Volume 21, No. 4, December 2008

NoDak Pharmacy

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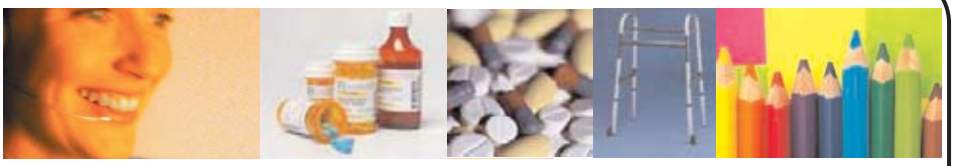

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Mark Your Calendar

January Calendar

January 20, 2009
ND Pharmacy Legislative Day &
Ice Cream Social
ND State Capitol, Bismarck ND

April Calendar

April 2-3, 2009
NASPA Spring Meeting
San Antonio, TX

April 3-5, 2008
NDPhA Annual Convention
Minot, ND

May Calendar

May 11-13, 2009
NCPA National Legislation and
Government Affairs Conference
Hyatt Regency Washington on Capitol Hill

The journal is supported by contributions from the Independent Pharmacy Cooperative (IPC) Community Pharmacy Commitment Program, Dakota Drug, Inc., McKesson Pharmaceutical and by the North Dakota State University College of Pharmacy, Nursing & Allied Sciences.

Creation of NDPhA Legislative Listserv

With the beginning of another Legislative Session, the NDPhA wants to provide members with the opportunity to stay informed. If you are interested in receiving legislative updates from the NDPhA, please take advantage of this communication tool.

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Lance Mohl, R. Ph.
NDPhA President

NDPHA Convention in Minot 2009

"Moving Forward" has been chosen as the theme for the 2009 Convention to be held in Minot April 3-5. "Moving Forward" could have been used as a motto for our profession since the beginning of time. This year the phrase seems like it will be more appropriate than ever before. With a national election year just ending and a state legislative session just beginning, we are all promised change. We are challenged to ensure that proposed change is beneficial for the healthcare of all of our patients, not a select few.

"Moving Forward" signifies that the direction of change is positive, and that is where I believe our profession is heading. Our profession has always been blessed with a number of people active in both statewide organizations and national organizations promoting our great profession. No matter how you manipulate the numbers……..dollars spent on PHARMACY SERVICES ARE THE BEST VALUE IN HEALTHCARE! Not only are we talking about the value of medications provided in the community setting for treatment of disease, and long term setting for better quality of life, but also in the health system setting for life saving measures and quick resolution of acute illnesses. We know and appreciate the value of pharmacy services here in our state, and because of the concerted efforts of groups such as NCPA, ASHP, and APHA (just to name a few, there are many more), this notion is starting to catch on nationally as well!

"Moving Forward" as leaders in our profession let's be mindful of the opportunities we have available to improve the health of our patients by spending time with each and every patient that enters our doors. This is the gift of our profession given throughout the year.

"Moving Forward" our pharmacy family of values is ever expanding, screening programs, immunization programs and disease management programs along with medication therapy management a short time ago were thought of only hypothetically, and now are common in many practices. Medication reconciliation upon admission to or discharge from a health system was once thought a duty of the admitting staff, but is now performed by the medication experts. What will this year's buzz words be? Find out at the 2009 convention!

See Page 26 For More Convention Information!

Exploring options for Business Continuation?

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About the Patient
www.aboutthepatient.net

Diabetes DSM Program Update

Promoting Your Clinical Services

The program is still going well. At the time this is written, we are hitting the lull between the second and third visits for many of our patients. We do continue to enroll new patients, so there will always be someone in need of our services. The first round of patient co-pay reimbursements has been distributed. Patients received reimbursements of formulary and generic diabetic medications, ACE inhibitors, and ARBs from the time of their first visit to the end of the calendar quarter (September). Most patients received reimbursement for only about one month's supply of medications. The average reimbursement received per patient was $30.

At Frontier Pharmacy Services, we have received questions from multiple pharmacists about what they can do to engage more patients and increase interest in the program. For that reason, we are working on developing a marketing tool-kit with the NDPhA Community Pharmacists Academy that can be utilized by your locations to promote this service as well as other clinical services you may offer at your practice. Materials will be sent to your pharmacies for use. They will also be available on the About the Patient website in the provider only section. In addition to the marketing tool-kit, I would like to highlight a few simple methods that you can use to promote these services.

Talk to your patients – as simple as this sounds, we can often forget to put one and one together when talking to our patients. If you have diabetic patients asking lots of questions or having problems controlling their diabetes, inform them of your clinical services. Don't be afraid to promote your services, especially when you are acting in the best interest of your patient. Encourage them to talk to their employer about covering MTM/DSM services. Make sure your support staff is aware of this as well and are informed of your services so they can promote this as well when they are talking to your patients.

Add clinical services to your current advertising – most pharmacies have some sort of advertising in place, be it yellow pages, newspaper, internet, radio, etc. Add a bullet point about "Diabetes Education" or "Medication Therapy Management" in addition to the other services you highlight.

Talk to prescribers – Inform your area prescribers of your services. They may not know you offer them. You may find that they might be willing to send you some referrals.

Go outside of your physical location – attend a health fair and do blood glucose screenings, visit senior centers, offer to be a speaker at a local community function. Any of these things can help to promote your services and inform others that North Dakota pharmacists do much more than just dispense medications.

Embrace change – No matter what we do and what employer groups we promote our services to, this program will NOT be successful unless our provider network is receptive and supportive of these efforts to incorporate more clinical practice experience into your current practice. Get yourself and your staff informed and excited about these services. It's amazing what we can do when we all work together.

Remember, it's About the Patient – whatever you do to promote your services should focus on improving the health of your patient. If we can accomplish that goal, that sets the table for us to expand our services.

Action Plan for Implementation of the JCPP Future Vision of Pharmacy Practice - PROJECT SUMMARY

Background

The concept of "optimal medication therapy" implies that the use of medicines occurs within a system that assures the highest likelihood of achieving desired clinical, humanistic and economic outcomes. However, significant gaps exist between the goal of optimal drug therapy and the current state of medication use in the United States. This public health crisis calls for significant changes in our medication use system and in how key healthcare resources are deployed. One such resource is the nation's pharmacists.

Pharmacy organizations, pharmacy education, and many individual pharmacists have responded by redefining pharmacy's professional mission and how pharmacists' services benefit patients and society. Evolutionary change will not suffice if pharmacy as a whole is to provide much needed leadership in meeting society's need for an optimal medication use system. A broadly supported, strategically driven plan must be implemented to address the most critical barriers that currently prevent patients and the healthcare system from realizing the maximum benefit from pharmacists' unique knowledge, skills, and professional capabilities.

An important first step was the articulation of a Future Vision of Pharmacy Practice by the Joint Commission of Pharmacy Practitioners (JCPP):

Pharmacists will be the health care professionals responsible for providing patient care that ensures optimal medication therapy outcomes.

The JCPP vision statement further describes pharmacy practice and how pharmacy will benefit patients and society in 2015. To facilitate achieving this vision, JCPP undertook the effort to develop a strategically driven implementation plan. Three **Critical Areas** deemed most important at this time to success in achieving the vision were identified:

Practice Model: Articulate a practice model for the profession that is consistent with the Future Vision of Pharmacy Practice.

Payment Policy: Align payment systems with the pharmacy practice model envisioned by the Joint Commission of Pharmacy Practitioners. Transition from a payment system based mainly on product-based reimbursement to one that includes appropriate payment for professional services and management of the medication use system.

Communications: Help transform pharmacy by building widespread stakeholder understanding of, support for, and commitment to the practice roles and responsibilities of pharmacists and the new economic foundation for the profession as articulated by the JCPP Future Vision of Pharmacy Practice.

Articulation of a desired pharmacy practice model describes not only those patient care services provided by pharmacists, but must assure that such services are widely and consistently available in all patient care settings. The practice model must be financially viable and economically feasible. Payment policy reform is critical. Patients, private and government payers, and the other health professions must understand and demand the medication therapy management and other patient care services of pharmacists.

The Action Plan

This Action Plan is designed to focus effort on those issues felt most critical for success. It is possible that one or more of the action steps recommended may not align fully with current policy of one or more of the organizations that participated in the development of this Action Plan. If so, it's inclusion should not be taken to mean that that organization has officially endorsed the recommended policy. The plan developers have outlined suggested courses of action likely to achieve their respective Critical Success Factors, and thereby facilitate achieving the JCPP Future Vision of Pharmacy Practice. It is expected that further discussions to resolve these possible areas of nonalignment will take place as part of efforts to implement the recommended strategies.

Critical Area I: Practice Model—Three broad areas comprise the proposed practice model:

- medication therapy management that achieves optimal patient outcomes;
- appropriate, safe, accurate, and efficient access to and use of medications; and
- services that promote wellness, health improvement, and disease prevention.

Although some practices or individual pharmacists may opt to emphasize one or two of these areas over the other(s) based on location or patient population served, the model as articulated is independent of practice site or patient care setting. These practice responsibilities are equally applicable to the hospital, community pharmacy, nursing home, clinic, physician's office, or wherever else a pharmacist may choose to practice. The model describes the set of services that patients can expect to receive from the pharmacists and other personnel that comprise the practice when they have a pharmacy encounter.

