05 - 0194

EXPANDING AUTHORITY TO PRESCRIBE, ADMINISTER, OR DISPENSE PHARMACEUTICALS: A PROPOSAL

The Issue: This report, required by Chapter 242 of the Laws of 2004, is viewed as a request for additional information on the issue of assuring competence of practitioners authorized to prescribe, administer or dispense prescription drugs. Specifically, the law requires the health-related boards defined in Minnesota Statutes section 214.01, subdivision 2, to work with the University of Minnesota to develop a proposal for a competency-based education and assessment program for professionals authorized to prescribe, administer, or dispense legend drugs.

Background: During the summer and fall of 2003 Frank Cerra, MD, Senior Vice President for Health Sciences of the University of Minnesota Academic Health Center, convened an advisory committee at the request of Minnesota State Senator Sheila Kiscaden to evaluate the issue of expanding authority to prescribe and/or dispense pharmaceuticals. A copy of the report of this committee is attached to this report

In the original report prepared by Dr. Cerra and his advisory committee, the issue of patient safety was identified as being of major importance when considering expanded scope of practice issues. The Cerra report identified patient safety issues involving the use of pharmaceuticals as falling into three categories: competency, communication, and care management. The policy question identified by the report is whether the profession seeking expanded authority to prescribe, administer, or dispense pharmaceuticals has the educational, licensing, and oversight infrastructure to assure the competency of the professionals in this area. The competency issues will be expanded upon in this report, as requested by the 2004 legislature.

The 2004 Statute: "The health-related licensing boards defined in Minnesota Statutes, section 214.01, subdivision 2, shall work with the University of Minnesota to develop a proposal for a competency-based education and assessment program for professionals authorized to prescribe, dispense, or administer legend drugs. The boards shall report to the senate and house of representatives committees with jurisdiction over health and human services by January 30, 2005."

The interpretation: Earlier discussions of competency issues and the request for the Cerra report in 2003 were limited to expanding authority of professional groups to prescribe, administer, or dispense legend drugs. The language of the 2004 statute, however, appears to require a proposal for a competency based education and assessment programs for health professionals already authorized to prescribe, administer, or dispense legend drugs.

Dialogue was established with the Academic Health Center at the University of Minnesota. The following competencies were identified as essential to safeguarding the public health of Minnesota citizens. These competencies are applicable to current practitioners and new graduates seeking to enter a profession which is authorized to prescribe, administer, and/or dispense prescription drugs and to practitioners of applicant

groups seeking expanded or new authority to prescribe, administer, or dispense. The level of competence in each area is dependent on the scope of practice, e.g. pharmacists require greater dispensing skills than other practitioners. A significant group of individuals not obviously addressed by this request for a report are unlicensed individuals who administer medications, typically in assisted living and other such facilities, with little or no supervision and are not regulated.

Practitioner competence		
Beginning practitioner	Group of practitioners with authority to prescribe, administer, and/or dispense	Group of practitioners seeking new or expanded authority to prescribe, administer, and/or dispense
Demonstrate competence upon completion of an educational program	Demonstrate continuing competence	Demonstrate initial competence prior to obtaining authority

Practice Competencies

Demonstrate patient assessment skills

a) take patient history and perform physical assessment
b) perform assessment unique to the practice area of the practitioner

Demonstrate knowledge of human physiology

a) core knowledge applicable to all
b) knowledge unique to the scope of practice of the practitioner

Demonstrate knowledge of pathophysiology

a) disease state recognition
b) disease state treatment options

Design, implement, monitor, evaluate, and modify drug therapy to ensure effective, safe and economical patient care

Component knowledge:

a) Know which drugs are appropriate for each disease and how patient factors modify use
b) Know side effects and drug interactions
c) Know dosage and dosage forms
d) Know routes of administration and why each is used
e) Know impact of pharmacokinetics on dosing
f) Understand drug costs and factors affecting cost

Monitor drug therapy: identify, assess, and solve medication-related problems and provide clinical judgment as to the continuing effectiveness of individualized therapeutic plans

a) Know expected outcomes of therapy
b) Order appropriate laboratory tests and/or perform physical assessment to determine efficacy and detect toxicity
c) Know frequency of side effects
d) Predict and evaluate drug interactions (drug-drug, drug-food, etc.)
e) Know relative advantages/disadvantages of alternative therapies for each disease

Know criteria for referral to other practitioners

a) Triage patients to other health professionals
b) Communicate among health professionals regarding rational drug therapy

Counsel patients on appropriate use of medications

a) Understand factors affecting compliance
b) Understand storage and stability of products
c) Recommend, counsel and monitor patient's use of non-prescription medications

Administer medications

a) Know routes of administration
b) Know how to use various dosage forms (inhalers, injectables, oral forms)

Know and apply laws relevant to drug prescribing and use

Conclusion: Assessment of the extent to which an applicant group can demonstrate the above competencies could be charged to the Council of Health Boards as provided for in M.S. 214.01 et seq.

