




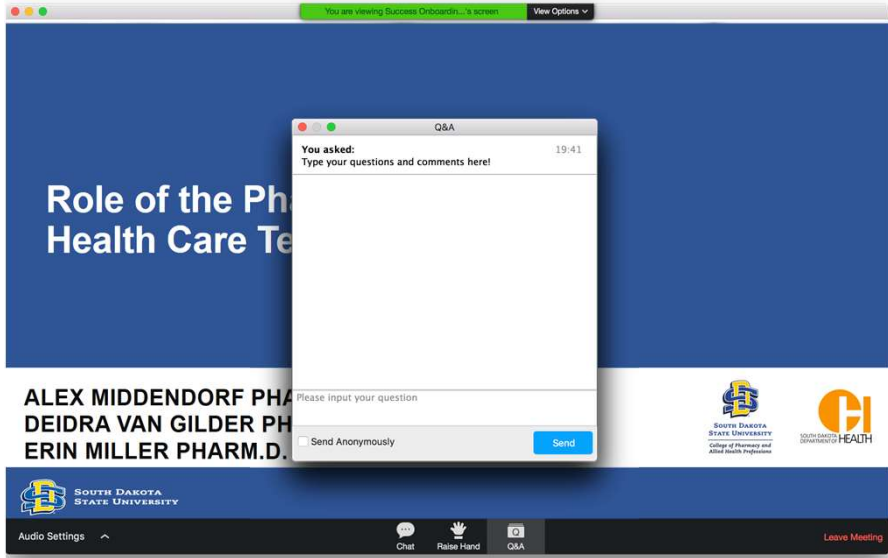
Role of the Pharmacist on the Healthcare Team

ALEX MIDDENDORF PHARM.D. MBA
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Submit your questions in the Q&A Box!



Q&A

You asked: 19:41
Type your questions and comments here

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Objectives

1. Explain the training pharmacists receive that enhances their ability to provide patient care
2. Describe examples of pharmacist collaboration with other health care professionals