Recognizing that this practice occurs in a "structured system across a continuum of care" conveys that pharmacy is not only integrated into the broader healthcare system, but that pharmacy itself represents a system of care with defined links and relationships between practitioners in different practice settings. One of pharmacy's responsibilities is to assure the continuity of medication therapy as patients move among these settings.

Reference is made throughout this document to pharmacists' "medication therapy management services." As used here, the term is not meant to be limited to Medication Therapy Management Services as defined by Medicare Part D. Instead, "medication therapy management" refers to those patient care services provided by pharmacists in all practice settings that optimize the therapeutic outcomes of patients of all ages.

Dissemination of the JCPP-envisioned practice model will occur best through a combination of practitioners' desire

to reengineer their practices (voluntary uptake), societal demand, regulatory pull through, and peer pressure (business competition). Certainly, example practices exist today that embody the JCPP vision. The goal is to move from the current state where these practices may be considered "centers of excellence" to one where the JCPP vision is considered the standard of practice. This Critical Area is focused on widely promulgating a new vision of pharmacy practice. It is focused on developing pharmacy's capacity to provide the described services. Nine Key Elements that characterize viable business models for the delivery of medication therapy management and other patient care services by pharmacists in any practice setting were identified.

Critical Area II: Payment Policy—Current payment policy for pharmacy services is driven by product-based reimbursement (i.e., payment for the drug product and the act of dispensing it). Current payment policy generally is not aligned with all three elements of the proposed practice model. As only one example of this misalignment, a pharmacist's activities to simplify a patient's complex drug therapy regimen may actually decrease his/her revenue if it results in the patient taking fewer medications, even though the patient and payer would benefit.

The Plan focuses on activities to "transition from a payment system based mainly on product-based reimbursement to one that includes appropriate payment for professional services and management of the medication use system." Although there is a need to address the payment system for provision of drug product, that important task is not addressed within the proposed Action Plans.

As noted earlier, some practices or individual pharmacists may opt to emphasize one or two elements of the practice model over the other(s) based on location or patient population served. For example, a pharmacist practicing in an ambulatory clinic or physician office may focus on enhancing patients' wellness and medication therapy outcomes and may not be directly involved in dispensing-related activities. Payment policy for pharmacy services must be able to make this economically viable.

As payers increasingly adopt the concepts of value-based purchasing, these pay-for-performance systems must identify and be based on "pharmacist-sensitive" outcomes (i.e., patient outcomes that pharmacists are able to impact). The recommended Action Plans focus on private and government payers respectively. It is understood that those who pay for healthcare usually will pay only for what the patient (consumer) values and demands. Efforts identified within the Plan to solidify and organize consumer demand for pharmacists' medication therapy management and other patient care services is the necessary third element of a comprehensive effort to implement the JCPP Future Vision of Pharmacy Practice.

Demand for quality patient care services provided by pharmacists, and for the management of safe and efficient medication distribution systems, aligns the financial incentives of patients, payers, and providers and sustains the JCPP-envisioned pharmacy practice model.

Critical Area III: Communications—The Plan recommends activities to create demand for pharmacists' medication therapy management and other patient care services among a variety of stakeholders, including:

- patients, families, and lay caregivers;
- physicians and other health professionals;
- payers and policy makers;
- corporate employers of pharmacists; and
- individual pharmacists themselves.

The Plan identifies a single over arching statement of strategic intent: **Create demand among patients, caregivers, and other health professionals for pharmacists' medication therapy management and other patient care services.**

The recommended Action Plans are built around a five-step communications process of building:

Example Patient Knowledge, Attitudes, Behaviors

1. Awareness: I am aware that pharmacists can help with management of my medication therapy. I have heard of this health benefit called "medication therapy management" and know where to get it. I know that health screenings or immunization services are available at my pharmacy.
2. Understanding: I understand why it's important that a pharmacist help manage my medication therapy. I understand how pharmacists contribute to my overall health by providing services like health education, disease screening, and immunizations.
3. Support: I have experienced personal benefit from the medication therapy management and other patient care services provided by pharmacists. These benefits are of value to me.
4. Commitment: I value these services to such an extent that I consider them essential.
5. Action: Because of their importance and value to me, I expect and demand that pharmacists' medication therapy management and other patient care services are available to me and are provided consistently in all healthcare settings; and that these services are covered by my health insurance benefits.

The recommended Action Plans outline a series of steps to implement strategic communications plans to create demand for pharmacists' medication therapy management and other patient care services. It must be stressed, however, that creating such demand must begin at the level of the individual pharmacist and pharmacy. It must be part of every patient-pharmacist or physician-pharmacist encounter. A person cannot be expected to truly value and demand something that s/he has never experienced. These communications plans will be of little use if the pharmacist services for which they are designed to create demand are not routinely and consistently available across the continuum of patient care.

Patients and other stakeholders understand, use, and consider essential the medication therapy management and other patient care services of pharmacists.

The following describe what selected aspects of pharmacy practice and healthcare will look like when this desired

Continued on page 20

Continuing Education for Pharmacists

Volume XXVI, No. 8

ADHD and Its Treatment in Children and Adolescents

Thomas A. Gossel, R.Ph., Ph.D., Professor Emeritus, Ohio Northern University, Ada, Ohio and
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Goal. The goal of this lesson is to explain attention-deficit/hyperactivity disorder (ADHD) in children and adolescents with focus on its pathogenesis, clinical characteristics and confirmation, and its treatment.

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

1. recognize historical events and epidemiologic information relevant to ADHD;
2. identify symptomatology that characterizes ADHD and the principles that govern its clinical confirmation and management; and
3. select from a list specific nonpharmacologic and pharmacologic measures that are reported to modify signs and symptoms of ADHD.

Attention-deficit/hyperactivity disorder (ADHD) affects approximately 4 to 12 percent of children and adolescents, and persists throughout adulthood. It is the most commonly diagnosed psychiatric condition of childhood and adolescence. ADHD persists into adulthood in up to 60 percent of diagnosed cases, with 4 to 5 percent of adults worldwide affected. It is, thus, a major public health problem because of associated morbidity and disability across the lifespan of affected persons.

Annual medical costs of affected individuals are 50 to 75 percent higher than expenses for non-affected persons. Overall costs of illness are estimated to be upwards of $40 billion annually in the United States alone.

Gossel

Wuest

Background

Although ADHD was first described in 1845, it was not until 1902 that a description was published.

ADHD can lead to serious long-term effects including impairment of major life activities and premature morbidity. Persons with ADHD may exhibit underachievement and disruptive behavior in school, as well as antisocial and criminal behavior. They typically have unsafe driving habits, and are twice as likely to use tobacco.

Males are reportedly affected more often than females (2:1 to 3:1 ratio). These numbers can be deceptive because females with ADHD may be diagnosed less frequently since many of them have the inattentive (i.e., less disruptive) form. Many girls are not diagnosed until middle school or later.

Pathogenesis

Although the precise cause of ADHD is unknown, a deficiency in central stores of the neurotransmitters dopamine and norepinephrine has been implicated. These deficits are associated with both genetics and environmental influences. Recent imaging studies have failed to find evidence of gross brain damage in children with ADHD.

In the 1970s, it was hypothesized that the core problem in hyperkinetic children was one of inattention. This led in 1980 to adoption of the new diagnostic label *attention-deficit disorder*.

Since the symptoms of ADHD respond well to treatment with central stimulants, and because these drugs enhance the availability of dopamine, the *dopamine hypothesis* has captured the attention of many researchers. The dopamine hypothesis proposes that ADHD is caused by an inadequate supply of dopamine in the CNS. Dopamine plays a major role in initiating purposeful movement and increasing motivation and alertness, behaviors that are often noted when a child with ADHD responds positively to stimulant therapy. The dopamine hypothesis has thus influenced much of the recent research into the cause(s) of ADHD.

Genetic Influence. The fact that ADHD runs in families lends strong support to the theory that heredity is an important risk factor. Ten to 35 percent of children with ADHD have a first-degree rel-

ative with a past or present history of ADHD. Approximately one-half of parents with ADHD have a child with the disorder. Studies suggest that ADHD is among the most familial (affecting other members of the family) of psychiatric disorders.

Research to identify specific abnormal genes has concentrated on two: a dopamine-receptor gene on chromosome 11 and the dopamine-transporter gene on chromosome 5. Evidence is mounting that children with ADHD have genetic variations in one of the dopamine-receptor genes. Several studies have found evidence for abnormalities of the dopamine-transporter gene in children with very severe forms of ADHD.

While the high heritability of ADHD suggests that it is a "genetic" disorder, it is inaccurate to assert that any single gene is at fault. Rather, some gene variants boost an individual's susceptibility to environmental triggers.

Even though many imaging studies have failed to identify evidence of gross brain damage in ADHD, some have noted that exposure to toxins such as lead, or episodes of fetal oxygen deprivation, may adversely affect dopamine-rich areas of the brain. These findings support the many observations that hyperactivity and inattention of ADHD are more common in children whose mothers smoked or used alcohol during pregnancy (especially during the first trimester), in children with impaired oxygenation leading to fetal distress and low birth weight, in children who have been exposed to high quantities of lead or carbon monoxide, and in children with infections of the CNS and those with serious head injury. Recently published data have shown that children born to nonsmoking mothers who were exposed to chronic secondhand smoke during pregnancy face serious problems of ADHD and conduct disorder.