Assessment of health professionals who currently have authority to prescribe, administer, or dispense would require that a broadly based coalition of stakeholders for each profession be convened to identify core competencies common to all professions with authority to prescribe, administer or dispense prescription drugs as well as competencies unique to each of the professions. Such stakeholders should include regulators, educators, and representatives from national testing organizations. Professional associations will also need to be involved in this process to solicit their input and support.

Upon identification of the required competencies, each profession would be expected to collaborate with the national accreditation organization for the educational programs involved in their respective professions. Cooperation and support from the national accreditation bodies would be necessary to assure that the student outcomes from the

educational programs of the various professions, anywhere in the United States, demonstrate mastery of the identified competencies.

Support and cooperation from the national accrediting organizations must be obtained, given the fact that not all professional programs are offered at the University of Minnesota and that the University of Minnesota graduates make up only a portion of the professionals licensed by the various health-related licensing boards in Minnesota. For example, there are no schools for optometry or podiatric medicine in the state of Minnesota.

A limitation to this endeavor is the possible variation in the cooperation and support by national accreditation agencies from profession to profession.

In order to apply these competencies to existing licensees, each profession and its regulatory body will need to collaborate with their respective national examination development organizations to develop a psychometrically sound and valid competency assessment tool. Acceptance and support of the concept of continuing, periodic competency assessment will be required of the professional associations as well. It must be recognized that issues of how to provide competency assessment of those practitioners in specialty areas, as opposed to generalist practitioners, will be a difficult issue to address. For instance, should a psychiatrist need to demonstrate competence in the medications used in the delivery of babies?

Determinations of how to link competency assessment with remedial programs for existing practitioners is a significant challenge and will require that assessment and remediation of practitioners be evidence-based. However, there is minimal research conducted in this area.

The assurance that Minnesota citizens can enjoy safe and effective prescribing, administering, and dispensing of drugs is highly desirable. However, the task to achieve such a goal is challenging.

HEA 322

Expanding Authority to Prescribe and/or Dispense Pharmaceuticals: A Tool for Analysis

Frank Cerra, MD, Senior Vice President for Health Sciences of the University of Minnesota Academic Health Center, convened an Advisory Committee at the request of Minnesota State Senator Sheila Kiscaden to evaluate this issue. Susan Bartlett Foote, Associate Professor and Head of Health Services Research and Policy at the School of Public Health served as chair and drafted this report. Nina Michail, a student in the School of Public Health served as Research Assistant to the Committee.

2003

Advisory Committee

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Expanding Authority to Prescribe and/or Dispense Pharmaceuticals: A Tool for Analysis

The Issue: States have the authority to license health care practitioners and to define their scope of practice. Licensure can include the authority to prescribe, dispense, or administer pharmaceuticals.* Periodically new health professions are defined, and others seek to extend their scope of practice/and or their prescribing privileges. State legislation is required to extend privileges. The purpose of this document is to provide an analytical tool to assist in the evaluation of proposals to grant or expand prescribing privileges.

Background: States regulate health professionals through "scope of practice" acts. Minnesota has 14 state licensing boards composed primarily of professionals in the field (i.e. Board of Nursing) to ensure compliance with professional requirements. In the absence of national policy, and with the proliferation of specific categories of professionals in our complex medical system, states have enacted a patchwork of laws and regulations that vary considerably.

Over the last century, the use of pharmaceuticals for treatment of a wide array of conditions has expanded. Physicians steadily gained authority to control access to prescription drugs in the first half of the 20th century, but in recent years, some "non-M.D." health professionals now can prescribe and/or dispense, often with some limitations (1). This fragmented approach has led to intense turf battles when a professional group requests expanded privileges.

The primary justification for restrictions on prescribing is consumer protection. In this paper, we use the term consumer and patient interchangeably. Prescription drugs present risks as well as therapeutic benefits, and prescribing requires knowledge of underlying disease conditions and pharmacology. On the other hand, restrictions on prescribing in our highly fragmented professional environment can present barriers to access to care in some circumstances.