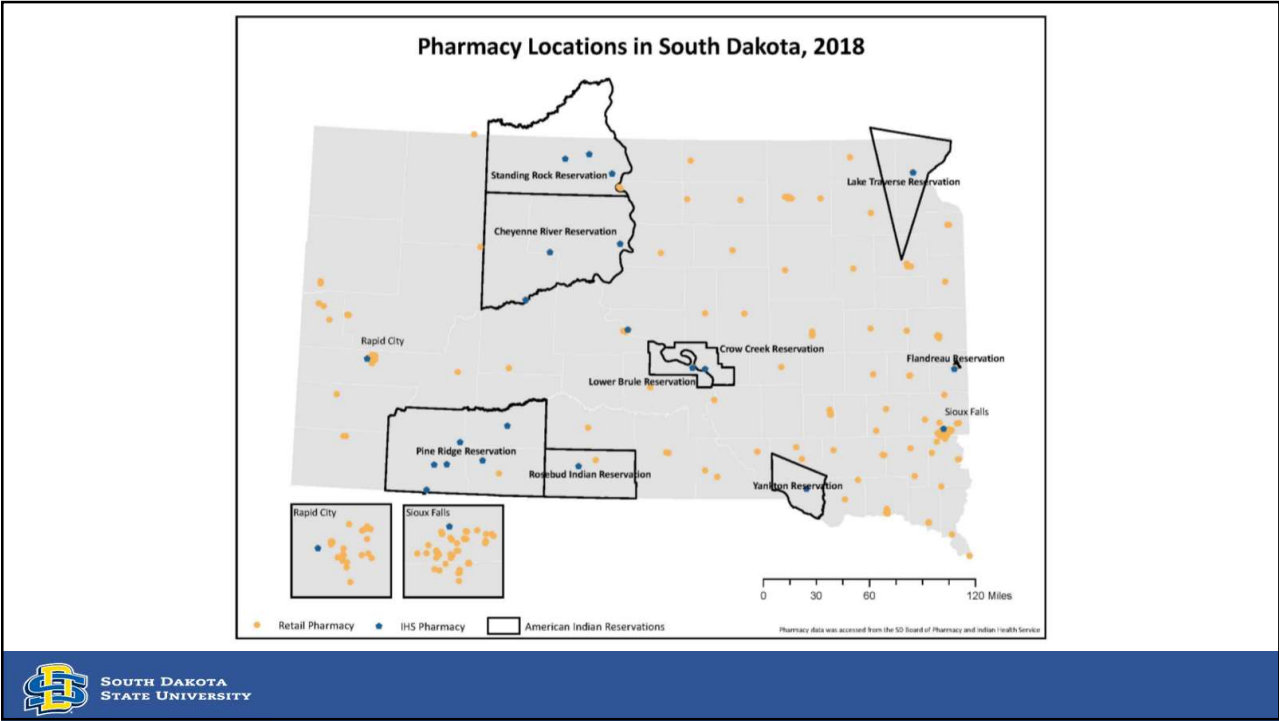


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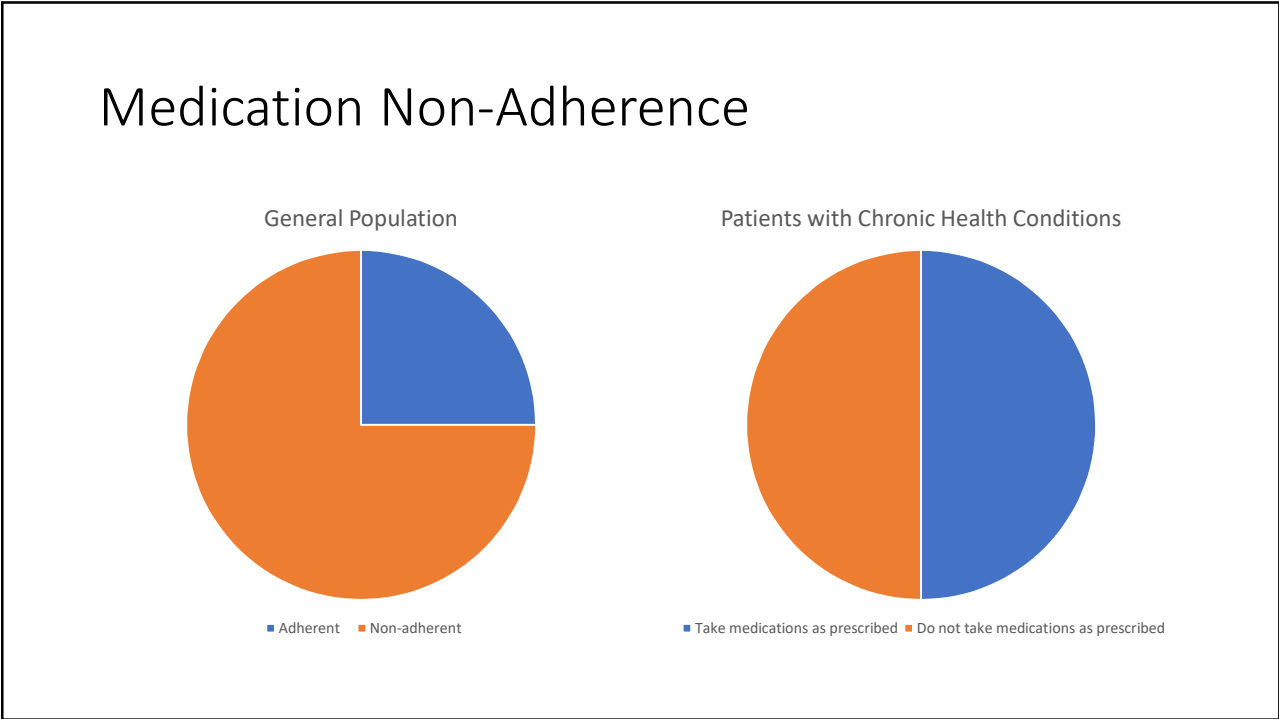
Pharmacy Practice in South Dakota



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Year One Landscape Analysis: Selected Quotes



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“Pharmacists are left out of the discussion a lot of the times. Don’t forget about us and bring us into the conversation and patient healthcare journey.”

-Ambulatory Care Pharmacist

“My challenge is making sure that everyone knows I’m there. Many providers in rural communities aren’t quite sure what all a pharmacist can do for them and their patients.”

-Outpatient Pharmacist



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“I think a lot of times nurses maybe just get busy and, um, don’t stop and think about, ‘Oh that person would really benefit from a referral to the dietitian.’ or ‘You know, that person is really struggling with their medication management. They should really go see a pharmacist.’”

-Registered Nurse

“They’re [pharmacist] a resource that I don’t think people take fully advantage of and maybe because they don’t know, um, all the services that a pharmacist can offer now, which I think is getting better... I think that’s quite admirable. It’s not just about the medicine anymore.”