Some studies have reported that parents of hyperactive children are often overintrusive and overcontrolling, which suggests that parental behavior is another possible risk factor for ADHD.

To date, no single mechanism has been identified as the definitive cause of ADHD. It is believed that its development most likely results from combined action of multiple genetic and environmental risk factors.

Clinical Confirmation

There is no laboratory or imaging test, or battery of psychological tests, that reliably confirm the presence of ADHD. Rather, confirmation is based mainly on the patient's behavior history (Table 1) and elimination of other sources for the troublesome behaviors.

ADHD diagnosis is subject to a variety of influences, particularly because it is often first suggested by school teachers (52 percent) and parents (30 percent) rather than health professionals. A diagnosis is first suggested by a primary care physician, child psychiatrist or psychologist in only 14 percent of cases. Regardless of who first suggests that a child may have ADHD, physicians and mental health professionals typically depend on suggestions by parents, teachers and other school personnel in confirming a diagnosis. The DSM IV criteria for ADHD are summarized in Table 2. Most clinicians report they are hesitant to confirm a diagnosis prior to six years of age because of the wide variability in levels of activity that overlap with symptoms of ADHD, and therefore are considered normal in early childhood.

Treatment

Goals of therapy include controlling symptoms, improving classroom attention and learning ability, enhancing interpersonal relationships and enriching transition to adult life. Pharmacotherapy has been the mainstay of treatment for decades, with hundreds of well-controlled clinical trials documenting its usefulness in children, adolescents and adults. The most widely available option for treatment of ADHD, an option supported by a vast literature, are the central stimulants.

Pharmacotherapy

Stimulants. First shown to be beneficial for treatment of abnormal behavior more than seven decades ago, central stimulants have become the first-line treatment option for ADHD with benefit attained in 75 to 90 percent of recipients. Their precise mechanism of action in ADHD is not fully understood, although they are believed to increase release of dopamine and/or norepinephrine from presynaptic neurons or inhibit their reuptake. These actions result in increased adrenergic activity. The stimulant drugs exert these actions to various degrees, thus working by slightly different mechanisms of action. Therefore, failure of therapy with one agent does not translate to a class failure and alternate agents within this class often may be administered to the patient's benefit.

The drugs are rapidly absorbed and typically result in an onset of action within 30 minutes. Their action extends over three to six hours. Administration is timed to meet the individual's school or work schedule, to enhance the person's ability to pay attention and meet his or her academic or work demands, and to mitigate side effects. Their greatest effects are on symptoms of hyperactivity, impulsivity, and inattention and the associated features of defiance, aggression, and oppositionality. They also improve classroom performance and behavior and promote increased interaction with teachers, parents and peers.

Stimulant drugs include mixed amphetamine salts (Adderall, etc.), dextroamphetamine (Dexedrine, etc.), methylphenidate (Ritalin, etc.) and dexmethylphenidate (Focalin). Lisdexamfetamine (Vyvanse) is a prodrug of dextroamphetamine with a longer duration of action. The American Academy of Pediatrics (AAP), working through its Committee on Quality Improvement – Subcommittee on Attention-Deficit/Hyperactivity Disorder, published its Clinical Practice

Guidelines for treatment of school-aged children with ADHD in 2001. AAP determined that there were no clear differences among dextroamphetamine, lisdexamfetamine and methylphenidate. Newer products were not available at the time of guideline development. Subsequent reports suggest that the use of methylphenidate and mixed amphetamine salts are first-line therapy because of ample evidence of their safety and efficacy.

Clinical trials consistently document that stimulants reduce the core symptoms of ADHD. Recent trials tend to focus on use of the newer agents to assist with dosing convenience and overall ease of patient care. Advances in dosage formulations such as long-acting agents aid treatment adherence, decrease embarrassment for children in school who must take multiple daily doses, lessen burdens for school staff to administer these doses and decrease the potential for drug diversion and abuse. Long-acting formulations extend the action of these drugs over eight to 12 hours to allow once-daily dosing.

Advances in methylphenidate formulations include chewable tablets, oral solution and a patch formulation. The patch (Daytrana) has demonstrated statistically significant reductions in ADHD symptoms for children ages six through 12 years. The patch is worn for nine hours daily. In clinical trials, application site reactions, insomnia, anorexia and nervousness were the adverse effects most commonly reported leading to discontinuation of therapy.

Adverse effects associated with stimulants used in ADHD include appetite suppression with initial weight loss, insomnia, headache, jitteriness and stomach pain. If insomnia is a problem, giving the stimulant earlier in the day, discontinuing the afternoon or evening dosage, or giving an adjunct medication such as a low-dosage antidepressant may help. Other concerns include tic development, growth delay and potential for substance abuse. Mild adverse effects may be partially controlled by reducing the dose or altering the timing of administration. Most adverse effects are mild, recede over time and respond to dose changes. Appetite may fluctuate, usually being low during the middle of the day and more normal by suppertime. Parents may choose to have their child take a "drug holiday" on weekends and vacations to reduce overall exposure, but the utility of this strategy has not been demonstrated. Concerns remain about inhibition of long-term growth; however, most studies conclude that such effects are minimal and of small clinical importance. As with all medication use, risks versus benefits must be weighed.

Recent concerns have highlighted the possibility of cardiovascular events with stimulants. In April 2008, the American Heart Association (AHA) released a statement calling for a thorough examination including family history and an electrocardiogram, and routine cardiac monitoring for children and adolescents prescribed stimulant medication for ADHD. The call for closer cardiac monitoring was given to identify the very small number of children and adolescents who may have an undiagnosed cardiac problem.

Non-stimulants. Atomoxetine (Strattera) is the newest non-stimulant treatment option for ADHD. It is a selective norepinephrine reuptake inhibitor in presynaptic neurons with less action to reduce dopamine reuptake in the prefrontal lobes. The drug has a slower onset of action than stimulants; thus, effects may not be seen until the end of the first week of treatment. Atomoxetine seems to have a longer duration of action after once-a-day dosing with suggestions of symptom relief during the evening and early-morning hours.

A meta-analysis evaluated atomoxetine for safety and tolerability. Following 601 subjects for up to two years of study, only 5.2 percent discontinued medication use because of adverse effects.

Table 1
Presentation of ADHD

Reported by child or adolescent
- Does not like school or particular subjects or teachers
- No close or long-term friends
- Conflict with parents
- Low self-esteem
- Always getting in trouble

Reported by parents
- Aggression and problems with anger
- Difficulty completing tasks
- Disorganized, messy
- Does not follow directions
- Impulsive
- Difficulties with school
- "Always on the go"
- Does not make or keep friends
- Socially or emotionally immature
- Engages in dangerous activities
- "Spaced out" or absentminded
- Loses possessions

Reported by teachers
- Hyperactive
- Inattentive, easily distracted
- Interferes with others, disrupts class
- Underachiever, school failure
- Does not listen
- Fidgets, will not stay in seat
- Blurts out answers, does not consider others
- Frequent behavior problems

Adapted in part from Culpepper L. J Clin Psychiatry. 2006;67[suppl 8]:32-37.

There were no discontinuations due to tics, seizures, hepatic toxicity or growth concerns. The most common treatment-emergent adverse effects occurring at 10 percent incidence included cough, decreased appetite, dizziness, fatigue, irritability, upper respiratory tract infection and vomiting. Most effects occurred within three months and tapered off thereafter. Weight and height increased as expected, even though there was an initial weight decrease over the first three months of treatment. Statistically significant changes were noted in pulse rate and both diastolic and systolic blood pressures, but these were consistent with age-expected increases.

Table 2
Summary of DSM-IV* diagnostic criteria for ADHD

Criterion	Description
A	Patients must exhibit 6 to 9 symptoms of inattention or 6 to 9 symptoms of hyperactivity-impulsivity that have persisted for at least 6 months.
B	Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.
C	Some impairment from the symptoms is present in 2 or more settings (e.g., at school [or work] and at home).
D	There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.
E	The symptoms do not occur exclusively during the course of a pervasive developmental disorder, schizophrenia, or other psychotic disorder and are not better accounted for by another mental disorder (e.g., mood disorder, anxiety disorder, dissociative disorder, or a personality disorder).

**Diagnostic and Statistical Manual of Mental Disorders, 4th ed. Washington DC, American Psychiatric Association, 1994.*
Adapted in part from Findling RL, Arnold LE, Greenhill LL, et al. J Clin Psychiatry. 2007;68:1963-1970.

Atomoxetine labeling contains a warning about the potential for severe liver injury in rare cases. It should be discontinued when there is evidence of jaundice or hepatic injury. The drug also has a black box warning concerning the potential for increased risk of suicidal ideation in children and adolescents being treated for ADHD. Patients starting atomoxetine should be monitored closely for changes in behavior. Compared with stimulants, atomoxetine has relatively low potential for abuse. Recommendations are as a second-line option following unsuccessful trials with stimulant therapy.

Tricyclic antidepressants, once commonly used, have lost favor over the years because of their adverse effect profile; several deaths in the early 1990s were associated with desipramine use. Tricyclics are typically recommended following a poor response with one or more stimulants or atomoxetine. Baseline and periodic electrocardiogram monitoring are needed to assess safety of therapy.