Each professional group seeking expanded privileges presents unique circumstances. The questions below, however, must be satisfactorily answered by the professional group to ensure policy change in the best interests of patients.

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* Minnesota statutes define these terms: Prescribe means direct, order, or designate by means of a prescription, the preparation, use or manner of using a drug (MN Stat. 147A.01 (2002); dispense refers to preparation or delivery of a drug pursuant to lawful order of a practitioner in a suitable container appropriately labeled(MN Stat. 151.01 – Pharm Practice Act); administer means delivery of a single dose at the site of care by injection, inhalation or ingestion (MN Stat. 147A.01 (2002).

Key Questions:

1. **What contribution does the proposed change make to health care or the health care system?**

2. **Does the proposed change pose patient safety issues?**

3. **Can the safety issues be overcome with specific limitations on expanded privileges?**

4. **Are there other relevant issues to be considered?**

Each question will be discussed below.

Q 1. What contribution does the proposed change make to health care or the health care system?

Our health care delivery system is complex, and the benefits of the system are not always adequately distributed across the population. For example, there are existing and projected workforce shortages for health personnel, including physicians (2). Patients in rural areas may lack access to medical providers (3). Individuals without insurance or inadequate insurance may also encounter barriers to care (4). As our society ages and chronic illness becomes more common, individuals may need frequent and consistent monitoring with periodic adjustments to medications. Adequate palliative care for cancer patients and other terminally ill individuals may also be an issue. We have an aging population, and research has shown that the elderly have more chronic illnesses, leading to increased use of drugs, complex drug regimens, and compliance challenges due to impairments (5).

Expansion of prescribing privileges to a wider array of health care providers may address some types of access to care issues. However, some expansions may be motivated by economic gain or professional prestige, rather than improvements to care. Professionals seeking expanded privileges must be able to make a clear and convincing case that the changes will enhance the quality of care or access to needed care.

Q 2. Does the proposed change pose patient safety issues?

Restrictions on prescribing are based, to some extent, on patient safety or consumer protection concerns. The 1999 Institute of Medicine (IOM) report, *To Err is Human: Building a Safer Health System,* suggested that medical errors account for 44,000 deaths per year (6). A large portion of those errors are due to medications alone. Medication errors originate in all phases of the process --- procurement, prescribing, dispensing, administration and monitoring (7). In terms of prescribing errors, recent research in Minnesota has shown that 3% of prescription errors pose harm to the patients, unless the

pharmacist catches the error. While parts of our system do work, there are many issues to be examined in light of patient safety concerns.

Patient safety issues in relationship to prescribing fall into three categories: competency, communication, and care management.

a) **competency** – One of the most challenging issues is to ensure the competency of professionals who prescribe, dispense and administer drugs. Our current system has many facets--education in pharmacology and use of pharmacological agents, clinical training, licensing, monitoring, credentialing, etc. Given the safety issues regarding pharmaceuticals, it is clear that our current systems need improvement. Authorized Boards oversee the requirements of the professionals in the area of education, licensure, and continuing education for license renewal. Current training requirements for various professional groups are listed in Appendix A. The policy question is whether the professional group seeking prescribing privileges has built an educational, licensing, and oversight infrastructure to assure the competency of the professionals in this area.

b) **communication** – In addition to knowledge and training, prescribing and dispensing professionals must communicate with the patient on all aspects of the drug. While communication among the professionals treating the patient, particularly the primary care physician, would be desirable, there are gaps in the links among professionals in our current system. Adverse drug interactions are particularly common in elderly patients on multiple medications for a wide range of disease states (8). Will the prescribing professionals seek complete information, and/or have access to information in order to prevent potentially serious complications?

   At the very least, there should be some checks and balances in the system so that a second qualified professional can recognize and prevent obvious errors. When the right to prescribe is separated from the right to dispense, a check on errors or problems is put in place. Expanding privileges to prescribe to new groups creates challenges for pharmacists who express concern about the legitimacy of prescriptions and knowledge of the prescribing groups.

c) **care management** – There are additional considerations related to the management and coordination of systems of care. Our current system of health care is often quite fragmented. Physicians and other health professionals often do not have access to complete medical records, and rely on patient interviews as the sole source of information on medical usage by the patient (9). Use of management systems is more common within managed care organizations and hospital systems (10). When multiple professionals prescribe medications, there are increased risks of complications through misinformation. Is the care provider seeking privileges likely to be part of the continuum of care, work in a clinic setting with other providers, etc? What special challenges exist for those who

might deliver services at an independent location, who are least likely to have access to complete written information?