-Certified Nurse Practitioner



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“Traditionally, this has been the role of only the physician. This isn’t working. Pharmacists could take the burden off providers, allowing them more time to provide valuable patient visits.”

-Health Plan Representative

“I can know insurance policies down to the nitty gritty, but I don’t know anything about medications.”

-Health Plan Executive



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“I just think that I could have been more educated on the medicine that I was on since it was a completely new situation.”

-Patient

“[Doctor] told me hardly anything. Just told me that I needed medication. My blood pressure was too high and I didn’t get any education on it.”

-Patient



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Pharmacy Education and Training Background



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Pharmacist Education

- South Dakota State University College of Pharmacy and Allied Health Professions
 - The only Doctor of Pharmacy Degree (PharmD) Program in South Dakota
 - Includes Department of Pharmacy Practice, Department of Pharmaceutical Sciences, and Department of Allied and Population Health
- Focus of PharmD curriculum is to create general pharmacy practitioners who following graduation are able to:
 - Provide direct patient care in diverse settings
 - Adapt to the changing healthcare environment
 - Pursue post-graduate training opportunities



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Pharmacist Education

- At least two years undergraduate studies:
 - General Chemistry and General Biology
 - Organic Chemistry
 - Microbiology
 - Anatomy and Physiology
 - Statistics



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Pharmacist Education

- Four years Doctor of Pharmacy Curriculum
- First three years (P1-P3) didactic teaching:
- Pharmaceutical Sciences
 - Pharmaceutics, Medicinal Chemistry, Pathophysiology, Pharmacology, Toxicology, Biomedical Science
- Social and Administrative Sciences
 - Pharmacy Law, Professional Resources Management
 - Public and Population Health
 - U.S. Health Care Systems
- Clinical Sciences
 - Pharmacy Skills Lab, Integrated Pharmacy Lab
 - Self-care Pharmacotherapeutics
 - Pharmacotherapeutics



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Pharmacist Education

- Four years Doctor of Pharmacy Curriculum
- Experiential education throughout the four years:
 - P1 Summer: Community Pharmacy
 - P2 Summer: Hospital Pharmacy
 - P3 Fall & Spring: Faculty & Preceptor IPPE (includes clinical services across the health systems)
 - P4 Summer, Fall, & Spring: Advanced Pharmacy Practice Experiences (5 week blocks all year)
 - Required: Community Pharmacy, Hospital/Institutional Pharmacy Practice, Internal Medicine, Ambulatory Care
 - Assigned: Critical Care, Infectious Disease, Pediatrics, Geriatrics, Psychiatry, Internal Medicine II, Ambulatory Care II, and many more
 - Elective: Home Health/Hospital, IHS, Administration, Nutrition, Oncology, Nuclear, Managed Care, and many more



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Pharmacist Education

- Four years Doctor of Pharmacy Curriculum
- Interprofessional education experiences throughout all four years
 - Visual impairment simulation with RN students
 - COPD exacerbation/anticoagulation simulation with RN students
 - DNP student phone call outpatient case simulation
 - Disaster Preparedness Training with multiple health professions
 - Interprofessional Training Day workshop with 15+ health professions programs
 - Parry Center Clinical Skills Simulations with medical students



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Pharmacist Education

- Education is not provided in strictly lecture and written exam format
 - Videotaped Patient Counseling
 - Objective Structured Clinical Exams (OSCE) for patient assessment skills (blood pressure, blood glucose, cholesterol)
 - Simulated Patient Encounters (diabetes injection education, dietary supplement education, smoking cessation education)
 - Skills Exams (OTC product selection interview & counseling)
 - Hospital admission/discharge medication reconciliation & counseling



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Pharmacist Education

- The Accreditation Council for Pharmacy Education (ACPE) Standards 2016 includes the Center for Advancement of Pharmacy Education (CAPE) Educational Outcomes 2013 as the first four standards in these most recent accreditation standards
- The CAPE Outcomes list key elements that are essential for pharmacy students to be able to perform and/or demonstrate upon graduation
- The Pharmacists' Patient Care Process (PPCP) was published in 2014 by the Joint Commission of Pharmacy Practitioners (JCPP) in an effort to document a consistent process for pharmacist-provided patient care delivery across all practice settings in the profession
- The PPCP is also discussed in Standards 2016 as a key element of pharmacy curriculum intended to prepare students to provide patient-centered collaborative care