Bupropion (Wellbutrin, etc.) has shown modest efficacy in ADHD. Its use may be considered as an option for adjunct therapy in persons who also smoke tobacco or possess underlying depression or bipolar disorder, or those with a history of substance abuse. Because bupropion may induce seizures, the drug should not be used in persons with a seizure history.

Non-pharmacologic Therapies

Behavioral Intervention. Behavioral intervention in combination with medication use is the optimal approach to treatment of ADHD. The MTA Study has shown that patients with combined medication and behavioral intervention improved in the core areas of ADHD; moreover, family members consistently benefited from this approach. The combined approach to treatment also resulted in less challenging behaviors and permitted reduced doses of medication to be used.

Dietary Intervention. Some medical researchers and clinicians have proposed that dietary intervention has potential benefit in treatment of ADHD. Parents may therefore choose to supplement or, in some cases, replace medication with dietary intervention. One commonly promoted intervention is the Feingold diet, in which dietary salicylates, artificial colors, flavors and preservatives are removed from the diet. Other proposed dietary interventions include removing all sugars, adding high-dose vitamin/mineral supplementation, and supplying essential fatty acids to help alleviate ADHD symptoms. At this point, none of these approaches have been supported by well-designed clinical trials.

Summary and Conclusions

ADHD is a chronic condition with unknown etiology and potentially harmful sequelae if not treated. Central stimulants remain the most widely used therapy. Innovative dosage forms and longer acting agents assist with ease of dosing and improvement of drug adherence, and as a means to discourage abuse and diversion. Stimulant use is not without safety concerns, including the recent call from the AHA to monitor patients for cardiovascular events. Non-stimulant therapies, including atomoxetine and antidepressants, may be of benefit in persons who do not respond adequately to stimulant therapy.

The content of this lesson was developed by the Ohio Pharmacists Foundation, UPN: 129-000-08-008-H01-P. Participants should not seek credit for duplicate content.

Continuing Education Quiz

ADHD and Its Treatment in Children and Adolescents

1. While the precise cause of ADHD is unknown, a deficiency in central stores of which of the following sets of neurotransmitters has been implicated?
   a. Norepinephrine and serotonin
   b. Acetylcholine and serotonin
   c. Dopamine and norepinephrine
   d. Acetylcholine and dopamine
2. Which of the following plays a major role in initiating purposeful movement and increasing motivation and alertness when a child with ADHD responds positively to stimulant therapy?
   a. Acetylcholine c. Norepinephrine
   b. Dopamine d. Serotonin
3. There have been findings that support the many observations that hyperactivity and inattention of ADHD are more common in children in all of the following instances except those:
   a. whose mothers have diabetes or hypertension.
   b. with impaired oxygenation leading to fetal distress.
   c. whose mothers smoked during pregnancy.
   d. with infections of the CNS.
4. Confirmation of the presence of ADHD is based mainly on:
   a. laboratory tests. c. psychological tests.
   b. imaging tests. d. patient behavior history.
5. Which of the following is a prodrug of dextroamphetamine?
   a. Focalin c. Strattera
   b. Ritalin d. Vyvanse
6. Advances in long-acting oral dosage forms of drugs used to treat ADHD have shown all of the following benefits EXCEPT:
   a. significantly increased effectiveness.
   b. fewer burdens on school staff.
   c. decreased embarrassment for children in school.
   d. aiding treatment adherence.
7. Which of the following is a non-stimulant treatment option for ADHD?
   a. Focalin c. Strattera
   b. Ritalin d. Vyvanse
8. All of the following are common treatment-emergent adverse effects that occur in patients receiving the drug referred to in question # 7 with the exception of:
   a. fatigue. c. irritability.
   b. seizures. d. dizziness.
9. The drug referred to in question # 7 has a black box warning for increased potential risk of:
   a. bulimia. c. jaundice.
   b. growth concerns. d. suicidal ideation.
10. Which of the following is the optimal approach in combination with medication for the treatment of ADHD?
    a. Behavioral intervention
    b. Dietary intervention

ADHD and Its Treatment in Children and Adolescents

December 2008 ACPE **#047-999-08-008-H01-P**

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
Pharmacy Practice
NDSU Dept 2660
PO Box 6050
Fargo ND 58108-6050

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: 8-15-11

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 d
4. a b	9. a b c d
5. a b	10. a b

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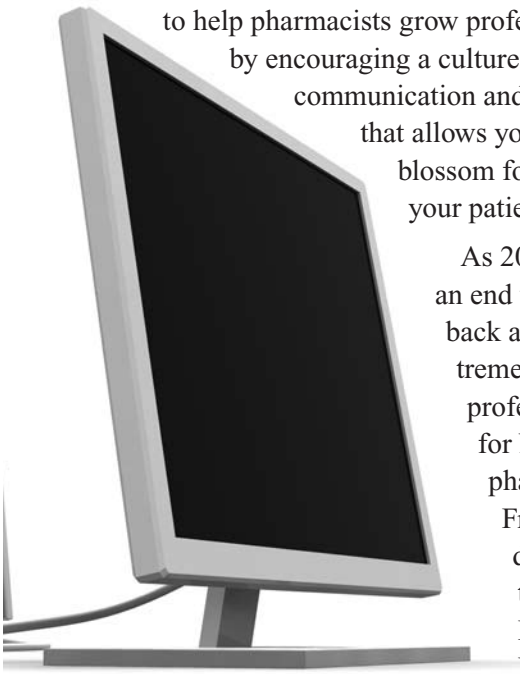
NDPhA Community Pharmacy Academy



The Community Pharmacy Academy wants to help pharmacists grow professionally by encouraging a culture of communication and cooperation that allows your practice blossom for the benefit of your patients.

As 2008 draws to an end we can look back at another tremendous year of professional growth for North Dakota pharmacists. From the development of the Diabetes Disease State Management program, the emergence of pharmacy based immunization services, to the continued growth of other Medication Therapy Management initiatives, what was once considered the future of the pharmacy profession is quickly becoming the "now" of our profession. Now is a good time to review your policies, procedures, attitudes, and operations to ensure that your organization is promoting and fostering this area of your practice.

So what can you do to promote these areas of practice and what can the Community Pharmacy Academy do to help you? Help us help you! Many pharmacies have made MTM mandatory. Setting a policy that you will complete 100% of assigned cases will get you active in this area of practice and help you provide better patient care. I know as well as anyone that getting these MTM and DSM cases done, and doing all of your immunizations (and related paperwork), and doing your regular day-to-day work is difficult. So at our pharmacy we've put the mandatory policy in place and, in a way, it makes it easier to accomplish our goals because we have no choice, we have to complete our work in this area. What are you doing in your practice to improve delivery of these services? In what ways can the Community Pharmacy Academy facilitate your work? We would love to have you register for the CPA email listserv so you can share your ideas, needs, and questions with the Academy . The directions for signing up for the listserv are again included at the end of this article. The Academy is trying to provide information and services through the listserv to help you improve your services. In October we sent out an immunization information package via the email listserv. Hopefully this was of assistance for those of you who are trying to start or expand your immunization practice. Please communicate with the Academy so we can further assist you with your professional goals.

Some other issues to consider this time of year:

Remember that the IRS has new regulations starting January 1st, 2009 pertaining to pharmacies acceptance of Flex benefits debit cards. The new IIAS regulations state that a pharmacy must have an Inventory Information Approval System in place in order to accept these types of debit cards. The only alternative is to certify that 90% of your pharmacy's sales are qualified medical expenses. The NDPhA has provided information on this issue.

If you are planning on going through the Medicare Part B accreditation the deadline for applying is January 31st, 2009. If you are not planning on doing this I would ask that you sit down and take a close look at the repercussions for patient access to DME and in particular diabetic supplies. We all know that going forward demand for these items is going to increase. Being able to provide these products and services is going to be a vital component of the care we as pharmacists provide to our patients. There are organizations out there to assist with the accreditation process.

Lastly, I would like you to keep in mind that the North Dakota Legislature is convening this winter and there is sure to be pharmacy related issues up for debate. I would ask that you consider contributing to the lobbying efforts of the profession by either providing testimony in person when needed or by talking with your legislators and patients on pharmacy and health care issues. Our goal is to promote the profession of pharmacy and in doing so we are promoting the health of our patients and improving the delivery of health care in our great state.

So please sign up with the Community Pharmacy Academy today so we can all continue to work together for the greater good.

Michael Schwab
NDPhA Executive Vice President

Dear Members,

As 2008 comes to a close, you have much to celebrate as a profession in ND. From the successes of the Disease State Management Program, to the expansion of Telepharmacy Project to include services to critical access hospitals, to forming new partnerships, to having to comply with a never ending list of new rules and regulations, you have taken it in stride and have persevered once again! Thanks to all of you for making it happen and keeping the big picture in mind, the patient. We would also like to thank the NDSU College of Pharmacy and the ND Board of Pharmacy for their dedication and commitment to the profession. We couldn't have done it without all of you!

We anticipate a very busy 2009 legislative session filled with many unknowns. We would like to provide you, the reader, with some insight regarding what to expect during the 2009 legislative session.