Q 3: Can safety issues be overcome with specific limitations on expanded privileges?

States have developed four distinct tiers of prescribing privileges. (See appendix A for MN professionals).

a) Full prescribing privileges – unrestricted authority (MD, DO)

b) Independent within scope of practice – professionals can prescribe drugs within their field of practice (e.g., dentists, podiatrists, optometrists, CNM (certified nurse midwife), veterinarians). Limitations in these categories can also apply to classes of drugs or specific lists of drugs (i.e. optometrists can only use topical medications under current law). Limitations can refer to authority to prescribe not dispense, and vice versa.

c) Delegated Prescribing – Can prescribe drugs within field of practice as defined in a collaborative management agreement (advanced practice nurses). Agreements can also restrict drugs to certain classes.

d) None – No prescribing authority (Ph.D. psychologists, naturopaths)

Discussion: Physicians (MD and DO) are the only professionals with full privileges to prescribe and dispense in the state of Minnesota. The American Medical Association (AMA) and the Minnesota Medical Association (MMA) generally oppose expansions of prescribing authority.

Minnesota allows some professionals to have independent prescribing authority within their scope of practice. This means that dentists may prescribe and use drugs within the scope of their dental practice, CNMs within the scope of their obstetric work. Often there are additional limitations on types of medications that can be prescribed. For example, optometrists now have independent authority to prescribe topical medications only. Or, the limitations relate to the activity – most RNs can administer drugs only.

For many of these groups, there are few controversies as the scope of practice is generally clear and accepted. There are isolated cases of problems, including reports cases of adverse reactions to anesthetics administered by dentists (11). Some are concerned about the clarity of the scope of practice limitations, allowing broad interpretations by the professionals unless the limitations are drafted more specifically. These issues can be addressed with defined lists of classes of drugs, or specific drugs in the legislation (i.e., topical versus legend, controlled substances).

Minnesota has used the delegated prescribing through collaborative agreements as a vehicle for expansion of privileges to several classes of nurses. While many nurse advocates have argued that the restrictions are unnecessary, the political compromise was collaborative agreements to define the limits of the authority. The parties must sign a Memorandum of Understanding (see Appendix B) designating the scope of collaboration necessary to manage the care of patients. These MOUs are generally facility-based (i.e., allowing the prescribing as defined in the agreement in the defined health facility) and the privileges are often restricted to classes of pharmaceuticals (ie., antibiotics).

There are classes of professionals with no prescribing privileges, although there is a queue of providers seeking such privileges. New Mexico is the first state to extend the authority to prescribe to psychologists (12). Chiropractors have no prescriptive authority in any states, but there is some interest in the profession to expand their authority.

Q 4: Other considerations

Costs - Cost issues can cut several ways in this area of public policy. On the one hand, expanding privileges may expand the utilization of pharmaceuticals, thus raising expenditures. On the other hand, if the expansion of privileges increases efficient use of care or the continuity of care, there may be cost savings due to unnecessary physician visits, or complications due to inadequate monitoring of patients, particularly those on multiple medications for chronic conditions. If expanded privileges lead to lower costs and improved outcomes, insurers will likely support the change. A question may arise if the services of the prescribing professionals (i.e., optometrist, chiropractor) are not covered by insurance, will the prescriptions he/she writes be covered? Other cost issues arise if the prescribing professional can also dispense the medications, allowing economic incentives to over-prescription and over use.

Liability – As risks of harm rise, liability issues may surface. Will liability increase for the profession with increased prescribing privileges? If the privilege is already available in other states, there may be data on liability costs. Issues have also arisen as to where liability lies when there is a delegated or collaborative relationship. Case law is evolving, but in general the professional with prescribing privileges accepts full liability rather than the delegating physician.

Process – Following the passage of any legislation in this area, the Boards with relevant oversight implement the law with regulations. Some professionals believe that there should be community input in the rulemaking process. There is also a need for more data on how well these changes have been working following passage of the law. Laws and regulations may need to be periodically evaluated to assess the effectiveness/impact of the changes.

Conclusions: Expanding prescribing privileges is a very volatile area of public policy, due in large part to the implications for the professional groups on all sides of the issue. It is critically important to approach this issue from a patient care perspective rather than a professional perspective. Each request must be evaluated against the criteria set forth in order to ascertain if the patient care needs outweigh safety concerns, and if the safety concerns can be managed through a variety of control mechanisms.

