rock &amp; Roll: Methamphetamine, Alcohol, and HIV (0.2 CEU)</b> <i>Marla Corwin, LCSW, Clinical Education Coordinator, University of Colorado Health Science Center, Denver, CO</i>
12pm	Adjourn

### Continuing Education Credit:


A statement of credit will be mailed to those participating in the program. Satisfactory completion will be assessed by completion of an attendance roster and an evaluation of learning.

### Financial Support:

Unrestricted educational grants have been provided by Genetech, Pfizer, Novartis Pharmaceuticals and the Dakota AIDS Education and Training Center.







# NDSU

## College of Pharmacy, Nursing, and Allied Sciences

*Charles Peterson, Dean*  
*NDSU College of Pharmacy*

### A Message from the Dean

## Mission, Vision, Core Values And Campus Themes Statements

### Mission

The NDSU College of Pharmacy, Nursing, and Allied Sciences advances health care through research and scholarship and prepares students to become competent, caring, ethical, professionals and citizens, committed to lifelong learning.

### Vision

We envision a College that is a leader in pharmacy, nursing, and allied sciences education with human, physical, and financial resources appropriate to fulfill its mission; a College which fosters the acquisition and discovery of new knowledge through research and scholarship; and a College that enhances the provision of patient-focused care through all its disciplines for the well being of the public.

### Core Values

#### People

Our College promotes a diverse environment where students, faculty, and staff can achieve their maximum potential; where academic freedom is protected; where collegiality is practiced; where individuals and ideas are welcomed and respected; where students and learning are paramount; where cultural diversity and competence are desired; and where industry and innovation are recognized and valued.

Serving the health care needs of the citizens of North Dakota is our primary goal through having quality people and programs that positively impact the advancement of health care knowledge and practices in the state, region, nation, and world.

#### Quality

Our College strives to be a center of excellence within the University and the state and is committed to continuous quality improvement of its curriculum, programs, and people.

### Professionalism and Ethics

Our College values and promotes professionalism and ethics in all its people, programs, and endeavors including fostering an environment where students, faculty, and staff serve as role models in the profession and community by representing the highest standards of professional and ethical behavior. Honesty, integrity, and collegiality guide all interactions with students, faculty, staff, administration, peers, and the public.

### Knowledge, Teaching, and Learning

Our College is committed to the pharmacy, nursing, and allied sciences professions and to society for creating, communicating, and applying knowledge about the latest advances in health care in its respective disciplines. It endeavors to provide an environment open to free exchange of ideas, where professionalism, innovation, scholarship, and learning can flourish.

### Research and Scholarship

Our College is committed to creating new knowledge; incorporating discovery, teaching, integration, and application as integral and complementary components of research and scholarship.

### Patient-Focused Care

Our College believes that the primary purpose of its respective disciplines is to deliver patient-focused care to improve the overall health and quality of life of patients they serve.

### Interdisciplinary Team Approach

Our College recognizes and values an interdisciplinary team approach to patient care, education, and research where each discipline works collaboratively to attain greater knowledge, expertise, and outcomes than what they are capable of accomplishing individually.

### Campus Themes

(See 2005-2010 Future Plans Addressing Campus Themes document)

## *Prescription Connection For North Dakota*

Prescription Connection for ND is a program of the North Dakota Insurance Department that connects qualified, low-income people of all ages with discount and free prescription drugs, direct from the pharmaceutical manufacturer.

There are two easy ways to access the program:

1. Visit our website – People with a computer and internet access can visit [www.rxconnectnd.org](http://www.rxconnectnd.org). On the homepage, users are able to enter the first letter of the medication they are seeking. If it is one of the 2,000 or so available medications, the user will be directed through a series of questions, which will determine eligibility. If the user is eligible for a program, during the final step of this process, a screen will appear that provides a clickable link to the program application, which can be downloaded, printed, or filled out online.
2. Call our program – Individuals who want more personalized service are encouraged to call 1-888-575-6611. Prescription Connection staff will ask a series of questions to determine eligibility. If eligible, within a week, copies of the applications for pharmaceutical assistance programs will be mailed to the caller. If the caller wants personalized assistance in filling out program forms, Prescription Connection staff is able to arrange for a volunteer to meet with the caller and assist in the completion of the program applications.

Each application has a section for the applicant to complete. After that section is completed, some verification documents may need to be attached. Each pharmaceutical company has its own required verification. The verifications may include a copy of the Medicare card and a copy of the income tax return or some other accepted verification of monthly income. The pharmaceutical application form will list which verifications are required. This information is often in small print, so applicants should read each part carefully. Once this section is completed, the form needs to be

taken to the physician's office where the prescription and some other identifying information is added to the application.

All applications are sent to a pharmaceutical company for a determination of eligibility. Eligibility is determined on a case-by-case basis, but typically, most companies screen eligibility based on income, lack of prescription insurance and medical need. If an applicant feels they have too much income, it is important to include a personal letter explaining their situation.


If the applicant is eligible, most prescriptions are mailed to the doctor and the applicant needs to pick up the prescription at the physician's office. In some cases, prescriptions are mailed directly to the patient.

If you have customers that have trouble paying for their prescriptions, please think about referring them to Prescription Connection for ND. In addition, many of the assistance programs will help even if the person has a Part D plan.

If you would like additional information or Prescription Connection brochures to display at your pharmacy, please contact Sharon St. Aubin at the ND Insurance Department at 701-328-9610 or email her at [ssstaubin@nd.gov](mailto:ssstaubin@nd.gov).







Do you have confidence  
that you are buying at the  
best prices available –  
everyday?

Confidence is gained by doing.

Pace Alliance member pharmacies have been saving on their generic purchases since 1985. They know as a member of Pace Alliance the prices they pay for generics are the best prices offered in the Marketplace. Pace Alliance members have confidence in their buying group because Pace Alliance has earned this confidence.

Enroll in Pace Alliance and join thousands of pharmacies that enjoy the confidence of buying at the best prices every time they order.

Contact Pace Alliance at 888.200.0998  
or the NDPhA.

Visit [www.pacealliance.com](http://www.pacealliance.com)  
for more information

**PACE**   
**ALLIANCE**  
*Good for your pharmacy and your profession.*



# Reaching for Excellence

PhAC Student Auction Donation Form .....	9
NDPHA Convention.....	25
Pharmacy Advancement Corporation Scholarship Auction .....	25
NDPHA Convention Schedule.....	27
NDPHA Convention Registration .....	28



1661 Capitol Way - Suite 102  
Bismarck, ND 58501-5600

*Change Service Requested*

Presorted  
Standard  
U.S. Postage Paid  
Bismarck ND  
Permit No. 419