We would like to mention some of the issues NDPhA Governmental Affairs Committee will be addressing this legislative session. First, NDPhA will be supporting the introduction of a bill called "Justin's Law," which is named after a gentleman from MN, who died from purchasing pharmacy products over the Internet. We will be looking to put some teeth into current law so individuals can be prosecuted to the fullest extent possible. This will be a collaborative effort with the ND Medical Association, ND Nurses Association, ND Board of Pharmacy, GSK and others, with the ND Attorney General taking the lead. We will also be looking to implementing a public educational campaign regarding this issue.

As many of you already know, there will be a bill introduced to due away with our Association's mandatory/integrated membership. NDPhA's Governmental Affairs Committee and the NDPhA Board of Directors have decided to support such a bill draft. Our Association will not oppose any bill doing away with our mandatory membership. As an Association, we will be going back to the way things were done prior to 1989, when mandatory membership took place. We encourage everyone to become and remain part of the ND Pharmacists Association regardless of how one particular issue (pharmacy ownership) works out this legislative session.

Now onto the big issue…North Dakota's pharmacy ownership law! There is a 99.9% chance of seeing a bill(s) introduced this legislative session that will seek the repeal of the current ND pharmacy ownership law. We anticipate one bill will seek the complete repeal of the law and also anticipate another bill that will be asking for an exemption to the law that would allow hospitals to open pharmacies beyond their current community pharmacy walls within their hospital.

Because of our mandatory membership and various view points within our Association, there are certain aspects of "lobbying" and certain aspects of "education" that will be adhered to during the legislative session. As an Association, regardless of mandatory membership or not, we have the ability and responsibility to provide factual educational information and materials for policymakers to consider in their decision-making processes. The issue of pharmacy ownership is way bigger than just "access to $4 prescriptions." All the facts need to be considered regarding this important issue. We need to help and trust our legislators will make an informed decision based on factual information, keeping the big picture in mind at all times!

Our Association will be creating a Legislative Action Alert list serve. Please sign-up for the Legislative Action Alert so you can stay informed during the legislative session. We plan to send out weekly updates while the legislature is in session.

Remember…TALK TO YOUR LEGISLATORS! TAKE ACTION AND MAKE YOUR VOICE HEARD!

We wish all of you a very blessed and happy Holiday Season!

Beyond medication therapy management

Associations plan to shape pharmacy's future with Project Destiny

APhA, the National Association of Chain Drug Stores, and the National Community Pharmacists Association have a bold vision for pharmacy's future. They see community pharmacists taking on the role of primary care pharmacist—a trusted resource valued by patients, prescribers, and payers and community pharmacies becoming clinical centers for patients. To fulfill this vision, the three associations have teamed up to create Project Destiny, with the goal of "developing a replicable, scalable, measurable, and economically viable future model for community pharmacy," as stated in the project's executive summary.

Commenting on the project, John A. Gans, PharmD, APhA Executive Vice President and CEO, said, "Phase 1 of Project Destiny has identified a journey map for community pharmacy focused on the health care business and value of pharmacists' services. The project has demonstrated a willingness among stakeholders to collaborate for the benefit of the patient using the patient-care services of the pharmacist." Community pharmacy can "ensure that its health care services beyond dispensing medication are embraced broadly if it acts decisively and cooperatively with health care industry stakeholders," according to a news release issued by the three member organizations.

Research findings

In phase 1 of the project, the team of associations hired BearingPoint, a well-known global management and technology consulting company, to conduct research and interviews with patient and provider groups, as well as private and public payers. BearingPoint led an in-depth analysis of the interview results and developed potential next steps for the profession.

Phase 1 results showed that a significant unmet consumer need to manage medication therapy exists; medication-related morbidity and mortality has been estimated to cost approximately $177 billion annually.[1] BearingPoint also found that pharmacists are well positioned to take advantage of the market opportunity to fill that need, industry stakeholders are willing to assist pharmacy in developing services to meet consumers' needs, and community pharmacy must transform itself to reach its full potential in its primary care role. The research findings indicate that now is the time for pharmacists to take on this primary care role and work collaboratively with health care delivery and financing systems. Primary care pharmacists will focus on managing medications, improving health outcomes, reducing health care–related costs, and helping patients manage their own health. According to the executive summary, "now is the time for community pharmacy to make the transition from a transaction-based, commoditized dispensing model to a relationship-based, consumer-centric model."

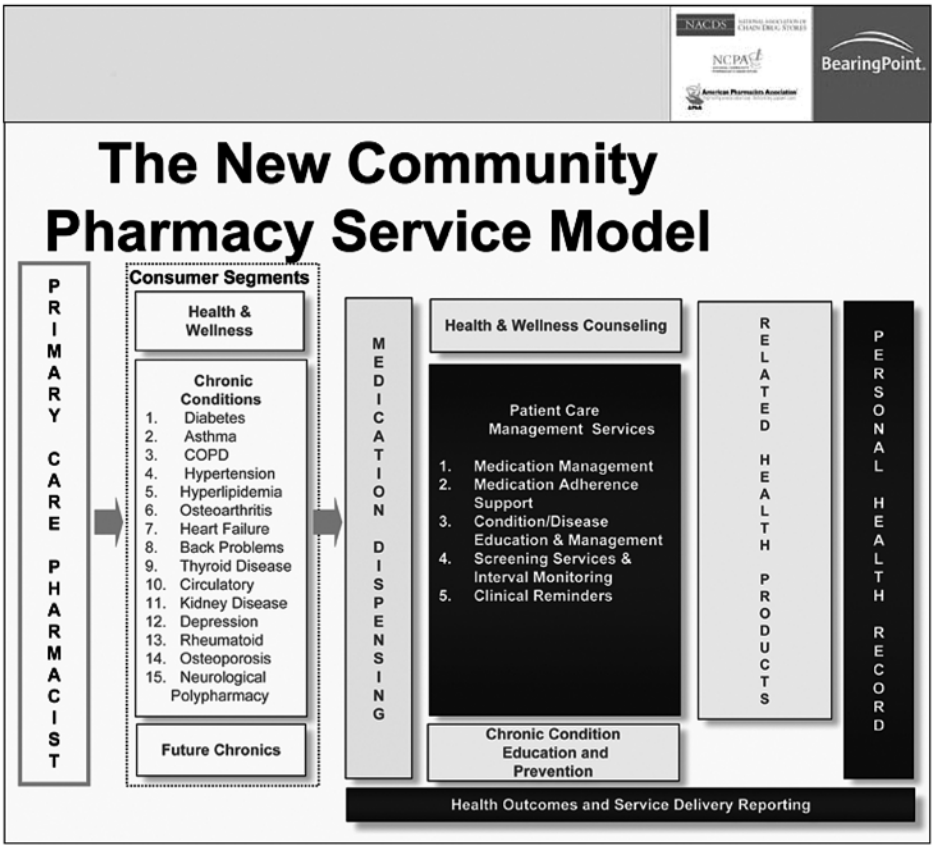


Figure 1. Project Destiny service model

Patient Care Management Services

The key to transforming pharmacists' role is a concept called Patient Care Management Ser-

vices. In addition to dispensing, the primary care pharmacist would manage medication and provide adherence support, health and wellness counseling, education management of chronic conditions, screening services and interval monitoring, clinical reminders, advice on related health products, and a personal health record for the patient. This concept goes beyond medication therapy management (MTM) and encompasses condition-specific interventions targeting 15 conditions (see Figure 1) as well as polypharmacy. It draws on pharmacists' clinical knowledge and MTM skills and includes patient education. Besides face-to-face patient interventions, the model includes collection and reporting of outcomes data.

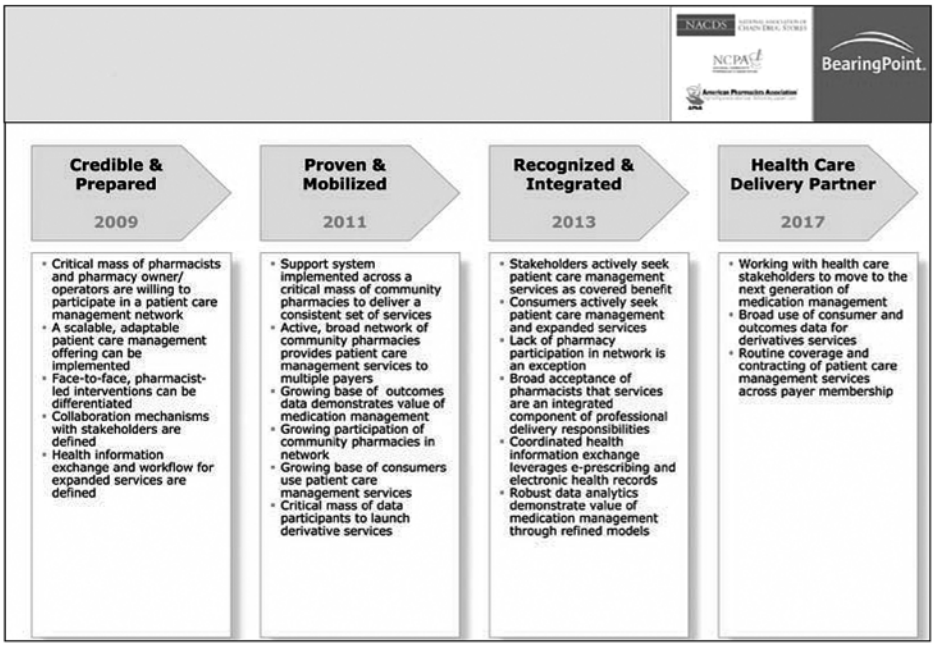


Figure 2. Project Destiny journey map

BearingPoint interviewed several entities that are already delivering the equivalent of Patient Care Management Services to patients; Project Destiny plans to leverage projects such as those run by Mirixa, Outcomes, and the APhA Foundation in the future to increase speed to market and generate critical mass. The model encompasses dispensing and administering prescriptions, patient care management services, and related health product recommendations, as well as reporting of detailed data on patients, services, and outcomes to prescribers, payers, and patients.