The historical evolution of medical practice acts with narrowly-defined professional groups jealously guarding their turf is inefficient and contrary to a patient-centered health care environment. The system clearly needs reform, as the data on medication errors indicates.

While it is not likely that this structure will change in the short term, working to build greater collaboration and connectivity in the health care system can overcome some of the professional fragmentation. The Minnesota legislature has encouraged the 14 licensing boards to cooperate and communicate with each other on common issues. This is a first step. It may be time for the legislature to encourage educational institutions, licensing boards, and health plans to collaborate to address the systemic problems. More collaborative educational programs (shared classes among different professional schools) and training programs may overcome some of the barriers. A focus on measuring competency for a broad range of professionals, using such tools as certificates in pharmaceutical care competency, has shown great promise.

The evolution of information systems, electronic medical records, and automated order entry systems may reduce medication errors, especially drug interactions. However, privacy concerns and HIPAA requirements and perceptions about HIPAA restrictions may restrict information flow.

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Appendix A: Prescribing Privileges of Minnesota Health Professionals

Provider	Prescribing Category*	Prescribing Authority in MN	Minimum Education	Competency Assessment	Regulatory Oversight	Other States
Physician (MD)	full prescribing privileges	full prescribing privileges	Bachelors Degree, medical school and 2 to 6 years post-graduate training;internships, residency. Approximately 85 hours of pharmacological training through coursework. 75hours continuing education every 3 years.	DEA certification for controlled substances. Licensing by US Medical licensing Exam. State licensing through Board of Medical Practice	Minnesota Board of Medical Practice through licensing	The American Medical Association and Minnesota Medical Association have policies against independent prescribing authority of nonphysician providers and are against any expansion of prescribing privileges. Physicians have heavily lobbied in MN and other states.
Osteopathic Physician (DO)	full prescribing privileges	full prescribing privileges	Bachelors Degree, 4 years at accredited osteopathic school and 2 to 6 years postgraduate training; internships; residency. Required 50 hours continuing education every 2 years.	DEA certification for controlled substances. Licensing by US Medical licensing Exam. State licensing through Board of Medical Practice	Minnesota Board of Medical Practice through licensing	No recent legislation regarding prescribingprivileges
Dentist (DDS)	Independent within scope of practice	Prescription of medications within the scope of dentistry	Atleast 4 years of post-baccalaureate education at accredited dental school. Approx. 2400 clinical training hours with 4-12 credit hours in pure pharmacological training. Additional hours in biochemistry, clinical coursework. 75 hours every 2 years of continuing ed. required.	DEA certification for controlled substances. National board exam and board exam on Minnesota rules relating to dental practice	Minnesota Board of Dentistry through licensing	Similar prescriptive authority in all state. New Jersey debated S 349, allowing dentists to perform accupuncture.Oregon passed a law allowing a dentist to administer local anesthesia for tattooing human lips.

*Prescribing Category has been divided into 4 basic categories to describe the prescribing capabilities of the providers.
Full prescribing privileges- Can prescribe unrestricted without collaborative management
Independent within scope of practice- Can prescribe drugs within field of practice without collaborative management.
Delegated prescribing- Can prescribe drugs within field of practice as defined in a collaborative management agreement.
None- No prescribing authority of any prescription drugs.
**Approximation based on U/M coursework when program is offered.
***Collaborative Management is defined as a mutually agreed on plan between a nonphysician provider and physician(s) that designates the scope of collaboration necessary to manage the care of patients in which the physician and nonphysician provider have experience in providing care to patients with the same or similar medical problems.