ACPE 2016
AJPE 2014
JCPP 2014



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Pharmacist Education

- Due to this need to ensure graduates are prepared to perform tasks independently upon graduation, the American Association of Colleges of Pharmacy (AACP) created "Core Entrustable Professional Activities (EPAs) for New Pharmacy Graduates", which are mapped to CAPE 2014 and the PPCP
- Core EPAs are intended to showcase specific supporting tasks that can be used to guide assessments that help prove a pharmacy student would be able to perform these activities independently upon graduation
- These EPAs may be assessed during didactic courses or experiential education, or in both, with various levels of entrustability ranging from entrusting learners to perform tasks only with direct supervision (level 1) to mastery of the task with qualification to give feedback to other learners (level 5)

AJPE 2017



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Pharmacist Education

- Following graduation with Doctor of Pharmacy degree, optional 1-2 years of postgraduate residencies are available (PGY1, PGY2) in a variety of patient care delivery settings:
 - General Hospital (PGY1)
 - Community Practice (PGY1)
 - Managed Care (PGY1)
 - Postgraduate Year 2 (PGY2) residencies available to specialize in a certain area:
 - Oncology, Pediatrics, Ambulatory Care, Infectious Disease, Community Practice, Cardiology, Psychiatry, and many more



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Pharmacist Education

- Board certification for pharmacists is available through the Board of Pharmacy Specialties
 - These include but are not limited to:
 - Ambulatory Care
 - Geriatrics
 - Pharmacotherapy
 - Specialty disease states such as Cardiology, Critical Care, Infectious Disease, Psychiatry, Pediatrics, Solid Organ Transplantation
 - Board certification is assessed through an electronic proctored exam created by content experts in a peer-reviewed manner
 - Board certification requires recertification through additional specialized continuing education credits on a routine basis



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Pharmacist Education

- Additional training and certification is also available from a number of national pharmacy organizations ranging from disease state education to skills and practice-based education
 - These include but are not limited to:
 - Cardiovascular Disease Risk Management
 - Patient-centered Diabetes Care
 - Immunization Delivery
 - Medication Therapy Management
 - Pharmacokinetics
 - Emergency Medicine
 - Pharmacogenomics
 - Pharmacy Informatics
 - Pain Management



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Pharmacist Education

- Licensure as a pharmacist in South Dakota requires passing scores on two exams:
 - North American Pharmacist Licensure Examination (NAPLEX) – 6 hour, 250 question proctored, computer-based exam focused on two key areas of competency:
 - Ensure Safe and Effective Pharmacotherapy and Health Outcomes (67%)
 - Safe and Accurate Preparation, Compounding, Dispensing, and Administration of Medications and Provision of Health Care Products (33%)
 - Multistate Pharmacy Jurisprudence Examination (MPJE) – 2.5 hour, 120 question proctored, computer-based exam focused on three key areas of competency relating to both state and federal pharmacy law:
 - Pharmacy Practice (83%)
 - Licensure, Registration, Certification, and Operational Requirements (15%)
 - General Regulatory Processes (2%)
 - 12 hours of accredited continuing education biennially required for relicensure in South Dakota



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Pharmacist Education

- Pharmacists can apply to the Board of Pharmacy to become certified to provide immunizations in the state of South Dakota if they meet the following criteria:
 - Licensed as a pharmacist in the state
 - Completion of an approved immunization training program
 - Active certification in cardiopulmonary resuscitation
- Pharmacists must renew this certification biennially and provide
 - Proof of active certification in cardiopulmonary resuscitation
 - Completion of two hours of continuing education related to immunizations



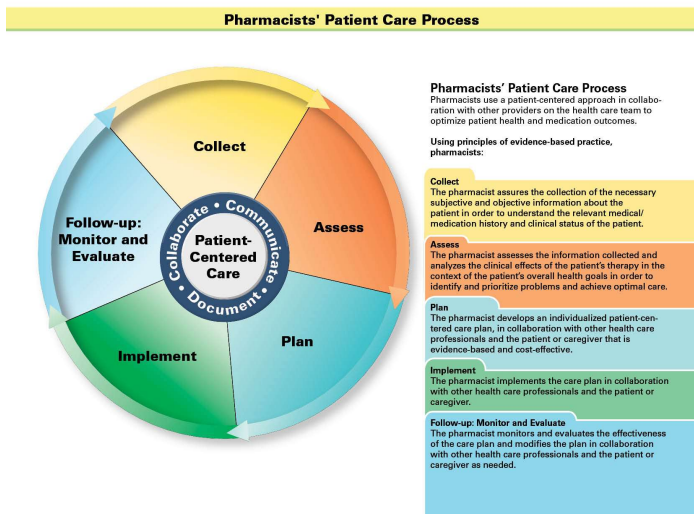
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Pharmacist Clinical Practice Background