How do we get there?

The Project Destiny team recognizes that the journey of transitioning to the new community pharmacy services model will take at least a decade to complete; it will demand patience and commitment on the part of all in the profession. As articulated in the project's executive summary, it will also require

- A belief in the power of the profession to make an impact on health care outcomes
- A desire to participate in the medication management market space
- A willingness to collaborate with community pharmacy stakeholders in new ways and to expand pharmacy services in a manner that benefits the profession and preserves the economic viability of community pharmacy
- A commitment to invest in the realization of the future vision both philosophically and financially
- A demonstration of leadership to energize and engage community pharmacists in the vision of an enhanced future

The partnership has developed what it calls a "journey map" of milestones for progress toward the goal of Patient Care Management Services (Figure 2). By 2009, the team anticipates that a critical mass of pharmacists and pharmacies will want to participate in a patient care management network, pharmacist-led interventions will be identified, a model patient care management model will be implemented, and a health information exchange will be defined.

By 2011, the project hopes to have in place a broad network of community pharmacies providing patient care management services to payers, as well as the support system to back up those services. It is also the plan to develop a base of outcomes data to demonstrate the value of the project and a growing base of patients using the services. Two years later, the team hopes that payers, funders, and patients will actively seek patient care management services; a coordinated health information exchange will use e-prescribing and electronic health records; and a body of data will show the value of medication management. The year 2017 should bring the next generation of medication management; a broad use of outcomes data for other health care evaluation, management, and business services; and routine coverage of patient care management services by payers.

In the short term, the member organizations of Project Destiny are planning activities in the next several months to communicate with their memberships to obtain buy-in on the project recommendations, expand stakeholder relationships, and identify partnerships for the project.

Carpe diem

To take advantage of the need for this kind of primary care role in the marketplace, community pharmacy needs to be willing to function as ambassadors by adopting the community pharmacy service model, using its knowledge and expertise to promote the model, and working with stakeholders to further the vision of the primary care pharmacist.

—Carli Richard

Reference

1. Ernst FR, Grizzle AJ. Drug-related morbidity and mortality: updating the cost-of-illness model. J Am Pharm Assoc. 2001;41:192–9.

NAPT Updates

By Jodi Hart – NAPT President

Hello again! I hope everyone has been enjoying the beautiful autumn season! Along with the beautiful weather this time of year comes the NAPT Fall Conference. This year's conference took place in Fargo September 26 and 27. We saw a total of 85 participants attend this year.

Friday's sessions took place at the NDSU College of Pharmacy, Nursing, and Allied Sciences building. Topics covered included a telepharmacy update, aseptic technique, and round table discussions. The round table discussions included a hands-on aseptic technique demonstration, discussion of ethics, technician standardization, and also included a tour of the Concept Lab. The Concept Lab included the IV compounding area, outpatient prescription area, compounding area, and a telepharmacy demonstration.

Saturday's activities took place at the Skills and Technology Center. Topics included a presentation on the latest street drugs by the Fargo Police Department, intervention, herbal supplements and pills for weight loss, positive communications/customer service, and a motivational discussion on an increased tolerance for chaos.

The general business meeting was conducted on Saturday afternoon. One of the highlights of the meeting was the presentation of the first Friend of NAPT Award to Dr. William Grosz. Dr. Grosz was unable to attend the NDPhA Convention in April, but was able to attend Fall Conference to receive the award. A big Congratulations to Dr. Grosz! Also in attendance was Ann Oberg, who is a representative of AAPT (American Association of Pharmacy Technicians). Ann was in attendance to give an update on the status of AAPT and to learn more about NAPT. Overall, the Fall Conference was a great success and I would like to extend a great big "thank you" to the Planning Committee for putting on an excellent conference!

The NAPT Executive Board is planning on traveling to all eight districts again this coming year to conduct a CE as well as have an open forum for any questions or concerns you may have. We are still working out the details, but be on the lookout for further details. If you would be interested in helping plan for the meeting, please contact any one of the Executive Board members.

The NDPhA Convention will be held April 3-5, 2009, in Minot this coming year. Keep in mind that it's never too early to start thinking about possible nominees for the Technician of the Year, Friend of NAPT, Distinguished Young Pharmacy Technician, and Diamond Award. We are also looking to fill a couple of positions on the Executive Board. The open positions will be Vice President/ President-Elect and Secretary. If you would like further information about these positions or would like to add your name to the list, please contact any of the Executive Board members.

I hope everyone has a safe and happy holiday season and I look forward to seeing you in 2009!

PROJECT SUMMARY From page 9

future state has been achieved:

- It is the standard of care for pharmacists to work cooperatively with other healthcare professionals to provide or oversee: medication therapy management that achieves optimal patient outcomes; appropriate, safe, accurate, and efficient access to and use of medications; and services that promote wellness, health improvement, and disease prevention.
- Pharmacists' medication therapy management and other patient care responsibilities are covered services in all health benefits programs. Pharmacists are paid fairly for their professional services and management of the medication use system.
- Pharmacists are widely recognized as the primary and most trusted source for unbiased information and advice regarding the safe, appropriate, and cost-effective use of medications.
- Patients, payers, and other healthcare professionals recognize pharmacists as the medication use specialists.
- Patients are active participants in making decisions about their health care.
- Purchasing decisions for pharmacy services are based on the ability of the practice to achieve desired medication therapy outcomes, rather than mainly on the cost of the drug product.
- Patients, payers, and healthcare systems expect pharmacists to provide medication therapy management. Pharmacists hold shared accountability with patients and other health professions for the desired outcomes of medication use.

NAPT Updates

By Kim Durben - RPh Tech, CPhT

Hello everyone,

I would like to take a minute and share a recent experience of mine with you. This past August I had the opportunity to attend the 26th Annual Convention of the American Association of Pharmacy Technicians (AAPT) in Raleigh, North Carolina. In this very professional three-day meeting, participants were offered 18 continuing education credits. Topics such as drug diversion, drug safety, medication and the elderly, stress management, pharmacy law, and a host of others were included. Presenters consisted of Physicians, Nurses, Pharmacists, Law Enforcement and Pharmacy Technicians. Over 90 people from across the Unites States and Canada enjoyed a beautiful city, great hotel accommodations, and all but 2 meals in the 3 days were served to us as part of our convention registration. Founded in 1979, the AAPT is an international, nonprofit, educational and professional organization dedicated to the improved delivery of pharmaceutical services through exchange, development, and dissemination of information. AAPT strongly encourages professional recognition of pharmacy technicians and standardization of job titles and responsibilities. They are committed to the development of formal training programs and a means of demonstrating competence through certification. Annual membership is under $50.00 and they have a great website that you can visit at www.pharmacytechnician.com for more information about becoming a member. I encourage everyone to become involved with a professional pharmacy technician organization. The NAPT and the AAPT are great opportunities for you to gain knowledge and understanding about the profession of pharmacy that we all proudly serve as Pharmacy Technicians.

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NDSU General Counsel's Office
61st Legislative Assembly
Key Dates for 2009 Legislative Session

December 1-3, 2008	Organizational session.
December 4, 2008	Deadline for executive agencies and Supreme Court to file bills with the Legislative Council.
January 6, 2009	Session begins.
January 19, 2009	Deadline for representatives to introduce bills.
January 26, 2009	Deadline for senators to introduce bills.
February 5, 2009	Deadline for referrals of bills in house of origin to Appropriations Committees.
February 17, 2009	Bills and resolutions except constitutional amendments and study resolutions must be reported out of committee in house of origin. Deadline for introducing amendments to the Constitution of North Dakota and study resolutions.
February, 20, 2009	Crossover date for bills.
February 20-24, 2009	Recess.
March 2, 2009	Study resolutions and proposed constitutional amendments must be reported out of committee.
March 5, 2009	Crossover date for resolutions.
March 16, 2009	Deadline for referrals of bills in second house to Appropriations Committees.
March 26, 2009	Bills and resolutions must be reported out of committee in second house.
April 30, 2009	Session limited to 80 legislative days.

NDPHA Legislative Rally & Ice Cream Social January 20th

2008 Election Results

Mark Aurit Vice President

Board Of Pharmacy Nominations Sent To The Governor: Bonnie Thom & Brendan Joyce

Call For Nominations

2009 Award Nominations

Fax to: (701) 258-9312 or email to: ndpha@nodakpharmacy.net by January 9, 2009. Nominations should be submitted **along with biographical information**. The following awards will be presented:

Awards Nominations Criteria

Al Doerr Service Award

• The recipient must: be a pharmacist licensed to practice in North Dakota, be living (not presented posthumously); not have been a previous recipient of the award; has compiled an outstanding record for community and pharmacy service.