Veterinarian (DVM)	Independent within scope of practice	prescription of any medicine/drug for animal use	DVM degree from American Veterinary Medical Association (AVMA) accredited college of veterinary medicine, or Educational Commission for Foreign Veterinary Graduates (ECFVG) certificate and a one-year internship or equivalent practice experience. Approx. 12 credits pharmacology with credits in anesthesiology, toxicology, etc. 40 credit hours of continuing education every 2 years.	License verification from all states where currently or licensed in the past ten years, letters of reference from at least 2 veterinarians and 3 other adults, pass the North American Veterinary Licensing Examination (NAVLE), passing score on Minnesota Jurisprudence exam. Renewal every 2 years.	Minnesota Board of Veterinary Medicine through licensing	Same prescriptive authority in all states, with no recent legislation regarding prescribing privileges.
Advanced Practice Nurses (APN)	Delegated full prescribing	Full prescribing authority as outlined in written agreement with MD	RN plus 9 month to 2 year program for certificate or Master's Degree. Approx. 500 hours clinical practice with pharmacology training dependent on area of specialty.	DEA certification if prescribing controlled substances. National standardized exam for certification by a national nurse certification organization acceptable to the board with state licensing by MN Board of Nursing.	State of Minnesota Board of Nursing through licensing	Allowed to prescribe controlled substances in approx. 60% of states. Recent legislation on expanding Schedule categories of drugs prescribed and receiving and dispensing of sample drugs by NPs. Can prescribe independent of any physician involvement in 12 states including controlled substances, 33 states with some physician involvement including controlled substances.
Certified Registered Nurse Anesthetist (RN, CRNA)	Delegated prescribing	Collaborative Management* for prescribing within scope of practice as defined in the physician-nurse agreement	RN plus 24 to 36 month graduate program (including approx. 1000 hours clinical experience) with contin. Ed. Requirements.	DEA certification. Certification/examination by the Council on Certification of Nurse Anesthetists with state licensing by MN Board of Nursing. Recertification every 2 years.	State of Minnesota Board of Nursing through licensing	Can practice independent of physicians in only 18 states, can prescribe controlled substances in 9 states. Prescriptive authority contingent on physician collaboration or delegation.

Certified Clinical Nurse Specialist in Other Field (CRNA)	Delegated prescribing	Collaborative Management* for prescribing within scope of practice as defined in the physician-nurse agreement	RN Degree plus 9 month to 2 year program for certificate or Master's Degree. No less than 30 hours of formal study which included instruction in health assessment, medication classifications, psychopharmacology, indications, dosages, contradictions, side effects, evidence of application	DEA certification if prescribing controlled substances. Certification by a national nurse certification organization acceptable to the MN Board of Nursing	State of Minnesota Board of Nursing through licensing	Independent prescriptive authority for controlled substances in 9 states. Can practice independent in 20 states, physician collaboration in 24 states and physician supervision in 7 states.
Naturopath (ND)	none	no prescribing authority (not licensed to practice in MN, but have limited prescribing privileges in some of the 12 states they are licensed to practice in)	4 years of post-baccalaureate education in a doctoral degree combined with clinical training. Natural and traditional pharmacological training account for 70 hours of their training.	not licensed in MN	Minnesota Board of Medical Practice through licensing	licensed and can prescribe noncontrolled substances in 10 of the 12 states they are licensed in. Their scope of practice excludes many drugs
Optometrist (OD)	Independent within scope of practice	Prescribe topical legend drugs to diagnose or treat eye diseases and abnormalities	accredited 4-year school of optometry granting DO degree, 40 hours continuing education every 2 years	Written and practical national exam. MN exam for state practice laws.	Minnesota Board of Optometry through licensing	In Minnesota and in all 50 states, optometrists can prescribe topical drugs for allergies, infections, glaucoma, inflammation, including topical anesthetics. 34 states allow oral medications for allergies, 34 states allow oral medications for infections, 30 states allow oral treatment for glaucoma, 29 states allow oral medications for inflammation, 37 states allow oral medications for pain. 33 states allow prescription of controlled substances.

Certified Nurse-Midwife (CNM)	Independent within scope of practice	Prescribing within scope of practice	RN Degree plus 9month-2year program for certificate or Master's Degree	DEA certification for controlled substances. Certification by the American College of Nurse-Midwives Certification Council	State of Minnesota Board of Nursing through licensing	All states give nurse midwives some form of prescriptive authority. 13 states don't include controlled substances and 7 states consider the prescriptive authority a delegated task of a physician. Recent legislation in states includes expanding prescriptive authority and
Certified Nurse Practitioner (CNP)	Delegated prescribing	Collaborative Management* for prescribing within scope of practice as defined in the physician-nurse agreement	RN Degree plus 9 month to 2 year program for certificate or Master's Degree	DEA certification. Certification by a national nurse certification organization acceptable to the Minnesota Board of Nursing	State of Minnesota Board of Nursing through licensing	Recent legislation in New Jersey, Kansas, California and Virginia in expanding prescriptive authority
Certified Clinical Nurse Specialist in Psychiatric and Mental Health Nursing (RN, CNS)	Delegated prescribing	Collaborative Management* for prescribing within scope of practice as defined in the physician-nurse agreement	RN Degree plus 9 month to 2 year program for certificate or Master's Degree. No less than 30 hours of formal study in the prescribing of psychotropic medications and medications to treat their side effects which included instruction in health assessment, psychotropic classifications, psychopharmacology, indications, dosages, contradictions, side effects, evidence of application	DEA certification for controlled substances. Certification by a national nurse certification organization acceptable to the Minnesota Board of Nursing	State of Minnesota Board of Nursing through licensing	Legislation in several states to expand independence and categories of drugs