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Pharmacists' Patient Care Process



JCPP 2014



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Medication Therapy Management

- Original consensus definition from the pharmacy profession:
 - Medication Therapy Management (MTM) is defined as a “distinct service or group of services that optimize therapeutic outcomes for individual patients” that are “independent of, but can occur in conjunction with, the provision of a medication product”
 - Medication Therapy Reviews
 - Pharmacotherapy Consults
 - Anticoagulation Management
 - Immunizations
 - Health and Wellness Programs
 - Other Clinical Services

Bluml BM 2005



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Medication Therapy Management

- Since this time, the term Medication Therapy Management has evolved to mean a specific group of services payable by both Medicare and some private insurances based on definitions in codified laws and regulations
- A revised and expanded definition in line with the intent of this original definition was approved in March 2018 by the Joint Commission of Pharmacy Practitioners (JCPP) Board of Governors utilizing the term Medication Management Services:

“Medication Management Services are a spectrum of patient-centered, pharmacist-provided, collaborative services that focus on medication appropriateness, effectiveness, safety, and adherence with the goal of improving health outcomes”

JCPP 2018



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Medication Therapy Management

- Medication Therapy Management as a distinct service is a guaranteed patient benefit through Medicare Part D and Medicare Advantage plans who meet certain criteria
- These services may be offered through the plan's employed health providers, or through an intermediary who contracts with local community pharmacies and provides reimbursement for pharmacist-provided services



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Medication Therapy Management

1. **3+ core chronic conditions** (plan must list at least 5 of the 9 categories below):
 - Alzheimer's Disease
 - Chronic Heart Failure (CHF)
 - Diabetes
 - Dyslipidemia
 - End-Stage Renal Disease (ESRD)
 - Hypertension
 - Respiratory Disease (Asthma, COPD, others)
 - Bone Disease (Osteoporosis, Osteoarthritis, Rheumatoid Arthritis)
 - Mental Health (Depression, Schizophrenia, Bipolar Disorder, others)
2. **8+ medications** billed through plan
3. **Annual total drug spend** of \$4255+ (2020 threshold) through plan
 - Many plans will expand these minimum criteria to enroll more patients



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The Authority of Pharmacists in South Dakota

- 36-11-19.1. Authority of registered pharmacists. Registered pharmacists may:
- (1) Perform drug administration pursuant to a prescription drug order. The Board of Pharmacy shall establish standards for drug administration pursuant to chapter 1-26 with the approval of a committee composed of two persons appointed by the Board of Pharmacy, two persons appointed by the Board of Nursing and two persons appointed by the Board of Medical and Osteopathic Examiners;
 - (2) Perform drug reviews;
 - (3) Perform or participate in scientific or clinical drug or drug-related research as an investigator or in collaboration with other investigators;
- Source: SL 1993, ch 278, § 2.



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The Authority of Pharmacists in South Dakota

36-11-19.1. Authority of registered pharmacists. Registered pharmacists may:

- (4) Interpret and apply pharmacokinetic data and other pertinent laboratory data to design safe and effective drug dosage regimens;
- (5) Participate in drug and drug device selection pursuant to a prescription drug order;
- (6) Initiate or modify drug therapy by protocol or other legal authority established and approved within a licensed health care facility or by a practitioner authorized to prescribe drugs; and
- Source: SL 1993, ch 278, § 2.



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The Authority of Pharmacists in South Dakota

36-11-19.1. Authority of registered pharmacists. Registered pharmacists may:

- (7) Provide information on prescription drugs, which may include advising, consulting, and educating, as necessary or as required, patients, the public, and other health care providers on the rational, safe and cost-effective use of drugs, including therapeutic values, content, hazards and appropriate use.
- Source: SL 1993, ch 278, § 2.



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Pharmacist-provided Care Delivery



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Collaborative Practice Agreements (CPAs)

- A formal agreement between two providers regarding some specific aspect(s) of patient care
- Providers are typically physicians, physician assistants, nurse practitioners, and/or pharmacists as well as others
- Do note that the SD Pharmacy Practice Act refers to “protocols” instead of CPAs
 - Many other states use the term Collaborative Practice Agreement as it implies the health care team approach to enhancing patient care
 - For the most part, protocols in SD are relatively similar to CPAs as far as scope of practice and criteria involved



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Collaborative Practice Agreements (CPAs)