Nominee: _____Submitted by _____

Elan Innovative Pharmacy Practice

• The recipient should be a practicing pharmacist within North Dakota and a member of NDPhA who has demonstrated Innovative Pharmacy Practice resulting in improved patient care.

Nominee: _____Submitted by _____

Pharmacist Mutual Distinguished Young Pharmacist

• The goal of this award is to encourage the newer pharmacists to participate in association and community activities. The award is presented annually to recognize one such person for involvement and dedication to the practice of pharmacy. The recipient must: have received his/her entry degree in pharmacy less than nine years ago; be a pharmacist licensed to practice in North Dakota; have practiced community, institutional, managed care or consulting pharmacy and who has actively participated in national pharmacy associations, professional programs, state association activities and/or community service.

Nominee: _____Submitted by _____

Wyeth Bowl of Hygeia

• The recipient must: be a pharmacist licensed to practice in North Dakota; be living (not presented posthumously); not have been a previous recipient of the award; is not currently serving, nor has he/she served within the immediate past two years as an officer of the association in other than an ex-officio capacity or its awards committee; have compiled outstanding record of community service, which apart from his/her specific identification as a pharmacist, reflects well on the profession.

Nominee: _____Submitted by _____

Nomination ND State Board Of Pharmacy

Nominee: _____Submitted by _____

Nomination NDPhA Vice President

Nominee: _____Submitted by _____

Pharmacy Time Capsules

By Dennis B. Worthen Lloyd Scholar
Lloyd Library and Museum, Cincinnati, OH

1983—Twenty-five years ago:

- Orphan Drug Act supporting research and approval of medicines for rare conditions was passed
- D.A.R.E. (Drug Abuse Resistance Education) was founded in Los Angeles.
- 94 NDAs were approved; 14 were new chemical entities.

1958—Fifty years ago

- 280 NDAs were approved, 20 were new chemical entities.
- First list of substances generally recognized as safe (GRAS) was published in the Federal Register.

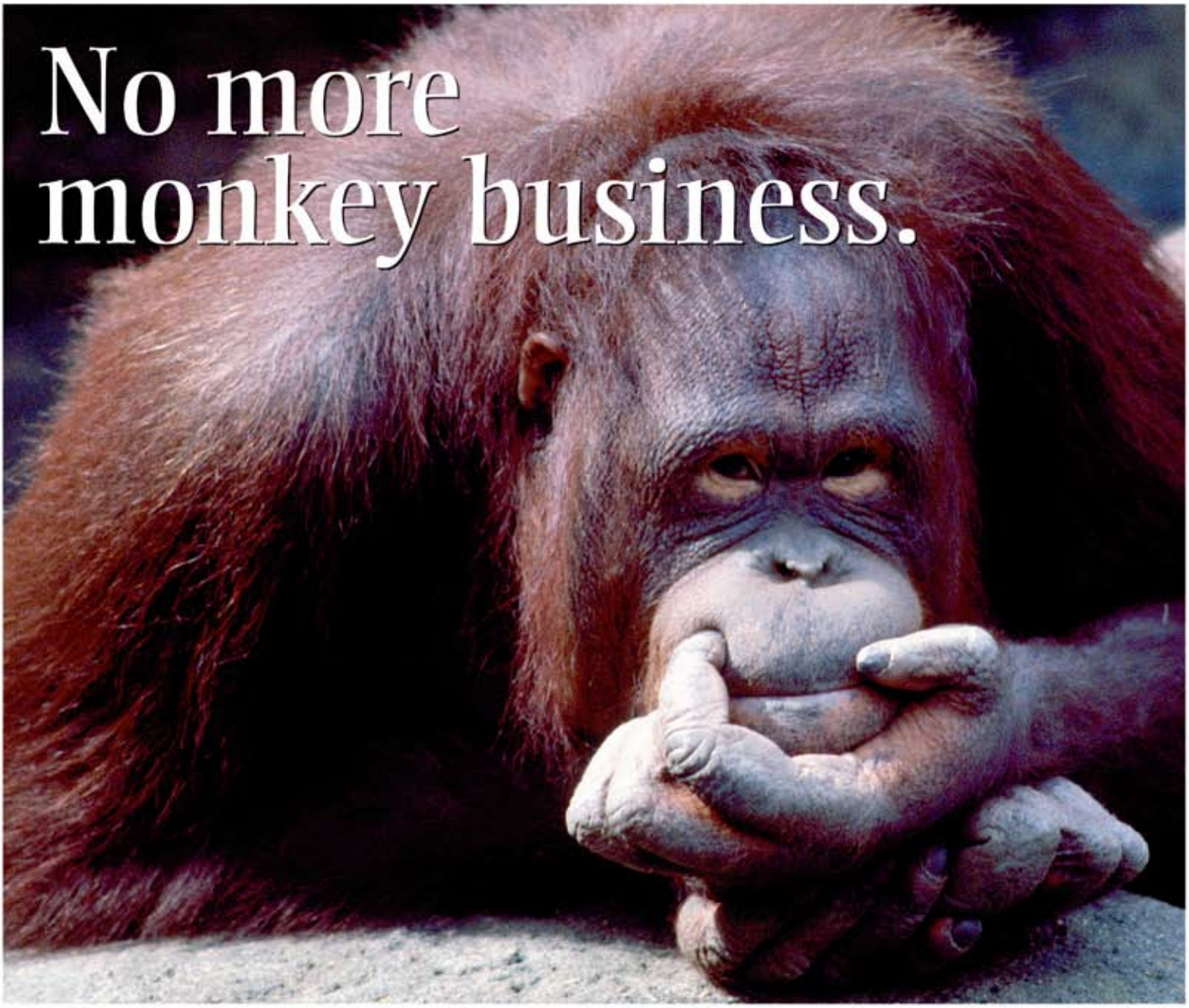
1933—Seventy-five year ago

- The 1933 Lilly Digest reported that 27% of the reporting 402 pharmacies were operating at a loss; 41% reported net profit of 5% or more.
- Prohibition was repealed under the Blaine Act

1908—One hundred years ago

- Paul Ehrlich, discoverer of Salvarsan (606 or arsphenamine) the first modern chemotherapeutic agent, received the Nobel Prize in Physiology or Medicine.
- Boys Scouts formed. First group in the United States was formed in 1910.

One of a series contributed by the American Institute of the History of Pharmacy, a unique non-profit society dedicated to assuring that the contributions of your profession endure as a part of America's history. Membership offers the satisfaction of helping continue this work on behalf of pharmacy, and brings five or more historical publications to your door each year. To learn more, check out: www.aihp.org



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Where & When

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Events

Continuing Education • Exhibit Hall • Ice Cream Social • Phun Run/Walk • President's Banquet & Scholarship Auction

Hotel

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1505 North Broadway, Minot, ND 58703-0777

Rooms **$65/night + tax**

A block of rooms and suites has been reserved under North Dakota Pharmacists Association.

These rooms will be held until **March 20, 2009**.
Call **(701) 852-3161** or **(800) 735-4493** to reserve a room. The best times to call are 9-5 Monday-Friday.

Annual Scholarship Auction

The annual Pharmacy Advancement Corporation Scholarship Auction will be held Saturday, April 4, 2009, after the President's Banquet. The auction committee would like to invite you 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.

Please forward questions to Lorri at ndpha@nodakpharmacy.net or call 701-258-4968. Thank you for your participation in the past. We are looking forward to another outstanding auction.

2007 Recipients of the "Bowl of Hygeia" Award

Wyeth Pharmaceuticals takes great pride in continuing the "Bowl of Hygeia" Award Program developed by the A. H. Robins Company to recognize pharmacists across the nation for outstanding service to their communities. Selected through their respective professional pharmacy associations, each of these dedicated individuals has made uniquely personal contributions to a strong, healthy community which richly deserves both congratulations and our thanks for their high example.

Wyeth Pharmaceuticals, Philadelphia, Pennsylvania

Wyeth Pharmaceuticals

**2007 recipient awarded in 2008*

Classifieds

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Thompson Drug
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Bottineau ND 58318

Contact: Don Thompson 701-228-2291

Independent pharmacy located near N./S. Dakota border: Well established, Independent pharmacy located near North/South Dakota border. Annual Revenues of $1.4 Million and 30,000 prescriptions filled per year. Inventory value approximately $170,000. *Contact Wayne C. Bradley, Bradley Business Advisors LLC , for more information. 701-239-8670 or wbradley@bbadvisors.net.*

Excellent Opportunity
Drug Store for sale in Southeastern Montana.
Serious inquiries invited to call 1-406-978-2419 ask for Gerry.