Pharmacist (PharmD/RPh)	None, unless there is a collaborative management agreement for delegated prescribing	No prescribing privileges or Collaborative Management* for prescribing within scope of practice as defined in the physician-pharmacist agreement	Bachelors degree, Pharmacy doctorate (4 year) or baccalaureate degree from accredited school, 75 hours pharmacology coursework, 480 hours pharmacotherapy training, 1000 advanced practice clinical experience, 30 hours continuing education every 2 years.	DEA certification for controlled substances. North American Pharmacy Licensure Exam, licensing by Minnesota Board of Pharmacy	Minnesota Board of Pharmacy through licensing	Many states including MN have permitted pharmacists to develop collaborative agreements with prescribers so that pharmacists can initiate and/or modify patients' medication regimens. Other areas of expansion for pharmacists include administering medicines and injections, physical assessments, laboratory tests.
Physician Assistant (PA)	Delegated prescribing	Collaborative Management* for prescribing within scope of practice as defined in the physician-physician assistant agreement	atleast 2 years undergraduate and graduate of accredited physician assistant masters program or baccalaureate program with 9 to 15 months of physician-supervised clinical education	DEA certification for controlled substances. Certified through National Commission on Certification of Physician Assistants through examination or successor agency approved by MN Board of Medical Practice. Physician assessment through agreement.	PAs lack prescriptive authority in 8 states and they are limited to prescribing noncontrolled drugs in another 9 states. The remaining 34 states allow prescribing controlled drugs to varying schedules.	All states except Mississippi authorize physician assistants to practice. PAs lack prescriptive authority in 8 states and can't prescribe controlled substances in 9 states. The remaining 34 states allow for prescribing controlled substances to varying degrees in the context of physician supervision.
Podiatrist (DPM)	Independent within scope of practice	Can prescribe oral and injectable drugs within scope of practice	graduate of accredited 4 year podiatric medical school approved by board. 1-year clinical residency	National Board exam and state or national clinical exam. DEA certification for controlled substances.	State of Minnesota Board of Podiatry through licensing	Independent prescriptive authority (within scope) in all 51 jurisdictions. 10 states allow podiatrists to amputate toes and 4 permit them to treat conditions in the hands that are also found in the feet.

Psychologist (PhD)	none	no prescribing privileges	Bachelors Degree, PhD from accredited school, atleast 1 year clinical training. 4-8 credit hours of pharmacological training. 75hours continuing education every 3 years.	Licensure through the Minnesota Board of Psychology	State of Minnesota Board of Psychology through licensing	New Mexico is the only state that allows for prescribing privileges requiring 400 hours in training, examination and initial collaborative management agreement with a physician for possible expansion to independent prescribing after 2 years.
Chiropractor (DC)	none	no prescribing authority	minimum of 2 years college, four to five years of professional study at accredited chiropractic college. Chiropractic schools devote an average of 3,380 contact hours to clinical education: 1,975 hours (58 percent) are spent in chiropractic clinical sciences and the remaining 1,405 hours (42 percent) are spent in clinical clerkships. 2-8 credits of pure pharmacology coursework. 40hrs every 2 years of continuing ed.	National Board Examination with 4-part exam administered by the Minnesota Board of Chiropractic Examiners	Minnesota Board of Chiropractic Examiners through licensing	No prescriptive authority in all states. They can only recommend natural products such as herbal remedies, food supplements.
Registered Nurse (RN)	none	no prescribing authority	RN degree (can be associates, bachelors or masters degree) with approx. 8 credit hours pharmacology and approx. 1000 hours clinical experience	Must hold a Minnesota registered nurse (RN) license or temporary permit	State of Minnesota Board of Nursing through licensing	No prescriptive authority in all states, but there has been legislation in several states regarding administration of drugs and interstate licensure compacts.