- If we combine these statements describing the authority of pharmacists, we can begin to create rationale for pharmacists being able to provide clinical services and design what tasks pharmacists will be able to complete as a service provider:
- Examples:
 - Disease state management
 - Initiating/adjusting medications based on POC testing
 - Hypertension medication based on blood pressure
 - Appropriate intensity of statin based on comorbidities
 - Appropriate titration of metformin to maximal dose
 - Immunizations
 - Herpes zoster vaccinations without prescriptions
 - Refill authorization



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Collaborative Practice Examples

- If we combine these statements describing the authority of pharmacists, we can begin to create rationale for pharmacists being able to provide clinical services and design what tasks pharmacists will be able to complete as a service provider:
- **Anticoagulation Clinics**
 - (4) Interpret and apply pharmacokinetic data and other pertinent laboratory data to design safe and effective drug dosage regimens; INR monitoring, warfarin regimen design
 - (6) Initiate or modify drug therapy by protocol or other legal authority established and approved within a licensed health care facility or by a practitioner authorized to prescribe drugs; Modify warfarin doses, initiate enoxaparin/Vitamin K if needed
 - (7) Provide information on prescription drugs, which may include advising, consulting, and educating, as necessary or as required, patients, the public, and other health care providers on the rational, safe and cost-effective use of drugs, including therapeutic values, content, hazards and appropriate use. Educating patients warfarin, s/sx bleed/clot, diet cautions



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Collaborative Practice Examples

- If we combine these statements describing the authority of pharmacists, we can begin to create rationale for pharmacists being able to provide clinical services and design what tasks pharmacists will be able to complete as a service provider:
- **Hypertension Clinics**
 - (4) Interpret and apply pharmacokinetic data and other pertinent laboratory data to design safe and effective drug dosage regimens; **BP/pulse/other labs, optimize antihypertensives**
 - (6) Initiate or modify drug therapy by protocol or other legal authority established and approved within a licensed health care facility or by a practitioner authorized to prescribe drugs; **Modify/initiate antihypertensives based on guidelines & prescriber preferences**
 - (7) Provide information on prescription drugs, which may include advising, consulting, and educating, as necessary or as required, patients, the public, and other health care providers on the rational, safe and cost-effective use of drugs, including therapeutic values, content, hazards and appropriate use. **Educating patients on lifestyle changes for hypertension, ADRs and their management for antihypertensives, home BP monitoring practices**



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Collaborative Practice Examples

- If we combine these statements describing the authority of pharmacists, we can begin to create rationale for pharmacists being able to provide clinical services and design what tasks pharmacists will be able to complete as a service provider:
- **Optimizing Metformin Use**
 - (4) Interpret and apply pharmacokinetic data and other pertinent laboratory data to design safe and effective drug dosage regimens; **A1c/SMBG, minimum effective dose 1500 mg TDD**
 - (6) Initiate or modify drug therapy by protocol or other legal authority established and approved within a licensed health care facility or by a practitioner authorized to prescribe drugs; **When new/refill prescription received, pharmacist to manage up-titration by 500 mg/week as tolerated, max 2550 mg TDD (IR) or 2000 mg TDD (ER)**
 - (7) Provide information on prescription drugs, which may include advising, consulting, and educating, as necessary or as required, patients, the public, and other health care providers on the rational, safe and cost-effective use of drugs, including therapeutic values, content, hazards and appropriate use. **ADR avoidance (with food, switch to ER), diabetes lifestyle changes**



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Collaborative Practice Examples

- If we combine these statements describing the authority of pharmacists, we can begin to create rationale for pharmacists being able to provide clinical services and design what tasks pharmacists will be able to complete as a service provider:
- **Lipid Clinics**
 - (4) Interpret and apply pharmacokinetic data and other pertinent laboratory data to design safe and effective drug dosage regimens; Lipid panel, optimize statin/nonstatin regimen
 - (6) Initiate or modify drug therapy by protocol or other legal authority established and approved within a licensed health care facility or by a practitioner authorized to prescribe drugs; Modify/initiate/discontinue statins/nonstatins (IE appropriate statin intensity)
 - (7) Provide information on prescription drugs, which may include advising, consulting, and educating, as necessary or as required, patients, the public, and other health care providers on the rational, safe and cost-effective use of drugs, including therapeutic values, content, hazards and appropriate use. Educating patients on lifestyle changes for lipids, ADRs and their management for statins/nonstatins



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Collaborative Practice Examples