PHARMACIST WANTED

Gateway Pharmacy, Bismarck.
Progressive Pharmacy seeks energetic Pharmacist. Pharmacy is automated, provides screenings, and immunizations. *Contact: Mark Aurit, RPh Gateway Pharmacy North, 3101 N 11th St Ste#2, Bismarck, ND 58503 Ph: 701-224-9521 or 800-433-6718*

Full-Time Pharmacist Needed To Join Corner Drug's Team!
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522 Dakota Avenue, Wahpeton, ND 58075
Hourly Rate: $40-50. Hours Worked Per Week: 40. Flexible Schedule and Time Off. *Benefits Include:* Full health, dental and vision. Employee has access to an "open network" of providers to choice from. Life Insurance and Accidental Life Insurance Policy as well! Retirement - 3% employer contribution. Continuing education courses. Wage increases and bonuses are based on job performance. Potential for additional benefits upon hire. Potential head pharmacist position and/or potential ownership down the road. *Contact: Paul Folden, 701-642-6223 or 701-642-3563 folden@702com.net*

Clinical Staff Pharmacist
Catholic Health Initiatives, one of the nation's largest Catholic Healthcare Systems, is Seeking candidates for full-time as well as part-time positions.
We are currently developing this innovative new service to provide coverage for hospital pharmacies from a remote centralized site utilizing advanced technology. We will initially provide 10-hour evening/night shift coverage, with a goal of expanding to 24/7 coverage.
Education & Experience:
- B.S. in Pharmacy or equivalent required
- Must be a registered Pharmacist in ND and must be willing to be licensed in additional states
- 3 Years of hospital pharmacy experience preferred
- ASHP Residency preferred
- Candidates should be self-motivated, possess a creative mind

We hold in high regard our core values of Reverence, Integrity, Compassion and Excellence.
Qualified candidates should apply online at:
www.catholichealthinitiatives.org
You may contact Shelley Johnsen, Director of the pharmacy service, directly at 701-412-5668 or shelleyjohnsen@catholichealth.net for specific questions you may have.

Walls Medicine Center, Grand Forks.
Contact Dennis Johnson, RPh, Wall's Medicine Center Inc., 708 S Washington Street, Grand Forks, ND 58201 or call (701) 746-0497.

ND Pharmacy, Williston
Full-time Pharmacist wanted for progressive pharmacy. Competitive Salary, Benefits, 401K, Vacation
Call Bob at 1-800-767-3632 or mail resume to: ND Pharmacy, 446 18th St W #2, Dickinson, ND 58601

PHARMACY TECHNICIAN WANTED

Part or full time Pharmacy Technician needed for Telephoarmacy location in western North Dakota.
Call Jody at 701-764-5093 or e-mail jody@ndsupernet.com.

Northport Drug, Fargo.
Fulltime Pharmacy Technician Position Located in North Fargo. Salary based on experience. Full benefits. *Please send your resume to: Northport Drug attn: Rachel, 2522 North Broadway, Fargo, ND 58102 Or fax resume to: (701)235-5544 attn: Rachel*

FACULTY WANTED

Pharmacist/Faculty at NDSU
North Dakota State University is seeking a full-time, non-tenure track pharmacist/faculty position in the Department of Pharmacy Practice. The individual will assist with teaching in the Concept Pharmacy instructional laboratory. Screening of applications will continue until position is filled.
For a complete description of this job and other openings go to: https://jobs.ndsu.edu
NDSU is an equal opportunity institution.

NDSU
College of Pharmacy, Nursing, and Allied Sciences

Charles Peterson, Dean
NDSU College of Pharmacy

A Message from the Dean

The State of North Dakota recently established a Center of Excellence Program to promote and encourage linkages between academia and the private business sector to enhance economic development within the state through adding new businesses, new jobs, and new commercialization. The 2005 Legislature set aside $23 million to invest in the COE program managed by the Department of Commerce. As a result of its strategic planning efforts, the College of Pharmacy, Nursing, and Allied Sciences in July submitted an application to the State to develop a Center of Excellence within the Department of Pharmaceutical Sciences at NDSU called the Center for Biopharmaceutical Research & Production (CBRP). After going through the formal COE due diligence process, on September 26th, the College was notified by the North Dakota Department of Commerce that its Center of Excellence application had been approved for funding for $2.0 million. The following are some bullet points related to the goals, objectives, and plans for the College's new state-supported Center of Excellence in biopharmaceuticals including vaccines.

- Develop a comprehensive vaccine cluster that is capable of performing all aspects of vaccine research & development right here in North Dakota. From basic science, animal testing, screening and manufacturing, and even human trials. NDSU has been involved with vaccine research and development for more than a decade and we would like to build this area further.

- The Center will utilize or capitalize on the strengths that already exist in North Dakota in the life sciences, biomedical fields, pharmaceutical research, biotechnology, robotics, and nanoscience), combining the strengths of academia with private sector partners such as Aldevron, Pracs Institute, MeritCare, Clinical Supplies Management, etc. all working together toward a common goal. These are well established private sector partners that have excelled in their respective fields that have a track record of excellence in the health care industry.

- Create a basic science research laboratory at NDSU including hiring a high profile "star" vaccinologist which would build the basic science foundation for vaccine R & D for the participating private sector partners with the goal of developing new vaccines, and other biopharmaceuticals which will:

  Enhance the life sciences business sector in North Dakota

  Attract new biotechnology companies to North Dakota Expand and retain existing companies (like Aldevron) in North Dakota

  Create new jobs (estimate initially 40 high paying jobs)

  Train and generate a highly skilled biotechnology workforce for private sector partners/businesses in North Dakota (workforce development)

  Enhance economic development and sizable revenue to North Dakota through grants, contracts, commercialization, IP, patents, private investment (vaccine market current $22B/year will grow to $36B in next 5 years)

- Provide us the opportunity to work on some of the most challenging health problems in North Dakota and the world (Global Connections). Bioterrorism, Bird Flu, West Nile, Malaria, HIV, Cancer, TB, others. Solving global health issues will bring recognition and revenue to North Dakota. Solving State health issues like West Nile Virus will directly benefit North Dakotans.

- Allow North Dakota to become a market leader through use of innovation in the ways and means by which target vaccines are discovered through use of high throughput processes, robotics, biotechnology, nanotechnology (already strengths at NDSU). Through these innovative approaches to vaccine development, North Dakota could possibly set a new industry standard for the marketplace for how vaccines are developed.

The College hopes to have the Center for Biopharmaceutical Research & Production up and running by Fall 2009.

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Lynn Swedberg
701.371.3849
lynn.swedberg@mckesson.com

MISC0142-03-07

A Prescription for *Good Health*

North Dakota PharmAssist Program

Supporting the Pharmacy Professional

The North Dakota PharmAssist Program is a voluntary program for impaired pharmacists, technicians, interns, and students who are in need of support and assistance for either alcohol or chemical abuse, or other stresses.

Through this program, pharmacy professionals can receive help from caring colleagues in a confidential, non-coercive and non-punitive manner.

Impaired pharmacy professionals can be helped with the following:

- Substance abuse education
- Awareness of factors leading to impairment
- Understanding the warning signs of impairment
- Help from the ND PharmAssist Program

The goals of the ND PharmAssist Program include: providing continual support and assistance to the pharmacy professional, preventing the loss of a professional career, preserving the professional reputation and restoring the impaired person's ability to practice competent and professional pharmacy.

How It Works

1. Once a committee member from the ND PharmAssist Program receives a request for assistance, a co-chair will initiate steps to verify expressed concerns.
2. If there is sufficient reason for concern, the co-chair will arrange for a personal visit with the professional and other involved individuals.
3. The professional will be encouraged to seek help voluntarily. An initial evaluation to assess the need for treatment will be provided at no charge to the person.
4. A program member will assist the person in entering treatment. He/she will maintain contact and provide encouragement and support during and after treatment.
5. The program will provide support after treatment and during re-entry into practice.

Supporting the Pharmacy Professional

Committee members have a genuine concern about the welfare of its colleagues seeking assistance.

If a person has direct knowledge about an impaired pharmacist, technician, intern, or student and they are concerned, they should contact the ND PharmAssist Program. That person could be a colleague, spouse, family member, employer, employee, concerned citizen, or even the impaired pharmacist him/herself.

The Board of Pharmacy IS NOT contacted when a pharmacy professional becomes involved with the program. **ALL** information is kept strictly confidential.

A pharmacist, technician, intern or student in need of assistance who refuses to seek help is a danger to the health and welfare of the community. In such cases, the program **MUST** notify the Board of Pharmacy Investigating Committee, but not the Board itself.

Contacting the PharmAssist Program

1-701-463-2575

1-701-224-9521

You may contact any member of the ND PharmAssist Committee by phone or email.

Requests for assistance will initiate steps for appropriate contact.

North Dakota PharmAssist Committee

Kim Essler (Co-Chair)	runodak@restel.net	(701) 463-2242	(701) 463-2575
Tim Carlson	tcar@gra.midco.net	(763) 795-3498	(800) 816-2887 Ext. 4381
Keith Kjelland	keith.kjelland@gmail.com	(701) 454-3831	(701) 454-6595
Janice Mayer	Janice.mayer@bis.midco.net	(701) 223-8806	(701) 258-7546
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Jolette Olig	davidolig@msn.com	(701) 280-1618	
Agnes Harrington, Student Rep.	agnes.harrington@ndsu.edu	(701) 232-8509	(701) 231-7601
Skip Birkmaier	sbirk@gra.midco.ne	(701) 775-9791	

NDPhA NORTH DAKOTA PHARMACISTS ASSOCIATION

NDSU COLLEGE OF PHARMACY, NURSING, AND ALLIED SCIENCES

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