Minnesota Nurses Association/
Minnesota Medical Association

Memorandum of Understanding

For Written Prescribing Agreements
Between an Advanced Practice Registered
Nurse and a Collaborating Physician

Rationale for the *Memorandum of Understanding*

This *Memorandum of Understanding* has been jointly developed by the Minnesota Nurses Association and the Minnesota Medical Association to assure minimum standards in the preparation of written agreements for the delegation of prescribing authority by physicians to qualified advanced practice registered nurses.

Advanced practice registered nurses who may be delegated prescribing authority by a collaborating physician licensed under Chapter 147 include certified registered nurse practitioners, certified registered nurse anesthetists, and certified clinical nurse specialists. It should be noted that clinical nurse specialists in psychiatric and mental health nursing have a separate and distinct *Memorandum of Understanding* based on standards established by the Minnesota Nurses Association and the Minnesota Psychiatric Society.

Legislation enacted by the 1999 Legislature defines and permits the delegation of responsibilities related to the prescribing of drugs and therapeutic devices but does not provide for the total delegation of physician responsibility. As part of the delegation of prescribing, the collaborating physician has responsibility to provide direction of the prescribing function and the advanced registered nurse has responsibility to act within his/her scope of practice and within the individual prescribing agreement. The collaborating physician and certified registered nurse practitioner, certified registered nurse anesthetist, or certified clinical nurse specialist have the responsibility to jointly determine the amount of autonomy that will be delegated specific to the prescribing of drugs and therapeutic devices.

Prerequisites for the Development of a Written Prescribing Agreement

- A written prescribing agreement must be developed and executed prior to the delegation of prescribing authority to a certified registered nurse practitioner, a certified registered nurse anesthetist, or a certified clinical nurse specialist.
- The prescribing agreement should be jointly developed and reflect the mutual trust and experience of both the advanced practice registered nurse and the collaborating physician.
- A prescribing agreement must be between an individual advanced practice registered nurse and an individual collaborating physician.
- Each advanced practice registered nurse with delegated prescribing authority must have a signed agreement with at least one physician licensed under chapter 147.
- A drug formulary *may be* used as a guideline in the development of a written prescribing agreement.
- The authority to prescribe extends only to those categories of drugs and therapeutic devices described or referenced in the written prescribing agreement.
- The agreement does not need to be filed with the Board of Nursing or the Board of Medical Practice.

Minimum Standards for Prescribing Agreements

Every prescribing agreement between an advanced practice registered nurse and a collaborating physician must, at a *minimum,* contain the following information:

1. Name of the advanced practice registered nurse, practice address(es), and phone number(s);
2. Specialty and specific certification(s) of the advanced practice registered nurse;
3. Name of the collaborating physician, the practice address(es) and phone number(s);
4. Medical specialty of the collaborating physician;
5. The prescribing agreement shall contain a general description of the practice setting of the advanced practice registered nurse and the physician. Descriptive statements could include information about the nature of the practice, the geographic location, and any other information deemed relevant.
6. Each category of drugs and therapeutic devices that the advanced practice registered nurse may prescribe shall be listed in the agreement along with any specific limitations to prescribing;
7. The physician and the advanced practice registered nurse will establish minimum frequencies and schedules for review of prescriptive practice to assure that the standard of care to which the physician and the advanced practice registered nurse are held is maintained;
8. A written prescribing agreement must be maintained at the primary practice site of the advanced practice registered nurse and of the collaborating physician;
9. An advanced practice registered nurse and a physician must jointly review, sign, and date their prescribing agreement at least annually and whenever the situation calls for amendment; and
10. A prescribing agreement must meet the standards established in any future MNA/MMA *Memorandum of Understanding.*

Previously Existing Prescribing Agreements

Prescribing agreements existing prior to the 1999 amendments to Minnesota Statute, Chapter 148, must be reviewed and updated, if necessary, to comply with the most current *MNA/MMA Memorandum of Understanding.* Any existing prescribing agreements should be reviewed and dated following the execution of this *Memorandum of Understanding.*

Periodic Review of the MNA/MMA *Memorandum of Understanding*

This *Memorandum of Understanding* will take the place of any previously existing *Memoranda* and will be reviewed again by the Minnesota Nurses Association and the Minnesota Medical Association by July 1, 2002 and every two years thereafter.

The signatures below signify joint approval of this *Memorandum of Understanding.*

Chief Executive Officer
Minnesota Medical Association
Date: 1-17-2000

Executive Director
Minnesota Nurses Association
Date: 1/25/00