- If we combine these statements describing the authority of pharmacists, we can begin to create rationale for pharmacists being able to provide clinical services and design what tasks pharmacists will be able to complete as a service provider:
- **Appropriate Basal Insulin Titration**
 - (4) Interpret and apply pharmacokinetic data and other pertinent laboratory data to design safe and effective drug dosage regimens; A1c, SMBG
 - (6) Initiate or modify drug therapy by protocol or other legal authority established and approved within a licensed health care facility or by a practitioner authorized to prescribe drugs; 10-15% TDD/2-4 unit increase weekly until FPG goal; 10-20% TDD or 4 unit decrease if hypoglycemia
 - (7) Provide information on prescription drugs, which may include advising, consulting, and educating, as necessary or as required, patients, the public, and other health care providers on the rational, safe and cost-effective use of drugs, including therapeutic values, content, hazards and appropriate use. Educating patients on lifestyle changes for diabetes, ADRs and their management for insulin, proper injection technique, SMBG changes



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Collaborative Practice Examples

- If we combine these statements describing the authority of pharmacists, we can begin to create rationale for pharmacists being able to provide clinical services and design what tasks pharmacists will be able to complete as a service provider:
- **Inhaler Product Selection**
 - (5) Participate in drug and device selection pursuant to a prescription drug order; and apply pharmacokinetic data and other pertinent laboratory data to design safe and effective drug dosage regimens;
 - (6) Initiate or modify drug therapy by protocol or other legal authority established and approved within a licensed health care facility or by a practitioner authorized to prescribe drugs; **Initiate therapy with equivalent inhaler that is covered by insurance (medium dose fluticasone -> medium dose beclomethasone; levalbuterol -> albuterol)**; **Initiate rescue inhaler if not currently prescribed but current maintenance inhalers are prescribed**
 - (7) Provide information on prescription drugs, which may include advising, consulting, and educating, as necessary or as required, patients, the public, and other health care providers on the rational, safe and cost-effective use of drugs, including therapeutic values, content, hazards and appropriate use. **Educating patients on proper use of inhaler, trigger avoidance**



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Policy Statement on Immunizations Example

- Under the current rules, pharmacists may administer Influenza vaccine if properly trained and with the required Board immunization authorization. Generally it has been felt that all other immunizations require a prescription from the prescriber. This is not the case. SDCL 36-11-19.1 allows pharmacists to **“perform drug administration pursuant to a prescription drug order”** and allows pharmacists to **“initiate or modify drug therapy by protocol or other legal authority established and approved within a licensed health care facility or by a practitioner authorized to prescribe drugs”**.
- **There is no prohibition on vaccinating with all types of vaccines** if they are either **on a prescription** or **included within a signed prescriber’s protocol**.
- Source: <http://doh.sd.gov/boards/pharmacy/assets/Policy-Immunizations.pdf>



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Pharmacist-provided Clinical Services

- Diabetes management
 - Insulin pump education, setting adjustments, continuous glucose monitor education
- Immunizations
 - Travel clinic, standard immunizations
- Osteoporosis treatment
 - Education, treatment selection, monitoring, adjustment
- Polypharmacy



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Collaborative Practice Agreements (CPAs)

- Understanding the specifics of your state laws and regulations that govern pharmacy practice is key for framing potential services pharmacists are legally able to provide
- As of May 2016, 48 states allow some level of collaborative practice authority between pharmacists and prescribers per the National Alliance of State Pharmacy Associations (NASPA)
- These can vary widely, but most are relatively similar to South Dakota



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Collaborative Practice Agreements (CPAs)

- These can vary widely, but most are relatively similar to South Dakota
- Examples of limitations/differences between states:
 - Required Pharm.D., additional continuing education annually, residency training, and/or other certifications
 - May be only able to modify existing drug therapy (IE therapeutic substitution) and unable to initiate new drug therapy
 - Site-specific differences (IE hospitals only)
 - Limited to one individual prescriber and one individual pharmacist per signed CPA document
 - Prescriber signing CPA must have preexisting “physician-patient” relationship with patients to be cared for using the CPA
 - Prescriber must be a physician (IE DNP or PA cannot sign CPA as the prescriber to delegate prescriptive authority)



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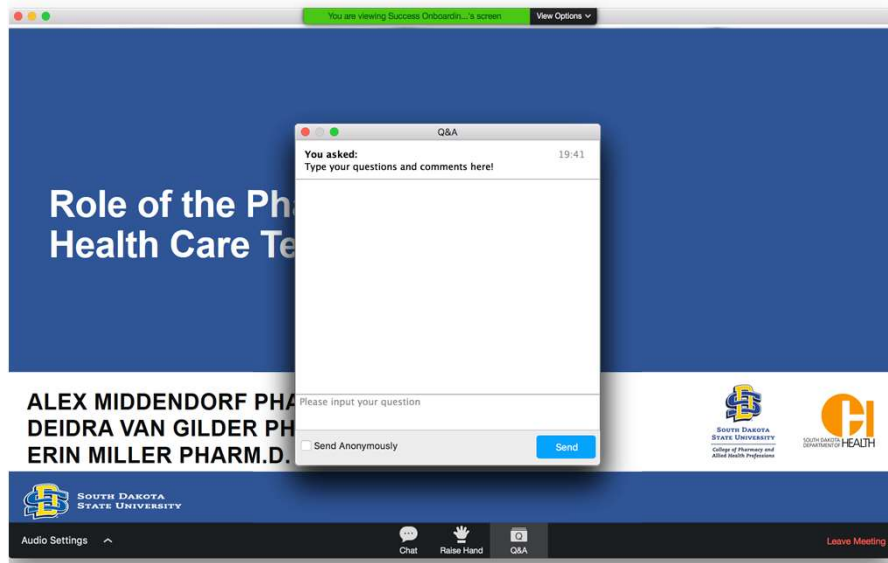
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Additional Questions?

**Contact our team at:
Michaela.Seiber@sdstate.edu**



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References

1. South Dakota Department of Health, Office of Rural Health. (2018). 2010-2015 South Dakota Primary Care Needs Assessment. Prepared for: Office of Rural Health, South Dakota Department of Health. Retrieved from <https://doh.sd.gov/documents/providers/ruralhealth/201415PrimaryCareAssessment.pdf>. Accessed April 8, 2020.
2. United States Census Bureau. (2016). Small Area Income and Poverty Estimates, 2015. Retrieved from <https://www.census.gov/library/publications/2016/demo/saie-highlights2015.html>. Accessed April 8, 2020.
3. United States Census Bureau. (2016). American Community Survey. Retrieved from <https://www.census.gov/programs-surveys/acs/>. Accessed April 8, 2020.
4. Rural Health Information Hub. (2018). Healthcare Access in Rural Communities. Retrieved from <https://www.ruralhealthinfo.org/topics/healthcare-access>. Accessed April 8, 2020.
5. United States Census Bureau. (2017). American Community Survey, 2012-2016. Retrieved from <https://www.census.gov/programs-surveys/acs/>. Accessed April 8, 2020.
6. United States Census Bureau. (2017). American Community Survey, 2012-2016. Retrieved from <https://www.census.gov/programs-surveys/acs/>. Accessed April 8, 2020.
7. South Dakota Department of Health, Office of Health Statistics. (2016). 2016 South Dakota Vital Statistics Report: A State and County Comparison of Leading Health Indicators, Mortality. Retrieved from <https://doh.sd.gov/statistics/2016Vital/Mortality.pdf>. Accessed April 8, 2020.



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References

8. Pinto S, Simon A, Osundina F, et al. Study to Measure the Impact of Pharmacists and Pharmacy Services (STOMPP) on Medication Non-Adherence: Medication Adherence and Clinical Outcomes. *Innov Pharm*, 2018;9(1)
9. Pinto, S. (2014). The Need for Adherence Pharmacy [White paper]. Retrieved from <https://www.omnicell.com/>. Accessed April 8, 2020.
10. Accreditation Council for Pharmacy Education. Accreditation Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree. Approved January 25, 2015. <https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf> Accessed November 28, 2018.
11. Medina MS, Plaza CM, Stowe CD, et al. Center for Advancement of Pharmacy Education 2013 Educational Outcomes. *Am J Pharm Educ* 2013;77(8):Article 162.
12. Joint Commission of Pharmacy Practitioners. Pharmacists' Patient Care Process. <https://jcphp.net/patient-care-process/> Accessed November 28, 2018.
13. Haines ST, Pittenger AL, Stolte SK, et al. Core Entrustable Professional Activities for New Pharmacy Graduates. *Am J Pharm Educ* 2017;81(1):Article S2.
14. Bluml BM. Definition of Medication Therapy Management: Development of Professionwide Consensus. *J Am Pharm Assoc* (2003) 2005;45(5):566-72
15. Joint Commission of Pharmacy Practitioners. Medication management services (MMS) definition and key points. Approved March 14, 2018. Available at: <https://jcphp.net/wp-content/uploads/2018/05/Medication-Management-Services-Definition-and-Key-Points-Version-1.pdf> Accessed November 28, 2018.



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